



I-75 Central Corridor Master Plan

I-75 (SR 93) from North of Bayshore Road (SR 78) to South of River Road (SR 777)

Final Master Plan Summary Report

DECEMBER 2023

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FLORIDA DEPARTMENT OF TRANSPORTATION

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FINANCIAL PROJECT IDENTIFICATION (FPID) TBD

The Florida Department of Transportation may adopt this planning product into the environmental review process, pursuant to Title 23 U.S.C. § 168(d), or to the state project development process.



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1. INTRODUCTION

The Florida Department of Transportation (FDOT), District One completed a Master Plan Study (Study) of Interstate 75 (I-75), also known as Florida's State Road (SR) 93, from north of Bayshore Road (SR 78) to south of River Road (SR 777). The Study will help to define the need for future improvements for the interstate and identify what strategies and types of improvements can best meet transportation needs.

1.1 Study Purpose

The purpose of this Study is to evaluate the operational capacity of I-75 to accommodate future travel demand due to projected population and employment growth within the Study limits and surrounding area. This long-range approach will preserve the operational integrity and functionality of I-75 and the regional transportation network by providing potential improvements such as the addition of general use lanes, auxiliary lanes, collector-distributor roadways, modified interchanges, and new interchanges (Figure 1-1).

1.2 Project Location

Within the Study limits, I-75 is a six-lane facility situated in Lee, Charlotte, DeSoto, and Sarasota Counties. The Study limits extend along I-75 from north of Bayshore Road (SR 78) in Lee County to south of the River Road (SR 777) interchange in Sarasota County, approximately 45 miles. Seven existing interchanges are located within Study limits (Figure 1-1).

- Tuckers Grade (CR 762)
- N. Jones Loop Road (CR 768)
- Duncan Road (US 17)
- Harbor View Road (CR 776)
- Kings Highway (CR 769)
- Toledo Blade Boulevard
- Sumter Boulevard

Six of the seven interchanges are diamond interchanges. The US 17 interchange is a partial clover leaf interchange. In addition to the seven interchanges, I-75 crosses Riverside Drive, Raintree Boulevard, Yorkshire Street, and several waterways on structure. Six roadways cross over I-75 including Oil Well Road, S. Jones Loop Road, Airport Road, Hendry Street, Rampart Boulevard, and Ponce de Leon Boulevard.

2. BACKGROUND

FDOT District One embarked on a program that will lead to the long-term build out of the interstate corridors in Southwest Florida. Southwest Florida is one of the fastest growing areas of the country. This type of population growth requires investments in transportation infrastructure to support the traffic demand focused on improving mobility and providing transportation options to support the region's growth and development.



I-75 CENTRAL CORRIDOR MASTER PLAN

LOCATION MAP

FIGURE

1-1

This Study will provide information that will allow District One to analyze and put in place an integrated and comprehensive transportation solution that meets the needs of the near term and accommodates the evolving and innovative transportation solutions of tomorrow.

2.1 Previous Studies

Previous I-75 Interchange and Project Development & Environment (PD&E) studies have been completed for locations within the Study limits. Table 2-1 provides a list of previous studies and summaries of general recommendations from each study.

FDOT District One is currently completing master plan studies for I-75 from Collier Boulevard (SR 951) to Bayshore Road in Collier and Lee Counties and from North River Road in Sarasota County to Moccasin Wallow Road in Manatee County as part of the Southwest Connect Interstate Program. These planning studies are evaluating additional general-use lanes, collector-distributor roadways, managed lanes, and auxiliary lanes, as well as interchange operational improvements. The FDOT District One Systems Planning Office is currently completing an evaluation of potential improvements at the Toledo Blade Boulevard and Sumter Boulevard interchanges in Sarasota County. Results from these studies and evaluations will be reviewed and incorporated into this Study as appropriate.

Table 2-1: Summary of Previous Studies

Charlotte County	
Study	<i>Draft Interchange Modification Report (IMR) Interstate 75/US 17 (SR 35), July 2014</i>
Recommendations	Ramp widening and addition of dual and triple turn lanes at multiple approaches. Dual right turn lanes (NB I-75 to eastbound (EB) US 17) and ramp terminal signalization (SB I-75 to EB US 17).
Status	No Action
Study	<i>Final IOAR, Interstate 75 at Harbor View Road (CR 776), Nov 2014</i>
Recommendations	The Build Alternative is representative of the PD&E Study's recommended Phase I improvements. Widening of I-75 to six lanes from south of Harbor View Road to north of Kings Highway including minor relocations of NB off ramps and SB on ramp gore points. Ramp or intersection capacity improvements to be included in Phase II improvements.
Status	Phase I improvements completed.
Study	<i>Design Traffic Technical Memorandum, Interstate 75 at Kings Highway (CR 769), Dec 2014</i>
Recommendations	The Build Alternative is representative of the PD&E Study's recommended Phase I improvements. The southbound ramp terminal intersection will be signalized, and the southbound exit ramp will be modified to include a second left turn lane. Additionally, the existing left turn lanes along Kings Highway accessing the I-75 on-ramps are to be lengthened to accommodate longer queues. The ramp gore areas will not be modified. In accordance with the PD&E recommendations, the ultimate interchange improvements will be constructed during Phase II implementation as part of the 8-laning of I-75.
Status	Phase I Completed

2.2 Additional Studies, Communications, and Recommendations

Additional studies, communications, and recommendations regarding general discussions are listed in Table 2-2.

Table 2-2: Summary of Additional Studies/Communications and Recommendations

Sarasota County	
Document	<i>Sarasota/Manatee MPO Correspondence, March 22, 2019</i>
Recommendations	Priority request from the MPO regarding potential new interchange at I-75 and Yorkshire Street, North Port (south Sarasota County). This request does not replace the established need for a full interchange at I-75 and SR 681 or a potential new interchange serving freight needs to SeaPort Manatee.
Status	Being studied as part of the Southwest Connect Interstate Program, Central Corridor Master Plan.
Document	<i>City of North Port City-Wide Mobility/Connectivity Study</i>
Recommendations	Recommends parallel roadway along the western edge of I-75 between River Road and the Sumter Road interchange.
Status	No Action in 2019
Charlotte County	
Document	<i>Charlotte County Capacity, Resurfacing, Traffic Operations, and Other Projects Tentative Work Program FY 2016/2017 – 2020/2021</i>
Recommendations	FPN 413043-2 I-75 from Harbor View Road to north of Kings Highway – add lanes and reconstruct FY 2017/18 FPN 413042-4 I-75 from S of N Jones Loop to N of US 17 – add lanes and reconstruct 2016/17 – 2017/18
Status	Phase I improvements completed (see Table 2-1)
Document	<i>Charlotte County-Punta Gorda Metropolitan Planning Organization (MPO) Board Meeting Minutes March 23, 2020</i> <i>Possible new interchange for I-75 north of Kings Highway</i>
Recommendations	Review as part of the Southwest Connect Interstate Program.
Status	This interchange location will be reviewed as part of this Study.
Lee County	
Document	<i>New I-75 at Del Prado Boulevard interchange</i>
Recommendations	Discussions have been ongoing regarding the location of this interchange. Suggestions have been made for an interchange at MM 150.
Status	Interchange may be reviewed as part of the Southwest Connect Interstate Program.

3. COMMUNITY CHARACTERISTICS

Features and characteristics of the communities adjacent to and surrounding the project study limits were reviewed in terms of demographics, employment, existing land use, Developments of Regional Impact (DRI), and mobility. For the purposes of this Study, features, characteristics, and resources identified within a 500-foot area of interest (AOI) for the length of the Study limits were reviewed.

3.1 Population, Income, and Employment

Of the four study area counties, Sarasota County is showing the highest median income and percentage employed while DeSoto County is showing the lowest median income and percentage employed based on 2018 census data. Population, housing units, employer establishments, and persons employed in order from greatest to least is Lee, Sarasota, Charlotte, and DeSoto counties. This data is presented in Table 3-1.

Table 3-1: Population, Income, and Employment by County

County	Total Population (2019)	Total Housing Units (2019)	Total Employer Establishments (2018)	Total Persons Employed (2018)	Percent of Total Population Employed (2018)	Median Income (2018)
Sarasota	433,742	249,415	14,100	146,877	34	\$58,644
DeSoto	38,000	15,351	494	5,722	15	\$35,057
Charlotte	188,910	107,124	4,022	39,076	16	\$49,225
Lee	770,577	408,561	19,152	222,810	30	\$54,691

Source: *Census.gov*

The Study area is located within an area that offers a wide range of employment opportunities. Table 3-2 presents the top ten employers by county and number of employees for 2019.

Table 3-2 Top 10 Employers and Number of Employees by County (2019)

Employer	Number of Employees	Employer	Number of Employees
Sarasota County		DeSoto County	
SMH Healthcare	6,550	DeSoto County Schools	3,872
PGT Innovations	1,975	Baptist Memorial Hospital	1,750
Sun Hydraulics, Corp.	700	Williams-Sonoma Distribution	993
Sarasota Doctors Hospital, Inc.	575	Milwaukee Electric Tool Distribution	800
The Ritz Carlton Hotel	550	Synnex	600
Ringling School of Art and Design	500	FedEx Ground Sorting Hub	433
Xfinity	450	Methodist Olive Branch Healthcare	423
FCCI Insurance	430	McKesson Distribution	400
Gettel Automotive	425	Future Electronics Distribution	357
HCA Florida Englewood Hospital	400	Landau Uniforms	330

Sarasota County <https://www.edcsarasotacounty.com/top-industry-employers/>

Desoto County desotocounty.com/economic

Employer	Number of Employees
Charlotte County	
Bayfront Health	3,060
Charlotte County School District	2,553
Charlotte County Government	2,464
Walmart	1,395
Publix	1,021
Home Depot	600
Palm Automall	415
Winn-Dixie	414
Gettel Automotive	406
McDonald's	404

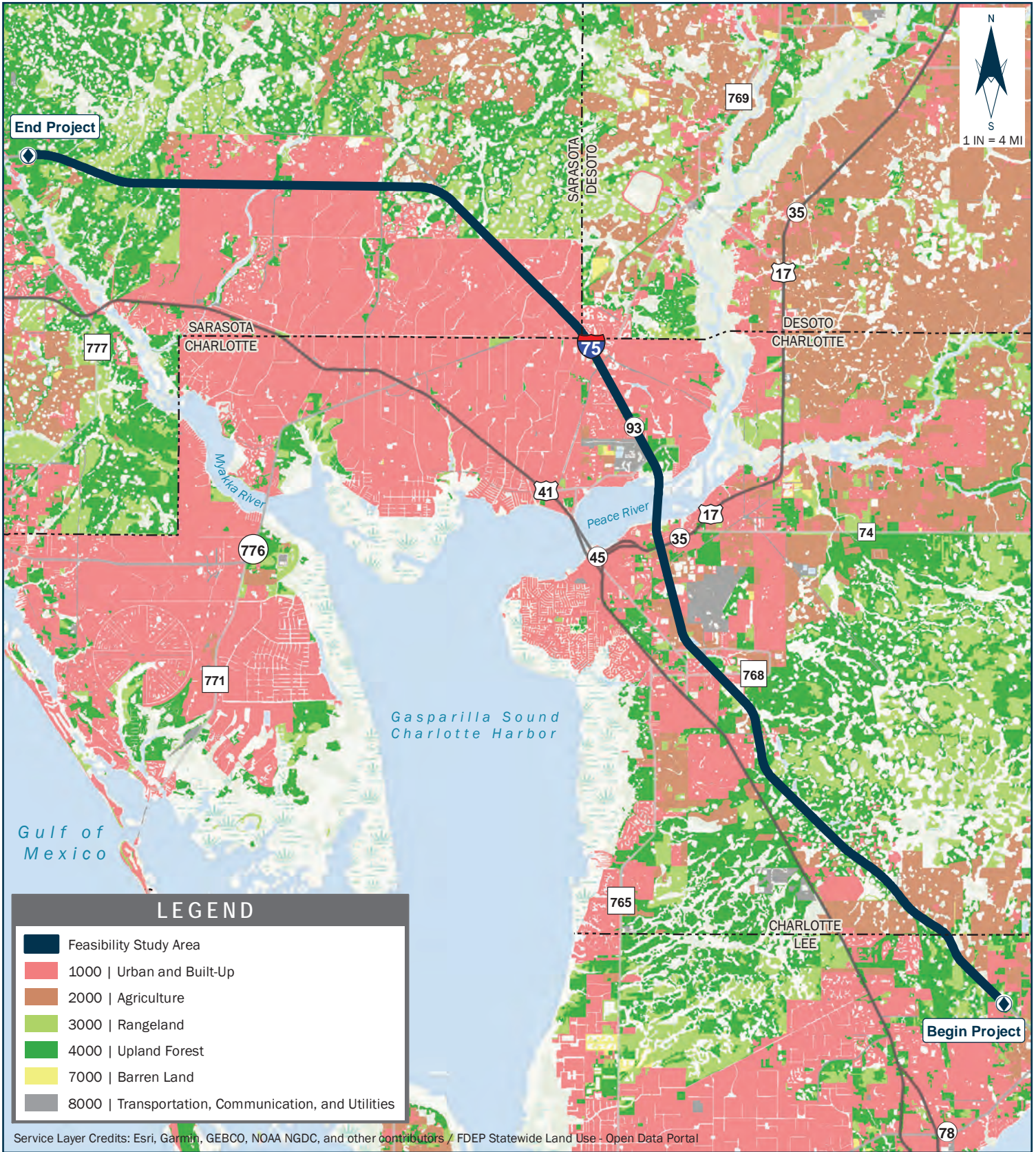
Southwest Florida Economic Dev. Alliance swfleda.com

Employer	Number of Employees
Lee County	
Lee Memorial Health System	13,595
Lee County School District	12,936
Lee County Government	9,038
Publix	4,624
Florida Gulf Coast University	3,430
Walmart	3,067
City of Cape Coral	2,253
Hope Hospice	1,630
McDonald's	1,482
Florida Southwestern State College	1,441

Southwest Florida Economic Dev. Alliance swfleda.com

3.2 Existing Land Use

Land use data was assembled using generalized information from Lee, Charlotte, DeSoto, and Sarasota Counties and the City of North Port. Predominant land use categories were identified and reviewed within the Study AOI. Following is a description of the generalized land use for each county and/or city within the Study AOI. Generalized land use within the Study AOI is shown in Figure 3-1 and presented in Table 3-3.



I-75 CENTRAL CORRIDOR MASTER PLAN

GENERALIZED LAND USE AND HABITATS

FIGURE

3-1

Sarasota County: Existing land use along I-75 from the DeSoto County line north to the City of Northport boundary is predominantly low density residential. Land use from the City of North Port boundary north to just east of the River Road interchange is predominantly public conservation/preservation with some agricultural use.

City of North Port: Existing land use along I-75, within the City of North Port, is predominantly low density residential with concentrations of activity center, village, medium density residential, and village.

DeSoto County: Existing land use along I-75 from the Charlotte County line north to the Sarasota County line is predominantly low density residential.

Charlotte County: Existing land uses along I-75 from Lee County north to the N Jones Loop Road interchange are predominantly conservation and agricultural uses. Additional land use includes residential, public buildings and grounds, and mining sites. From N Jones Loop Road north to the Sarasota - DeSoto County line, existing land use is predominantly residential with concentrations of commercial, educational, agricultural, and public buildings and grounds.

Lee County: Existing land uses along I-75 from just south of Slater Road north to the Lee/Charlotte County line are predominantly preserve and agricultural uses. Additional land use includes planned residential developments.

Table 3-3: Generalized Land Use within Study AOI

Land Use Code	Description	Acres
1000	Urban and Built Up	1,045
2000	Agriculture	287
3000	Rangeland	353
4000	Upland Forest	820
7000	Barren Land	1
8000	Transportation, Communication, and Utilities	1,869
TOTAL		4,375

Source: FDEP Statewide Land Use - Open Data Portal

3.2.1 Developments of Regional Impact

DRIs have substantial effects upon the health, safety, or welfare of an area because of their character, magnitude, or location [380.06(1) F.S.]. DRI data was assembled from Lee, Charlotte, and Sarasota Counties and the Cities of Cape Coral and North Port. The City of Northport has designated Activity Centers (AC) which are areas intended to provide for coordinated development of industrial, commercial, office, residential, public, and recreational uses. For the purposes of this discussion, DRIs generally located within 5-miles of the Study limits were identified, while ACs generally located within 2-miles of the Study limits were identified. The resulting information is presented in Tables 3-4 and 3-5 and shown in Figures 3-2 and 3-3.

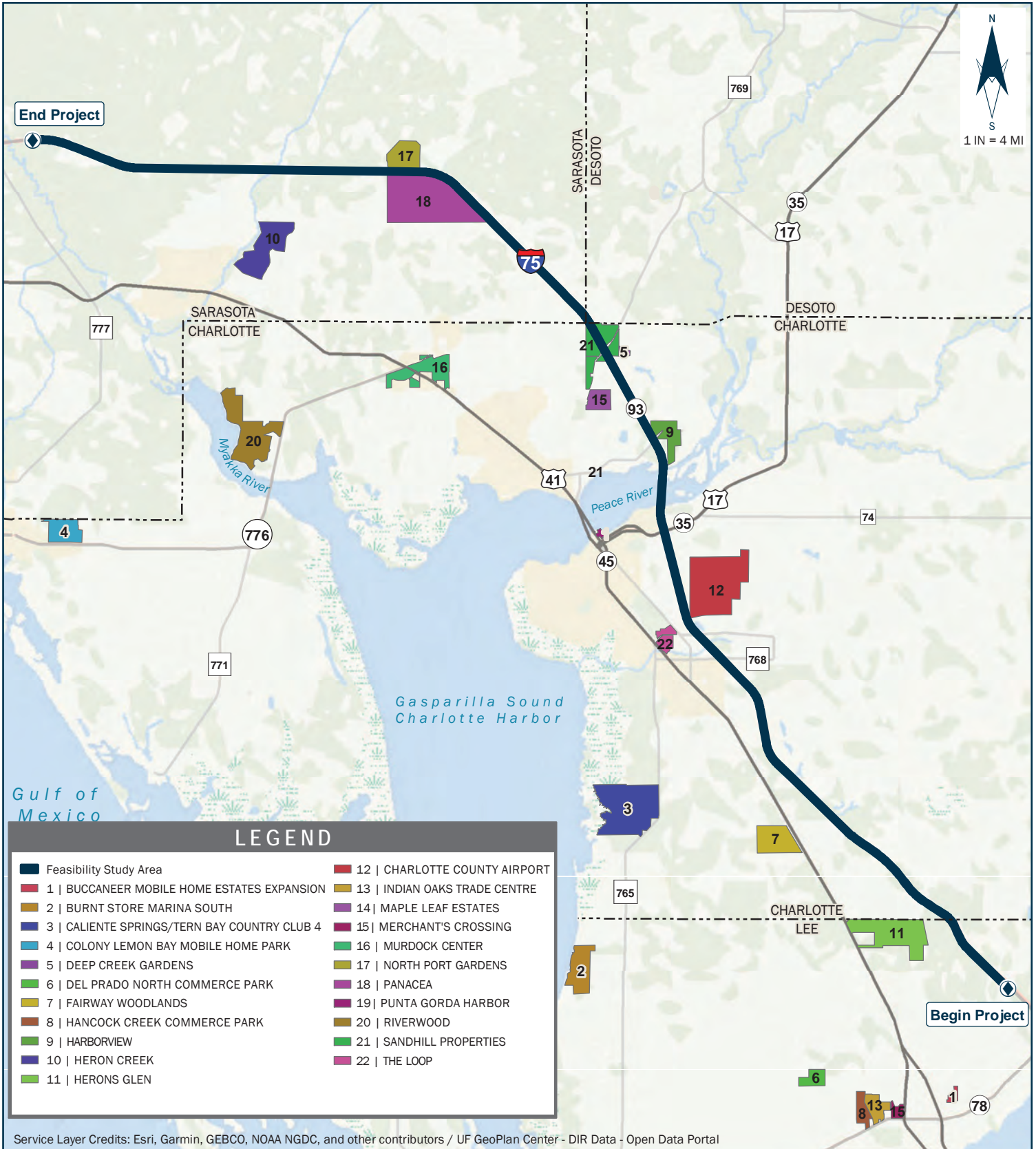
Table 3-4: Developments of Regional Impact by County

Name/Approval Year	Residential (units)	Commercial (SF)	Office/Indus. (SF)	Other	Acres
Sarasota County					
Heron Creek DRI / 2012	1,203	745,500	163,000		
Stoneybrook of Venice * / 2014	1,400	0	0	N/A	596
Grand Palm* / 2017	2,051	0	0	N/A	1,025
Sarasota County Interstate Business Center / 2014	0	0	159,698 / 0	N/A	251
Charlotte County					
Babcock Ranch / 2006	17,870	2,925,923	2,064,057/ 650,000	650 hotel rooms 177 hospital beds 418 ALF units	13,630
Harbor View / 1992	3,859	655,000	50,000 / 0	350 hotel rooms 452 boat slips	653
Heritage Landing / 2019	1,810	0	0	N/A	913
Murdock 1	1,312	1,054,000	0 / 5,095	N/A	312
Murdock 2 / 1987	0	400,000	0	N/A	132
Murdock 3 / 1987	1,041	245,000	110,000 / 0	185 ALF units 324,000 sf institutional	76
Murdock 4 / 1996	0	733,924	44,076 / 0	100 hotel rooms	98
Riverwood 1 / 1990	1,100	140,000	0	N/A	752
Riverwood 2 / 1997	641	0	0	N/A	307
Sandhill	3,682	1,606,000	261,000 / 0	N/A	713
Victoria Estates / 1989	1,129	250,000	120,000 / 0	N/A	310
Lee County					
Hérons Glen / 1988	2,700	12,000	N/A	N/A	1,136
Del Prado North Commerce Park	N/A	N/A	N/A	mixed use	165
Merchant's Crossing / 1990	N/A	555,000	N/A	N/A	104
Buccaneer Mobile Home Estates / 1984	982	N/A	N/A	N/A	231
Hancock Creek Commerce Park / 2016	N/A	N/A	121,235	79,361 SF covered boat/RV storage	14

* Development of Critical Concern

Table 3-5: City of North Port Activity Centers

Activity Center	General Location	Description	Acres Available
Hérons Creek	S. Sumter Boulevard and W. Price Boulevard	Residential and Commercial Development	81
Gateway	Four quadrants at I-75 and Sumter Boulevard	Medical and Complimentary Development	599
Panacea	Four quadrants at I-75 and Toledo Blade Boulevard	Mixed Use Development	2,301
Midway	Intersection of Price and Toledo Blade Boulevard	Commercial, Office, Institutional, and Workforce Housing	670
The Shire	Future New Interchange I-75 at Yorkshire Street	Industrial	1,269

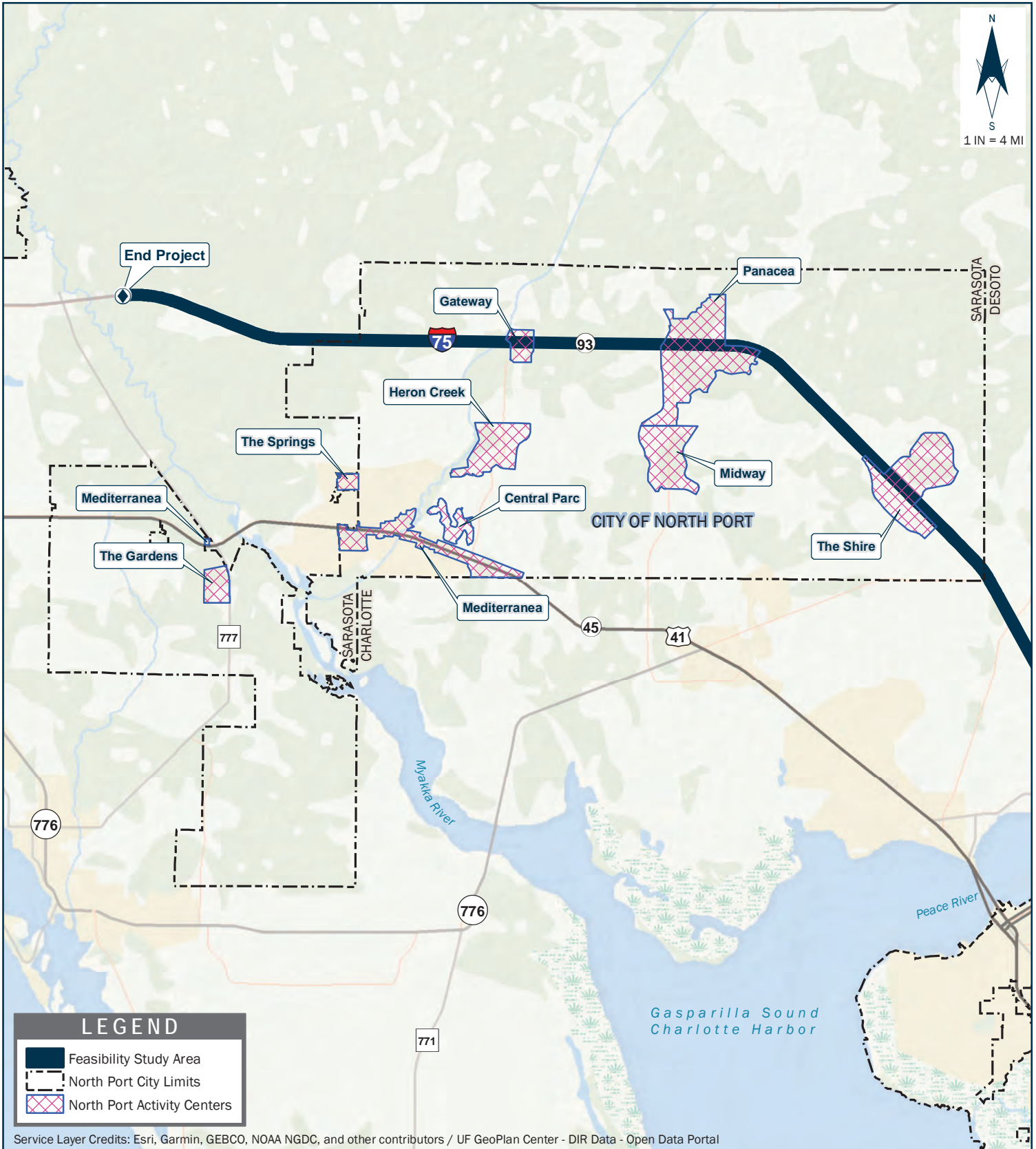


I-75 CENTRAL CORRIDOR MASTER PLAN

DEVELOPMENTS OF REGIONAL IMPACT

FIGURE

3-2



I-75 CENTRAL CORRIDOR MASTER PLAN

CITY OF NORTH PORT ACTIVITY CENTERS

FIGURE

3-3

3.3 Mobility

The transportation network's essential function is to move people and goods and provide access to jobs, services, and markets. Mobility is the ease with which people and goods move throughout their community, region, and state. By measuring the performance of mobility, we can better understand how to improve it. Since 2017, the FDOT Forecasting and Trends Office has assisted Florida's MPOs with reporting on six core mobility measures. In addition to the six core measures, four additional measures are reported on, from a list of eight, in odd or even years. These measures, presented in Table 3-6, can be used to gauge the quality, quantity, accessibility, and utilization of Florida's roadway network.

Table 3-6: FDOT Mobility Measures

Core Measures	Eight Additional Measures	
	Odd Year Measures	Even Year Measures
On-Time Arrival	Percent Pedestrian Facility Coverage	Person Miles Traveled
Planning Time Index	Percent Bicycle Facility Coverage	Combination Truck On-Time Arrival
Daily Vehicle Hours of Delay	Average Job Accessibility by Auto within 30 Minutes	Average Travel Speed
Percent Miles Heavily Congested	Average Job Accessibility by Transit within 30 Minutes	Percent Travel Meeting Level of Service Criteria in the Peak Hour
Daily Vehicle Miles Traveled		
Daily Truck Miles Traveled		

The Study area 2019 *MPO Mobility Profiles* summarize the 2019 MPO mobility performance measures and mobility trends for years 2015 – 2019. Following is a summary of the core measures and data reported for interstate, freeway, and non-freeway SIS roadways. For the project limits within Sarasota and Charlotte Counties, mobility improvements over the five-year period are consistent with the I-75 widening from 4-lanes to 6-lanes completed during the period 2016 through 2019.

Sarasota County: Sarasota County experienced slight decreases in travel time reliability for interstates and freeways between 2015 and 2016 followed by slight increases from 2017 to 2019. Freeway congestion increased from 2015 to 2016, decreased in 2017, then increased from 2018 to 2019 while interstate congested miles rose slightly, then held steady and then decreased again (Figure 3-4).

Freeway truck miles increased between 2015 and 2016, decreased slightly in 2017 then rose again in 2018 and 2019. Interstates truck miles traveled increased in 2016, remained steady through 2017 and increased again in 2018 and 2019. Daily vehicle miles traveled rose slightly or held steady for the 5-year period for interstates and freeways (Figure 3-4).

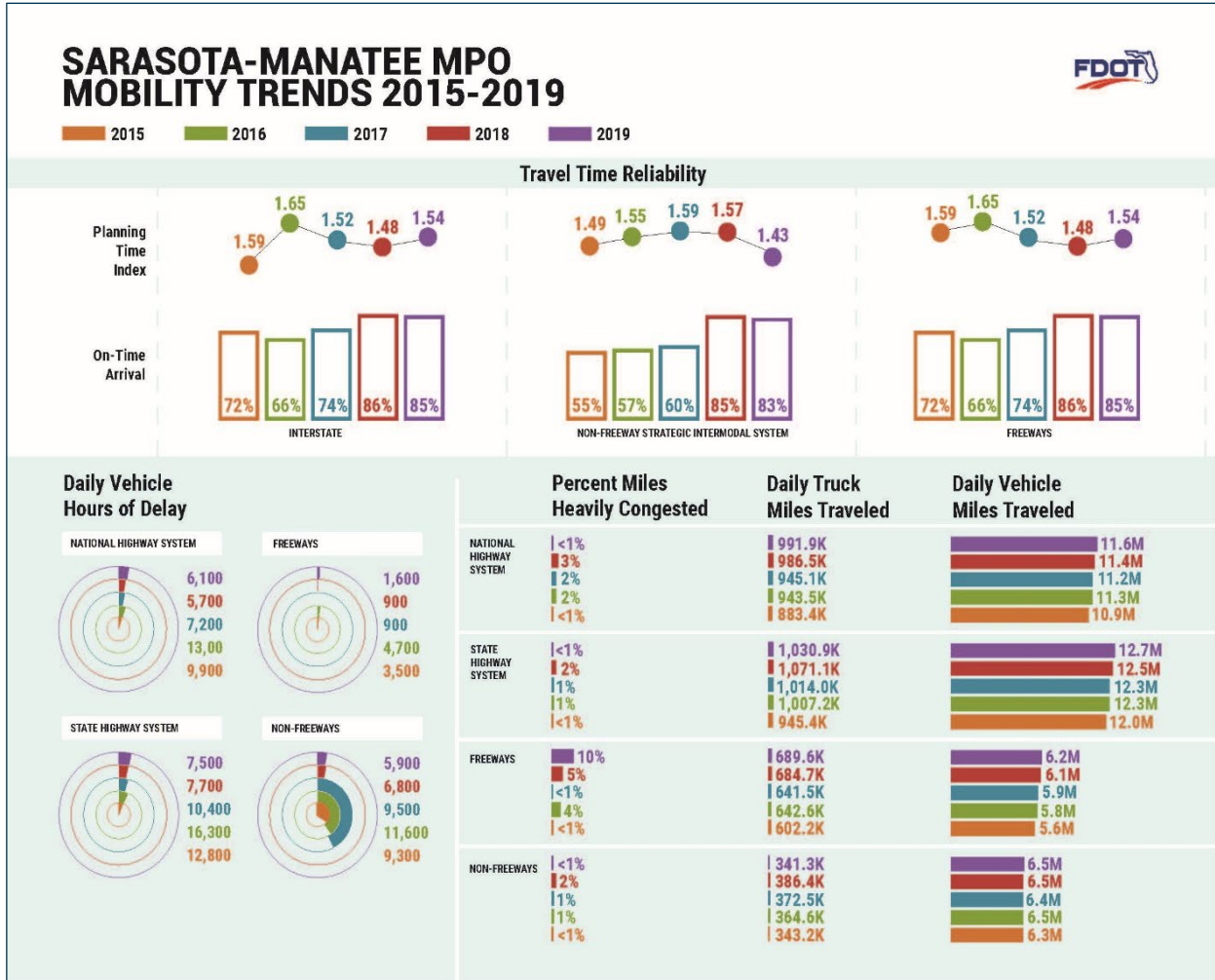


Figure 3-4: Sarasota/Manatee MPO Mobility Trends 2015 - 2019

Charlotte County: Charlotte County experienced slight increases in travel time reliability for interstates and freeways from 2016 to 2017 and 2018 to 2019 while the percentage of miles heavily congested remained steady at less than 1% for the 5-year period (Figure 3-5).

Freeway truck miles fluctuated with increases followed by decreases from year to year. Interstates truck miles traveled increased in 2015, remained steady through 2017 then increased again in 2018 and 2019. Daily vehicle miles traveled rose slightly or held steady for the 5-year period for interstates and freeways (Figure 3-5).

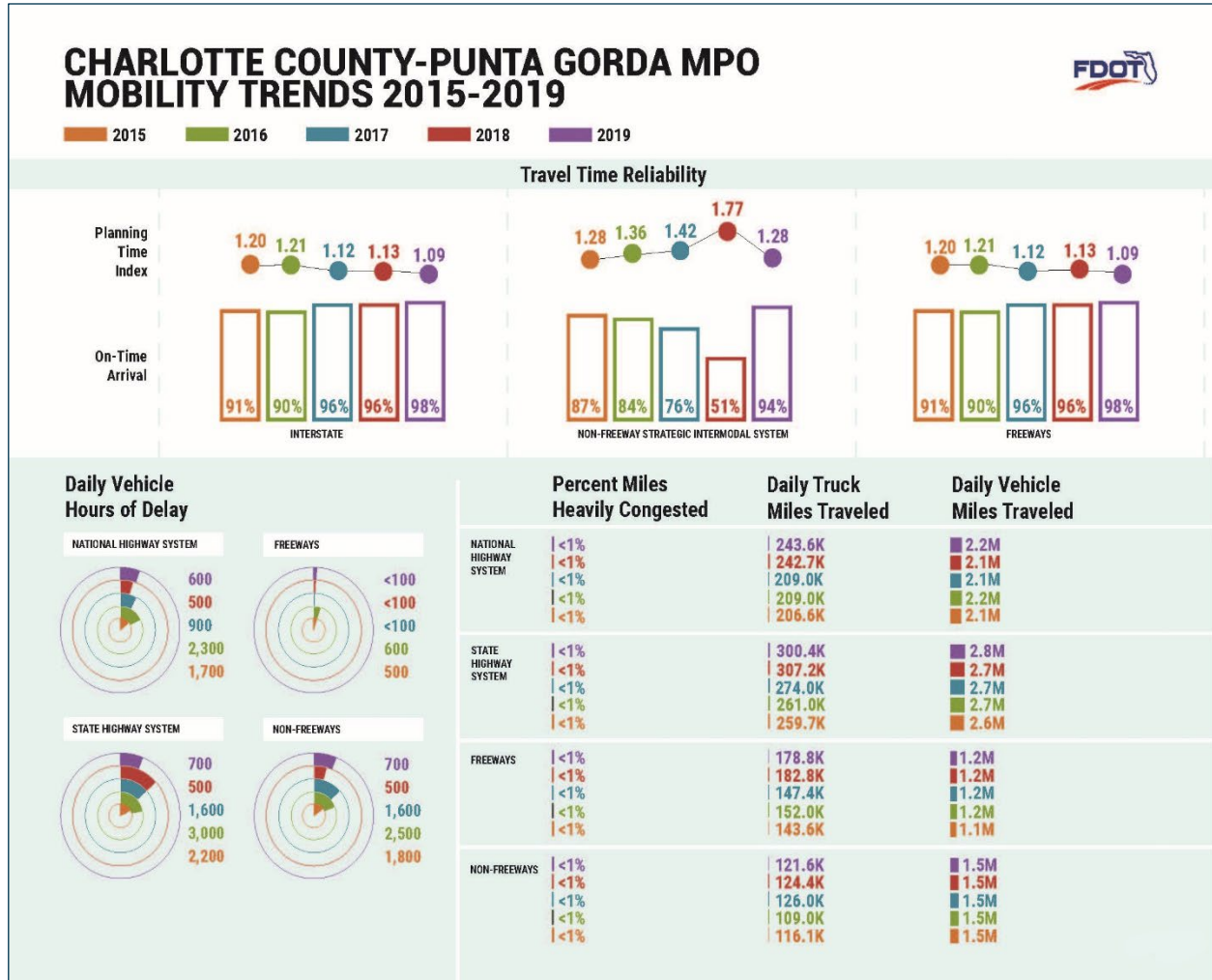


Figure 3-5: Charlotte-Punta Gorda MPO Mobility Trends 2015 - 2019

Lee County: Lee County experienced fluctuations in travel time reliability for all roadway types during the 5-year period. Daily vehicle hours of delay also fluctuated with increases and decreases for interstates. Freeway daily vehicle hours of delay decreased slightly from 2015 to 2016 followed by a significant decrease in 2017 and slight increase thereafter. Interstate percentage of miles heavily congested varied from 2% in 2015 to <1% in 2019. Freeway congestion remained the same across the 3-year period at less than 1% (Figure 3-6).

Daily truck miles traveled rose between 2015 and 2016 for interstates and freeways with declines between 2016 and 2017 followed by increases from 2018 to 2019. Daily vehicle miles traveled steadily rose for freeways during the 5-year period; interstates rose from 2015 to 2016, then held steady through 2017 and increased again from 2018 to 2019 (Figure 3-6).

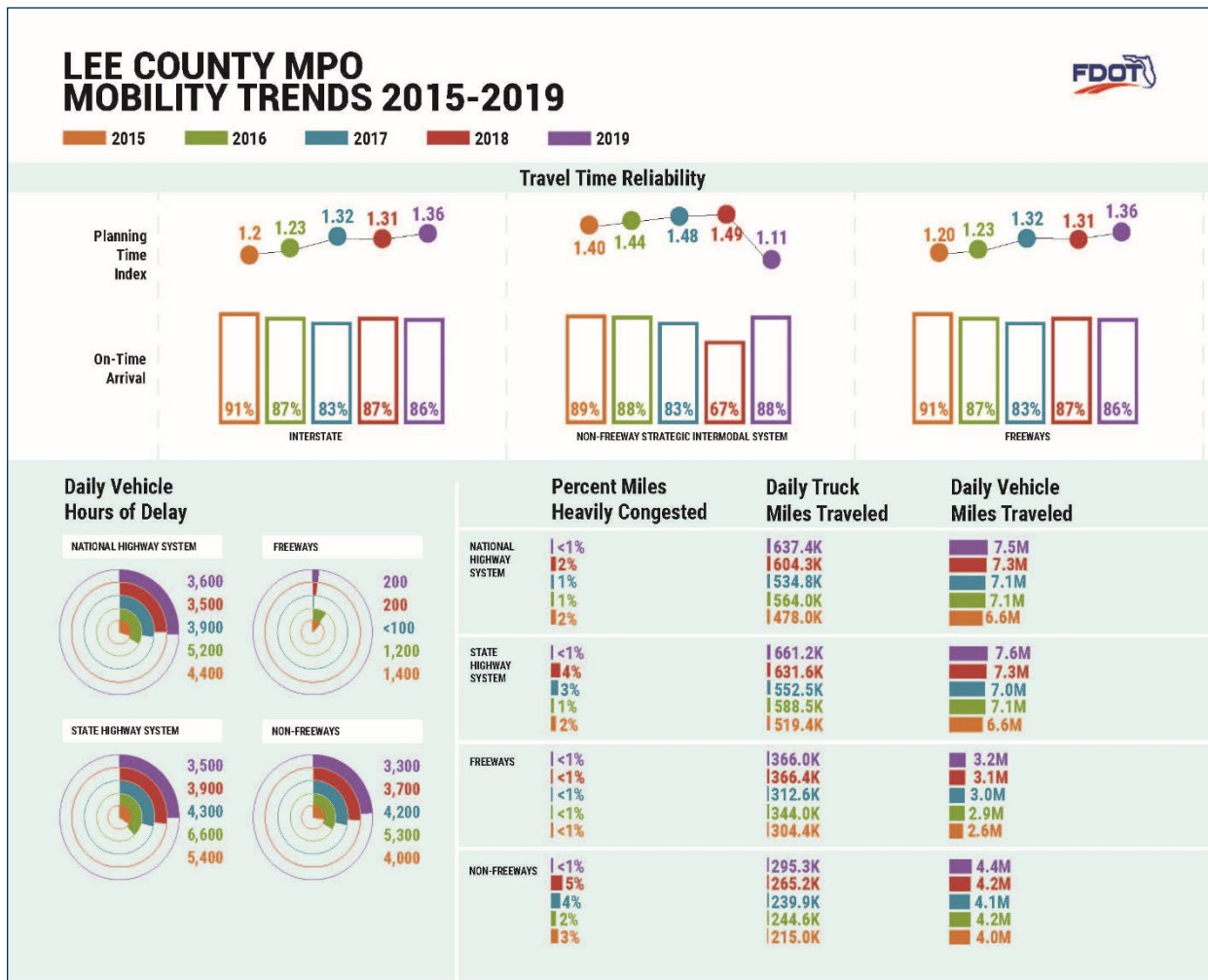


Figure 3-6: Lee County MPO Mobility Trends 2015 – 2019

3.4 Public Transportation

Existing public transportation service information was obtained from Lee County Transit (LeeTran), Charlotte County Transit, and Sarasota County Area Transit (SCAT) for transit routes that primarily use I-75 or provide service near the corridor.

3.4.1 Transit Services

LeeTran operates a network of fixed route bus service primarily located within Fort Myers, North Fort Myers, and the beach areas. No service route is provided along I-75.

Charlotte County Transit is a shared ride, curb-to-curb, transit service provided to the public throughout Charlotte County. The service area includes all of Charlotte County, the Charlotte County portions of Englewood, Port Charlotte, Punta Gorda and the surrounding areas, and the Lake Suzy area in Desoto County. No service route is provided along I-75.

SCAT operates a network of fixed route bus service primarily located west of I-75. Route 100 currently operates Monday through Friday and travels I-75 round trip from the North Port Park & Ride at City Hall to the Sarasota Bradenton International Airport. SCAT also operates SCAT Plus, a door-to-door demand-response service that requires a reservation, and trolley service on Siesta Key.

3.5 Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities are typically not permitted in limited access facility right-of-way (ROW). However, there are bicycle and pedestrian facilities that traverse interchange facilities within the Study limits ROW. Bike lanes are striped on the cross-streets at the Toledo Blade Boulevard and Duncan Road (US 17) interchanges, while sidewalks and connecting crosswalks are provided at the Sumter Boulevard and Toledo Blade Boulevard interchanges.

4. EXISTING TRANSPORTATION CONDITIONS

Identification and evaluation of features and characteristics that currently exist within the Study limits was based on review of existing plans and documents, desktop and geospatial data analysis, and field reviews.

4.1 Existing Roadway Characteristics

This section provides an overview of existing roadway conditions within the Study limits. Information was obtained from existing plans, maps, studies, and readily available data sources.

4.1.1 Functional Classification

FDOT currently utilizes Census 2010 Functional Classification and Urban Boundary maps to assign roadways into systems according to the character of service they provide relative to the total roadway network within FDOT's Roadway Characteristics Inventory (RCI) system. Urban Boundaries designate if the roadway segment is in a rural or urban area and if it is located within a municipality.

I-75 is part of Florida's Strategic Intermodal System (SIS) and is functionally classified as an urban or rural principal arterial interstate. Table 4-1 identifies the functional classification for I-75 within the Study limits.

Table 4-1: I-75 Functional Classification

County	Begin MP	End MP	Functional Classification
Sarasota	14.142	18.425	Rural Principal Arterial Interstate
Sarasota	8.043	14.142	Urban Principal Arterial Interstate
Sarasota	0.236	8.043	Rural Principal Arterial Interstate
Sarasota	0.054	0.236	Rural Principal Arterial Interstate
DeSoto	0.00	0.054	Rural Principal Arterial Interstate
Charlotte	13.499	22.008	Urban Principal Arterial Interstate
Charlotte	0.00	13.499	Rural Principal Arterial Interstate
Lee	31.371	34.138	Rural Principal Arterial Interstate

Source: FDOT Straight Line Diagrams

4.1.2 Typical Sections

Within the Study limits, I-75 is a six-lane, median divided, limited access facility. For the four counties within the Study limits, all have 12-foot travel lanes and paved inside and outside shoulders in each direction. The median width varies, and the type is primarily grass. Table 4-2 presents typical section details including begin and end mileposts (MP) and lane, shoulder, and median widths.

Table 4-2: I-75 Typical Sections by County

Begin MP	End MP	No. of Lanes (L)	No. of Lanes (R)	Lane Width (feet)	Inside Shoulder (feet)	Outside Shoulder (feet)	Median Width (feet)	Median Type
Sarasota County								
17.185	17.752	3	3	12	12	10	368 - 396	vegetated with guardrail
15.750	17.185	3	3	12	12	10	242 - 337	vegetated with other canal, river, waterway
15.578	15.750	3	3	12	12	10	190	vegetated with cable barrier
15.364	15.578	3	3	12	12	10	90	vegetated with cable barrier
14.412	15.364	3	3	12	22	10 - 12	92	vegetated with cable barrier
15.006	14.412	3	3	12	22	10 - 12	92	vegetated with cable barrier
11.009	15.006	3	3	10 - 12	12	8 - 10	91 - 93	vegetated with cable barrier
8.043	11.009	3	3	12	12 - 13	8 - 13	91 - 93	vegetated with guardrail
Diamond Interchange at Sumter Boulevard MP 10.738 to 11.213								
6.969	8.043	3	3	12	12 - 13	8 - 11	93 - 94	vegetated with guardrail
Diamond Interchange at Toledo Blade Boulevard MP 7.758 to MP 8.338								
5.915	6.969	3	3	12	12 - 13	10 - 11	265 - 357	vegetated or vegetated with guardrail
0.496	5.915	3	3	12	10 - 13	8 - 11	63 - 75	vegetated with guardrail
City of North Port Boundary MP 0.236								
DeSoto County								
0.00	0.496	3	3	12	10 - 12	11	157 - 180	vegetated with guardrail
Charlotte County								
20.846	22.008	3	3	12	11 - 13	8 - 10	65	vegetated with guardrail
Diamond Interchange at Kings Highway MP 20.785 - MP 21.335								
20.040	20.846	3	3	12	10 - 12	10	65	vegetated with guardrail
18.096	20.040	3	3	12	10 - 12	10 - 12	102 - 275	vegetated with guardrail
17.477	18.096	3	3	12	10 - 12	9 - 10	66 - 72	raised traffic separator with barrier, vegetated with barrier
Diamond Interchange at Harbor View Road MP 17.578 - 18.155								

Table 4-2: I-75 Typical Sections by County

Begin MP	End MP	No. of Lanes (L)	No. of Lanes (R)	Lane Width (feet)	Inside Shoulder (feet)	Outside Shoulder (feet)	Median Width (feet)	Median Type
15.415	17.477	3	3	12	9 - 10	10 - 12	21 - 45	vegetated, paved with barrier
End Peace River Crossing MP 17.268								
14.790	15.415	3	3	12	10 - 12	8 - 12	52 - 66	vegetated with barrier, guardrail
Partial Cloverleaf Interchange at US 17 MP 14.790 - 15.040, Begin Peace River Crossing MP 15.690								
13.499	14.790	3	3	12	10 - 12	10 - 12	66	vegetated, guardrail
12.057	13.499	3	3	12	10 - 12	10 - 12	66	vegetated, guardrail
9.610	11.551	3	3	12	10 - 13	6 - 11	66	vegetated with CBL
Diamond Interchange at N Jones Loop Road MP 11.551 to MP 12.057 Weigh Station MP 9.754 to MP 10.706								
8.778	9.610	3	3	12	10 - 11	10	127 - 142	vegetated, guardrail, other
7.426	8.256	3	3	12	10 - 11	10	66	vegetated, guardrail
Diamond Interchange at Tuckers Grade MP 8.256 to MP 8.778								
3.925	7.426	3	3	12	10 - 13	10 - 12	142	vegetated with barrier, other
2.931	3.925	3	3	12	10 - 11	10	357 - 410	vegetated, guardrail
2.431	2.931	3	3	12	10 - 11	10 - 12	410 - 420	vegetated, guardrail
1.434	2.431	3	3	12	10 - 11	10 - 12	399 - 465	vegetated, guardrail
0.926	1.434	3	3	12	10 - 13	10 - 12	320 - 385	vegetated, guardrail
0.00	0.926	3	3	12	10	12	89 - 185	vegetated, guardrail
Lee County								
33.122	34.138	3	3	12	12	10	165	vegetated with guardrail
31.371	33.122	3	3	12	12	10	65	vegetated with guardrail
MP 31.371 Slater Road Overpass								
17.752	18.425	3	3	12	10 - 13	10	304 - 394	vegetated with other canal, river, waterway
MP 18.425 approximately 1 mile south of River Road Interchange								

Source: FDOT Straight Line Diagrams

4.1.3 Right-of-Way

The ROW width for I-75 within the Study limits is 324 feet. Typically, the ROW is wider at interchanges or locations where northbound and southbound travel lanes follow separate alignments. Table 4-3 presents ROW width by county.

Table 4-3: I-75 ROW Width by County

County	Minimum Right-of-Way (feet)
Sarasota	324
DeSoto	324
Charlotte	324
Lee	324

4.1.4 Posted Speed Limits

Within the Study limits, the posted speed is 70 miles per hour (mph).

4.2 Interchange/Ramp Design

There are seven existing interchanges located within the Study limits. Table 4-4 presents the interchange locations and types.

Table 4-4: Existing Interchange Locations by County

Begin Milepost	End Milepost	Exit Number	Crossing Roadway	Interchange Type
Sarasota County				
10.738	11.213	182	Sumter Boulevard	Diamond
7.758	8.338	179	Toledo Blade Boulevard	Diamond
Charlotte County				
20.785	21.335	170	Kings Highway	Diamond
17.578	18.155	167	Harbor View Road	Diamond
14.790	15.040	164	US 17	Partial Cloverleaf
11.551	12.057	161	N Jones Loop Road	Diamond
7.42	8.256	158	Tuckers Grade	Diamond

4.3 Intelligent Transportation Systems

Intelligent Transportation System (ITS) infrastructure is implemented to maximize the safety and efficiency of Florida's transportation system and includes a variety of ITS elements. Improving the ITS system enhances FDOT's ability to manage traffic flow, reduce congestion, provide information to travelers, enhance efficiency, improve incident management, and increase safety along I-75. ITS improvement projects programmed in the most current MPO TIPs include:

- I-75 Charlotte County Advanced Dynamic Messaging Sign (ADMS) from the Lee County Line to the Sarasota County Line

Table 4-5 presents specific ITS infrastructure by county within the Study limits.

Table 4-5: Existing ITS Infrastructure by County

County	Highway Advisory Radio	In-Vehicle Signing	Closed Circuit TV	Dynamic Message Signs	Vehicle Detection System	Truck Parking Detection Systems	FDOT Communications HUB
Sarasota	✓		✓	✓	✓		
DeSoto			✓		✓		
Charlotte	✓	✓	✓	✓	✓	✓	✓
Lee			✓	✓	✓	✓	

Source: FDOT District One

4.4 Utilities

Existing utilities located within the Study limits are presented in Table 4-6 and include overhead power, telephone and cable, underground fiber optic, gas, water distribution, sanitary sewer, and stormwater sewer.

Table 4-6. Existing Utilities

Utility Agent or Owner	Type of Facilities
Century Link	Fiber/Telephone
Charlotte County Utilities	Sewer (pressurized, gravity), Water Reclaimed Water
City of North Port	Water
City of Punta Gorda Utilities	Sewer, Water
Comcast	Fiber/Telephone
Florida Department of Transportation	ITS Facilities
Florida Government Utility Authority	Sewer
Florida Power and Light	Electric
Frontier Communications	Fiber/Telephone
Lee County Electric Cooperative	Electric
MSKP Town & Country Utility	Water
TECO People's Gas	Gas

Source: FDOT District One, Lee County Utilities, Charlotte County Utilities Department, Sarasota County Public Utilities

4.5 Drainage Systems

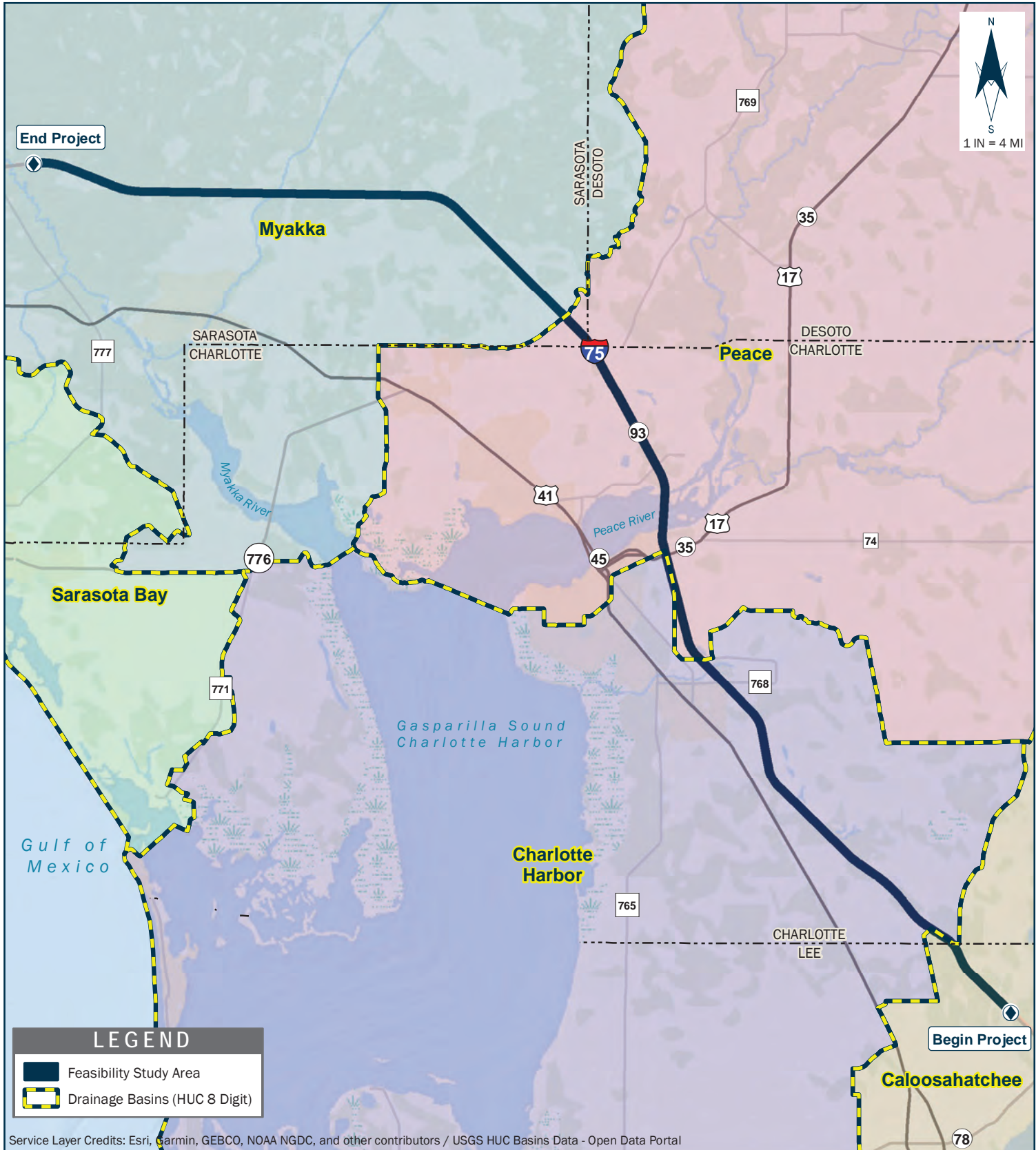
Located within the jurisdiction of the Southwest Florida Water Management District (SWFWMD) or the South Florida Water Management District (SFWMD), the Study limits cross the Cumulative Impact Basin - Tidal Caloosahatchee and the Peace River, Charlotte Harbor, and Myakka River Basins as presented in Table 4-7 and shown in Figure 4-1.

Table 4-7: Drainage Basin by County

County	Drainage Basin	Water Management District
Sarasota	Peace River and Myakka River	SWFWMD
DeSoto	Peace River	SWFWMD
Charlotte	Cumulative Impact Basin – Tidal Caloosahatchee Charlotte Harbor and Peace River	SWFWMD
Lee	Cumulative Impact Basin – Tidal Caloosahatchee	SFWMD

Source: SWFWMD, SFWMD

The existing stormwater system located along I-75, within the Study limits, is characterized as rural with predominantly open drainage that carries runoff from I-75 to surrounding existing cross drains, stormwater ponds, wetland areas, or surface waters eventually discharging to the Gulf of Mexico. Table 4-8 presents the type of drainage infrastructure located within the Study limits by County.



I-75 CENTRAL CORRIDOR MASTER PLAN DRAINAGE BASINS	FIGURE
	4-1



Table 4-8: Existing Drainage Infrastructure Type

County	Cross Drain (quantity)	Median Inlet (quantity)	Concrete Box Culvert (quantity)
Sarasota	6	28	22
DeSoto	0	0	1
Charlotte	27	26	13
Lee	1	5	2

Source: FDOT Straight Line Diagrams

4.6 Structures

The FDOT Office of Maintenance inspects all public highway bridges in the state and the resulting data is reported in quarterly *Bridge Information Reports*. An inventory of bridges located within the Study limits is presented in Table 4-9. The data presented was collected from the FDOT *Florida Bridge Information Report, 2020 3rd Quarter* (July 1, 2020). Typical bridge sections throughout the project corridor consist of three 12-foot lanes in each direction with inside and outside shoulders and median of variable widths.

Table 4-9: Structures by County

Structure ID	MP - MP	Direction	Crossing	Year Built Year Reconstructed	Total Length (feet)	Roadway Width (feet)	Vertical Clearance (feet)	Date of Last Inspection	Sufficiency Rating ¹	Health Index ²
Sarasota County										
170125	15.171 - 15.196	NB	Deer Prairie Creek	1981 2015	132	66.9	N/A	3/27/2019	96.4	93.79
170124	15.178 - 15.203	SB	Deer Prairie Creek	1981 2016	132	67.6	N/A	3/27/2019	96.4	97.12
170123	12.779 - 12.787	SB NB	Ponce de Leon Boulevard	1981	42.2	326.7	16.1	01/16/2019	96.4	99.77
170132	11.331 - 11.435	NB	Big Slough Canal	1981 2003	549.1	56.1	N/A	3/27/2019	94.5	99.24
170131	11.352 - 11.453	SB	Big Slough Canal	1981 2003	533.3	56.1	N/A	3/27/2019	94.5	98.10
170130	10.975 - 11.017	NB	Sumter Boulevard	1981 2004	221.8	55.4	16.4	1/16/2019	94.5	99.95
170129	10.975 - 11.017	SB	Sumter Boulevard	1981 2004	221.8	55.8	16.4	1/16/2019	94.5	99.97
170157	9.554 - 9.561	SB NB	Cosmic Waterway	1981	37	56.1	N/A	3/27/2019	83	33.94

Table 4-9: Structures by County

Structure ID	MP - MP	Direction	Crossing	Year Built Year Reconstructed	Total Length (feet)	Roadway Width (feet)	Vertical Clearance (feet)	Date of Last Inspection	Sufficiency Rating ¹	Health Index ²
170140	8.026 - 8.062	NB	Toledo Blade Boulevard	1981 2004	190.1	56.1	16.4	1/15/2019	94.8	99.95
170139	8.026 - 8.062	SB	Toledo Blade Boulevard	1981 2016	190.1	68.2	16.4	1/15/2019	96.8	99.94
170138	4.600 - 4.625	NB	New Castle Waterway	1981 2016	132	56.1	N/A	3/27/2019	96.8	89.69
170137	4.597 - 4.622	SB	New Castle Waterway	1981 2016	132	56.1	N/A	3/27/2019	96.8	90.41
170136	2.631 - 2.662	NB	Yorkshire Street	1980 2017	163.7	55.8	16.4	1/15/2019	95.8	99.96
170135	2.631 - 2.662	SB	Yorkshire Street	1980 2017	163.7	56.1	16.4	1/15/2019	95.8	99.92
170134	1.173 - 1.227	NB	Raintree Boulevard	1980	285.1	55.8	23	1/14/2019	88.4	99.97
170133	1.175 - 1.228	SB	Raintree Boulevard	1980	279.8	55.8	23	1/14/2019	96.1	98.66
Charlotte County										
010072	21.038 - 21.086	NB	Kings Highway	1980 2003	253.4	56.4	16.1	10/24/2019	98	99.80
010071	21.031 - 21.080	SB	Kings Highway	1980 2003	258.7	56.4	16.2	10/24/2019	98	99.87
010088	19.655 - 19.667	SB NB	Rampart Boulevard over I-75	1980	467.9	40.0	16.3	4/26/2019	89.3	99.69
010060	17.864 - 17.906	NB	Harbor View Road	1980 2004	221.8	55.4	16.1	12/12/2019	96.5	99.32
010059	17.858 - 17.899	SB	Harbor View Road	1980 2004	216.5	55.4	16.1	12/12/2019	96.5	99.61
010106	15.740 - 17.268	SB NB	Peace River	2003	8,067.8	111.9	42.7	12/30/2019	85	97.20
010081	15.232 - 15.273	NB	Riverside Drive/ Seminole Gulf (CSX) Railroad	1975 2018	216.5	65.9	19.7	4/25/2019	96.6	99.94
010080	15.231 - 15.272	SB	Riverside Drive/ Seminole Gulf (CSX) Railroad	1975 2018	216.5	65.9	19.7	4/25/2019	96.6	99.97
010077	15.083 - 15.133	NB	US 17	1981 2004	264.0	64.6	16.1	4/25/2019	95.5	99.74

Table 4-9: Structures by County

Structure ID	MP - MP	Direction	Crossing	Year Built Year Reconstructed	Total Length (feet)	Roadway Width (feet)	Vertical Clearance (feet)	Date of Last Inspection	Sufficiency Rating ¹	Health Index ²
010076	15.083 - 15.133	SB	US 17	1981 2004	264.0	64.6	16.0	4/25/2019	95.5	99.84
010075	14.119 - 14.129	SB NB	Carmalite Street over I-75	1981	353.4	39.4	16.1	4/24/2019	98.8	91.89
010065	13.461 - 13.468	SB NB	Airport Road over I-75	1981	261.2	39.4	16.2	4/24/2019	95	78.32
010074	11.762 - 11.806	NB	N Jones Loop Road	1981 2018	232.3	55.4	16.2	4/24/2019	98	99.96
010073	11.747 - 11.793	SB	N Jones Loop Road	1981 2018	242.9	55.4	16.2	4/24/2019	98	99.91
010070	11.363 - 11.430	NB	Alligator Creek	1981 2012	353.8	55.4	N/A	6/25/2019	96.8	99.52
010069	11.355 - 11.422	SB	Alligator Creek	1981 2012	353.8	64.0	N/A	6/25/2019	95.8	99.41
010066	10.795 - 10.806	SB NB	S Jones Loop Road over I-75	1981	344.2	40.0	16.2	4/23/2019	96.7	77.31
010083	8.483 - 8.530	NB	Tuckers Grade	1979 2012	246.1	55.8	15.9	4/23/2019	98	99.64
010082	8.488 - 8.535	SB	Tuckers Grade	1979 2012	246.1	55.8	15.9	4/23/2019	98	99.67
010086	6.113 - 6.119	NB	Tower Canal	1979 2017	29.2	N/A	N/A	4/23/2019	81.7	36.51
010085	6.130 - 6.136	SB	Tower Canal	1979	29.2	N/A	N/A	4/23/2019	81.7	34.4
010064	4.308 - 4.319	SB NB	Oil Well Road over I-75 - SCL RR	1980	678.8	39.7	16.2	4/22/2019	90.8	97.61
010079	1.065 - 1.090	NB	Sandy Hartmans Canal	1978 2015	134.8	56.1	N/A	4/22/2019	96	87.90
010078	1.065 - 1.090	SB	Sandy Hartmans Canal	1978 2015	134.8	55.8	N/A	4/22/2019	97	84.36
Lee County										
120135	33.757 - 33.764	NB	S Gilchrest Canal	1979	37	N/A	N/A	5/9/2019	97	34.52

Table 4-9: Structures by County

Structure ID	MP - MP	Direction	Crossing	Year Built Year Reconstructed	Total Length (feet)	Roadway Width (feet)	Vertical Clearance (feet)	Date of Last Inspection	Sufficiency Rating ¹	Health Index ²
120136	33.755 - 33.762	SB	S Gilchrest Canal	1979	37	N/A	N/A	5/21/2019	81.7	45.38
120134	32.704 - 32.709	SB NB	Lost Creek	1980	26.4	N/A	N/A	5/21/2019	83	33.85
120133	31.822 - 31.829	SB NB	Daughtrey Creek	1979	37	N/A	N/A	4/25/2019	83	67.04
120132	31.680 - 31.691	SB NB	Daughtrey Creek Overflow	1979	58.1	N/A	N/A	4/25/2019	83	67.08
120114	31.371 - 31.381	SB NB	Slater Road over I-75	1979	625	40.0	16.4	6/6/2019	99	80.41

1. **Sufficiency Rating** looks at four separate factors and obtains a numeric value that is indicative of a bridge's health. These four factors are: structural adequacy and safety (most heavily weighted factor), serviceability and functional obsolescence, essentiality for public use, and special reductions

2. **Bridge Health Index** (BHI) is a bridge performance measure based on the condition of the bridge elements. It is computed as the ratio of remaining value of the bridge structure to the initial value of the structure.

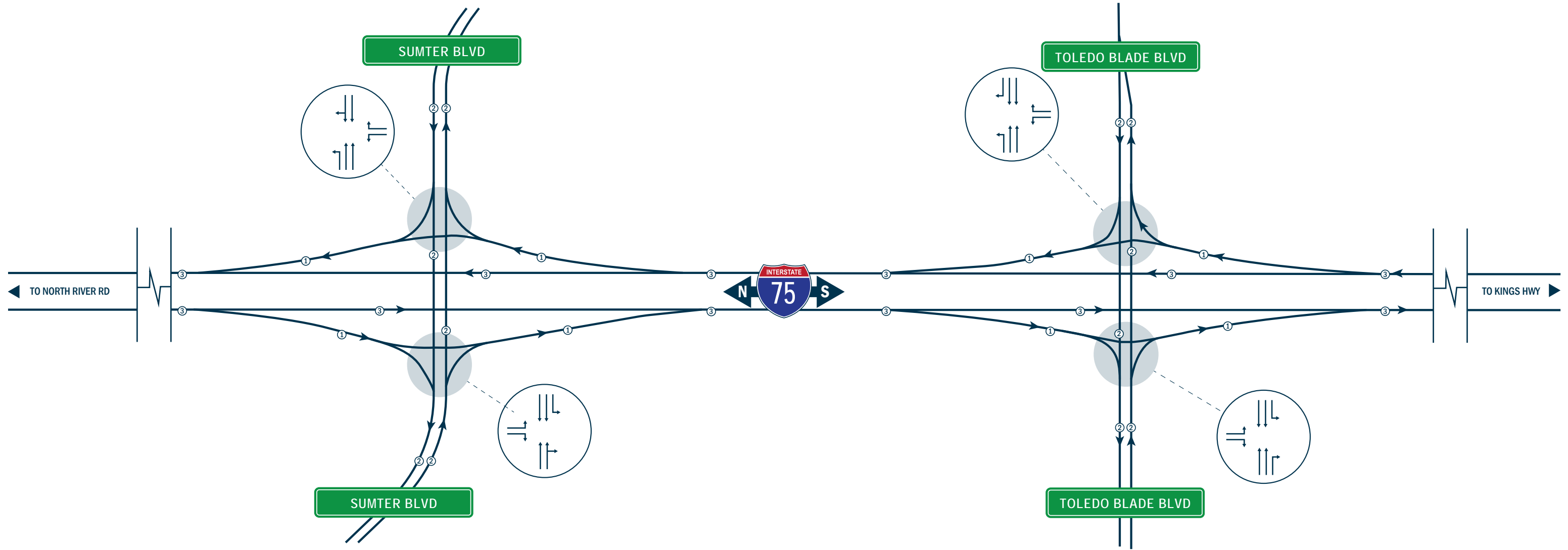
4.7 Traffic Conditions

Areas designated within the urban boundaries are primarily located to the west of I-75 with rural areas to the east. In Charlotte County, the urbanized Punta Gorda and Port Charlotte communities encompass areas east and west of I-75. In Sarasota County, an area between North Toledo Blade Boulevard and Ponce de Leon Boulevard east is within the urban boundary. Similarly, the FDOT Straight Line Diagrams (SLD) show the roadway classification within the Study limits as primarily Rural Principal Arterial - Interstate with portions designated as Urban Principal Arterial - Interstate.

For purposes of this Study, the traffic analysis area includes I-75 from the Lee/Charlotte County Line north to approximately one mile south of the River Road interchange in Sarasota County. The existing lane configurations are shown in Figures 4-2A through 4-2D.

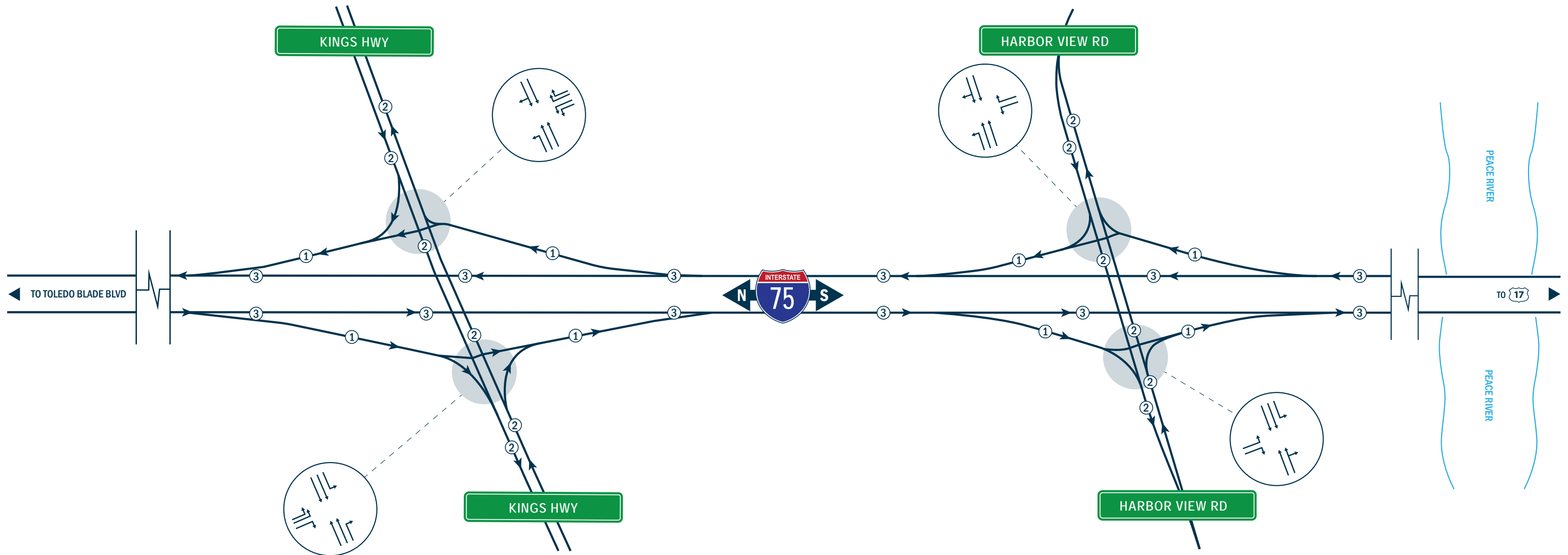
4.7.1 Existing Traffic Volumes

Existing traffic volumes were utilized to perform traffic operational analysis for the Study limits. The traffic volumes were obtained from historical data published by FDOT Florida Traffic Online (2019) and supplemented by StreetLight Insight origin-destination data. The FDOT traffic volume and StreetLight data sheets are included in Appendix A and Appendix B, respectively.



LEGEND	
(#)	NUMBER OF LANES



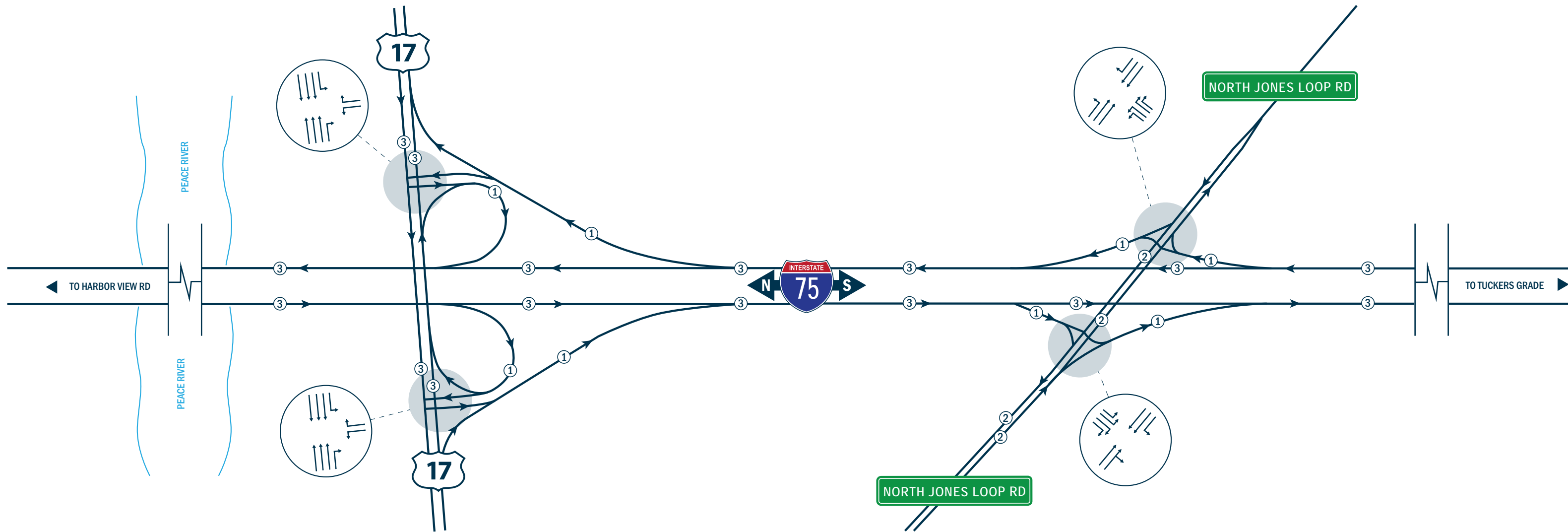


LEGEND	
#	NUMBER OF LANES





NTS

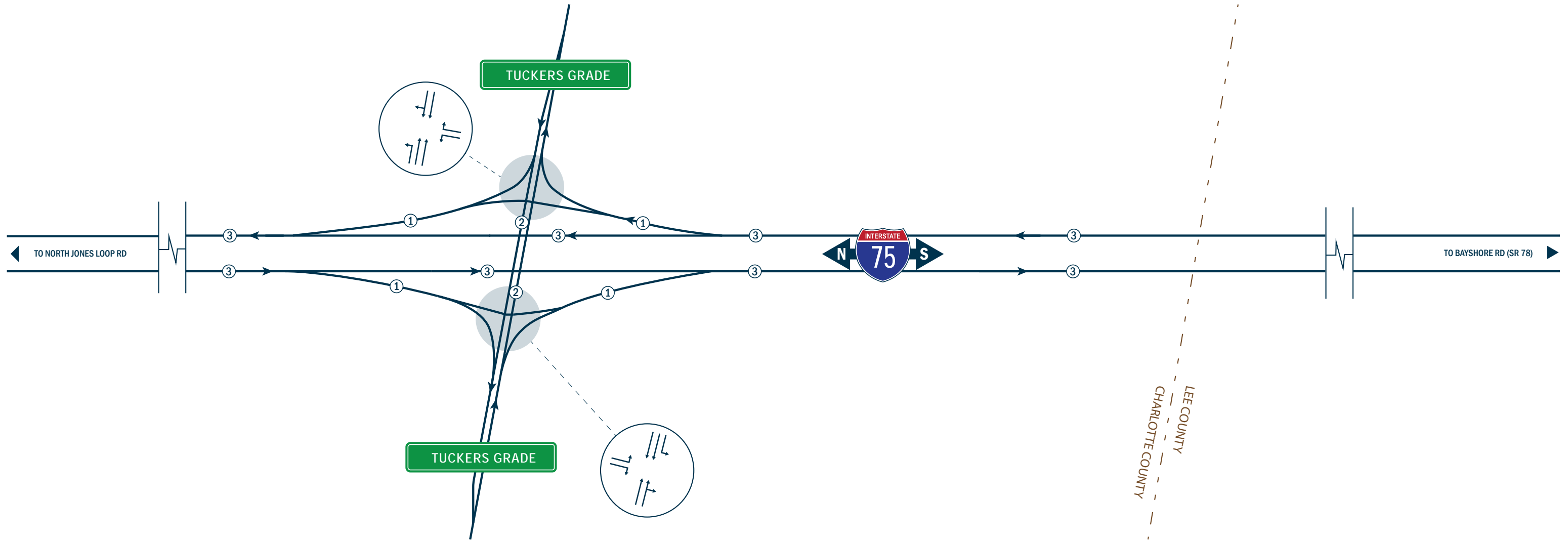


LEGEND	
#	NUMBER OF LANES





NTS



LEGEND	
#	NUMBER OF LANES



The two telemetered traffic monitoring sites at the south and north ends of the corridor were held as anchor points and the mainline Annual Average Daily Traffic (AADT) was balanced in each direction. The existing Annual Average Daily Traffic (AADT) for the Study area mainline and interchange ramps are depicted in Figures 4-3A through 4-3D.

The morning (AM) and afternoon (PM) peak hour existing volumes were based on averages of hourly synopsis counts at traffic count stations along I-75. The peak hour ramp terminal intersection volumes were determined using hourly synopsis counts combined with existing turning movement ratios from the StreetLight data. Additionally, traffic volumes from previous studies conducted at the study area interchanges were provided by FDOT and used to validate and adjust the peak hour turning movement volumes. Mainline volumes were adjusted by balancing the volumes from south to north along the Study area. The existing peak hour volumes are shown in Figures 4-4A through 4-4D.

4.7.2 Design Traffic Factors

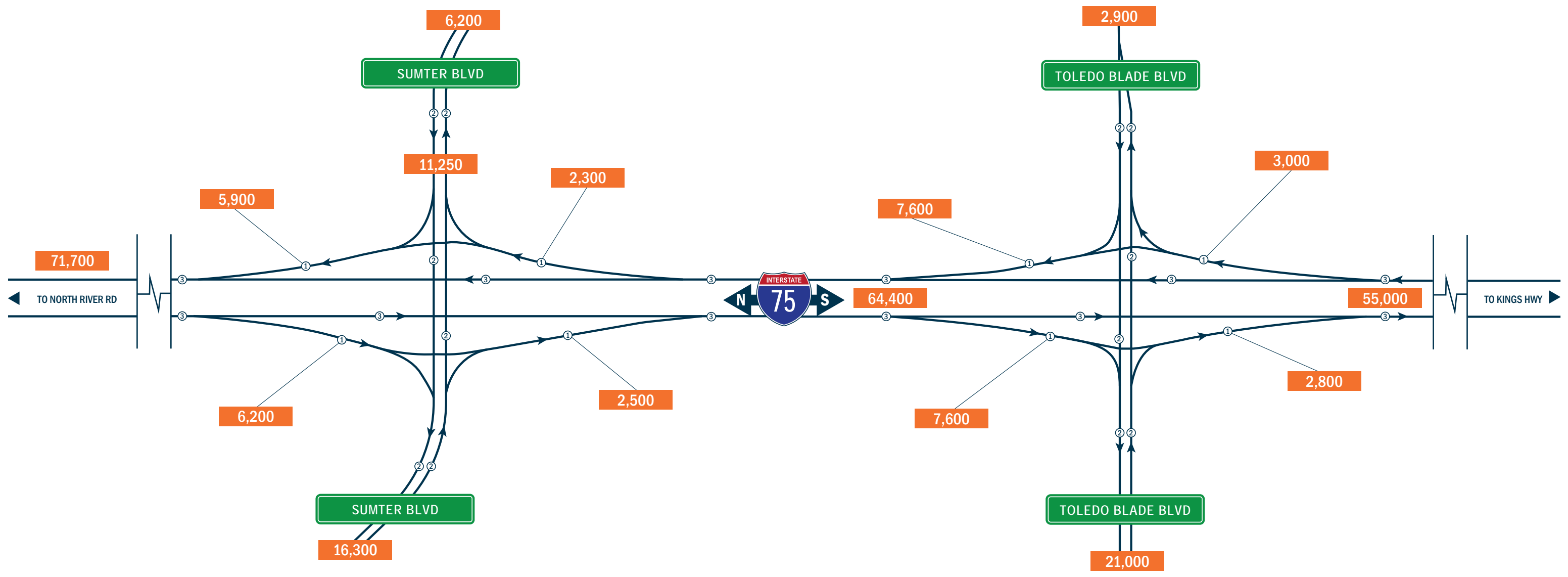
Design traffic factors K, D, and T are used to determine future year design hour traffic volumes along the Study area roadways. The design hour factor, K, is the ratio of the AADT that occurs during the design hour for the design year. The Directional Distribution factor, D, is the percentage of the total, two-way design hour traffic traveling in the peak direction. The daily truck volume is determined by the T factor, the percentage of trucks using a roadway in one day. For traffic analysis of the peak hour, the T_f factor, which is the percentage of truck traffic during the peak hour, is used. T_f values were computed by dividing T by two to derive the truck percentage during the peak hour. The existing traffic factors are listed in Table 4-10.

Table 4-10: Existing (2019) Traffic Factors

FDOT Traffic Count Site	Location along I-75	K	D	T	T_f
17-0361	Ponce De Leon Blvd. (west of Sumter Blvd)	9.0	59.9	12.3	6.2
17-0040	East of Sumter Blvd North Port	9.0	56.7	13.4	6.7
01-0038	Northwest of Kings Highway/CR 769	9.0	55.9	14.4	7.2
01-0037	Southeast of Kings Highway/CR 769	9.0	55.9	14.5	7.3
01-0036	Southeast of Harbor View Road/CR 776	9.0	55.9	14.0	7.0
01-0350	Airport Road (southeast of US 17)	10.5	51.8	13.0	6.5
01-0034	Southeast of North Jones Loop Road/CR 768	10.5	55.9	13.2	6.6
01-0055	South of Tuckers Grade (CR 762)	10.5	55.9	13.9	7.0
12-0062	Northwest of SR 78/ Bayshore Road	10.5	58.7	15.6	7.8
Average		-	56.3	13.8	6.9

Source: FDOT 2019 Historical AADT Report

The design traffic factors in the Study traffic analysis area were based on historical data shown in Table 4-10 and guidance from the FDOT 2019 *Project Traffic Forecasting Handbook* (PTF). The Standard K factor of 9.0 for freeways, arterials, and highways in urbanized areas will be used for the entire Study limits as the population exceeds 50,000 in all three counties. The directional distribution factor ($D=56.3\%$) and truck factors ($T=13.8\%$, $T_f=6.9\%$) were computed using the historical averages for all count locations. The computed D value is within the acceptable range of demand D values for an Urban Freeway as recommended in the PTF.

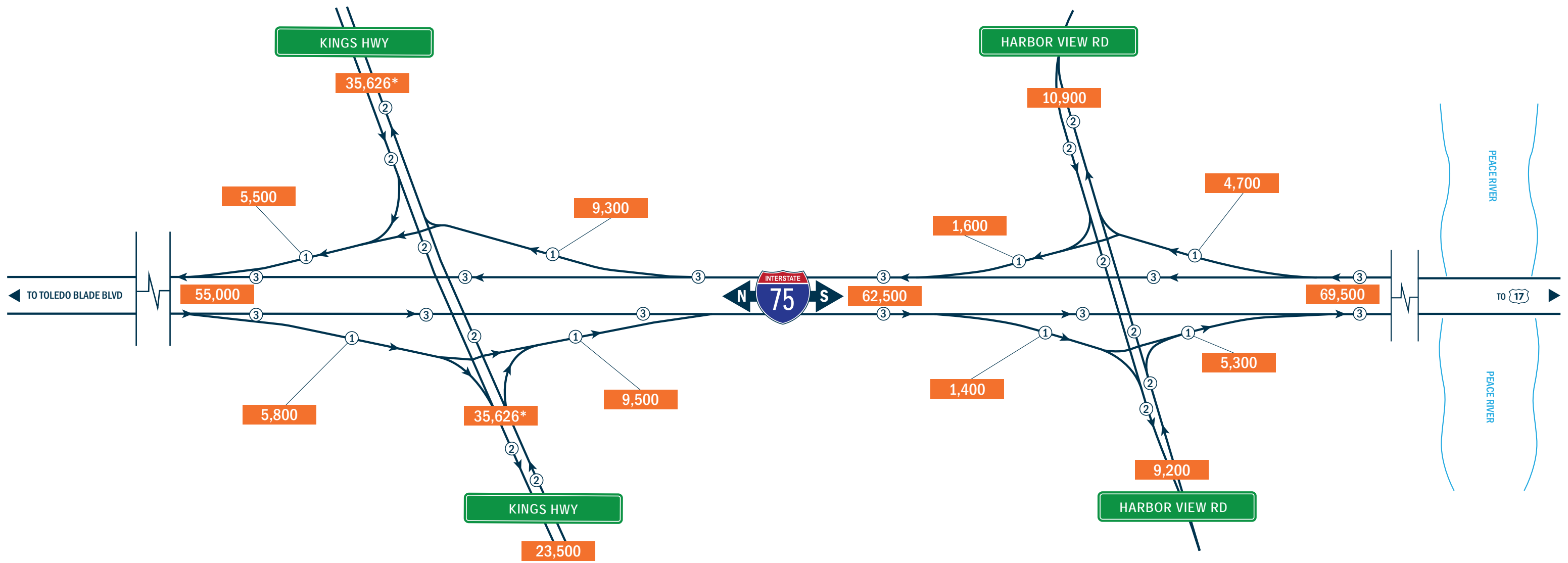


LEGEND

EXISTING 2019 AADT

Source: FDOT 2019 Florida Traffic Online



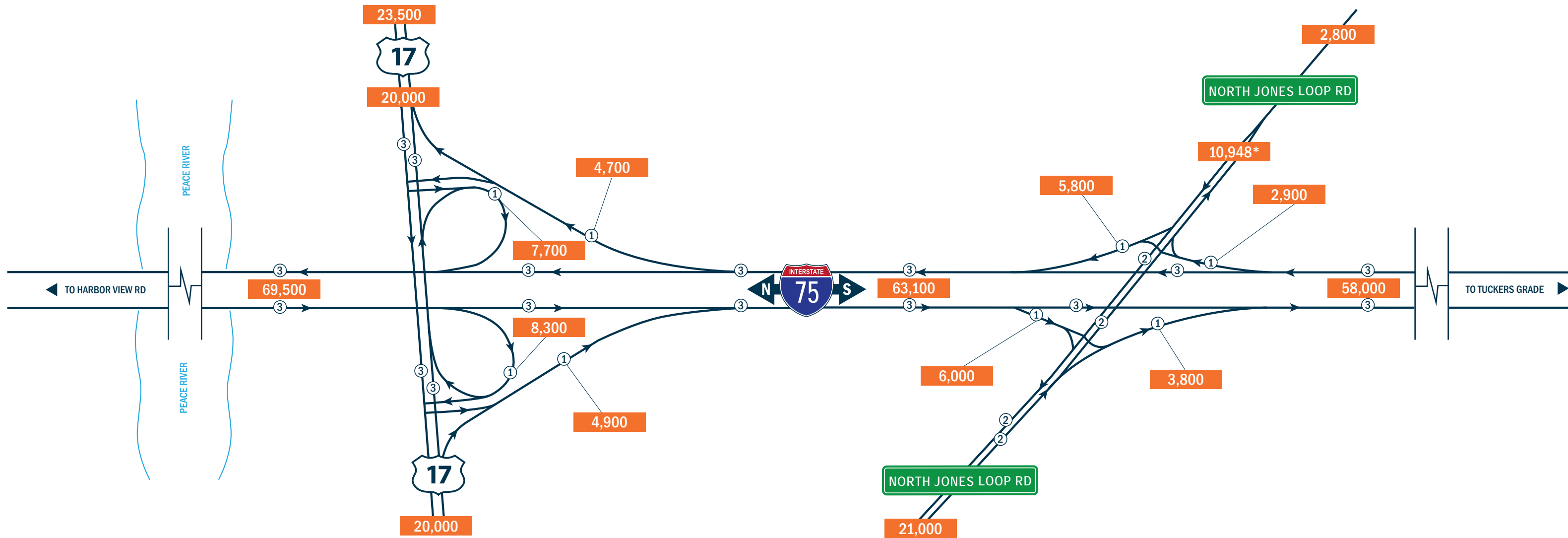


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 EXISTING 2019 AADT

Source: FDOT 2019 Florida Traffic Online
 * 2020 Charlotte County Roadway Concurrency Report



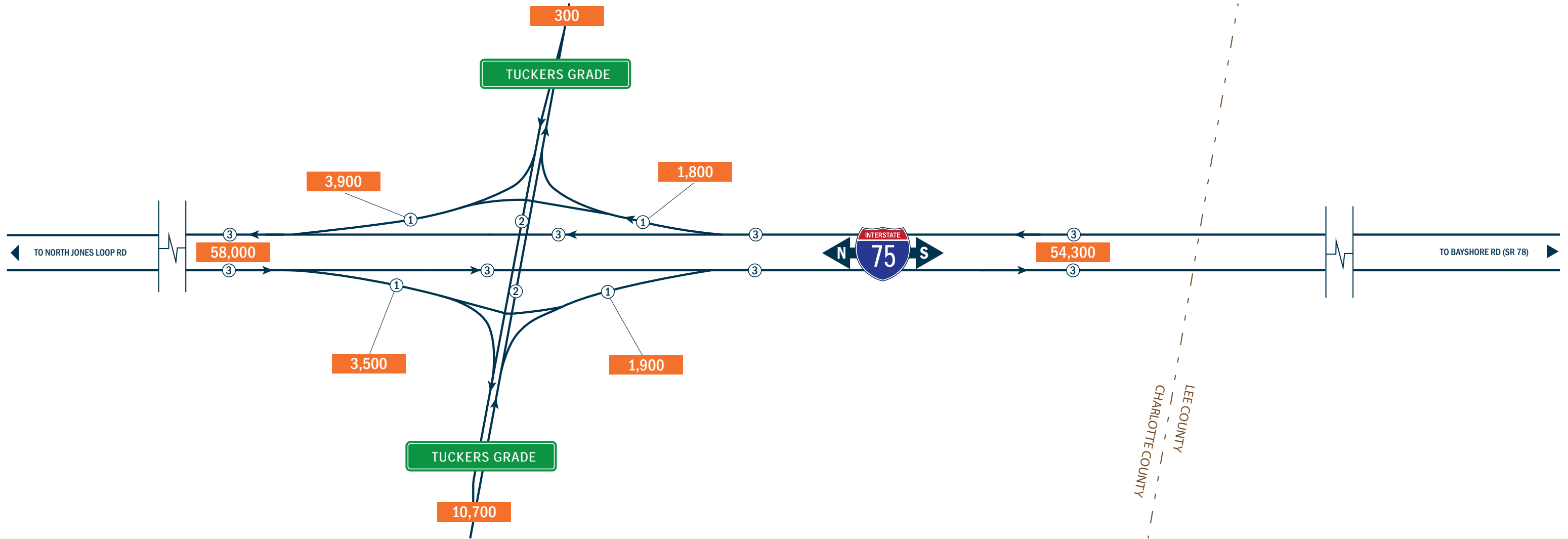


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EXISTING 2019 AADT

Source: FDOT 2019 Florida Traffic Online
 * 2020 Charlotte County Roadway Concurrency Report



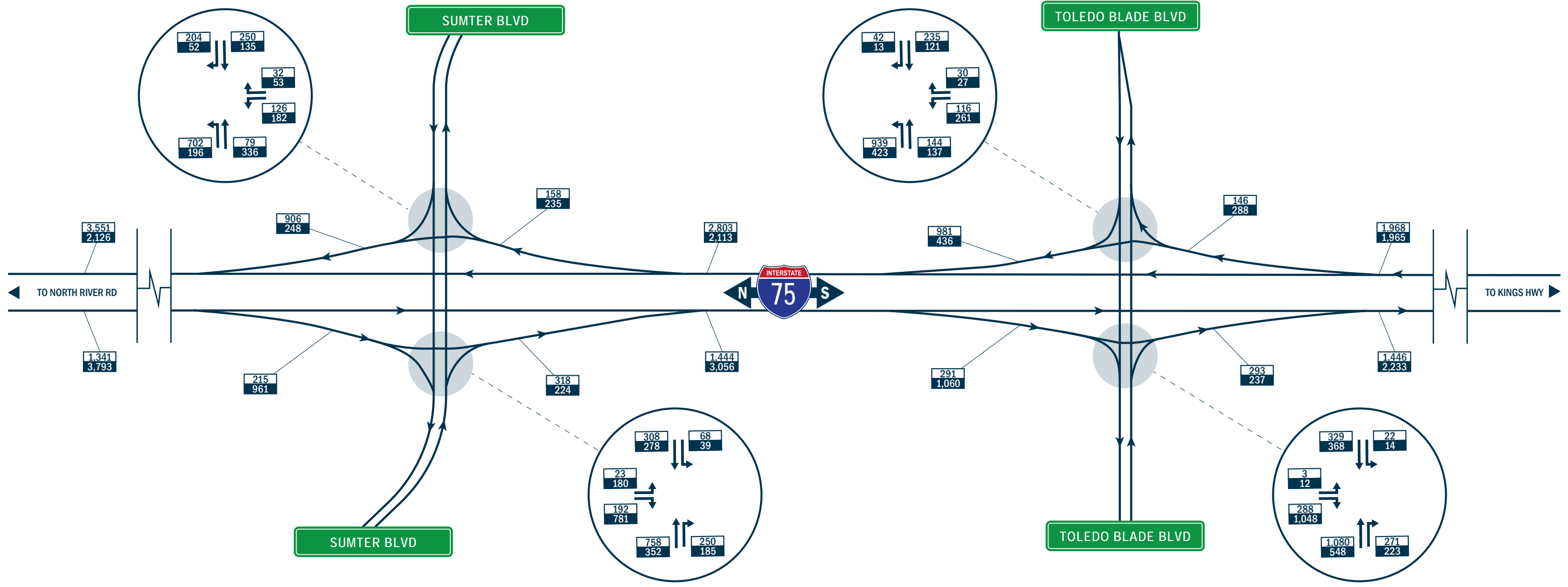


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 EXISTING 2019 AADT

Source: FDOT 2019 Florida Traffic Online

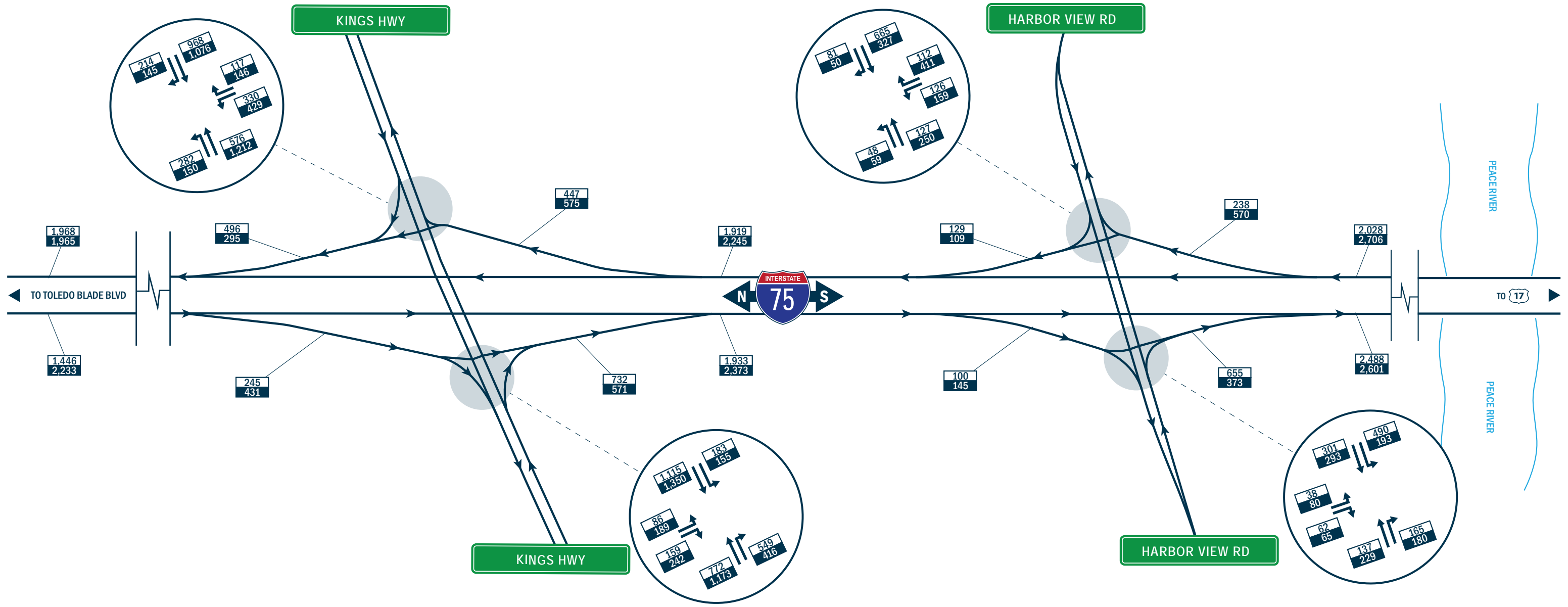




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AM	EXISTING 2019 PEAK HOUR TRAFFIC VOLUMES
PM	

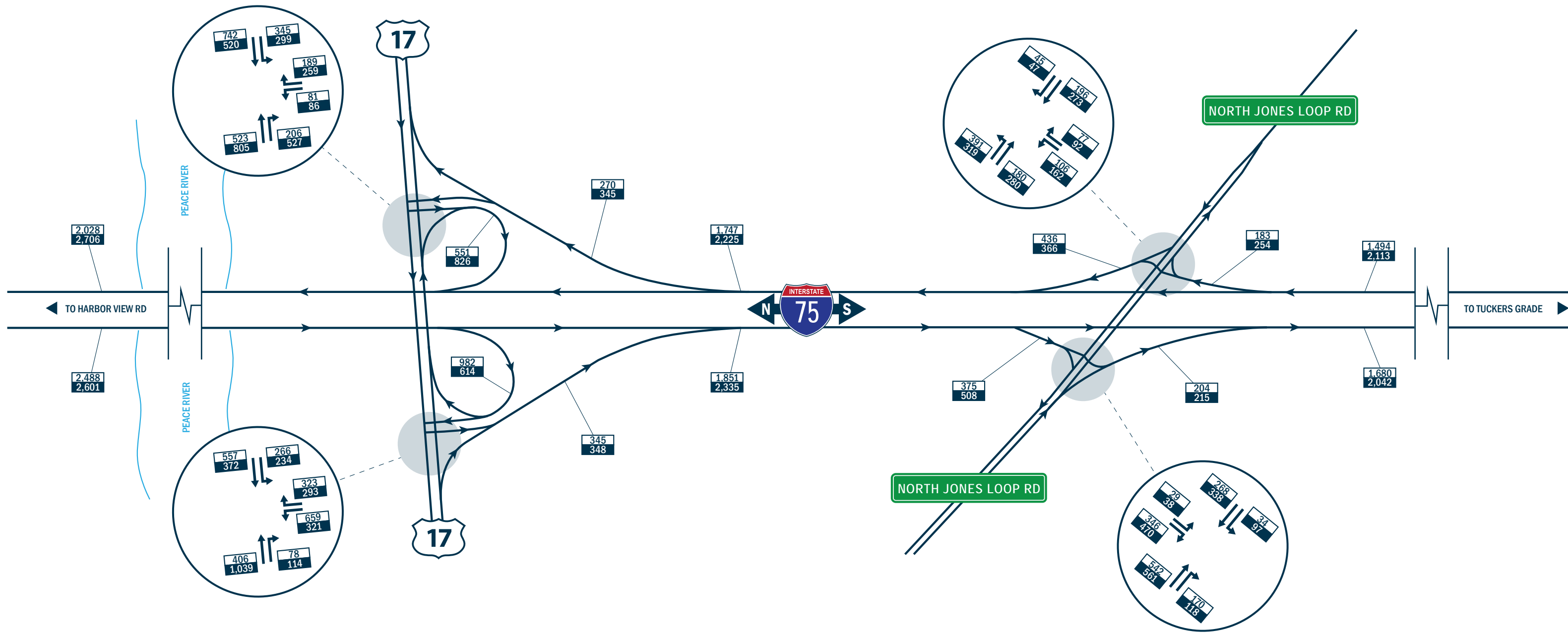




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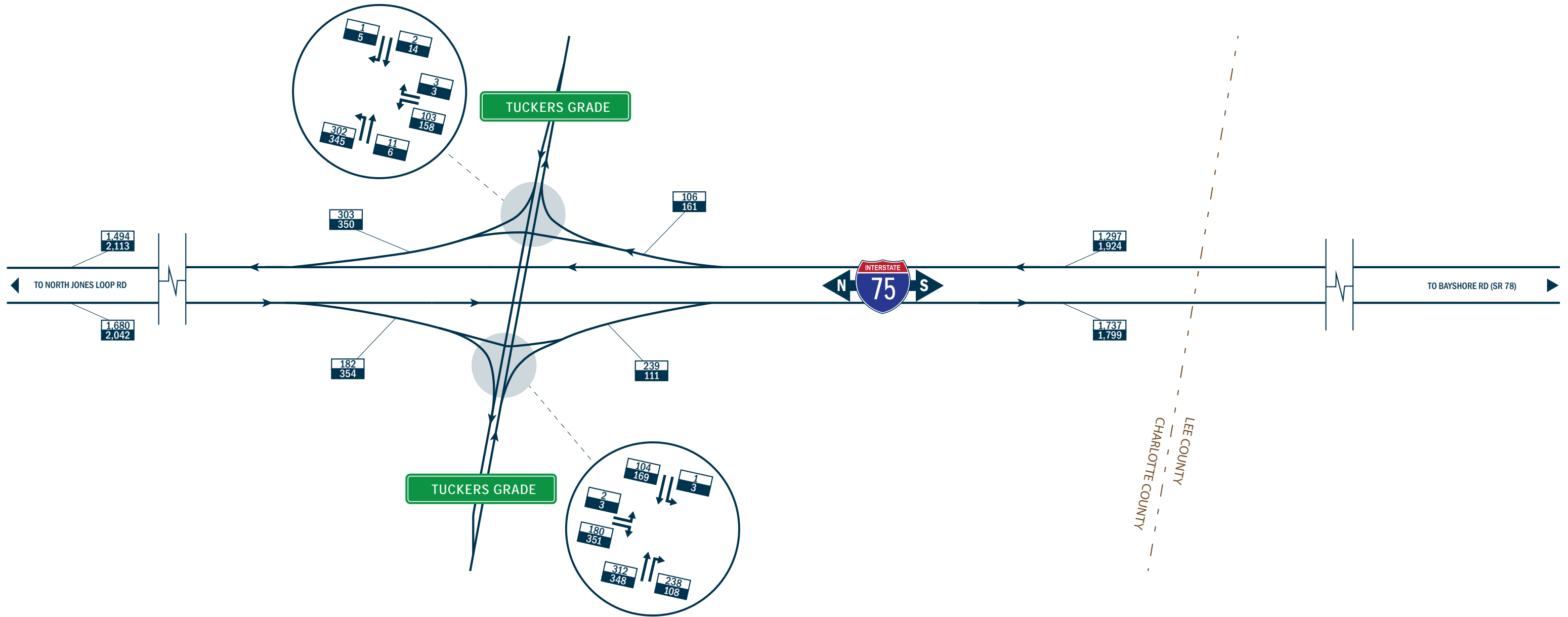
AM	EXISTING 2019 PEAK HOUR TRAFFIC VOLUMES
PM	





LEGEND	
AM	EXISTING 2019
PM	PEAK HOUR TRAFFIC VOLUMES





LEGEND	
AM	EXISTING 2019
PM	PEAK HOUR TRAFFIC VOLUMES



4.8 Traffic Operations and Level of Service

The existing AM and PM peak hour balanced traffic volumes were utilized to conduct existing traffic operational analysis. Level of service (LOS) for ramp terminal intersections was computed using SYNCHRO software. The signalized and unsignalized intersection methodologies from the Highway Capacity Manual (HCM), 6th Edition were used to determine LOS and delay for Study intersections. Traffic signal timing data was obtained from the District One Transportation Systems Management and Operation (TSM&O) Department and is included in Appendix C.

LOS for a signalized intersection is determined by the weighted average control delay for the entire intersection with LOS A (≤ 10 sec/veh) representing free flow conditions and LOS F (> 80 sec/veh) representing congestion and failing operations. Similarly, unsignalized intersection LOS for all-way stops is based on the weighted average control delay of the overall intersection or of each approach. For two-way stop-control, the HCM methodology reports average control delay of the major street left turns and each minor street movement. A delay more than 50 sec/veh signifies LOS F for unsignalized intersections.

All signalized intersections operate at LOS C or better during both peak hours under existing conditions. Each of the unsignalized ramp terminals has the critical left turning movement from the exit ramps operating at LOS E or F during one or both peak hours as follows: I-75 Northbound at Tuckers Grade (LOS E, PM), I-75 Southbound at Harbor View Road (LOS F, AM), I-75 Northbound at Toledo Blade Boulevard (LOS F, AM/PM), I-75 Northbound at Sumter Boulevard (LOS F, AM/PM). Additionally, the right turn movements from the I-75 Southbound exit ramp at Toledo Blade Boulevard and Sumter Boulevard operate at LOS F and E, respectively, during the PM peak hour. Table 4-11 presents a summary of the existing peak hour intersection operational analysis, and the supporting Synchro analysis worksheets are included in Appendix D.

Table 4-11: Existing (2019) Peak Hour Intersection Level of Service

Unsignalized Intersection (Delay/LOS reported for exit ramp left turn)	AM Peak Hour		AM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Sumter Boulevard*	20.9	C	20.3	C
I-75 NB and Sumter Boulevard	>300	F	59.3	F
I-75 SB and Toledo Blade Boulevard/Choctaw Boulevard*	20.9	C	15.7	C
I-75 NB and Toledo Blade Boulevard/Choctaw Boulevard	>300	F	>300	F
I-75 SB and Harbor View Road (CR 776)	105.3	F	29.0	D
I-75 NB and Harbor View Road (CR 776)	19.1	C	19.4	C
I-75 SB and Tuckers Grade (CR 762)	10.4	B	11.2	B
I-75 NB and Tuckers Grade (CR 762)	23.9	C	46.2	E
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	5.4	A	9.4	A
I-75 NB and Kings Highway (CR 769)	25.1	C	19.5	B
I-75 SB and US 17/ Duncan Road	32.9	C	27.0	C
I-75 NB and US 17/ Duncan Road	7.9	A	8.9	A
I-75 SB and North Jones Loop Road (CR 768)	18.7	B	21.1	C
I-75 NB and North Jones Loop Road (CR 768)	15.1	B	17.1	B

NB = Northbound, SB = Southbound

*Exit ramp right turn movements are operating at LOS E or F in the PM Peak Hour

The freeway mainline and ramp segment LOS were analyzed using the freeway facilities methodology in the HCM along with FREEVAL (FREeway EVALuation) 2015e. A three-hour analysis period including the AM and PM peak hours was evaluated using existing peak hour volumes and applying a volume profile based on 24-hour synopsis counts. The corridor was divided into two segments for the analysis by County. A free-flow speed of 75 mph (posted speed limit plus 5 mph) and capacity and speed adjustment factors for “mostly familiar” driver population was assumed.

In the northbound direction during the AM peak period, the majority of basic freeway, merge, and diverge segments currently operate at LOS A or B. The exceptions are the segment between Toledo Blade Boulevard and Sumter Boulevard, Sumter Boulevard on and off ramps and the segment north of the Sumter Boulevard interchange, which operate at LOS C. During the PM peak period, all basic freeway, merge, and diverge segments in the northbound direction currently operate at LOS A or B except for the freeway segment from US 17 north up to, and including, the Harbor View Road off ramp which operate at LOS C. In the southbound direction during the AM peak periods, all basic freeway, merge, and diverge segments currently operate at LOS A or B. During the PM peak periods, all basic freeway, merge, and diverge segments currently operate at LOS A or B except for the freeway segment from north of Sumter Boulevard down to, and including, the Sumter Boulevard off ramp and the segment south of Sumter Boulevard on ramp down to and including the Toledo Blade Boulevard off ramp, all of which operate at LOS C. The FREEVAL results including speed, demand/capacity (D/C), density, and LOS contours are provided in Appendix D.

The FREEVAL analysis also provided facility-wide metrics to evaluate performance. These measures of effectiveness (MOE) are presented in Table 4-12 and include: average travel time, overall density, maximum demand to capacity, and maximum volume to capacity ratios. The results of the network-wide operational analysis indicate that the overall facility operates under acceptable levels with no congestion during the AM or PM peak periods for both the northbound and southbound direction of travel. The average speeds in both directions along this corridor are above 72 mph resulting in an average travel time of approximately 34 minutes for the entire 41-mile corridor. The maximum observed D/C in the northbound direction is 0.59 during the AM peak period and 0.59 in the southbound direction which occurs in the PM peak period.

Table 4-12: I-75 Facility MOE by County

MOE	Northbound Sarasota Segment		Northbound Charlotte Segment		Southbound Sarasota Segment		Southbound Charlotte Segment	
	AM	PM	AM	PM	AM	PM	AM	PM
Length (mi)	17.94		22.69		17.83		22.51	
Average Travel Time (min)	14.88	14.81	18.85	18.86	14.73	14.82	18.72	18.73
VHD (delay / interval (hrs))	73	46	56	73	30	83	61	73
Space Mean Speed (mph)	72.2	72.6	72.1	72.1	72.6	72.0	72.1	72.0
Reported Density (pc/mi/ln)	13.5	10.1	8.0	10.6	6.5	14.4	8.3	9.8
Max D/C	0.59	0.35	0.34	0.44	0.24	0.59	0.40	0.40
Max V/C	0.59	0.35	0.34	0.44	0.24	0.59	0.40	0.40

4.9 Crash Data and Safety Analysis

A high-level crash analysis of the FDOT Crash Analysis Reporting (CAR) system data was completed for the Study limits, including the I-75 mainline and existing interchanges, to evaluate crash history and analyze crash frequencies and rates. Crash records were obtained from the FDOT CAR system for the most recent five-year period available at the time the study data was collected, January 2013 through December 2017.

4.9.1 Crashes by Year and Severity

During this five-year period, a total of 2,155 crashes occurred along I-75 in both directions of travel. Of these, 772 were fatal/injury crashes and 1,383 were property damage only crashes. The overall crash frequency on I-75 was analyzed by county and shows that 1,122 crashes in Sarasota County, 929 crashes in Charlotte County, and 104 crashes in Lee County occurred along the I-75 segment as shown in Figures 4-5 through 4-7.

4.9.2 Crashes by Type

The crash history was further analyzed to determine the most frequent types of crashes occurring during the five-year period (Figure 4-8). Other than those classified as “other” or “not coded/unknown”, the most frequent crash types were 549 (26%) rear-end (front to rear) crashes and 238 (11%) sideswipe (same direction) crashes. The crashes categorized as “other” were reviewed in closer detail and are summarized in Table 4-13.

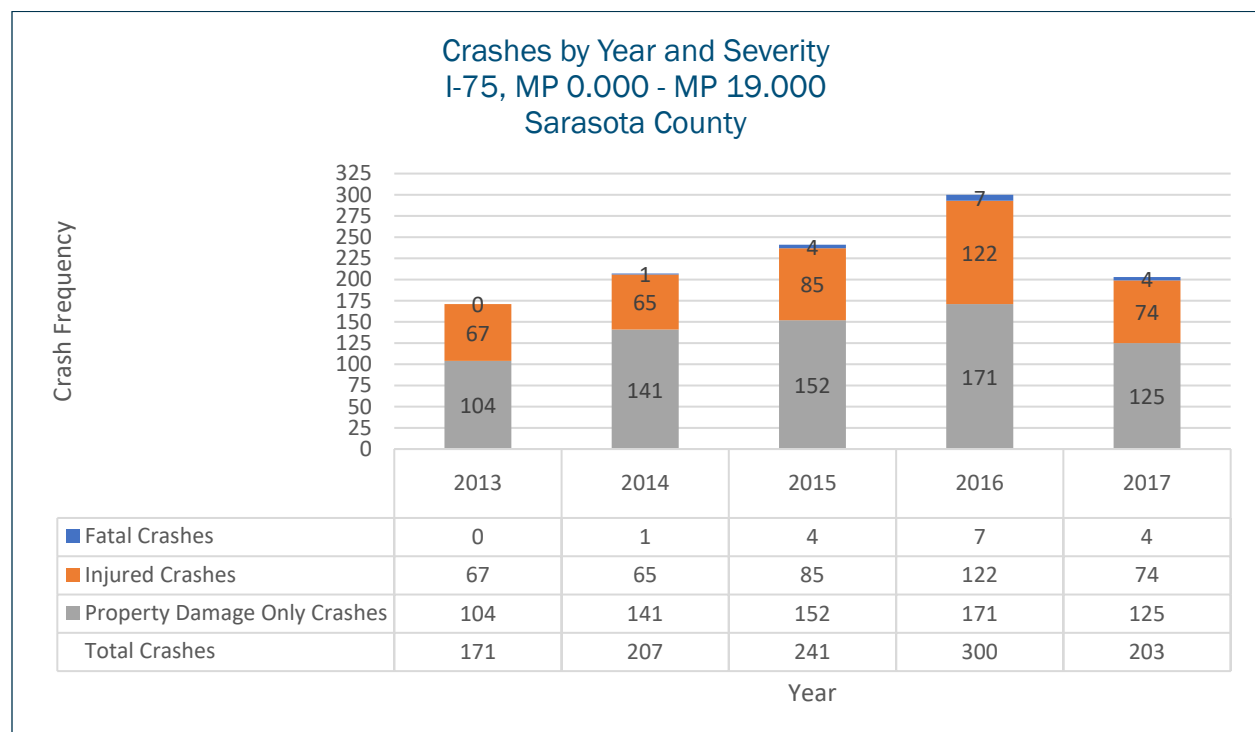


Figure 4-5: Crashes per Year by Severity - Sarasota County

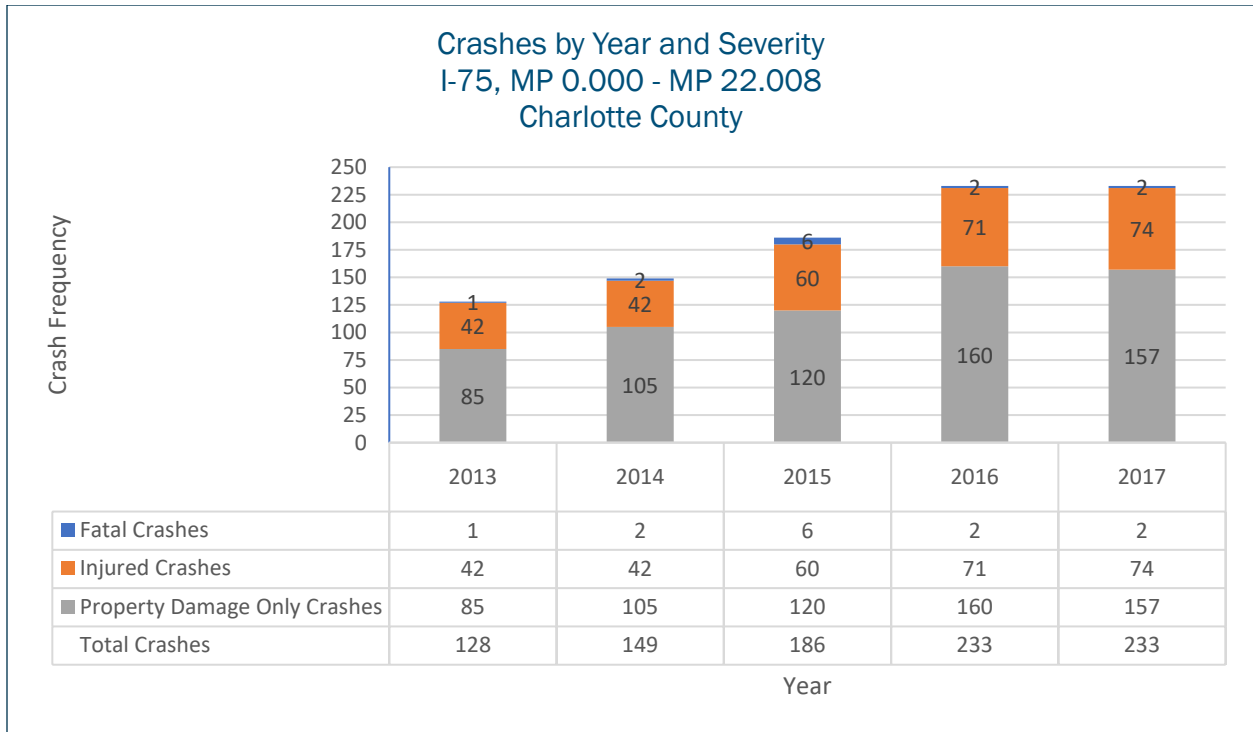


Figure 4-6: Crashes per Year by Severity - Charlotte County

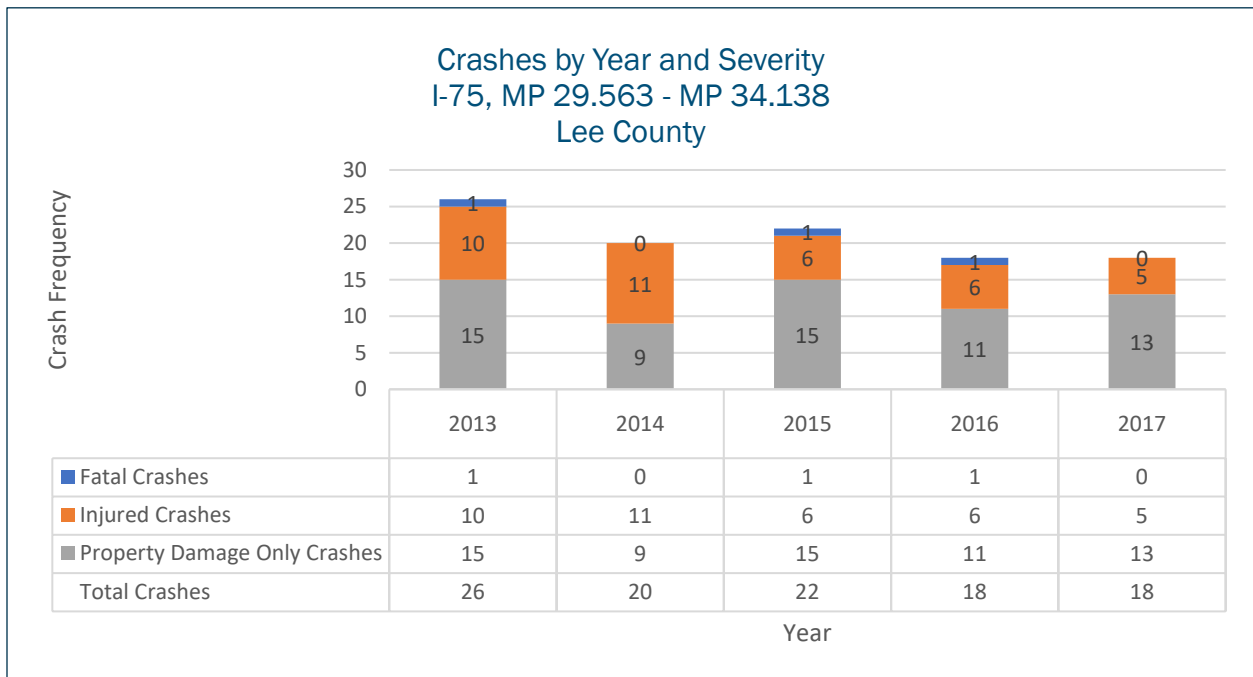


Figure 4-7: Crashes per Year by Severity - Lee County

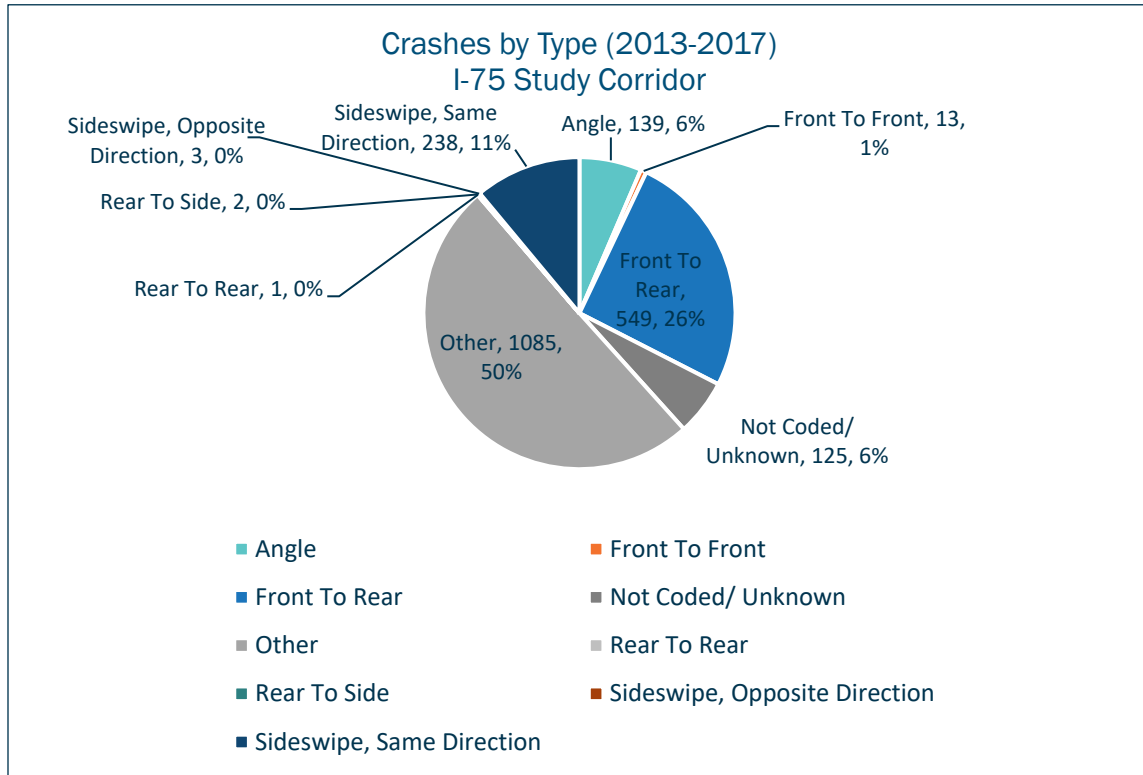


Figure 4-8: Crashes by Type (2013-2017)

Table 4-13: "Other" Crashes by Type (2013-2017)

"Other" Crash Type	2013	2014	2015	2016	2017	Total
Animal	8	4	6	4	4	26
Bridge Overhead Structure	0	0	0	0	1	1
Bridge Pier or Support	2	0	1	0	0	3
Bridge Rail	1	1	4	7	0	13
Cable Barrier	19	22	16	15	11	83
Cargo/Equipment Loss or Shift	3	2	4	1	9	19
Concrete Traffic Barrier	2	4	12	9	6	33
Culvert	1	0	0	1	0	2
Ditch	4	7	7	6	9	33
Embankment	0	1	1	3	0	5
Fell/Jumped From Motor Vehicle	1	0	0	0	0	1
Fence	3	0	5	6	2	16
Guardrail End	0	5	1	4	2	12
Guardrail Face	11	12	14	27	24	88
Immersion	0	1	0	0	0	1
Impact Attenuator/Crash Cushion	3	0	0	0	0	3
Jackknife	0	0	0	5	0	5

Table 4-13: “Other” Crashes by Type (2013-2017)

“Other” Crash Type	2013	2014	2015	2016	2017	Total
Motor Vehicle In Transport	17	31	35	42	39	164
Other Fixed Object (Wall, Building)	2	3	5	2	2	14
Other Non-Collision	19	25	27	23	21	115
Other Non-Fixed Object	3	6	11	8	13	41
Other Post, Pole, or Support	2	3	2	3	0	10
Other Traffic Barrier	0	0	3	4	2	9
Overturn/Rollover	31	27	48	52	33	191
Pedestrian	0	2	1	3	0	6
Ran Into Water/Canal	5	1	4	9	0	19
Struck By Falling, Shifting Cargo	4	3	4	7	8	26
Thrown or Falling Object	1	0	1	1	0	3
Traffic Sign Support	3	3	3	1	0	10
Tree (Standing)	30	28	20	15	16	109
Utility Pole/Light Support	1	0	0	1	0	2
Work Zone/Maintenance Equipment	2	1	7	7	5	22
Total	178	192	242	266	207	1085

The I-75 segments within each county showed that rear-end and sideswipe-same direction crashes were also the most frequent crash types, as shown in Figures 4-9 through 4-11.

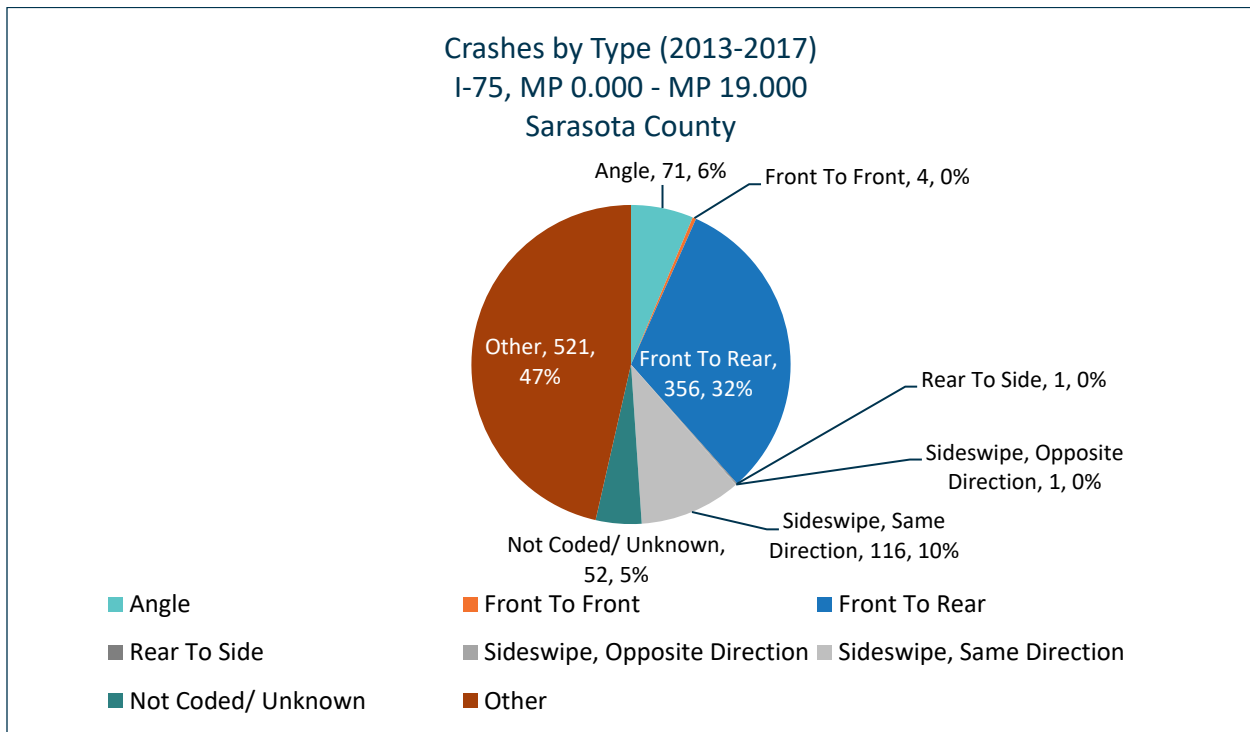


Figure 4-9: Crashes by Type - Sarasota County

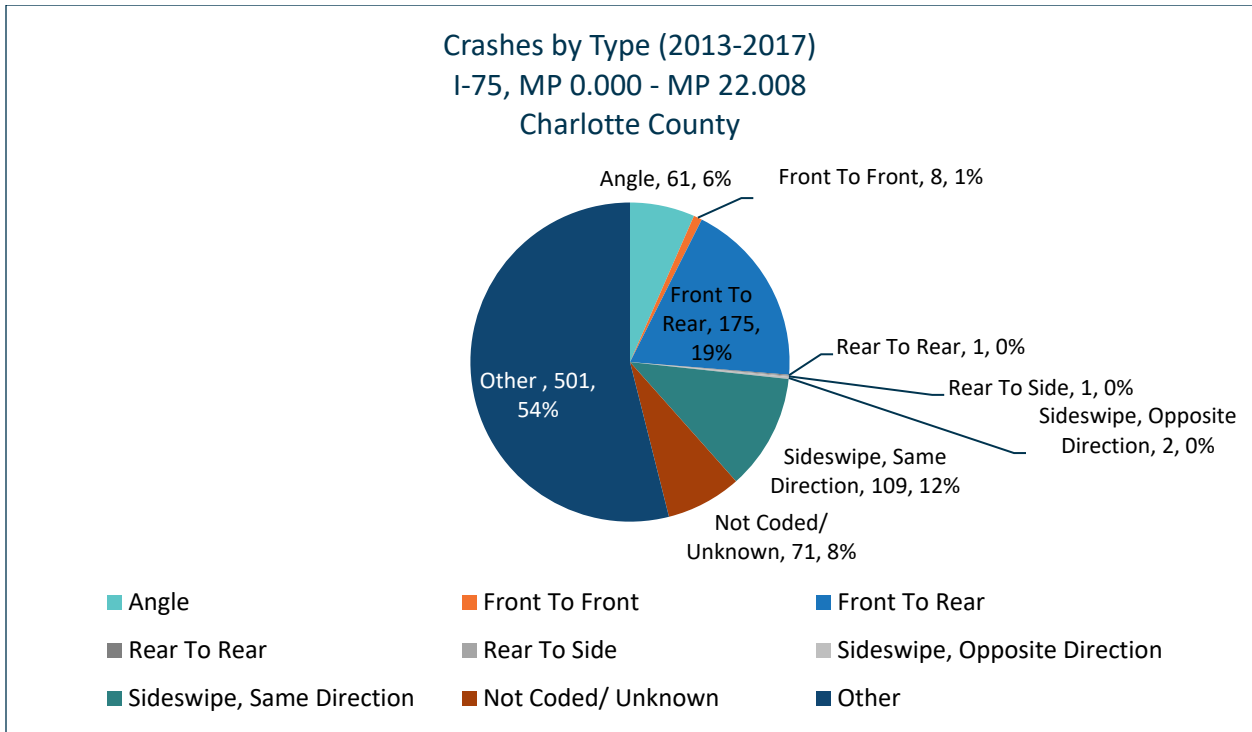


Figure 4-10: Crashes by Type - Charlotte County

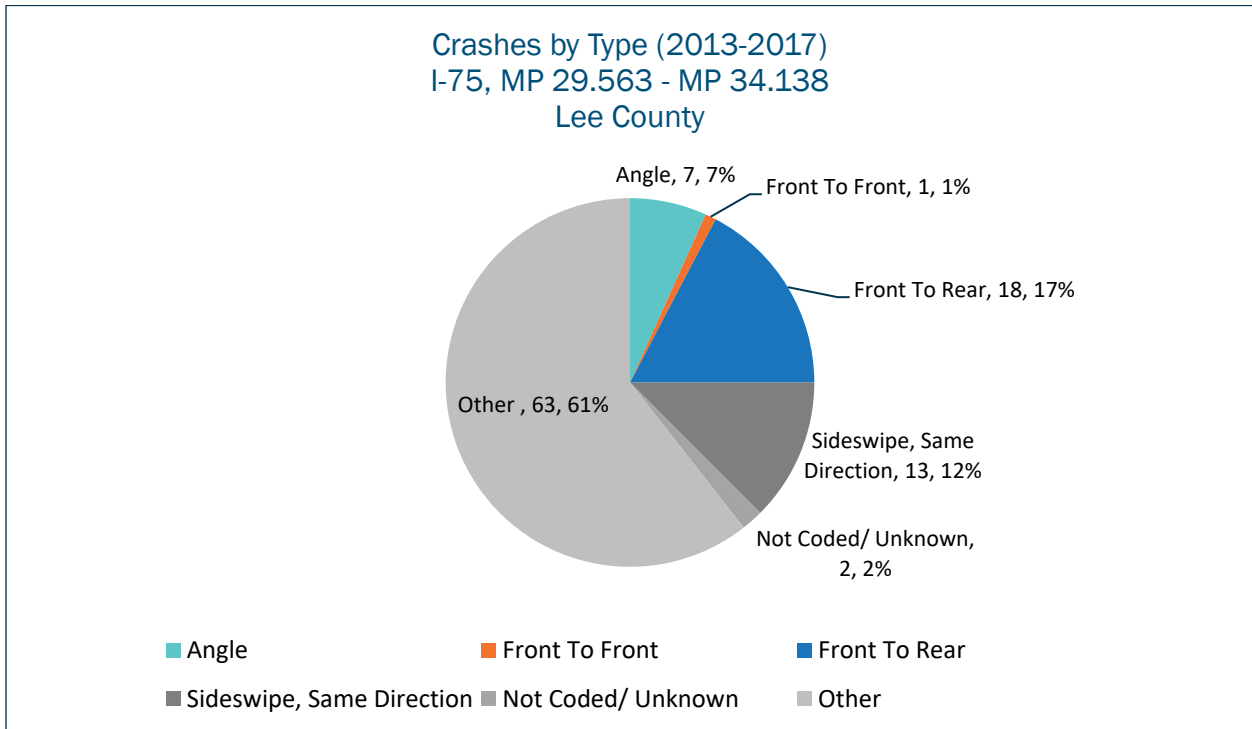


Figure 4-11: Crashes by Type - Lee County

4.9.3 Crash Rate Analysis

A crash rate analysis was performed for the Study limits. For the purposes of the analysis, the I-75 mainline was divided into sub-segments comprised of interchange areas and freeway segments between interchanges as listed in Table 4-14. The interchange areas extended approximately 1,500 feet from the farthest ramp gore point on either side of the interchange.

Table 4-14: I-75 Crash Rate Segments

I-75 Segment Description	FDOT Roadway ID	County	Begin Milepost	End Milepost
Sumter Boulevard to South of River Road (CR 777)	17075000	Sarasota	11.497	19.000
Sumter Boulevard Interchange	17075000	Sarasota	10.454	11.497
Sumter Boulevard to Toledo Blade Boulevard	17075000	Sarasota	8.622	10.454
Toledo Blade Boulevard Interchange	17075000	Sarasota	7.474	8.622
Toledo Blade Boulevard to Desoto/Charlotte County Line	17075000	Sarasota	0.000	7.474
Charlotte/Sarasota County Line to Kings Highway (CR 769)	01075000	Charlotte	21.619	22.008
Kings Highway (CR 769) Interchange	01075000	Charlotte	20.501	21.619
Kings Highway (CR 769) to Harbor View Road (CR 776)	01075000	Charlotte	18.439	20.501
Harbor View Road (CR 776) Interchange	01075000	Charlotte	17.294	18.439
Harbor View Road (CR 776) to US 17 (Duncan Road)	01075000	Charlotte	15.324	17.294
US 17 (Duncan Road) Interchange	01075000	Charlotte	14.506	15.324
US 17 (Duncan Road) to N. Jones Loop Road (CR 768)	01075000	Charlotte	12.341	14.506
N. Jones Loop Road (CR 768) Interchange	01075000	Charlotte	11.267	12.341
South of N. Jones Loop Road (CR 768) to Weigh Station	01075000	Charlotte	10.990	11.267
Weigh Station (South of CR 768 Overpass)	01075000	Charlotte	9.470	10.990
Weigh Station to North of Tuckers Grade (CR 762)	01075000	Charlotte	9.062	9.470
Tuckers Grade (CR 762) Interchange	01075000	Charlotte	7.972	9.062
South of Tuckers Grade (CR 762) to Lee County Line	01075000	Charlotte	0.000	7.972
Lee County Line to North of SR 78 (Bayshore Road)	12075000	Lee	29.563	34.138

The actual/observed crash rates per million vehicle-miles of travel for the I-75 Study segments were calculated using the following equation:

$$\text{Crash Rate} = (1,000,000 \times \text{Total Number of Crashes}) / (365 \times \text{Number of Years} \times \text{AADT} \times \text{Segment Length})$$

The critical crash rate evaluation provides a means of statistically testing the actual/observed crash rate when compared to the average statewide crash rate for similar facility types. The critical crash rates were computed using the following equation:

$$\text{Critical Crash Rate} = C_a + K \sqrt{\frac{C_a}{M} + \frac{1}{2M}} \text{ where,}$$

- C_a = average statewide crash rate for type of segment
- K = constant related to level of statistical significance (for 99% confidence interval, $K=2.576$)
- M = exposure, in million vehicle miles of travel = $(\text{AADT} \times \text{Segment Length} \times \text{Days})/1,000,000$

The actual/observed crash rate is divided by the critical crash rate to determine a critical safety index. A critical index value below 1.00 typically indicates that the site does not significantly differ from statewide trends whereas a value exceeding 1.00 indicates there may be a safety concern at the site. Traffic volume data (AADT) was obtained from the FDOT Florida Traffic Online 2019 database and roadway functional classification was based on the FDOT SLD information. Table 4-16 presents a summary of the actual and critical crash rates and the critical safety index for the I-75 Study limits. The crash rate analysis determined that the segments through the Toledo Blade Boulevard and Sumter Boulevard interchanges experience higher average crash rates than similar facilities statewide.

4.9.4 Crashes by Location

Crashes along the Study limits were evaluated within each County in ½-mile increments. The three highest crash locations for each County are presented in Table 4-15. Crash locations by milepost are presented in Figures 4-12 through 4-14.

Table 4-15: Highest Crash Locations by County

Begin Milepost	End Milepost	Location Description	Interchange Number	Number of Crashes
Sarasota County				
11.000	11.500	Sumter Boulevard Interchange	182	73
10.500	11.000	Sumter Boulevard Interchange	182	93
7.500	8.000	Toledo Blade Boulevard Interchange	179	68
Charlotte County				
17.500	18.000	Harbor View Road	167	97
15.000	15.500	US 17	164	56
10.500	11.000	Begin SB Weigh Station	N/A	55
Lee County				
33.063	33.563	Between Lost Creek and S Gilchrist Canal	N/A	16
31.063	31.563	Near Slater Road Overpass	N/A	18
30.063	30.563	Just north of Lee Creek	N/A	21

4.9.5 Detailed Crash Segment Analysis

Detailed crash analysis of select I-75 segments was conducted during the Master Plan study process. Additional locations were identified based on the District's top 20 crash locations over the 3-year period from 2016-2018 and other criteria including crash severity. Segments reviewed in further detail included the 3-mile I-75 mainline segment at the north end of the Central Corridor, south of River Road which evaluated crashes between 2016-2020, and the 14-mile I-75 mainline segment at the south end of the Central Corridor between SR 78 (Bayshore Road) and Tucker Grade which included crashes between 2017-2022. The detailed crash summaries for these segments are included in Appendix E.

Crashes by Location Sarasota County

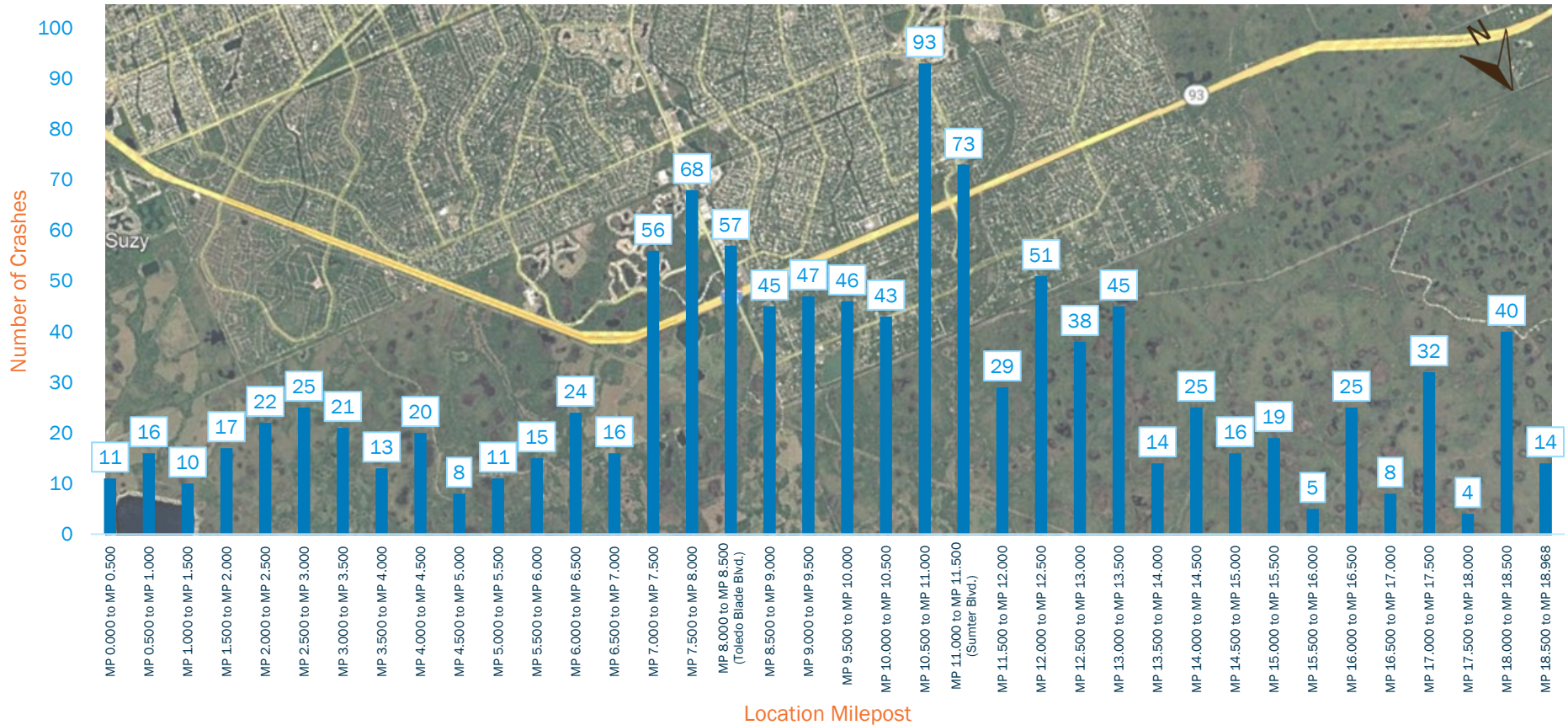


Figure 4-12: Crashes by Milepost Location – Sarasota County

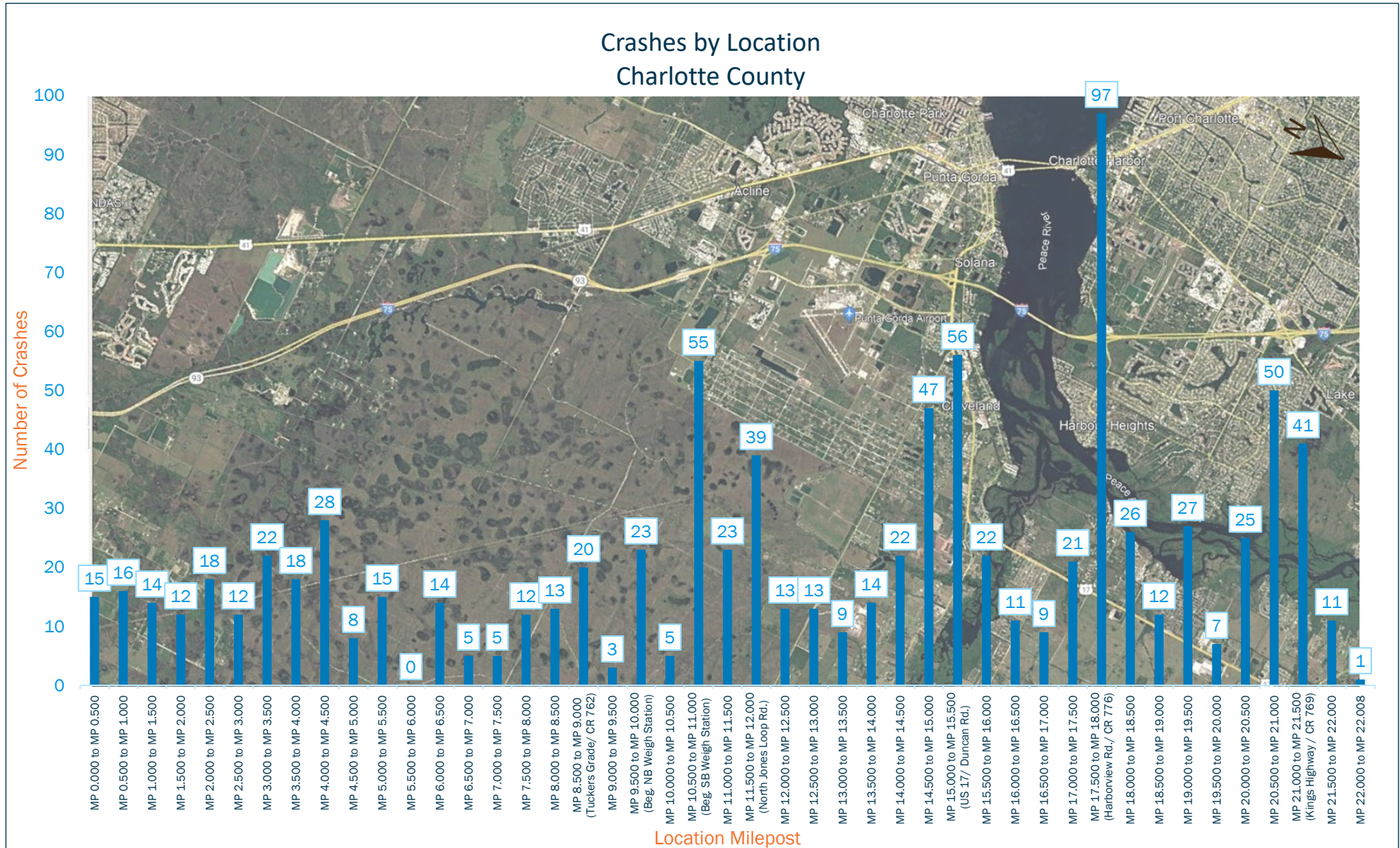


Figure 4-13: Crashes by Milepost Location – Charlotte County



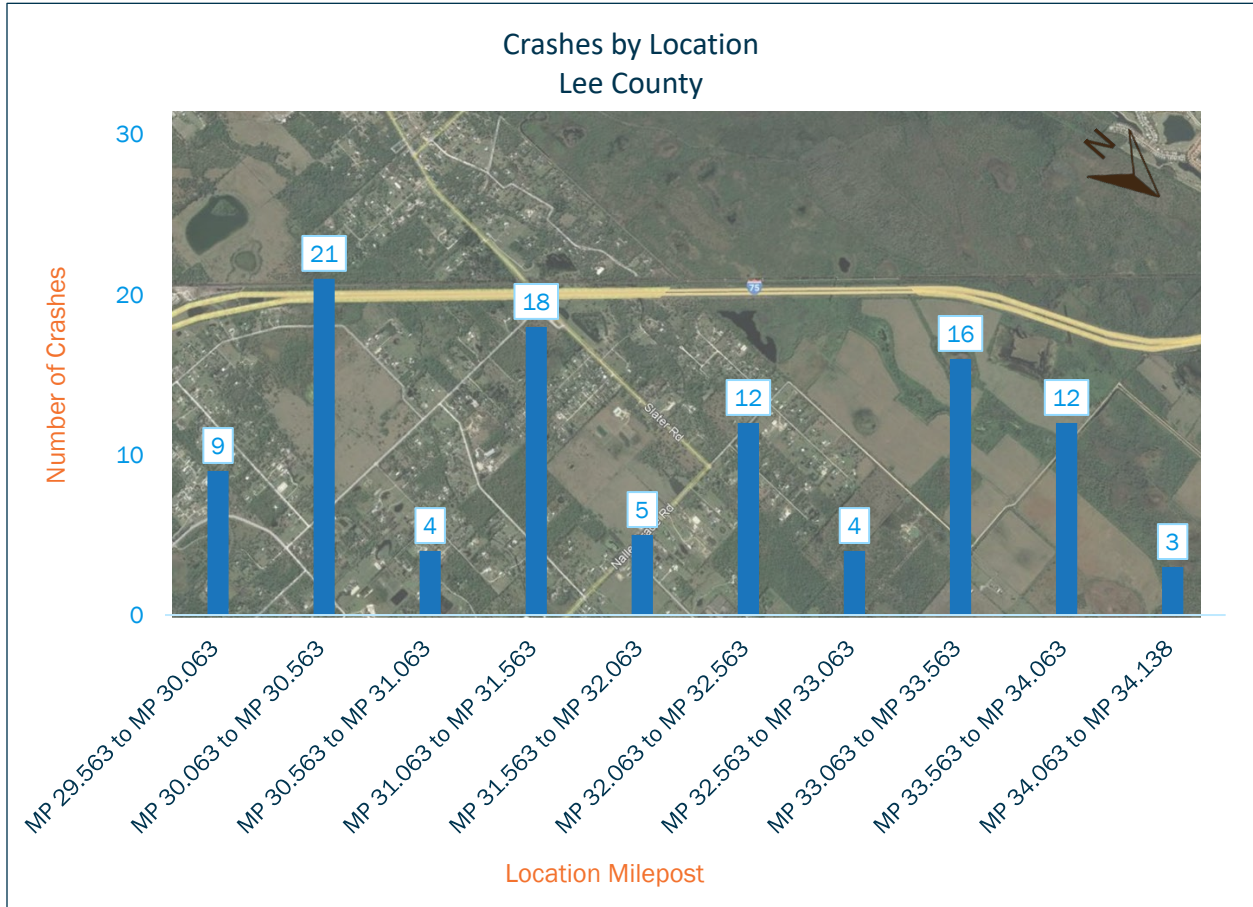


Figure 4-14: Crashes by Milepost Location – Lee County

Table 4-16: I-75 Crash Rate Analysis

I-75 Segment Description	Segment Length	Number of Crashes	AADT	Segment Facility Type	Actual/Observed Crash Rate	Critical Crash Rate	Critical Index
South of River Road (CR 777) to Sumter Boulevard	7.503	365	60,081	Interstate Urban	0.444	1.065	0.416
Sumter Boulevard Interchange	1.043	172	57,741	Interstate Urban	1.565	1.223	1.279
Sumter Boulevard to Toledo Blade Boulevard	1.832	164	55,400	Interstate Urban	0.885	1.166	0.759
Toledo Blade Boulevard Interchange	1.148	136	51,750	Interstate Urban	1.254	1.225	1.024
Toledo Blade Boulevard to Desoto/Charlotte County Line	7.474	285	48,100	Interstate Rural	0.434	0.526	0.826
Charlotte/Sarasota County Line to Kings Highway (CR 769)	0.389	10	48,100	Interstate Urban	0.293	1.426	0.205
Kings Highway (CR 769) Interchange	1.118	93	50,400	Interstate Urban	0.904	1.232	0.734
Kings Highway (CR 769) to Harbor View Road (CR 776)	2.062	72	52,700	Interstate Urban	0.363	1.159	0.313
Harbor View Road (CR 776) Interchange	1.145	137	56,100	Interstate Urban	1.169	1.215	0.962
Harbor View Road (CR 776) to US 17 (Duncan Road)	1.970	52	59,500	Interstate Urban	0.243	1.152	0.211
US 17 (Duncan Road) Interchange	0.818	99	56,934	Interstate Urban	1.165	1.258	0.926
US 17 (Duncan Road) to N. Jones Loop Road (CR 768)	2.165	59	54,367	Interstate Rural	0.275	0.579	0.475
N. Jones Loop Road (CR 768) Interchange	1.074	64	51,584	Interstate Rural	0.633	0.636	0.996
South of N. Jones Loop Road (CR 768) to Weigh Station	0.277	11	48,800	Interstate Rural	0.446	0.828	0.538
Weigh Station (South of CR 768 Overpass)	1.520	82	48,800	Interstate Rural	0.606	0.611	0.992
Weigh Station to North of Tuckers Grade (CR 762)	0.408	2	48,800	Interstate Rural	0.055	0.760	0.072
Tuckers Grade (CR 762) Interchange	1.090	41	45,713	Interstate Rural	0.451	0.646	0.698
South of Tuckers Grade (CR 762) to Lee County Line	7.972	207	42,625	Interstate Rural	0.334	0.528	0.632
Lee County Line to North of SR 78 (Bayshore Road)	4.575	104	42,000	Interstate Rural	0.297	0.552	0.537
	Average Statewide Crash Rate (Interstate Urban)				0.976		
	Average Statewide Crash Rate (Interstate Rural)				0.457		

Notes:

Boldface text denotes locations that have a critical index > 1.00.

Segment lengths computed based on mileposts from FDOT Straight Line Diagram.

Number of crashes obtained from FDOT CAR Online system for the 5-year period from 2013-2017

AADT obtained from historical five-year averages of traffic count site locations in FDOT Florida Traffic Online (2019) database.

Statewide averages are %-year average rates from 2013-2017 for FDOT facilities.

5. ENVIRONMENTAL CHARACTERISTICS

Environmental characteristics and resources include the physical, cultural, and natural environments. Existing environmental conditions were identified and reviewed within the Study AOI. Data was collected from FDOT's Efficient Transportation Decision Making (ETDM) screening tool and desktop evaluation of available Geographic information System (GIS) sources.

5.1 Cultural Resources

Cultural resources are defined by the National Historic Preservation Act (NHPA) of 1966 which requires that historic and archaeological resources be considered in project planning for federally funded or permitted projects. The Florida Division of Historical Resources (Division) serves as the State Historic Preservation Office (SHPO). The Bureau of Historic Preservation programs are aimed at identifying, evaluating, preserving, and interpreting the historic and cultural resources of the state. The Bureau of Archaeological Research (BAR) is responsible for the state's archaeology program.

A desktop review of cultural resources was performed and included identification of potential and previously recorded historic properties either listed or eligible for listing in the National Register of Historic Places (NRHP) as well as archaeological resources within the Study AOI (Figure 5-1). The Florida Master Site File (FMSF) is the state's official inventory of archaeological sites, historical structures, cemeteries, bridges, historic districts, landscapes, linear features, and resource groups. Identification of previous archaeological and historical survey reports was also completed.

Sites or areas previously evaluated for eligibility or potentially eligibility for listing in the NRHP, as well as areas not yet evaluated/insufficient information are presented in Table 5-1. A listing of cultural resource surveys previously completed within, crossing, or adjacent to the Study AOI are presented in Table 5-2.

Table 5-1: Summary of Cultural Resources Previously Evaluated for NRHP Eligibility

Resource	Description	County	NRHP Eligible (Yes/No)	Within Study AOI
Linear Resource	Myakka River Canal Sarasota	Sarasota	Not Likely (Not evaluated by SHPO)	✓
Historic Structure	Blackburn Sawmill	Sarasota	No	✓
Resource Group	Punta Gorda Army Airfield	Charlotte	No	✓
Linear Resource	Riverside Drive	Charlotte	No	✓
Linear Resource	Seaboard Air Line Railroad	Charlotte	Ineligible	✓
Linear Resource	Tuckers Grade	Charlotte	Not Likely (Not evaluated by SHPO)	✓
Resource Group	Solana Historical District	Charlotte	Not Likely (Not evaluated by SHPO)	✓
Linear Resource	Jones Loop Road	Charlotte	No	✓

Linear Resource	Harbor View Drive	Charlotte	No	✓
Linear Resource	Kings Highway	Charlotte	Not Likely (Not evaluated by SHPO)	✓
Linear Resource	Atlantic Coastline Railway Grade	Charlotte, Lee	No	✓
Linear Resource	Seminole Gulf Railway	Charlotte, Lee	Insufficient Information	✓

Sources: FMSF, <https://etdmpub.flia-etat.org/est/>

Table 5-2: Summary of Cultural Resource Surveys Previously Completed

SHPO Survey Title/Description	Publication Date	County	Resource(s) Evaluated
Preferred SMF and FPC Sites, I-75 from the Charlotte/DeSoto County Line to South of Toledo Blade Boulevard, Sarasota County, Florida	2014	Sarasota	Archaeological Historic
Cultural Resource Assessment Survey, Isles of Athena, Sarasota County, Florida	2005	Sarasota	Archaeological Historic
Survey and Assessment of Potential Historic Properties within the One Mile Area of Potential Effects of the Proposed 400-Foot Panacea-North Port Telecommunications Tower, Sarasota County, Florida	2001	Sarasota	Archaeological Historic
Cultural Resource Assessment Survey Panacea DRI, Sarasota County, Florida	1999	Sarasota	Archaeological
Cultural Resource Assessment Survey of the Gulf Shores Gardens Project Area, Sarasota County	2007	Sarasota	Archaeological Historic
Phase I Cultural Resource Assessment Survey, Myakkahatchee Creek, North Port, Sarasota County, Florida	2019	Sarasota	Archaeological
An Archaeological and Historical Survey of Four Parcels in Sarasota County, Florida	2007	Sarasota	Archaeological Historic
Preferred Pond Sites I-75 from North of Sumter Boulevard to North River Road, Sarasota County, Florida	2012	Sarasota	Archaeological
Cultural Resource Assessment Survey Peace River/Manasota Regional Water Supply Authority Regional Transmission System Expansion, Sarasota and De Soto Counties, Florida	1998	DeSoto, Sarasota	Archaeological
Cultural Resource Assessment Survey I-75 From North of Kings Highway to North River Road Charlotte, DeSoto, And Sarasota Counties, Florida	2005	Charlotte DeSoto Sarasota	Archaeological Historic
Cultural Resource Assessment Survey Project Development and Environmental (PD&E) Study, I-75 Rest Areas from the Charlotte/Lee County Line to the SR 681/I-75 Interchange, Charlotte and Sarasota Counties, Florida	2017	Charlotte Sarasota	Archaeological Historic

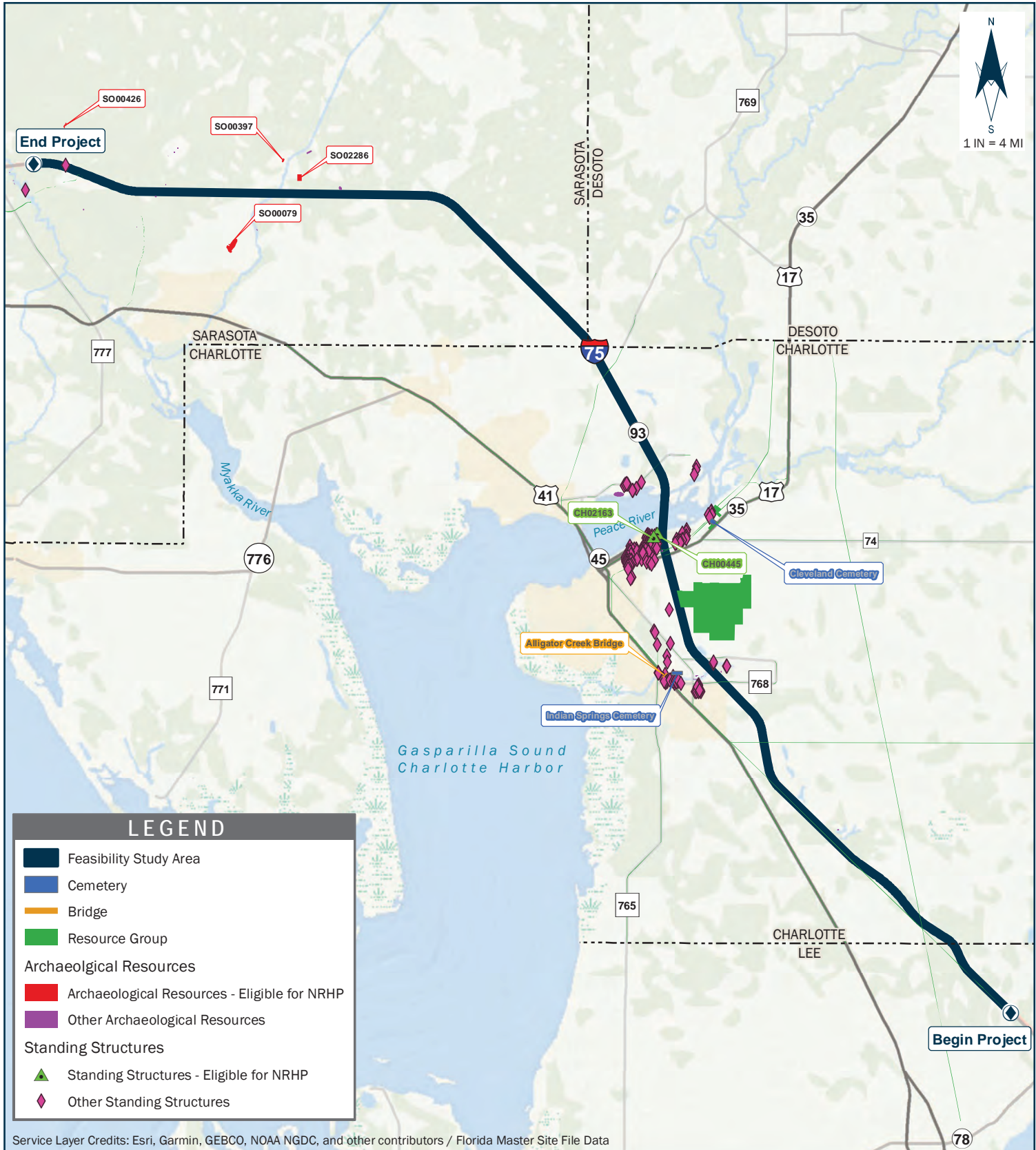
Table 5-2: Summary of Cultural Resource Surveys Previously Completed

SHPO Survey Title/Description	Publication Date	County	Resource(s) Evaluated
Cultural Resource Assessment Survey Bond Farm Hydrological Enhancement Project, Fort Myers, Charlotte County, Florida	2019	Charlotte	Archaeological Historic
Phase II of the Survey of Historic Resources, Charlotte County, Florida	2008	Charlotte	Archaeological Historic
Annual Progress Report of the Cooperative Agreement between FDOT and the Division of Archives, History, and Records Management, Florida Department of State	1976	Charlotte	Archaeological
An Archaeological and Historical Survey of the Hardee Power Station Transmission Line	1991	Charlotte	Archaeological Historic
Cultural Resource Assessment Survey Addendum, I-75 Rest Area Site, Charlotte County, Florida	2019	Charlotte	Archaeological Historic
Preferred Stormwater Management Facilities (SMF), Floodplain Compensations (FPC) Sites and Linear Swales (LS) and Corridor Reevaluation I-75 from North of Jones Loop Road to North of US 17, Charlotte County, Florida	2014	Charlotte	Archaeological Historic
A Cultural Resource Assessment Survey Interstate 75 over the Peace River from Exit 29, US 17 (SR 35) to Exit 30, CR 776 (Harbor View Road) Charlotte County, Florida	1999	Charlotte	Archaeological Historic
Historic Properties Survey of Charlotte County, Florida	1989	Charlotte	Archaeological Historic
Cultural Resource Assessment Survey Regional Integrated Loop System-Loop Phase 1A Interconnect Project, Charlotte County, Florida	2009	Charlotte	Archaeological Historic
Cultural Resource Assessment Survey I-75 PD&E Study from SR 78 to North of Kings Highway, Lee and Charlotte Counties, Florida	2005	Charlotte, Lee	Archaeological Historic
A Cultural Resource Assessment Survey of The Southwest Florida Pipeline Company Corridor Realignment, Desoto, Charlotte, And Lee Counties, Florida	1993	Lee	Archaeological Historic
Cultural Resource Assessment Survey: Oakcreek, Lee County, Florida	2003	Lee	Archaeological

Sources: FMSF, <https://etdmpub.flas-etat.org/est/>

5.2 Wetlands and Surface Waters

Wetlands and other surface waters are important features of the natural environment and serve key vital functions for wildlife, habitat, floodwater storage, and water quality. Permitting regulations have been established by the Florida Department of the Environment (FDEP), SWFWMD, SFWMD, and the US Fish and Wildlife Service (USFWS) to assure protection, preservation, and enhancement of wetlands to the fullest extent practicable.



I-75 CENTRAL CORRIDOR MASTER PLAN

CULTURAL RESOURCES

FIGURE

5-1

5.2.1 Wetlands

For the purposes of this Study, wetland habitats were identified and reviewed within the Study AOI (Figure 5-2). According to the DEP and USFWS wetland inventories, wetlands primarily consist of freshwater forested, shrub, and emergent habitats along with freshwater ponds and lakes. Estuarine and marine deepwater and estuarine and marine wetland habitats are present along the Peace River. A total of 706 acres of wetlands are present within the Study AOI.

5.2.2 Surface Waters

One Outstanding Florida Water (OFW) is located within the Study AOI and is crossed by I-75. Alligator Creek, in Charlotte County, is part of the Gasparilla Sound Charlotte Harbor OFW Aquatic Preserve. Surface waters crossed by I-75 in Sarasota County discharge to the Myakka River, a Special OFW and designated as Florida’s only Wild and Scenic River. The Myakka River also discharges to the Gasparilla Sound Charlotte Harbor OFW Aquatic Preserve (Figure 5-2).

Sixteen named surface waters totaling 227 acres cross the Study limits or are within the AOI. Table 5-3 presents the named surfaces waters by county. Other surface waters are present and include stormwater/drainage facilities such as canals, open water ponds with interconnected stormwater ponds, and linear roadside ditches/swales.

Table 5-3: Surface Waters by County

Surface Water Type	Named Surface Water
Sarasota County	
Canal	Fordham Waterway
Canal	Newman Waterway
Canal	Cocoplum Waterway
Canal	Bethlehem Waterway
Canal	Littlefield Waterway
Canal	Snover Waterway
Other	Big Slough
Canal	Cosmic Waterway
Other	Dee Prairie Creek
Charlotte County	
OFW	Alligator Creek
Other	North Fork Alligator Creek
Other	Broad Creek
Other	Peace River
Lee County	
Other	Daughtrey Creek
Canal	Lost Creek
Canal	Gilcrest Canal



I-75 CENTRAL CORRIDOR MASTER PLAN

WETLANDS AND SURFACE WATERS

FIGURE

5-2

5.3 Species and Habitat

According to the USFWS Information Planning and Consultation (IPaC) online system, 17 federally listed wildlife species, four federally listed plant species, and 38 migratory bird species are identified with a potential to occur within the Study AOI. Proposed critical habitat has been designated for the Florida Bonneted Bat and habitat assessment guidelines are in place for the Florida Panther and Wood Stork. Critical habitat for the Florida Scrub-jay is wherever found. Table 5-4 presents the IPaC data results for federally listed animal and plant species. Table 5-5 presents the IPaC data results for federally listed migratory bird species.

Table 5-4: Federally Listed Animal and Plant Species

Species Common Name	Listing Status	Critical Habitat	Sarasota	DeSoto	Charlotte	Lee
Mammal						
Florida Bonneted Bat	Endangered	Proposed	✓	✓	✓	✓
Florida Panther	Endangered	Follow Habitat Assessment Guidelines	✓	✓	✓	✓
Puma	Similarity of Appearance	No	✓	✓	✓	✓
Birds						
Audubon's Crested Caracara	Threatened	No	✓	✓	✓	✓
Florida Grasshopper Sparrow	Endangered	No	✓	✓	✓	
Florida Scrub-jay	Threatened	Wherever Found	✓	✓	✓	✓
Ivory-billed Woodpecker	Endangered	No	✓	✓	✓	✓
Red Knot	Threatened	No			✓	
Red-cockaded Woodpecker	Endangered	No			✓	✓
Whooping Crane	Experimental Population	No	✓	✓	✓	✓
Wood Stork	Threatened	Follow Habitat Assessment Guidelines	✓	✓	✓	✓
Reptiles						
American Alligator	Similarity of Appearance	No	✓	✓	✓	✓
Eastern Indigo Snake	Threatened	No	✓	✓	✓	✓
Loggerhead Sea Turtle	Threatened	No	✓		✓	✓
Kemp's Ridley Sea Turtle	Endangered	Outside			✓	✓
Fishes						
Atlantic Sturgeon (gulf Subspecies)	Threatened	Outside	✓	✓	✓	
Insects						
Miami Blue Butterfly	Endangered	No	✓	✓	✓	✓
Flowering Plants						
Aboriginal Prickly-apple	Endangered	Outside	✓	✓	✓	✓

Table 5-4: Federally Listed Animal and Plant Species

Species Common Name	Listing Status	Critical Habitat	Sarasota	DeSoto	Charlotte	Lee
Florida Bonamia	Threatened	No	✓	✓		
Pygmy Fringe Tree	Endangered	No	✓	✓	✓	
Beautiful Pawpaw	Endangered	No		✓	✓	✓

Endangered - In danger of extinction throughout all or a significant portion of its range.

Threatened - Likely to become endangered within the foreseeable future throughout all or a significant portion of its range

Table 5-5: Federally Listed Migratory Bird Species

Species Common Name	Listing Status	Breeding Season	Sarasota	DeSoto	Charlotte	Lee
American Kestrel	BCC-BCR	April 1 – August 31	✓	✓	✓	✓
American Oystercatcher	BCC Rangewide (CON)	Apr 15 – Aug 31			✓	
Bachman’s Sparrow	BCC Rangewide (CON)	May 1 – Sept 30	✓		✓	
Bald Eagle	Non-BCC Vulnerable	Sept 1 – July 31	✓	✓	✓	✓
Black Scoter	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Black Skimmer	BCC Rangewide (CON)	May 20 – Sept 15	✓		✓	
Black-whiskered Vireo	BCC-BCR	May 1 – Aug 15			✓	
Bonaparte’s Gull	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Brown Pelican	Non-BCC Vulnerable	Jan 15 – Sept 30			✓	
Clapper Rail	BCC-BCR	Apr 10 – Oct 31	✓		✓	
Common Ground-dove	BCC-BCR	Feb 1 – Dec 31	✓	✓	✓	✓
Common Loon	Non-BCC Vulnerable	Apr 15 – Oct 31			✓	
Common Tern	Non-BCC Vulnerable	May 10 – Sept 10			✓	
Double-crested Comorant	Non-BCC Vulnerable	Apr 20 – Aug 31			✓	
Dunlin	BCC-BCR	Breeds Elsewhere			✓	
Great Black-backed Gull	Non-BCC Vulnerable	Apr 15 – Aug 20			✓	
Herring Gull	Non-BCC Vulnerable	Apr 20 – Aug 31			✓	
King Rail	BCC Rangewide (CON)	May 1 – Sept 5	✓			
Least Tern	BCC-BCR	Apr 20 – Sept 10	✓	✓	✓	
Lesser Yellowlegs	BCC Rangewide (CON)	Breeds Elsewhere	✓	✓	✓	✓
Limpkin	BCC Rangewide (CON)	Jan 15 – Aug 31	✓	✓	✓	✓
Magnificent Frigatebird	BCC Rangewide (CON)	Oct 1 – Apr 30	✓		✓	
Mangrove Cuckoo	BCC Rangewide (CON)	Apr 20 – Aug 20			✓	
Prairie Warbler	BCC Rangewide (CON)	May 1 – July 31	✓	✓	✓	✓

Table 5-5: Federally Listed Migratory Bird Species

Species Common Name	Listing Status	Breeding Season	Sarasota	DeSoto	Charlotte	Lee
Prothonotary Warbler	BCC Rangewide (CON)	Apr 1 – July 31	✓	✓	✓	
Red-breasted Merganser	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Red-headed Woodpecker	BCC Rangewide (CON)	May 10 – Sept 10	✓	✓	✓	✓
Reddish Egret	BCC Rangewide (CON)	Mar 1 – Sept 15	✓		✓	
Ring-billed Gull	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Royal Tern	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Ruddy Turnstone	BCC-BCR	Breeds Elsewhere	✓		✓	
Semipalmated Sandpiper	BCC Rangewide (CON)	Breeds Elsewhere			✓	
Short-billed Dowitcher	BCC Rangewide (CON)	Breeds Elsewhere			✓	
Short-tailed Hawk	BCC-BCR	Mar 1 – June 30	✓		✓	✓
Surf Scoter	Non-BCC Vulnerable	Breeds Elsewhere			✓	
Swallow-tailed Kite	BCC Rangewide (CON)	Mar 10 – June 30	✓	✓	✓	✓
Willet	BCC Rangewide (CON)	Apr 20 – Aug 5			✓	✓
Yellow Warbler	BCC-BCR	May 20 – Aug 10			✓	

BCC Rangewide (CON) Birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands)

BCC - BCR Birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA

Non-BCC - Vulnerable Birds are not BCC species in the project area, but appear on your list either because of the Eagle Act requirements (for eagles or non-eagles) potential susceptibilities in offshore areas from certain types of development or activities

State listed animal and plant species with the potential to occur within the Study AOI were identified from documented occurrences recorded in the Florida Natural Areas Inventory (FNAI). Table 5-6 presents the results of the FNAI data. Although no critical habitat is identified for most species listed, habitat assessment will be required during subsequent phases of the project delivery process to confirm the presence or absence of species and habitat.

Table 5-6: State Listed Animal and Plant Species by County

Species Common Name	Listing Status	Critical Habitat	Sarasota	DeSoto	Charlotte	Lee
Mammal						
Florida Bonneted Bat	Endangered	Proposed	✓		✓	✓
Florida Mouse	Species of Concern	No	✓		✓	
Florida Panther	Endangered	No			✓	✓
Sherman's Fox Squirrel	Species of Concern	No	✓		✓	✓
Southern Mink	Threatened	No			✓	✓
West Indian Manatee	Endangered	Yes			✓	✓

Table 5-6: State Listed Animal and Plant Species by County

Species Common Name	Listing Status	Critical Habitat	Sarasota	DeSoto	Charlotte	Lee
Birds						
Florida Burrowing Owl	Species of Concern	No	✓		✓	✓
Florida Sandhill Crane	Threatened	No	✓		✓	✓
Florida Scrub-Jay	Threatened	No	✓		✓	✓
Little Blue Heron	Species of Concern	No	✓			
Piping Plover	Threatened	No			✓	
Red-cockaded Woodpecker	Endangered	No	✓		✓	✓
Snowy Egret	Species of Concern	No	✓			
Wood Stork	Threatened	No	✓		✓	✓
Reptiles						
Eastern Indigo Snake	Threatened	No	✓			✓
Gopher Frog	Species of Concern	No	✓			✓
Gopher Tortoise	Threatened	No	✓		✓	✓
Hawksbill Sea Turtle	Endangered	No			✓	
Fishes						
Gulf Sturgeon	Threatened	Outside	✓		✓	
Trees/Shrubs						
Beautiful Pawpaw	Endangered	No	✓		✓	✓
Pondspice	Endangered	No	✓		✓	✓
Flowering Plants						
Celestial Lily	Endangered	No	✓		✓	✓
Cutthroat Grass	Endangered	No	✓		✓	
Florida Beargrass	Threatened	No	✓		✓	✓
Florida Spiny Pod	Endangered	No			✓	✓
Giant Orchid	Threatened	No	✓		✓	
Large-plumed Beaksedge	Endangered	No	✓			
Lowland Loosestrife	Endangered	No	✓			
Many-flowered Grass-pink	Threatened	No	✓		✓	✓
Nodding Pinweed	Threatened	No	✓		✓	✓
Pine Pinweed	Endangered	No	✓		✓	
Redmargin Zephyr-lily	Threatened	No	✓		✓	
Sand Butterfly Pea	Endangered	No	✓		✓	✓
Sand-dune Spurge	Endangered	No			✓	

Table 5-6: State Listed Animal and Plant Species by County

Species Common Name	Listing Status	Critical Habitat	Sarasota	DeSoto	Charlotte	Lee
Scrub Bluestem	Endangered	No			✓	✓
Small's Flax	Endangered	No	✓			✓
Yellow Fringeless Orchid	Endangered	No				

Endangered - In danger of extinction throughout all or a significant portion of its range.

Threatened - Likely to become endangered within the foreseeable future throughout all or a significant portion of its range

Species of Concern - A population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species

5.4 Conservation and Recreation

Conservation preserves and recreation lands located immediately adjacent to or in proximity to the Study AOI provide a variety of recreation opportunities and amenities such as marked hiking trails, equestrian trails, kayak launches, fishing areas, bicycling trails, and picnic pavilions. Lands are owned by the State of Florida, the Florida Fish and Wildlife Commission (FWC), SWFWMD, Lee County, Charlotte County, Sarasota County, and/or the City of North Port.

Lee County Conservation 20/20 is part of the Lee County Parks & Recreation Department and is dedicated to land management of the County's 49 preserves and conservation areas.

Conservation Charlotte is a program administered by the Charlotte County Natural Resources Division (CCNRD). The CCNRD is responsible for the management of lands acquired through the program such as wetlands, rare or high-quality uplands, wildlife corridors, and other lands that provide habitat for rare or endangered species. The sites are open to the public and include recreational opportunities such as hiking, kayaking, fishing, and bird watching.

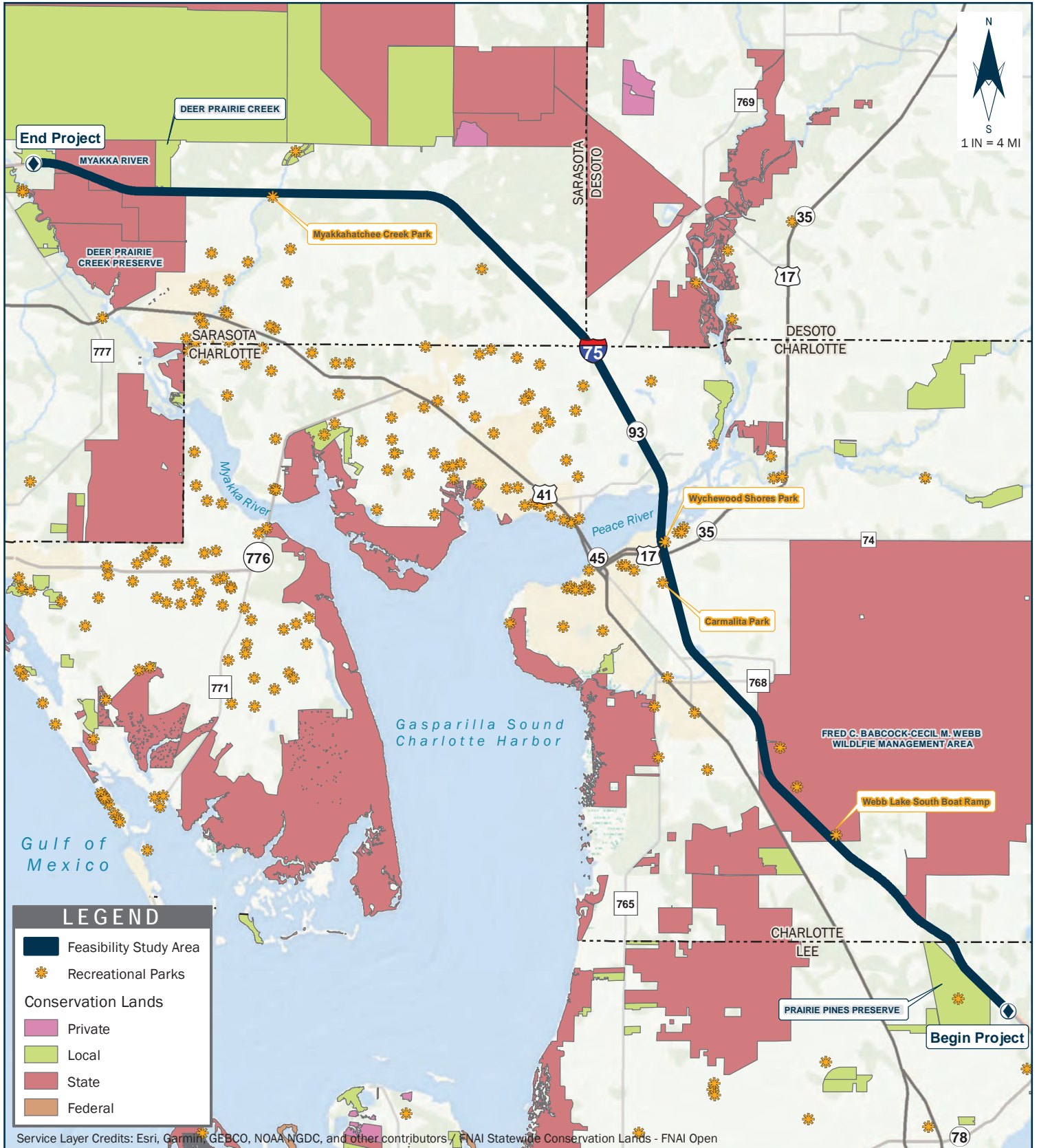
Sarasota County's Environmentally Sensitive Lands Protection Program (ESLPP) acquires land to protect environmentally sensitive natural areas and habitat. Through ESLPP, over 35,000 acres are protected through land purchases and conservation easements.

Conservation and recreation lands located immediately adjacent to or in proximity to the Study AOI are presented in Table 5-7, and are shown in Figure 5-3.

Table 5-7: Conservation and Recreation Lands by County

Conservation/Recreation Resource	Type	Owner	Area (acres)	Location
Sarasota County				
Oak Cathedral Preserve	Preserve	Sarasota County	288	Adjacent to north between MP 14.773 – MP 15.196
Myakka River – Schewe Tract North and South	Conservation Lands	SWFWMD	3,913	Adjacent to north and south I-75 ROW between MP 17.924 – MP 17.930
Deer Prairie Creek Preserve	Preserve	SWFWMD and Sarasota County	10,128	Adjacent to south I-75 ROW between MP 15.929 – MP 16.927
Deer Prairie Creek – Churchill and Jordyn Parcels	Preserve	Sarasota County	895	Adjacent to I-75 north ROW between MP 17.427 - MP 17.924 and MP 17.930 - MP 18.398
Oaks Park	Municipal Park	City of North Port	12	Adjacent to I-75 south ROW at Big Slough
ESLPP Priority Protection Site	Natural Areas	State of Florida TIITF	575	Adjacent to east I-75 ROW between MP 3.942 – MP 4.597
Charlotte County				
Babcock-Webb Wildlife Area Includes Charlotte Harbor Flatwoods and Yucca Pens Unit	Wildlife Management Area	FWC	80,700	Adjacent to I-75 east and west ROW between MP4.246 and MP 7.170
SWFWMD Conservation Easement	Conservation Easement	SWFWMD	12.3	Northwest quadrant of I-75 and Kings Highway
Lee County				
Prairie Pines	Conservation 20/20	Lee County	2,327	Adjacent to I-75 west ROW between MP 32.0 and Charlotte/Lee County Line

Sources: Lee County, Charlotte County, Sarasota County



LEGEND

- Feasibility Study Area
- Recreational Parks
- Conservation Lands**
- Private
- Local
- State
- Federal

Service Layer Credits: Esri, Garmin, GEBCO, NOAA, NGDC, and other contributors. FNAI Statewide Conservation Lands - FNAI Open



I-75 CENTRAL CORRIDOR MASTER PLAN	FIGURE
CONSERVATION AND RECREATION AREAS	5-3

5.5 Soils

The US Department of Agriculture (USDA), National Resources Conservation Service (NRCS) Soil Surveys for Lee, Charlotte, and Sarasota Counties, Florida were reviewed for information regarding near surface soil types within the Study AOI. Soil types are presented in Table 5-8 and shown in Figure 5-4.

A hydric soil is one that is formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop conditions that support the growth and regeneration of hydrophytic vegetation. A combination of hydric soils, hydrophytic vegetation, and hydrology define wetlands. Hydric soils located within the Study area counties are presented in Table 5-8 and shown in Figure 5-5.

The USDA, through the NRCS, administers the Farmland Protection Policy Act (FPPA) to *minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses*. The NRCS defines prime farmland as soils that have the best combination of physical and chemical characteristics to economically produce high yields of agricultural crops.

According to the NRCS there are no prime farmlands in Lee, Charlotte, DeSoto, or Sarasota Counties. However, there are areas identified as farmlands of unique importance. The NRCS defines unique farmland as land, other than prime farmland, used for production of high-value foods such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables.

Soils associated with farmlands of unique importance and located within the Study AOI are presented in Table 5-8 and shown in Figure 5-6.

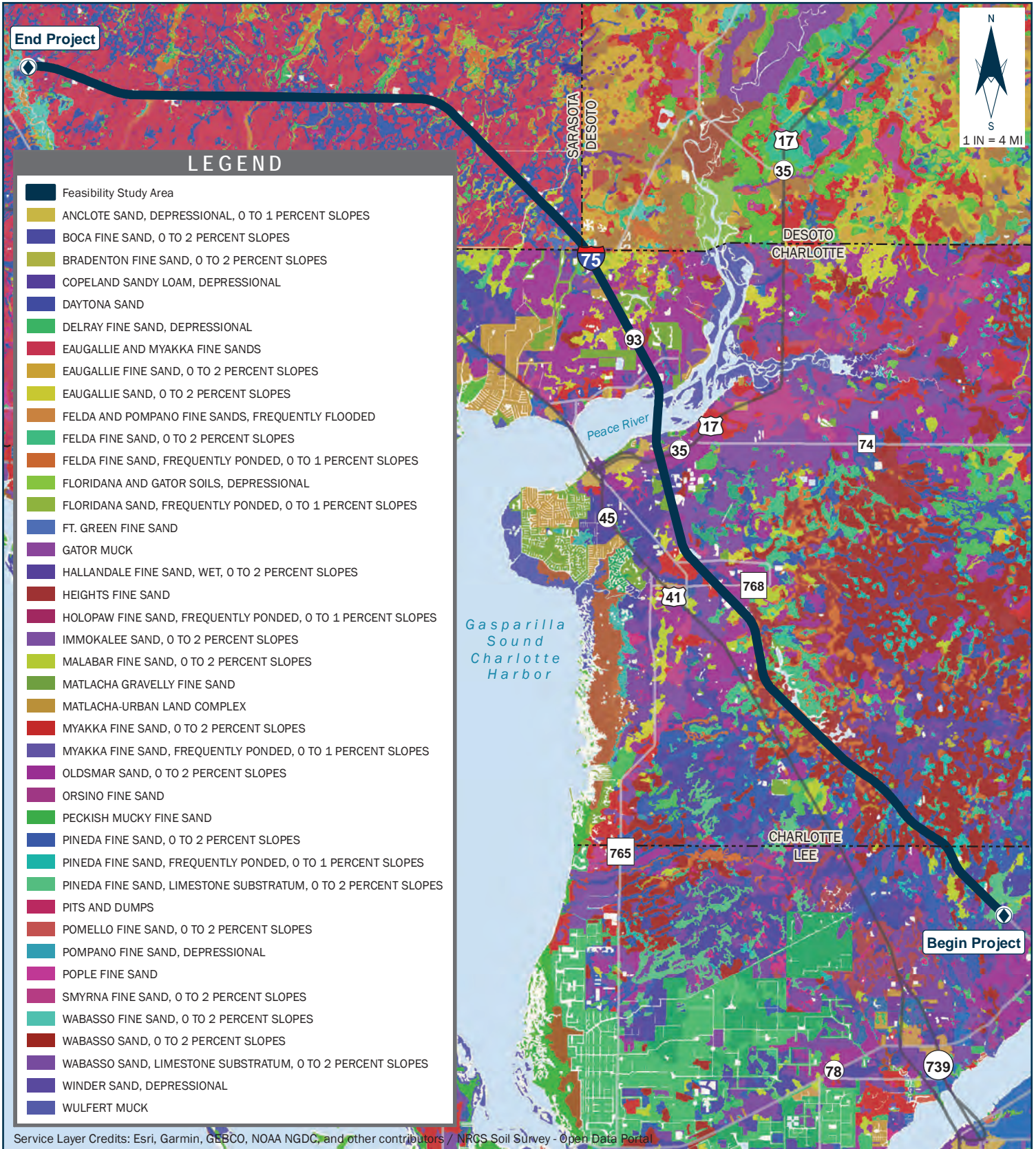
Table 5-8: Soil Types within the Study AOI

Soils Map Unit Name	Within 500-foot AOI (acres)	Hydric	Farmland of Unique Importance
Anclote Sand, Depressional, 0 To 1 Percent Slopes	2	✓	
Boca Fine Sand, 0 To 2 Percent Slopes	174		✓
Bradenton Fine Sand, 0 To 2 Percent Slopes	52	✓	✓
Copeland Sandy Loam, Depressional	12	✓	
Daytona Sand	20		
Delray Fine Sand, Depressional	77	✓	
Eau Gallie And Myakka Fine Sands	871		✓
Eau Gallie Fine Sand, 0 To 2 Percent Slopes	10		
Eau Gallie Sand, 0 To 2 Percent Slopes	42		✓
Felda And Pompano Fine Sands, Frequently Flooded	10	✓	
Felda Fine Sand, 0 To 2 Percent Slopes	61	✓	
Felda Fine Sand, Frequently Ponded, 0 To 1 Percent Slopes	320	✓	

Table 5-8: Soil Types within the Study AOI

Soils Map Unit Name	Within 500-foot AOI (acres)	Hydric	Farmland of Unique Importance
Floridana And Gator Soils, Depressional	1		
Floridana Sand, Frequently Ponded, 0 To 1 Percent Slopes	61		
Ft. Green Fine Sand	32		
Gator Muck	8	✓	
Hallandale Fine Sand, Wet, 0 To 2 Percent Slopes	18	✓	
Heights Fine Sand	190		
Holopaw Fine Sand, Frequently Ponded, 0 To 1 Percent Slopes	610	✓	
Immokalee Sand, 0 To 2 Percent Slopes	289		✓
Malabar Fine Sand, 0 To 2 Percent Slopes	150	✓	✓
Matlacha Gravelly Fine Sand	101		
Matlacha-Urban Land Complex	31		
Myakka Fine Sand, 0 To 2 Percent Slopes	107		✓
Myakka Fine Sand, Frequently Ponded, 0 To 1 Percent Slopes	10		
Oldsmar Sand, 0 To 2 Percent Slopes	543		✓
Orsino Fine Sand	2		
Peckish Mucky Fine Sand	21		
Pineda Fine Sand, 0 To 2 Percent Slopes	623	✓	✓
Pineda Fine Sand, Frequently Ponded, 0 To 1 Percent Slopes	116	✓	
Pineda Fine Sand, Limestone Substratum, 0 To 2 Percent Slopes	40	✓	
Pits and Dumps	11		
Pomello Fine Sand, 0 To 2 Percent Slopes	26		
Pompano Fine Sand, Depressional	6	✓	
Pople Fine Sand	3	✓	
Smyrna Fine Sand, 0 To 2 Percent Slopes	41		✓
Wabasso Fine Sand, 0 To 2 Percent Slopes	2		
Wabasso Sand, 0 To 2 Percent Slopes	357		✓
Wabasso Sand, Limestone Substratum, 0 To 2 Percent Slopes	43		✓
Winder Sand, Depressional	64	✓	
Wulfert Muck	58	✓	

Sources: Soil Survey of Lee County, Florida; Soil Survey of Charlotte County, Florida; Soil Survey of DeSoto County, Florida; and Soil Survey of Sarasota County, Florida



I-75 CENTRAL CORRIDOR MASTER PLAN

NRCS SOIL CLASSIFICATIONS

FIGURE

5-4

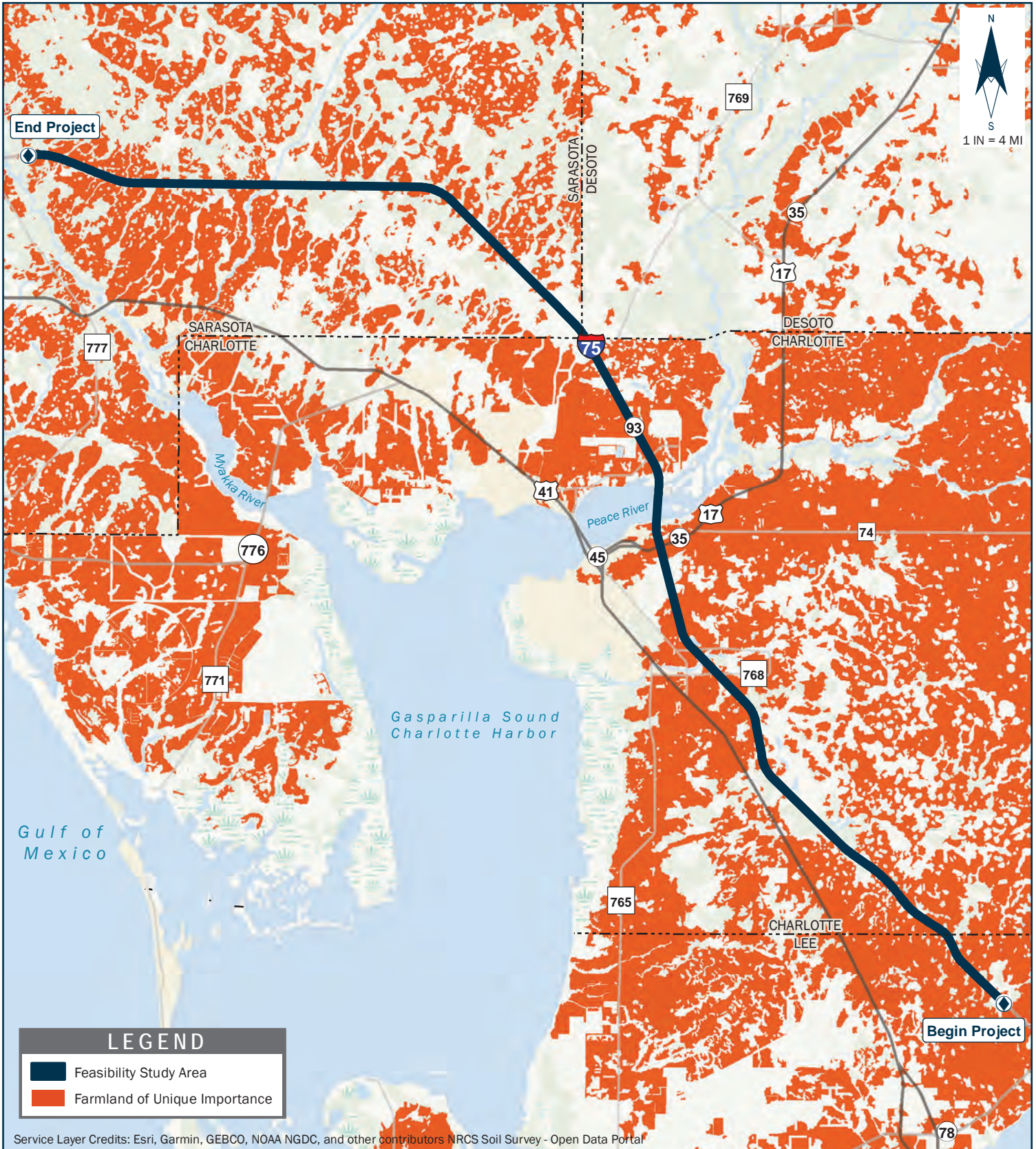


I-75 CENTRAL CORRIDOR MASTER PLAN

NRCS HYDRIC / NON-HYDRIC SOILS CLASSIFICATION

FIGURE

5-5



I-75 CENTRAL CORRIDOR MASTER PLAN

FARMLANDS OF UNIQUE IMPORTANCE

FIGURE

5-6

5.6 Contamination

Contamination of soils, groundwater, or surface waters can result from former use, storage, or disposal of petroleum or hazardous materials on subject properties or from migration of contaminants from adjacent properties. Contamination from petroleum or hazardous materials within or adjacent to FDOT ROW may require assessment, remediation, or special handling. Review of existing and potentially contaminated sites within the Study AOI was completed.

Evaluation of potential contamination impacts during the earliest phase of the project development process will avoid or minimize impacts in subsequent phases of project development. The level of contamination evaluation increases as the project moves from the planning phase to the construction phase. The purpose of the desktop review is to identify potential contaminated sites and to evaluate the potential for encountering contamination from current and/or previous land use. Review of the following databases was completed for the Study AOI.

- Brownfield Sites
- DEP Petroleum Cleanup Sites
- Superfund Sites
- Other Waste Cleanup Sites
- Florida State Funded Cleanup Sites
- Used Oil Transfer Facilities
- Florida Superfund Waste Cleanup Sites
- State-Owned Lands Cleanup Program Sites (SOLCP)
- Hazardous Waste Treaters Storers and Disposers (TSD)
- Large Quantity Hazardous Waste Generators (LQG)

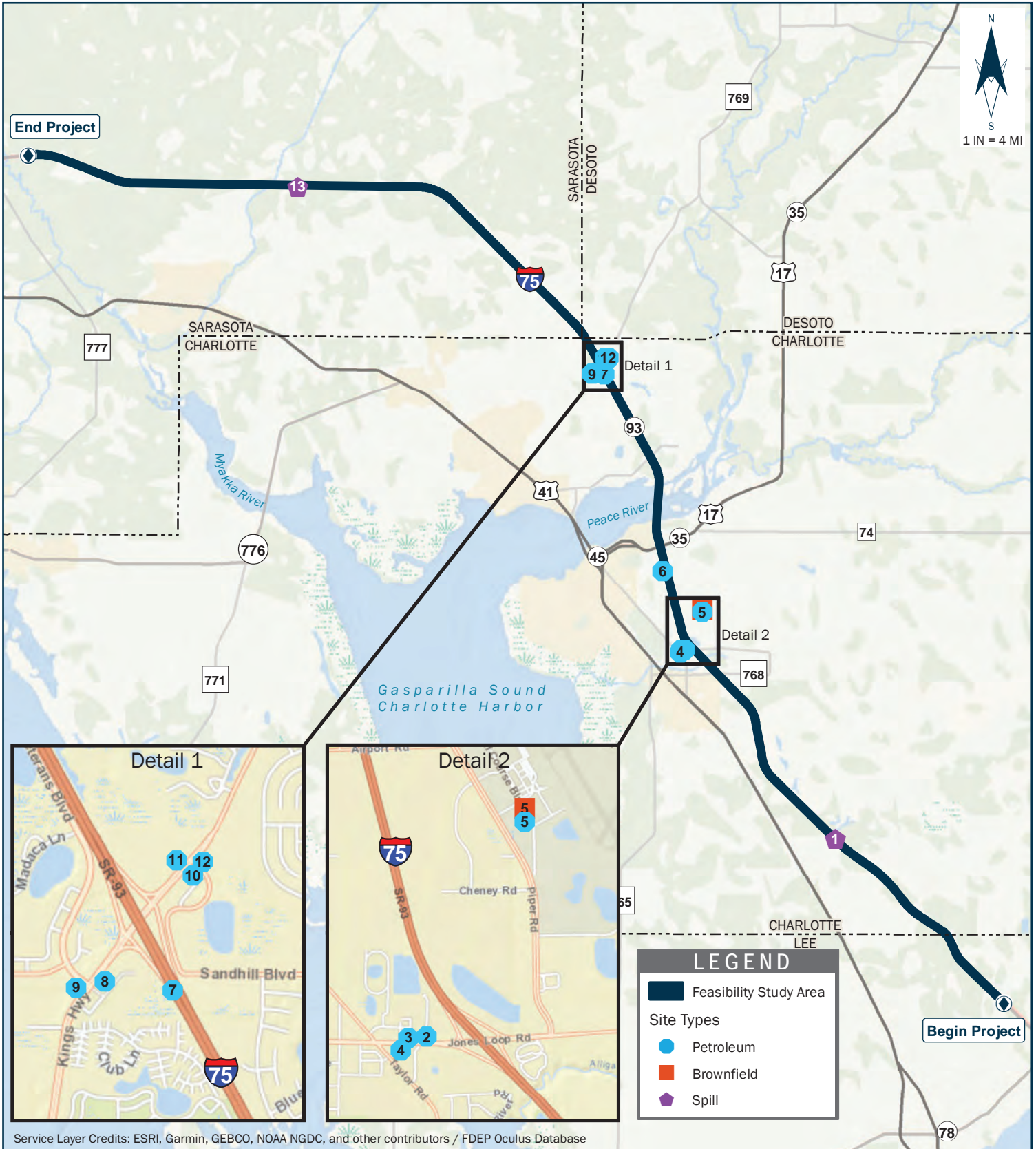
Potential sites of concern are presented in Table 5-9 and shown in Figure 5-7.

Table 5-9: Potential Contamination Sites by County

Site No.	Site Name	Site Address	Contaminants of Concern	Distance/ Direction from ROW (feet)
Charlotte County				
1	Insituform Spill - CLOSED	I-75 NB at MM 153	Styrene	Within ROW
2	Rally #302	4008 N Jones Loop Rd Punta Gorda 34622	Petroleum in soils and groundwater	Adjacent/North
3	Sunshine Food Mart #365	26520 N Jones Loop Rd Punta Gorda 33950	Petroleum	300/West
4	Pilot Travel Center #905	26505 N Jones Loop Road Punta Gorda 33950	Petroleum	425/West

Table 5-9: Potential Contamination Sites by County

Site No.	Site Name	Site Address	Contaminants of Concern	Distance/ Direction from ROW (feet)
5	Punta Gorda Airport	27221 Beechcraft Ave Punta Gorda 33982	Petroleum and hazardous materials in soil and groundwater; Brownfield	Adjacent/ East
6	Charlotte County Public Works Department	7000 Florida St Punta Gorda 33950	Petroleum	Adjacent/ West
7	Del Logistics & Transport Inc. Spill	I-75 SB at MM 170	Petroleum	Within ROW
8	Shell Port Charlotte #660	900 Kings Hwy Punta Gorda 33980	Petroleum	100/ West
9	Amoco-Kings	909A Kings Hwy Punta Gorda 33980	Petroleum	500/ West
10	Race Trac	24401 Sandhill Blvd, Punta Gorda 33983	Petroleum	Adjacent/ East
11	Murphy USA	355 Kings Highway Punta Gorda 33983	Petroleum	Adjacent/ East
12	7-Eleven Food Store #32200	330 Kings Hwy Punta Gorda 33983	Petroleum	400/ East
Sarasota County				
13	Radiant Group	I-75 SB at MM 182.5	Petroleum	Within ROW



Service Layer Credits: ESRI, Garmin, GEBCO, NOAA NGDC, and other contributors / FDEP Oculus Database



I-75 CENTRAL CORRIDOR MASTER PLAN	FIGURE
POTENTIAL CONTAMINATION SITES	5-7

6. FUTURE TRANSPORTATION CONDITIONS

6.1 Roadway Context Classification

To support safety and mobility of the state transportation network, the FDOT uses a context-based approach to planning, designing, and operating the state roadway system. The FDOT context classification system describes land use, development, and the roadway network along a transportation corridor. The classifications identify users and their needs to better plan and prioritize roadway improvements.

The context classification for the I-75 Central Corridor was determined based on the framework provided in FDOT Context Classification Guide (July 2020). Based on the distinguishing characteristics of the I-75 corridor the context classifications within the Central Corridor study limits are primarily C-1 Natural or C-2 Rural with pockets of C2T-Rural Town, C3R- Suburban Residential, and C3C Suburban Commercial context classifications concentrated near existing interchanges. Future proposed developments and future land use plans indicate a potential for the study corridor characteristics to change, which may also result in context classification changes.

6.2 Traffic Forecast

Future year traffic forecasts were based on the procedures outlined in the FDOT 2019 Project Traffic Forecasting (PTF) Handbook. The travel demand forecasting methodology includes establishing the forecast years and determining growth based on the regional travel demand model forecasts, historical traffic trends and population estimates.

6.2.1 Travel Demand Model

The regional travel demand model for the I-75 Feasibility Study project area is the I-75 Southwest Connect District One Regional Planning Model (I-75 SW Connect D1RPM) which has a base year of 2015 and horizon year of 2040. The project traffic analysis year documented in this master plan is Design Year 2045.

Model calibration and validation is completed prior to running the future year model to ensure that the base year model is accurately reflecting existing travel demand and behavior, thereby being a useful tool to forecast future travel. The base year 2015 model volumes were compared to observed traffic counts to determine the degree of model accuracy using metrics specified in the FDOT PTF Handbook. The model validation statistics included volume-over-count ratios by facility type and % Root Mean Square Error (RMSE) by volume group. All model validation statistics were met for the I-75 study area. Detailed calibration and validation statistics were documented in the *I-75 Feasibility Study Traffic Forecast Memorandum (March 2021)* prepared for this project and are included in Appendix F.

6.2.2 Future Traffic Volumes

Future 2045 No-Build traffic volumes were developed based on the approved methodology in the *I-75 Feasibility Study Traffic Forecast Memorandum (March 2021)* prepared for this project, herein Methodology Memorandum (MM); see Appendix F. I-75 was divided into two sub-sections (north and south of Kings Highway) and the average growth rate for each section was used to compute Annual Average Daily Traffic (AADT) along the I-75 mainline as summarized in the MM. Further, cross-street AADTs were determined based on the growth rates specified in the MM for the individual roadways. The exceptions in cross-street AADT computation were the Tuckers Grade and Toledo Blade Boulevard segments, east and north of I-75, respectively. For Tuckers Grade east of I-75, the future 2045 AADT was based on the D1RPM model estimate since the selected growth rate yielded an exceedingly low daily volume. For the Toledo Blade Boulevard segment north of I-75, the growth rate specified in the MM resulted in future year 2045 AADT volumes such that, when applying the standard K factor of 9%, would result in future year peak hour volumes less than existing; therefore, a larger growth rate was used. The D factor of 56.3% for the I-75 mainline was computed based on the average of D factors for the count stations along I-75 from the FDOT 2019 Historical AADT Report, as shown in the MM in Appendix F. The D factors for the cross streets were based on the existing peak hour volumes and are provided in Appendix F.

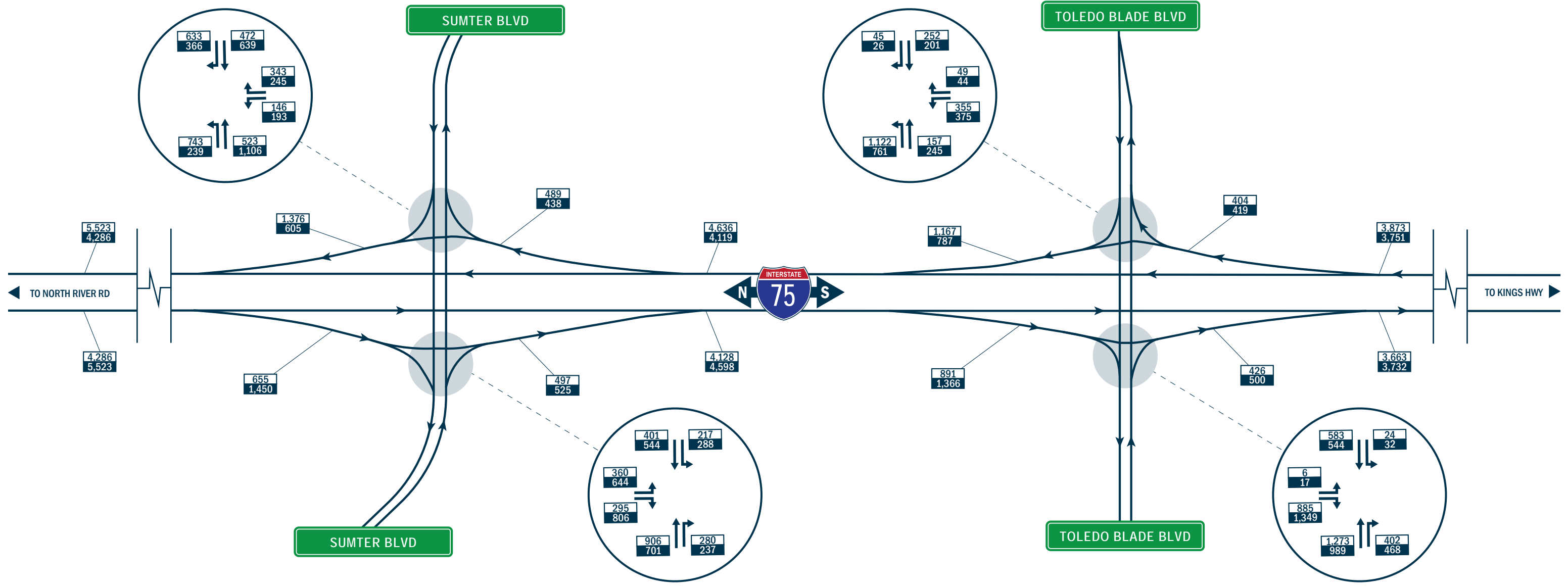
The projected AADTs for the I-75 mainline and cross streets, along with the K and D factors from the MM, were used as inputs into a spreadsheet tool used to estimate future year 2045 No-Build intersection turning movements based on the FDOT 2019 PTF Handbook procedures; see Appendix G. The resulting initial turning movement estimates were refined further to produce balanced volume flows in both directions throughout the corridor; see Appendix G. The resulting 2045 No-Build AM and PM peak hour balanced traffic volumes, shown in Figures 6-1A through 6-1D, were utilized to conduct future year traffic operational analysis.

6.3 No-Build Traffic Operations and Level of Service

LOS values for ramp terminal intersections were computed using SYNCHRO (Version 10) software. The signalized and unsignalized intersection methodologies from the Highway Capacity Manual (HCM), 6th Edition were used to determine LOS and delay for the study intersections.

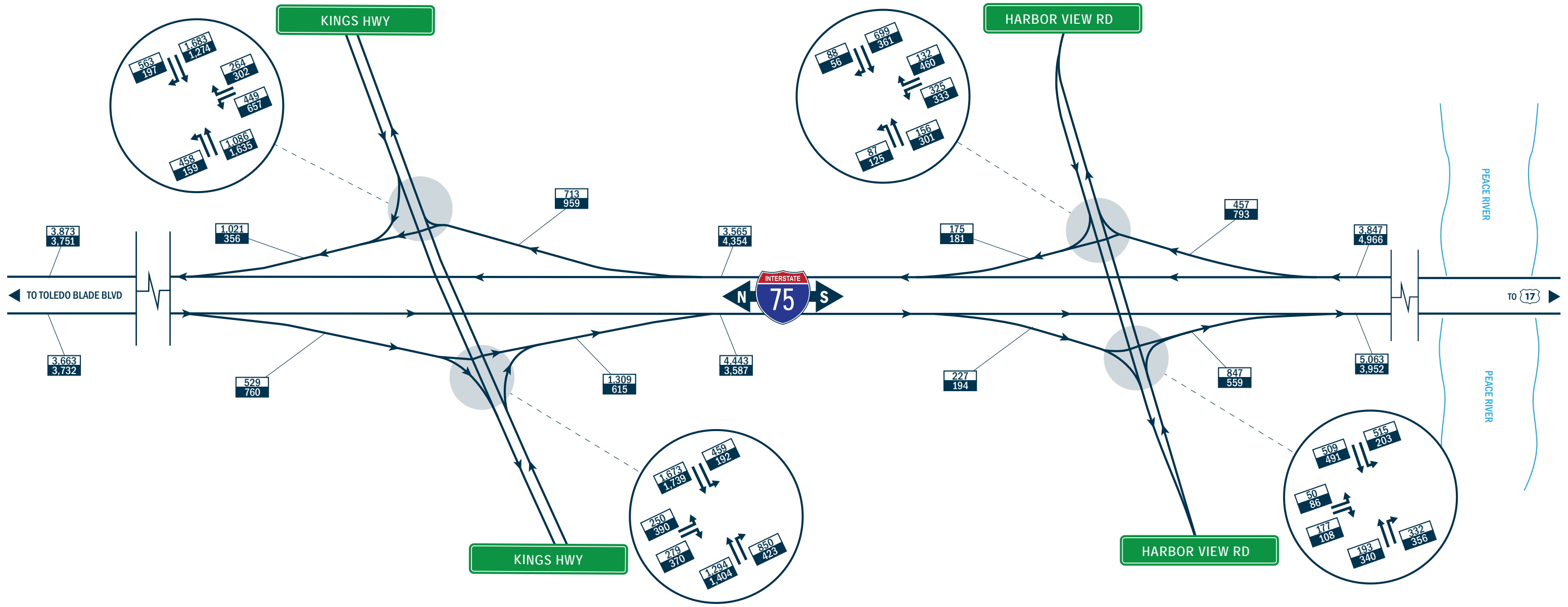
The I-75 freeway mainline and ramp segment LOS values were determined using the freeway facilities methodology in the HCM along with FREEVAL (FREeway EVALuation) 2015e. A three-hour analysis period including the AM and PM peak hours (6:15-9:15 AM and 3:00-6:00 PM) was evaluated using the projected 2045 No-Build volumes and assuming the same volume profile as in existing conditions. The corridor was divided into two segments by County. A free-flow speed of 75 mph, and capacity and speed adjustment factors for a “mostly familiar” driver population, was assumed.

The future 2045 No-Build roadway geometry for the I-75 freeway, ramps and intersection analyses was assumed to be consistent with existing conditions. The District provided other studies which are currently evaluating improvements for North Jones Loop Road, Toledo Blade Boulevard and Sumter Boulevard in the vicinity of I-75. The North Jones Loop Road improvements are in the Charlotte County-Punta Gorda MPO’s 2045 Cost Feasible Plan; however, construction funding has not been identified. The Toledo Blade Boulevard and Sumter Boulevard interchanges were studied by the



LEGEND	
AM	2045 NO-BUILD
PM	PEAK HOUR TRAFFIC VOLUMES

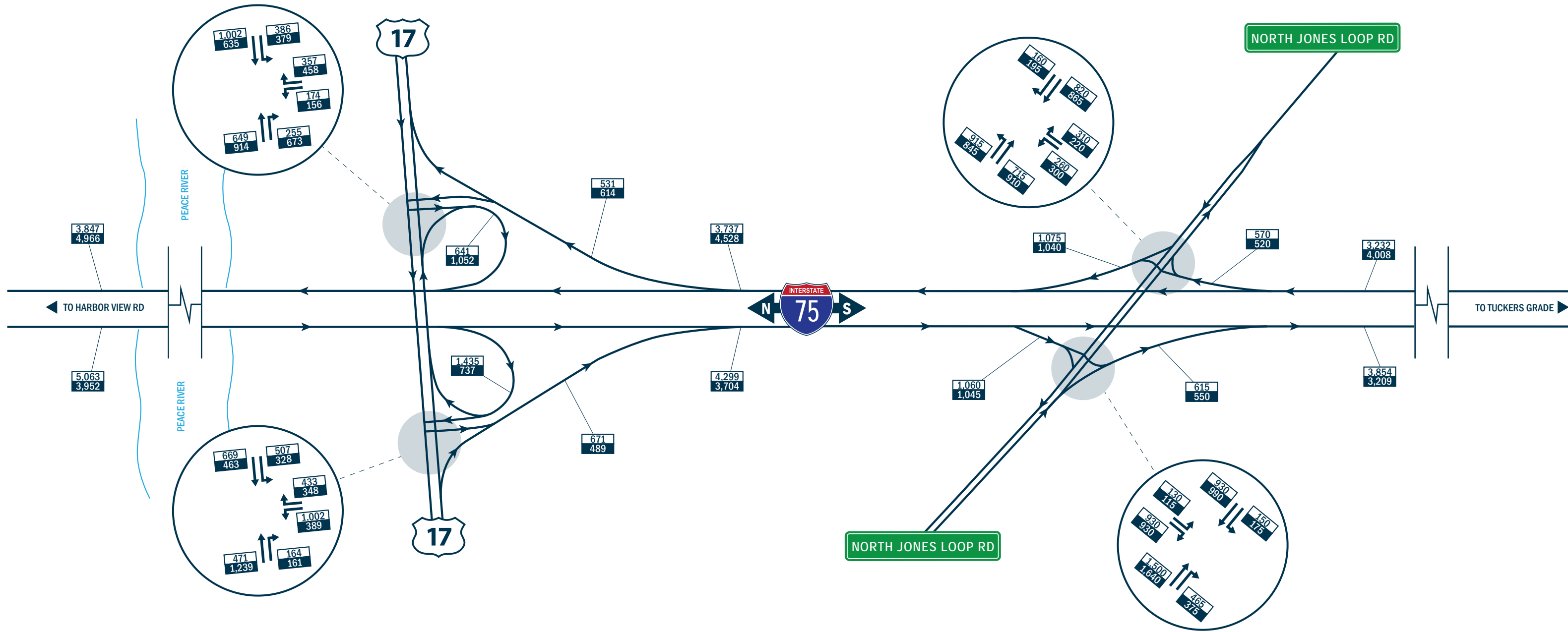




LEGEND

AM	2045 NO-BUILD
PM	PEAK HOUR TRAFFIC VOLUMES

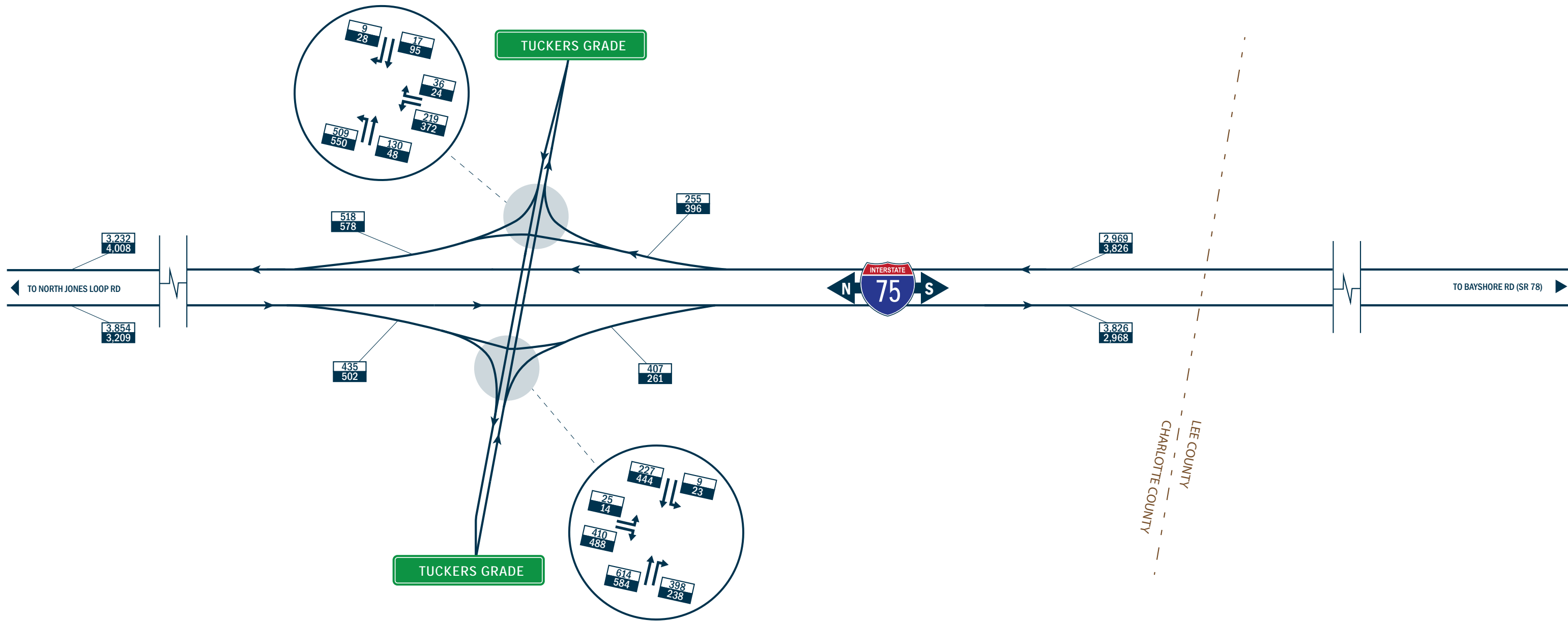




LEGEND

AM	2045 NO-BUILD
PM	PEAK HOUR TRAFFIC VOLUMES





LEGEND	
AM	2045 NO-BUILD
PM	PEAK HOUR TRAFFIC VOLUMES



Systems Planning Office to evaluate interchange improvements as interim measures through year 2030. In discussions with the District, no changes in lane configurations were modeled for the purposes of this 2045 No-Build evaluation as this will serve as the baseline condition against which ultimate improvements will be evaluated in the Build condition as part of this Master Plan study.

6.3.1 Design Year 2045 No-Build Intersection Analysis

The results of the 2045 No-Build intersection LOS analysis are shown in Table 6-1. The analysis indicates that 11 of the 14 I-75 ramp terminal intersections are expected to operate at LOS E or LOS F during at least one of the AM or PM peak periods. Of these eleven intersections, four are signalized ramp terminals (I-75 SB and I-75 NB at N. Jones Loop Rd., I-75 NB at US 17, and I-75 NB at Kings Highway) and seven are unsignalized (I-75 NB at Tuckers Grade and I-75 SB and I-75 NB at Harbor View Road, Toledo Blade Boulevard and Sumter Boulevard). The No-Build 2045 operational analysis outputs are provided in Appendix H.

Table 6-1: 2045 No-Build Peak Hour Intersection Level of Service

Unsignalized Intersection (Delay/LOS reported for exit ramp left turn)		AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Sumter Boulevard		>300	F	>300	F
I-75 NB and Sumter Boulevard		>300	F	>300	F
I-75 SB and Toledo Blade Boulevard/Choctaw Blvd.*	Left Turn	35.1	E	29.6	D
	Right Turn	220	F	>300	F
I-75 NB and Toledo Blade Boulevard/Choctaw Blvd.		>300	F	>300	F
I-75 SB and Harbor View Road (CR 776)		>300	F	60.6	F
I-75 NB and Harbor View Road (CR 776)		131.3	F	182.8	F
I-75 SB and Tuckers Grade (CR 762)		14.0	B	18.1	C
I-75 NB and Tuckers Grade (CR 762)		>300	F	>300	F
Signalized Intersection		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)		27.5	C	16.6	B
I-75 NB and Kings Highway (CR 769)		80.9	F	26.2	C
I-75 SB and US 17/ Duncan Road		103.4	F	37.0	D
I-75 NB and US 17/ Duncan Road		12.8	B	13.9	B
I-75 SB and North Jones Loop Road (CR 768)		107.5	F	138.1	F
I-75 NB and North Jones Loop Road (CR 768)		103.4	F	75.5	E

Notes: NB = Northbound, SB = Southbound

*In the case where the worst-case LOS is not the exit ramp left turn during either peak hour, the right turn LOS is also reported.

6.3.2 Design Year 2045 No-Build Mainline and Ramp Analysis

The results of the 2045 No-Build freeway mainline and ramp segments analysis are shown in Table 6-2. The I-75 corridor within the study area is currently mostly rural except for the interchange areas which are within the urban boundary. The analysis indicates that, in the northbound direction during the AM peak period, all segments are projected to operate at LOS D or better with the exception of the Sumter Boulevard northbound on ramp and the I-75 mainline segment north of Sumter Boulevard, which are projected to operate at LOS E. During the PM peak period, all northbound mainline and ramp segments are projected to operate at LOS D or better. In the southbound direction during the AM peak period, all segments are projected to operate at LOS D or better. During the PM peak period, all southbound mainline and ramp segments are projected to operate at LOS D

or better, with the exception of the mainline north of Sumter Boulevard and the Sumter Boulevard southbound off ramp, which is projected to operate at LOS E.

Table 6-2: 2045 No-Build Peak Hour I-75 Segment Level of Service

Section	Segment	Direction	Location	AM LOS	PM LOS
I-75 Charlotte	Mainline	Northbound	North of SR 78 to Tuckers Grade	B	C
I-75 Charlotte	Ramp	Northbound	Tuckers Grade Off Ramp	C	C
I-75 Charlotte	Mainline	Northbound	Between Tuckers Grade Ramps	B	C
I-75 Charlotte	Ramp	Northbound	Tuckers Grade On Ramp	C	C
I-75 Charlotte	Mainline	Northbound	Tuckers Grade to North Jones Loop Road	B	C
I-75 Charlotte	Ramp	Northbound	North Jones Loop Road Off Ramp	C	D
I-75 Charlotte	Mainline	Northbound	Between North Jones Loop Road Ramps	B	C
I-75 Charlotte	Ramp	Northbound	North Jones Loop Road On Ramp	C	D
I-75 Charlotte	Mainline	Northbound	North Jones Loop Road to US 17	C	C
I-75 Charlotte	Ramp	Northbound	US 17 Off Ramp	C	D
I-75 Charlotte	Mainline	Northbound	Between US 17 Ramps	B	C
I-75 Charlotte	Ramp	Northbound	US 17 On Ramp	B	C
I-75 Charlotte	Mainline	Northbound	US 17 to Harbor View Road	C	D
I-75 Charlotte	Ramp	Northbound	Harbor View Road Off Ramp	D	D
I-75 Charlotte	Mainline	Northbound	Between Harbor View Road Ramps	C	C
I-75 Charlotte	Ramp	Northbound	Harbor View Road On Ramp	C	C
I-75 Charlotte	Mainline	Northbound	Harbor View Road to Kings Highway	C	C
I-75 Charlotte	Ramp	Northbound	Kings Highway Off Ramp	C	D
I-75 Charlotte	Mainline	Northbound	Between Kings Highway Ramps	B	B
I-75 Charlotte	Ramp	Northbound	Kings Highway On Ramp	C	C
I-75 Char./ Sara.	Mainline	Northbound	Kings Highway to Toledo Blade Blvd	C	C
I-75 Sarasota	Ramp	Northbound	Toledo Blade Blvd Off Ramp	D	C
I-75 Sarasota	Mainline	Northbound	Between Toledo Blade Blvd Ramps	C	C
I-75 Sarasota	Ramp	Northbound	Toledo Blade Blvd On Ramp	D	C
I-75 Sarasota	Mainline	Northbound	Toledo Blade Blvd to Sumter Blvd	D	D
I-75 Sarasota	Ramp	Northbound	Sumter Blvd Off Ramp	D	D
I-75 Sarasota	Mainline	Northbound	Between Sumter Blvd Ramps	D	C
I-75 Sarasota	Ramp	Northbound	Sumter Blvd On Ramp	E	C
I-75 Sarasota	Mainline	Northbound	Sumter On Ramp to South of River Road	E	D
I-75 Sarasota	Mainline	Southbound	South of River Road to Sumter Off Ramp	D	E
I-75 Sarasota	Ramp	Southbound	Sumter Blvd Off Ramp	D	E
I-75 Sarasota	Mainline	Southbound	Between Sumter Blvd Ramps	C	C
I-75 Sarasota	Ramp	Southbound	Sumter Blvd On Ramp	C	C
I-75 Sarasota	Mainline	Southbound	Sumter Blvd to Toledo Blade Blvd	D	D
I-75 Sarasota	Ramp	Southbound	Toledo Blade Blvd Off Ramp	D	D
I-75 Sarasota	Mainline	Southbound	Between Toledo Blade Blvd Ramps	C	C
I-75 Sarasota	Ramp	Southbound	Toledo Blade Blvd On Ramp	C	C
I-75 Sara./Char.	Mainline	Southbound	Toledo Blade Blvd to Kings Highway	C	C
I-75 Charlotte	Ramp	Southbound	Kings Highway Off Ramp	C	C
I-75 Charlotte	Mainline	Southbound	Between Kings Highway Ramps	B	B
I-75 Charlotte	Ramp	Southbound	Kings Highway On Ramp	D	C

Table 6-2: 2045 No-Build Peak Hour I-75 Segment Level of Service

Section	Segment	Direction	Location	AM LOS	PM LOS
I-75 Charlotte	Mainline	Southbound	Kings Highway to Harbor View Road	C	C
I-75 Charlotte	Ramp	Southbound	Harbor View Road Off Ramp	D	C
I-75 Charlotte	Mainline	Southbound	Between Harbor View Road Ramps	C	B
I-75 Charlotte	Ramp	Southbound	Harbor View Road On Ramp	D	C
I-75 Charlotte	Mainline	Southbound	Harbor View Road to US 17	D	C
I-75 Charlotte	Ramp	Southbound	US 17 Off Ramp	C	B
I-75 Charlotte	Mainline	Southbound	Between US 17 Ramps	C	B
I-75 Charlotte	Ramp	Southbound	US 17 On Ramp	D	C
I-75 Charlotte	Mainline	Southbound	US 17 to North Jones Loop Road	C	C
I-75 Charlotte	Ramp	Southbound	North Jones Loop Road Off Ramp	D	C
I-75 Charlotte	Mainline	Southbound	Between North Jones Loop Road Ramps	B	B
I-75 Charlotte	Ramp	Southbound	North Jones Loop Road On Ramp	C	B
I-75 Charlotte	Mainline	Southbound	North Jones Loop Road to Tuckers Grade	C	B
I-75 Charlotte	Ramp	Southbound	Tuckers Grade Off Ramp	C	C
I-75 Charlotte	Mainline	Southbound	Between Tuckers Grade Ramps	C	B
I-75 Charlotte	Ramp	Southbound	Tuckers Grade On Ramp	C	B
I-75 Charlotte	Mainline	Southbound	Tuckers Grade to North of SR 78	C	B

Notes: 1. FREEVAL I-75 mainline limits are between Lee/Charlotte County Line and South of N. River Road Exit
2. LOS reported is for worst 15-min period during 3-hour analysis period.

Design year 2045 No-Build facility-wide measures of effectiveness (MOE) are summarized in Table 6-3. The results of the network-wide operational analysis indicate that the overall facility operates under unsaturated conditions during the AM and PM peak periods for both the northbound and southbound direction of travel. The average speeds along the corridor range from 65.6 mph to 71.5 mph in the northbound direction and 66.8 mph to 71.6 mph in the southbound direction. The resulting average travel times are approximately 34 to 35 minutes for the entire 41-mile corridor for both peak periods. The maximum observed D/C in the northbound direction is 0.93 during the AM peak period and 0.87 in the southbound direction which occurs in the PM peak period, both within the Sarasota County segment.

Table 6-3: 2045 No-Build I-75 Facility-wide MOE

	Northbound Charlotte County Segment		Northbound Sarasota County Segment		Southbound Charlotte County Segment		Southbound Sarasota County Segment	
	AM	PM	AM	PM	AM	PM	AM	PM
Length (mi)	22.69		17.94		22.51		17.83	
MOE	AM	PM	AM	PM	AM	PM	AM	PM
Average Travel Time (min)	19.00	19.49	16.21	15.25	19.21	18.83	15.06	15.83
VHD (delay / interval (hrs))	142	278	461	178	236	133	149	376
Space Mean Speed (mph)	71.5	69.6	65.6	70.5	70.1	71.6	70.9	66.8
Reported Density (pc/mi/ln)	16.6	20.9	25.0	20.1	19.5	15.9	18.9	23.5
Max D/C	0.65	0.81	0.93	0.70	0.84	0.62	0.71	0.87
Max V/C	0.65	0.81	0.93	0.70	0.84	0.62	0.71	0.87

6.4 Planned Projects/Programmed Improvements

Review of planned projects or program improvements along the Study limits was completed to provide a framework for future short and long-term improvements that will accommodate future traffic and avoid future duplication of or development of improvement recommendations. In addition, review of other local plans that may have planned or programmed improvements that could impact the Study limits was completed. Multiple sources were reviewed including MPO LRTPs, MPO TIPs, FDOT's Five-Year Work Program, and FDOT District 1 planning studies. Study limit planned and programmed transportation improvements from the MPO's latest TIPs are presented in Table 6-4 (removing any projects with a construction Fiscal Year projection of 2024 or sooner).

Table 6-4: Identified Planned and Programmed Transportation Improvements by County

FM Number	Project	Phase	Fiscal Year	Funding (\$)
Sarasota/Manatee MPO TIP (FY 2023/24 – 2027/28)				
201277-9	I-75 at SR 681 Interchange Improvements	PD&E	>2028	2,501,000
441984-1	I-75 at N Toledo Blade Interchange Landscaping	Prelim Engineering	<2024	180,000
	MPO LRTP Priority Project I-75 at Yorkshire St New Interchange (Commerce Connector)	Interchange Study		
Heartland Regional TPO TIP (FY 2023/24– 2027/28) DeSoto County				
440342-1	CR 769 (Kings Hwy) from Charlotte County Line to Peace River Street Widen to 4-Lanes	Prelim Engineering	2024	3,204,999
Charlotte County-Punta Gorda MPO TIP (FY 2023/24– 2027/28) (Includes Southwest DeSoto County)				
434965-3	Harbor View Road from Melbourne Road to Date Street (I-75 Ramp) Add Lanes & Reconstruct	Environmental Railroad & Utilities Construction	2024 2026 2026	10,000 10,800,000 29,026,179
422098-1	I-75 ADMS from Lee County Line to Sarasota County Line	Prelim Engineering	2026	300,000
436602-1	I-75 Rest Area in Charlotte County	PD&E Prelim Engineering ROW Construction	2020 2020 2021 2025	1,283,919 3,086,051 6,009,655 45,955,497
437001-1	I-75 at Punta Gorda Weigh Station NB/SB Demo/Rebuild	Construction	2028	5,131,267
44628-1	I-75 Punta Gorda Weigh Station Resurfacing	Construction	2025	11,638,200
447869-1	I-75 Punta Gorda Weigh Station Barn Upgrades	Construction	2028	567,252
425154-1	I-75 at Jones Loop Truck Parking	Design Construction	2024 2028	1,750,000 17,404,077

6.5 Potential Recommended Improvements

The future year 2045 No-Build traffic volumes and corresponding peak hour traffic operations analyses showed that nearly all of the ramp terminal intersections in the study area are projected to operate at Level of Service E or F. Proposed improvements were developed, and recommendations identified, for future year 2045 to achieve the target levels of service along the I-75 mainline, ramps and ramp terminal intersections. Improvements that were considered included changes in traffic control, modifications to signal phasing/timings and/or changes in lane configurations/geometry. Each location was evaluated based on consideration of individual movements' volumes, LOS/delay and/or queue lengths. Improvements considered included addition or modification of left or right turn lanes, addition of intersection through lanes, change in traffic control, addition of traffic signal or roundabout traffic control, change in signal operation including phasing or timing and/or restriction of turning movements. A year of failure analysis that was based on the year in which the intersection level of service was anticipated to reach LOS E was completed. Improvement recommendations were developed based on improving overall intersection capacity to achieve target LOS D.

The improvement recommendations for the I-75 and North Jones Loop Road interchange were coordinated with the North Jones Loop Road (CR 768) PD&E Study, FPID 436563-1-22-01. The I-75 southbound off ramp is proposed to have dual rights (a channelized free right lane and one right lane at the signal). A westbound through receiving lane is proposed on Jones Loop Road to accommodate the free right-turn movements from the I-75 southbound exit ramp. This additional through lane will continue west to the downstream intersection at Mac Drive/Knight Drive where an exclusive right turn lane is introduced. A traffic separator is proposed between the westbound outside through lane and the middle through lane, extending about 200 feet west from the southbound exit ramp channelizing island. Additionally, a traffic separator is proposed between the westbound inside through and the dual left turn lanes approaching Knight Drive. The I-75 southbound off ramp right lane that goes to the signal will accommodate southbound to westbound vehicles exiting the ramp and accessing the dual left turn lanes to Knight Drive. The proposed design concepts reduce the number of lane changes and weaving maneuvers between the I-75 southbound off ramp and the adjacent Mac Drive/Knight Drive intersection to the west of the interchange.

The proposed improvements which constitute the 2045 Build conditions analysis of this Master Plan study are summarized in Table 6-5 and illustrated in Figures 6-2A through 6-2D. Operational analysis outputs for 2045 Build conditions and year of failure analysis are provided in Appendix H.

Table 6-5: 2045 Build Improvement Recommendations

Segment/ Location	Year of Failure	2045 No Build LOS	Recommended Improvement
I-75 Mainline & Ramps			
I-75 Mainline - Sumter Blvd. to South of River Road	2034 (rural) 2044 (urban)	E	Add Auxiliary Lane.
I-75 SB Off Ramp to Sumter Boulevard and I-75 SB On Ramp from Sumter Boulevard	2033 (rural) 2043 (urban)	E	Widen Ramp to 2 Lanes.
I-75 Ramp Terminal Intersections (Traffic Control)²			

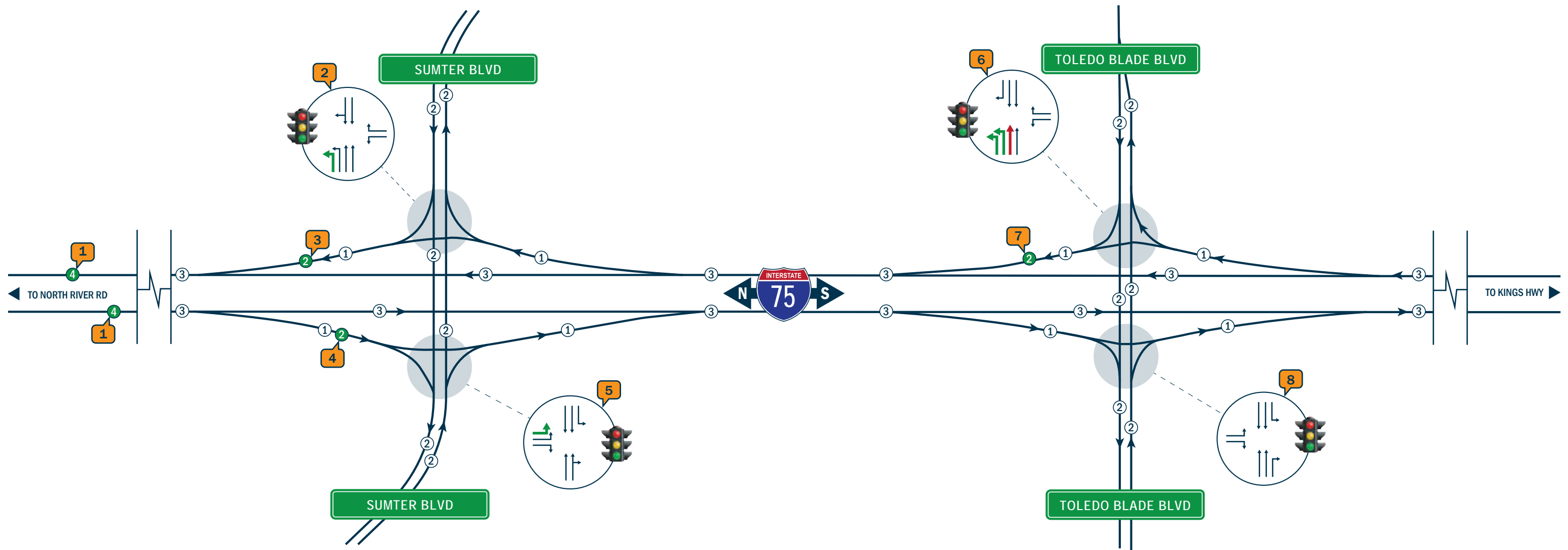
Table 6-5: 2045 Build Improvement Recommendations

Segment/ Location	Year of Failure	2045 No Build LOS	Recommended Improvement
I-75 SB & Sumter Boulevard	2021	F	Future Traffic Signal
I-75 NB & Sumter Boulevard	2019 (Existing)	F	Future Traffic Signal
I-75 SB & Toledo Blade Boulevard	2020	E	Future Traffic Signal
I-75 NB & Toledo Blade Boulevard	2019 (Existing)	F	Future Traffic Signal
I-75 SB & Harbor View Road (CR 776)	2019 (Existing)	F	Future Traffic Signal or Roundabout
I-75 NB & Harbor View Road (CR 776)	2030	F	Future Traffic Signal or Roundabout
I-75 SB & Tuckers Grade (CR 762)	>2045	C	n/a
I-75 NB & Tuckers Grade (CR 762)	2019 (Existing)	F	Future Traffic Signal or Roundabout
I-75 Interchanges (Lane Geometry)³			
I-75 & Sumter Boulevard⁴			
Southbound Ramp Terminal	2021	F	Add EB left turn lane (dual left) from SB exit ramp
Northbound Ramp Terminal	2019 (Existing)	F	Add NB left turn lane (dual left with 375' storage each) to NB entry ramp Widen Entry Ramp to 2 lanes
I-75 & Toledo Blade Boulevard⁴			
Northbound Ramp Terminal	2019 (Existing)	F	Convert inside NB through lane to left turn lane (dual left with 400' storage each). Widen Entry Ramp to 2 lanes.
I-75 & Kings Highway			
Northbound Ramp Terminal	2038	F	Add EB left turn lane (dual left with 400' storage each) onto NB entrance ramp. Widen Entry Ramp to 2 lanes.
I-75 & Harbor View Road⁴			
Southbound Ramp Terminal	2019 (Existing)	F	Extend WB left turn lane to SB entry ramp to provide 400' queue storage.
Northbound Ramp Terminal	2030	F	Extend NB left turn lane from NB exit ramp to provide 300' queue storage.
I-75 & US 17			
Southbound Ramp Terminal	2032	F	Add NB left turn lane (dual left with 650' storage each) from SB loop exit ramp. Add WB left turn lane (dual left with 325' storage each) onto SB entrance ramp. Widen Entry Ramp to 2 lanes.
Northbound Ramp Terminal	>2045	B	Extend WB left turn lane to NB loop entry ramp to provide 250' queue storage.
I-75 & North Jones Loop Road³			

Table 6-5: 2045 Build Improvement Recommendations

Segment/ Location	Year of Failure	2045 No Build LOS	Recommended Improvement
N. Jones Loop Road (West of I-75)	2038	F	Add lane in each direction (EB & WB).
Southbound Ramp Terminal	2037	F	Convert SB Exit ramp outside right turn lane from signal control to free right (channelized), inside right turn lane to remain signalized (non-channelized). Convert WB left turn phasing from protected-permissive to protected only.
Northbound Ramp Terminal	2040	F	Add EB left turn lane (dual left with 100' storage each) onto NB entrance ramp. Widen Entry Ramp to 2 lanes.
I-75 & Tuckers Grade			
Northbound Ramp Terminal	2030	F	Extend NB left turn lane from NB exit ramp to provide 375' queue storage.

- Notes:
1. The year of failure was determined based on the year the overall intersection Level of Service reached LOS E for signalized intersections; for unsignalized intersections, the worst-case movement LOS E was used. For existing signalized ramp terminal intersections, improvements may be needed prior to year of failure based on existing deficiencies for individual turning movements.
 2. For unsignalized ramp terminal intersections, improvements will need to be evaluated through the ICE process and meet signal warrants criteria before installing a signal.
 3. Recommended left turn queue storage lengths are for future signalized case.
 4. The study area is transitioning from rural to urban. The I-75 mainline from Sumter Blvd. to South of River Road projected year of failure is 2034 for rural area type and 2044 for urban area type.
 5. The Sumter Boulevard and Toledo Blade Boulevard ramp terminals had signal warrant and operational analysis studies completed by FDOT in 2018 (FPID 409278-1-32-05). Subsequently, District 1 coordinated with the City of North Port to develop concepts for signalized intersections with turn lane additions for these two interchanges. The recommendations in this master plan were developed based on these prior studies and concepts.
 6. The improvement recommendations for I-75 & North Jones Loop Road were coordinated with the North Jones Loop Road (CR 768) PD&E Study, FPID 436563-1-22-01.
 7. The I-75 & Harbor View Road intersections were evaluated in the Harborview Road PD&E Study from Melbourne Street to I-75 (FPN 434965-1-22-01) which indicated the need for signalization by 2025.



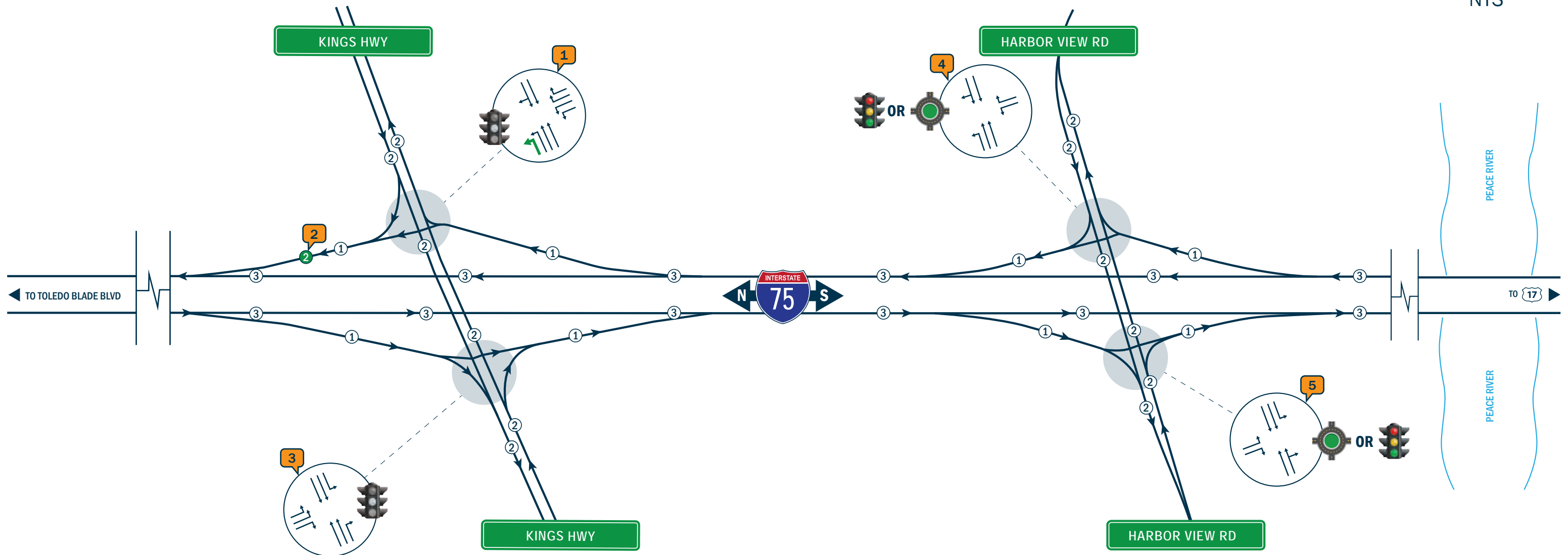
- 1** Add Auxiliary Lane
- 2** Future traffic signal; Add NB left turn lane (dual left); provide 375' queue storage each. Keep 2 NB through lanes to accommodate 2 receiving lanes for EB dual left from SB ramp terminal
- 3** Widen NB Entrance Ramp from Sumter Blvd. to 2 lanes
- 4** Widen SB Exit Ramp to Sumter Blvd. to 2 lanes
- 5** Future traffic signal; Add EB left turn lane (dual left) from I-75 SB exit ramp; provide 325' queue storage each. Extend SB left turn lane to provide 150' queue storage.

- 6** Future traffic signal; Convert inside NB through lane to a left turn lane (dual left), provide 400' queue storage each. Extend WB left turn lane from I-75 NB exit ramp to provide 525' queue storage.
- 7** Widen ramp to accommodate 2 receiving lanes and taper to single lane before I-75 NB merge gore point.
- 8** Future traffic signal.

LEGEND

	NUMBER OF EXISTING LANES
	NUMBER OF PROPOSED TRAFFIC LANES
	PROPOSE ADDING FUTURE TURN LANE
	PROPOSE THROUGH LANE REMOVAL
	PROPOSED FUTURE TRAFFIC SIGNAL





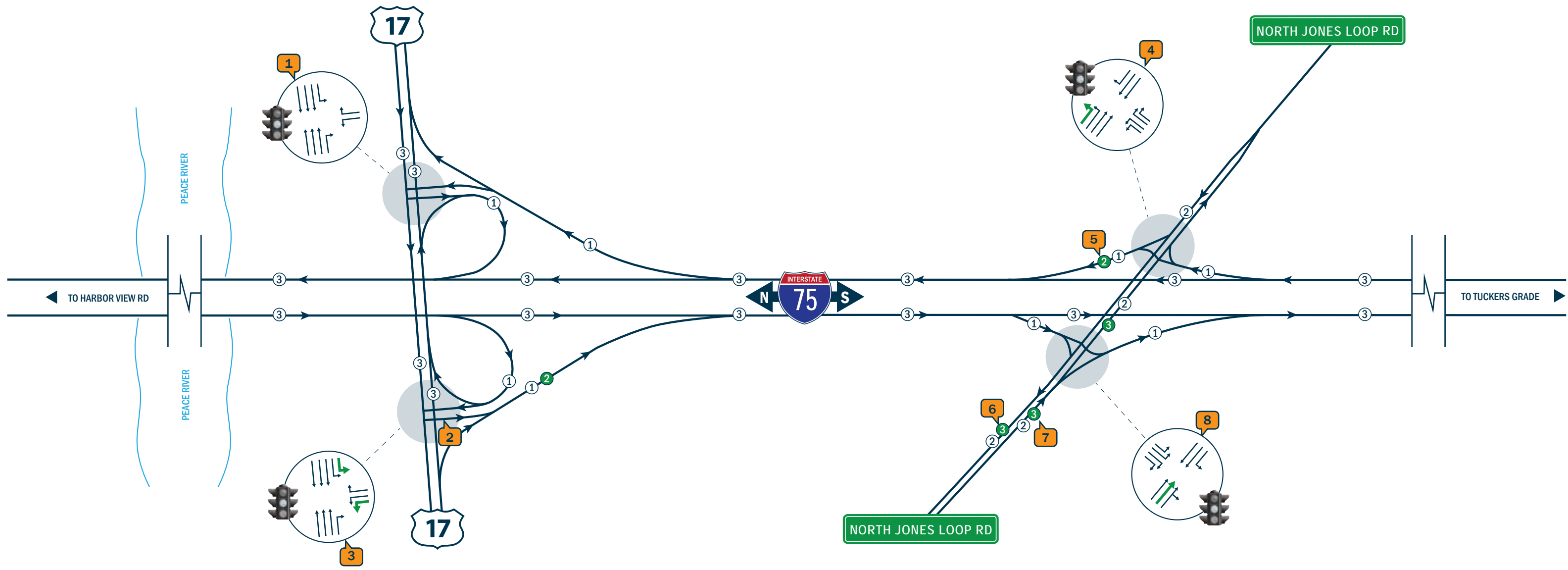
- 1** Add EB left turn lane (dual left) onto NB entrance ramp, provide 450' queue storage each; provide protected EB left phase. Extend I-75 NB exit ramp left turn lane to provide 550' queue storage.
- 2** Widen ramp to accommodate 2 receiving lanes and taper to single lane before I-75 NB merge gore point.
- 3** Extend I-75 SB exit ramp left turn lane to provide 375' queue storage.

- 4** Future traffic signal or roundabout; Extend I-75 NB exit ramp left turn lane to provide 375' queue storage.
- 5** Future traffic signal or roundabout.

LEGEND

- NUMBER OF EXISTING LANES
- NUMBER OF PROPOSED TRAFFIC LANES
- PROPOSE ADDING FUTURE TURN LANE
- EXISTING TRAFFIC SIGNAL
- PROPOSED FUTURE TRAFFIC SIGNAL
- PROPOSED FUTURE ROUNDABOUT





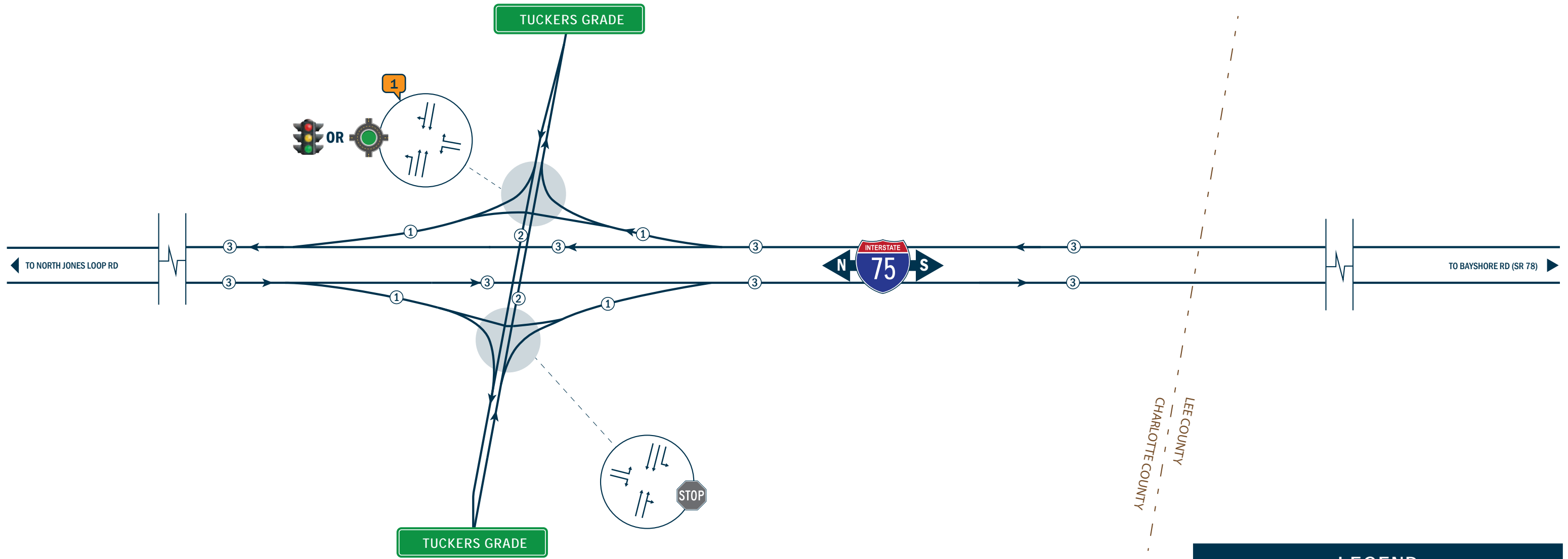
- 1** Extend WB left turn lane to NB loop entry ramp to provide 175' queue storage.
- 2** Widen ramp to accommodate 2 receiving lanes and taper to single lane before SB merge gore point.
- 3** Add NB left turn lane (dual left) from SB loop exit ramp, provide 650' queue storage each. Add WB left turn lane (dual left) onto SB entrance ramp, provide 325' queue storage each.

- 4** Add EB left turn lane (dual left) onto NB entrance ramp, provide 225' queue storage each. Provide protected EB left phase (Inside EB through lane from SB ramp becomes outside EB left lane at NB ramp with 2 lanes continuing through East on Jones Loop Road).
- 5** Widen ramp to accommodate 2 receiving lanes and taper to single lane before I-75 NB merge gore point.
- 6** Add WB through lane (receiving lane) for SB right from SB off ramp.
- 7** Add EB through lane due to potential for through queue at SB ramp terminal to extend beyond upstream intersection at Mac Dr/Knights Dr located 1100' west of SB ramp terminal.
- 8** Convert SB Exit ramp outside right turn lane from signal control to free right (channelized), inside right turn lane to remain signalized (non-channelized). Convert WB left turn phasing from protected-permissive to protected only.

LEGEND

	NUMBER OF EXISTING LANES
	NUMBER OF PROPOSED TRAFFIC LANES
	PROPOSED ADD FUTURE TURN LANE
	EXISTING TRAFFIC SIGNAL





LEGEND	
	NUMBER OF LANES
	EXISTING TRAFFIC SIGN
	PROPOSED FUTURE TRAFFIC SIGNAL
	PROPOSED FUTURE ROUNDABOUT

1 Future traffic signal or roundabout. Extend NB turn lane from exit ramp to provide 400' queue storage.



6.6 Build Traffic Operations and Level of Service

The 2045 Build analysis incorporated the proposed improvements developed for each study interchange as described in Table 6-5 from the preceding No-Build analysis. The results of the 2045 Build intersection LOS analysis are summarized in Table 6-6.

Table 6-6: 2045 Build Peak Hour Intersection Level of Service

Signalized Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Sumter Boulevard	15.4	B	22.8	C
I-75 NB and Sumter Boulevard	22.8	C	11.9	B
I-75 SB and Toledo Blade Boulevard/Choctaw Blvd.	2.3	A	3.4	A
I-75 NB and Toledo Blade Boulevard/Choctaw Blvd.	30.4	C	30.5	C
I-75 SB and Kings Highway (CR 769)	20.1	C	16.6	B
I-75 NB and Kings Highway (CR 769)	54.3	D	28.2	C
I-75 SB and Harbor View Road (CR 776)	7.4	A	8.3	A
I-75 NB and Harbor View Road (CR 776)	22.5	C	19.0	B
I-75 SB and US 17/ Duncan Road	35.7	D	32.7	C
I-75 NB and US 17/ Duncan Road	12.8	B	13.9	B
I-75 SB and North Jones Loop Road (CR 768)	14.4	B	17.7	B
I-75 NB and North Jones Loop Road (CR 768)	28.0	C	23.5	C
I-75 NB and Tuckers Grade (CR 762)	18.3	B	29.7	C
Unsignalized Intersection (Delay/LOS reported for exit ramp left turn)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Tuckers Grade (CR 762)	14.0	B	18.1	C

Notes: NB = Northbound, SB = Southbound

The I-75 mainline and ramp segments north of Sumter Boulevard were evaluated under 2045 Build conditions to include an additional lane in each direction for lane balancing. The northbound mainline segment is projected to operate at LOS D or better during the AM peak period and LOS C or better during the PM peak period. The northbound ramp segment is projected to operate at LOS D or better during the AM peak period and LOS B during the PM peak period. The southbound mainline segment is projected to operate at LOS C or better during the AM and PM peak periods. The southbound ramp segment is projected to operate at LOS B during the AM peak period and LOS C during the PM peak period. Table 6-7 provides a summary of the 2045 Build MOEs for the Sarasota County segment. Operational analysis outputs for the Build conditions are provided in Appendix H. The results of the network-wide operational analysis indicate that the overall facility operates under unsaturated conditions during the AM and PM peak periods for both the northbound and southbound direction of travel.

Table 6-7: 2045 Build I-75 Sarasota County Segment MOE

Length (mi)	Northbound		Southbound	
	AM	PM	AM	PM
MOE				
Average Travel Time (min)	15.32	14.99	14.84	15.08
VHD (delay / interval (hrs))	224	124	105	180

Table 6-7: 2045 Build I-75 Sarasota County Segment MOE

Length (mi)	Northbound		Southbound	
	AM	PM	AM	PM
Length (mi)	17.94		17.83	
MOE	AM	PM	AM	PM
Space Mean Speed (mph)	70.1	71.8	72.0	70.8
Reported Density (pc/mi/ln)	20.6	17.4	16.3	19.5
Max D/C	0.78	0.67	0.70	0.73
Max V/C	0.78	0.67	0.68	0.73

6.7 Transportation System Management & Operations

Transportation System Management & Operations (TSM&O) strategies are implemented to optimize the systemwide transportation network and work across jurisdictions to deliver solutions that preserve capacity and improve the security, safety, and reliability of the transportation network. FDOT's TSM&O programs include ITS Communications, Management and Deployment, Software and Architecture, Managed Lanes, Connected Vehicles, and the Statewide Arterial Management Program (STAMP).

The Sarasota/Manatee MPO prepared a TSM&O Master Plan (August 2020) to serve as a foundation for successful TSM&O programs by identifying needs, evaluating corridors, and establishing priorities. TSM&O alternatives should be considered along with traditional transportation improvement strategies to optimize the transportation network.

Charlotte County has incorporated TSM&O objectives into its Congestion Management chapter of the *Route to 2045* LRTP which includes identifying operational improvements together with technologies to improve the existing transportation network. An ITS Master Plan is being prepared to provide guidance for relevant ITS technologies and project implementation throughout the County.

The Sarasota/Manatee MPO developed scoring parameters to evaluate corridor segments within the MPO region. Through this process, the Sarasota/Manatee MPO identified state and local road priorities for operational, transit, and safety strategies. The following TSM&O projects have been identified and are located within the Study limits. Table 6-8 presents TSM&O projects by County.

Table 6-8: TSM&O Projects by County

Facility	Limits	Length	Project Type	Project
Sarasota County				
Sumter Blvd	I-75 to City Center Blvd	2.0	Diversion Route	Install Fiber, CCTV's, BT's, Blank Out Signs
Toledo Blade Blvd	I-75 to Price Blvd	2.0	Diversion Route	Install Fiber, CCTV's, BT's, Blank Out Signs, Signal Controller Assemblies and RSU's
I-75	Charlotte County Line to Manatee County Line	42	Interstate Safety - Fog Detection System	Install Visibility Sensors, thermal CCTV's and Flashing Beacons every mile for 42 miles

Table 6-8: TSM&O Projects by County

Facility	Limits	Length	Project Type	Project
I-75	Charlotte County Line to Manatee County Line	42	Mobility, Safety, Operations and Evacuation Route	Interstate CV and BT Deployment - Installation of RSU's every mile and BT's at key interchanges
Interstate WWD Deployment	Various Interchanges	-	Interstate Safety	Installation of active WWD Systems at Interchanges
Charlotte County				
I-75	From the Lee County Line to the Sarasota County Line	22	Dynamic Message Signs	Preliminary Engineering and Construction of DMS

6.8 NEW INTERCHANGES

This master plan study evaluated the feasibility of two potential new interchanges, one in Sarasota County and one in Lee County. This preliminary, high-level feasibility analysis was completed utilizing the I-75 SW Connect D1RPM with the inclusion of a potential new interchange connection with full access providing for all traffic movements. The SW Connect D1RPM model was updated to reflect changes in socioeconomic (SE) data and roadway network characteristics to match the recently released D1RPM v2 and evaluate the impacts of a new interchange with respect to planned development in the study area.

6.8.1 Proposed Raintree Boulevard/Yorkshire Street Interchange

The potential new interchange in Sarasota County is located in the City of North Port, north of the Sarasota/Charlotte County Line. The new interchange has been requested by the City of North Port, the Charlotte County-Punta Gorda MPO and the Sarasota-Manatee MPO to relieve congestion, distribute traffic and help improve overall operations at the existing interchanges. Based on ongoing coordination between the local agencies, MPOs and FDOT, three Build alternatives were identified for evaluation as follows: Raintree Boulevard Interchange (~2.1 miles north of Kings Highway and 6.8 miles south of Toledo Blade Boulevard), Yorkshire Street Interchange (~3.6 miles north of Kings Highway and 5.4 miles south of Toledo Blade Boulevard) and a Collector-Distributor (C-D) System that would provide access to and from both Raintree Boulevard and Yorkshire Street.

The Build scenario operational analysis assumed a traditional diamond interchange connection with future 2045 traffic volume projections developed for the I-75 mainline and the proposed interchanges. The daily traffic volume growth on I-75 was estimated to be 1.7% under No Build compared to 2.5 to 3.0% under Build with the potential new interchange alternatives. All three future Build model runs resulted in reduced traffic volumes on the majority of roadway links in the interchange area. The highest projected decreases in traffic were seen along Veterans Boulevard with reductions of 64% under the Raintree Boulevard Build, 57% under Yorkshire Street Build and 68% under the C-D System alternative. In addition to the local roadway network, the adjacent existing interchanges to the north and south of the proposed new interchange were also expected to benefit from reduced traffic. The Raintree Boulevard and C-D System Build alternatives resulted in

an overall 11% reduction, and Yorkshire Street had a 7% reduction cumulatively, at the adjacent Toledo Blade Boulevard and Kings Highway interchanges. The analysis also indicated that for design year 2045, the I-75 mainline freeway and ramp segments are expected to operate at the target LOS D or better.

6.8.2 Proposed Del Prado Boulevard Interchange

The potential new interchange in Lee County was identified as a main project in the Lee County MPO 2045 Long Range Transportation Plan as part of the Del Prado Boulevard extension and I-75 interchange with Babcock Ranch and as part of the Cape Coral Evacuation Study to substantiate the need for a new access to the City of Cape Coral for evacuation purposes during an emergency event. Based on input from the local agencies and MPO, FDOT evaluated a potential interchange located near milepost 3.375 approximately 3 miles north of SR 78 (Bayshore Road) and 11.2 miles south of Tuckers Grade.

The Build scenario operational analysis assumed a traditional diamond interchange connection with future 2045 traffic volume projections developed for the I-75 mainline and the proposed interchange. The daily traffic volume growth on I-75 was estimated to be approximately 7% higher than No Build with the potential new interchange and resulted in reduced traffic volumes on the majority of roadway links in the interchange area. The highest projected decreases in traffic were seen along US 41 with a reduction of 12%, followed by SR 78 (Bayshore Road) with 11% reduction in daily traffic. In addition to the local roadway network, the adjacent existing interchanges to the north and south of the proposed new interchange were also expected to benefit from reduced traffic. The Build alternative resulted in an overall 11% reduction cumulatively at the adjacent Tuckers Grade and SR 78 interchanges. The analysis also indicated that for design year 2045, the I-75 mainline freeway and ramp segments are expected to operate at the target LOS D or better.

6.8.3 New Interchange Feasibility

This master plan conducted a high-level assessment for the potential to provide two new interchanges along I-75 within the Central Corridor. The analysis determined that there is potential for congestion relief at adjacent interchanges and proximate roadway links in the study area network. The determination of the feasibility of a new interchange at these locations should include a further detailed analysis with a highly refined sub-area model validation of the current travel demand model, evaluation of interchange spacing and design criteria requirements, expansion of supporting infrastructure including future arterial connections, and consideration of the surrounding environment, potential development, and construction impacts. The memorandums documenting the feasibility analysis conducted in this study of future new interchanges on I-75 in the vicinity of Raintree Boulevard/Yorkshire Street in Sarasota County and near Del Prado Road in Lee County are provided in Appendix I.

6.9 PRELIMINARY MASTER PLAN PROPOSED PROJECTS

The master plan study evaluated the 2045 No Build conditions along the I-75 Central Corridor mainline and the seven existing interchanges. Build alternative recommendations were developed and approximate year of need was determined in isolation for each interchange. The worst case (earlier) year of need between the two ramp terminal intersections was used to approximate the overall year of need for each interchange. Additionally, the study team identified locations where improvements could be deferred by making minor improvements and other considerations such as continuity and staged/standalone implementation. Based on this approach, the study team developed a Preliminary Master Plan Projects List for the I-75 Central Corridor combining segments into projects yielding construction packages of appropriate size and cost to facilitate funding availability and the size and capabilities of the contractors in the region and prioritized based on Year of Need (Figure 6-3). The Preliminary Master Plan Projects List for the I-75 Central Corridor is provided in Figure 6-4.



Figure 6-3: No Build Year of Need (I-75 Central Corridor)





Figure 6-4: Preliminary Master Plan Proposed Projects



Appendix A

FDOT Traffic Online (2019) Data



I-75 Mainline



FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0062 - SR 93/I-75, NORTHWEST OF SR 78/BAYSHORE ROAD

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	50000	C	N 25000	S 25000	10.50	58.70	15.60
2018	47000	C	N 23500	S 23500	9.50	59.00	16.00
2017	46000	C	N 22500	S 23500	9.50	58.10	17.20
2016	44500	C	N 22000	S 22500	10.50	58.10	14.40
2015	42000	C	N 21000	S 21000	10.50	56.80	16.10
2014	39500	C	N 19500	S 20000	10.50	56.40	15.60
2013	38000	F	N 19000	S 19000	10.50	57.70	16.30
2012	37000	C	N 18500	S 18500	10.50	56.40	16.30
2011	38500	C	N 19500	S 19000	10.50	55.80	14.80
2010	39000	C	N 19500	S 19500	9.64	55.58	13.90
2009	35000	C	N 17000	S 18000	10.43	54.83	16.70
2008	38000	C	N 19000	S 19000	9.07	55.79	17.00
2007	41500	C	N 21000	S 20500	10.82	52.45	19.20
2006	44500	C	N 22000	S 22500	8.72	54.35	24.10
2005	43500	C	N 22500	S 21000	8.90	52.90	20.20
2004	38000	C	N 18500	S 19500	9.20	51.40	20.20

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
 2019 VEHICLE CLASS HISTORY DATA

COUNTY: 01 -- CHARLOTTE

SITE: 0055 DESCRIPTION: SR-93/I-75, S OF TUCKERS GRADE BLVD

YEAR	AADT	PASSENGER VEHICLES		TOTAL TRUCKS		SINGLE UNIT TRUCKS		COMBINATION TRAILER TRUCKS		MULTI TRAILER TRUCKS	
		%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME
2013	39500	87.19	34,441	12.81	5,059	4.09	1,615	8.04	3,175	0.68	269
2012	37000	83.73	30,980	16.27	6,020	4.81	1,780	11.08	4,100	0.38	141
2010	38500	83.32	32,076	16.68	6,424	6.52	2,509	9.74	3,749	0.43	166

NOTE: 1 - PASSENGER VEHICLES = VEHICLE CLASS 1-3, 14, 15
 2 - TOTAL TRUCKS = VEHICLE CLASS 4-13
 3 - SINGLE UNIT TRUCKS = VEHICLE CLASS 4-7
 4 - COMBINATION TRAILER TRUCKS = VEHICLE CLASS 8-10
 5 - MULTI TRAILER TRUCKS = VEHICLE CLASS 11-13

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 VEHICLE CLASS HISTORY DATA

COUNTY: 01 -- CHARLOTTE
SITE: 0034 DESCRIPTION: SR 93/I 75, SOUTHEAST OF NORTH JONES LOOP RD/CR 768

YEAR	AADT	PASSENGER VEHICLES		TOTAL TRUCKS		SINGLE UNIT TRUCKS		COMBINATION TRAILER TRUCKS		MULTI TRAILER TRUCKS	
		%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME
2019	54000	86.80	46,872	13.20	7,128	5.50	2,970	7.36	3,974	0.34	184
2018	52000	85.48	44,449	14.52	7,551	5.84	3,037	8.32	4,327	0.36	187
2017	51500	82.22	42,343	17.78	9,157	6.64	3,420	10.58	5,449	0.56	288
2016	54000	88.50	47,790	11.50	6,210	3.82	2,063	7.01	3,785	0.67	362
2015	49500	87.73	43,426	12.27	6,074	4.44	2,198	7.20	3,564	0.63	312
2014	44500	87.08	38,750	12.92	5,750	4.31	1,918	7.81	3,476	0.80	356
2013	44500	87.50	38,937	12.50	5,563	3.89	1,731	8.14	3,623	0.47	209
2011	41500	87.15	36,166	12.85	5,334	3.99	1,656	8.52	3,537	0.34	141
2010	40500	86.04	34,846	13.96	5,654	4.77	1,932	8.65	3,503	0.54	219
2009	40000	84.97	33,988	15.03	6,012	4.93	1,972	9.64	3,856	0.46	184
2008	43000	82.76	35,587	17.24	7,413	5.37	2,309	11.40	4,902	0.47	202
2007	43500	81.82	35,591	18.18	7,909	5.22	2,271	12.45	5,416	0.51	222
2006	46500	80.06	37,228	19.94	9,272	5.46	2,539	13.94	6,482	0.54	251
2005	44000	76.88	33,828	23.12	10,172	7.35	3,234	15.06	6,626	0.71	312
2004	44500	85.75	38,159	14.25	6,341	5.07	2,256	8.96	3,987	0.22	98

NOTE: 1 - PASSENGER VEHICLES = VEHICLE CLASS 1-3, 14, 15
2 - TOTAL TRUCKS = VEHICLE CLASS 4-13
3 - SINGLE UNIT TRUCKS = VEHICLE CLASS 4-7
4 - COMBINATION TRAILER TRUCKS = VEHICLE CLASS 8-10
5 - MULTI TRAILER TRUCKS = VEHICLE CLASS 11-13

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 0350 - SR-93/I-75,@AIRPORT RD OP,PUNTA GORDA,CHARLOTTE CO

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	63301	C	N 31393		S 31908	10.50	51.80	13.00
2018	63107	C	N 30620		S 32487	9.50	51.50	13.10
2017	60120	C	N 29941		S 30179	9.50	51.50	13.10
2016	57865	C	N 28824		S 29041	9.00	52.00	12.90
2015	55025	C	N 27366		S 27659	9.00	52.20	12.20
2014	50624	C	N 25182		S 25442	9.00	52.00	11.90
2013	48201	C	N 24010		S 24191	9.00	52.00	12.00
2012	46362	C	N 23082		S 23280	9.00	52.00	11.80
2011	46665	C	N 23213		S 23452	9.00	52.50	11.80
2010	47289	C	N 23585		S 23704	10.19	53.32	11.60
2009	46398	C	N 23265		S 23133	10.39	53.87	11.60
2008	46440	C	N 23164		S 23276	10.33	55.16	12.10
2007	50636	C	N 25146		S 25490	9.49	52.79	13.70
2006	51520	C	N 25703		S 25817	9.64	52.44	14.00
2005	51000	F	N		S	9.60	51.90	15.60
2004	49605	C	N 24592		S 25013	9.60	51.90	14.80

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
2019 VEHICLE CLASS HISTORY DATA

COUNTY: 01 -- CHARLOTTE
SITE: 0036 DESCRIPTION: SR 93/I 75, 0.4 MI SE OF HARBOR VIEW ROAD/CR 776

YEAR	AADT	PASSENGER VEHICLES		TOTAL TRUCKS		SINGLE UNIT TRUCKS		COMBINATION TRAILER TRUCKS		MULTI TRAILER TRUCKS	
		%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME
2019	66000	86.03	56,780	13.97	9,220	6.34	4,184	7.28	4,805	0.35	231
2018	63000	85.42	53,816	14.58	9,184	5.70	3,591	8.45	5,323	0.43	271
2017	62000	85.12	52,773	14.88	9,227	5.88	3,646	8.37	5,190	0.63	391
2016	65000	88.37	57,440	11.63	7,560	4.69	3,049	6.32	4,108	0.62	403
2015	59500	87.63	52,141	12.37	7,359	4.90	2,915	6.89	4,099	0.58	345
2014	57500	87.56	50,346	12.44	7,154	3.81	2,191	8.10	4,658	0.53	305
2013	53500	86.73	46,401	13.27	7,099	4.33	2,316	8.41	4,499	0.53	284
2012	54000	87.60	47,304	12.40	6,696	4.59	2,479	7.40	3,996	0.41	221
2011	51000	86.43	44,077	13.57	6,923	4.59	2,342	8.66	4,418	0.32	163
2010	52500	86.96	45,655	13.04	6,845	4.69	2,462	7.90	4,147	0.45	236
2009	49500	85.81	42,476	14.19	7,024	5.40	2,673	8.40	4,158	0.39	193
2005	60000	80.70	48,418	19.30	11,582	6.16	3,697	12.50	7,502	0.64	384
2004	56000	83.95	47,013	16.05	8,987	6.72	3,763	8.98	5,028	0.35	196

NOTE: 1 - PASSENGER VEHICLES = VEHICLE CLASS 1-3, 14, 15
2 - TOTAL TRUCKS = VEHICLE CLASS 4-13
3 - SINGLE UNIT TRUCKS = VEHICLE CLASS 4-7
4 - COMBINATION TRAILER TRUCKS = VEHICLE CLASS 8-10
5 - MULTI TRAILER TRUCKS = VEHICLE CLASS 11-13

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 VEHICLE CLASS HISTORY DATA

COUNTY: 01 -- CHARLOTTE
 SITE: 0037 DESCRIPTION: SR 93/I 75, SOUTHEAST OF KINGS HIGHWAY/CR 769

YEAR	AADT	PASSENGER VEHICLES		TOTAL TRUCKS		SINGLE UNIT TRUCKS		COMBINATION TRAILER TRUCKS		MULTI TRAILER TRUCKS	
		%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME
2019	60000	85.51	51,305	14.49	8,695	5.84	3,504	8.30	4,980	0.35	210
2018	57000	85.36	48,654	14.64	8,346	5.70	3,249	8.62	4,914	0.32	182
2017	55000	84.32	46,375	15.68	8,625	5.54	3,047	9.31	5,121	0.83	457
2016	59500	85.84	51,074	14.16	8,426	4.40	2,618	9.40	5,594	0.36	214
2015	52000	84.04	43,702	15.96	8,298	5.04	2,621	10.48	5,449	0.44	229
2014	50500	84.17	42,507	15.83	7,993	5.01	2,530	10.37	5,236	0.45	227
2013	46500	84.25	39,176	15.75	7,324	4.87	2,265	10.50	4,883	0.38	177
2012	45000	85.16	38,322	14.84	6,678	4.21	1,895	10.15	4,568	0.48	216
2011	45000	86.79	39,055	13.21	5,945	3.97	1,787	8.70	3,915	0.54	243
2010	46000	85.33	39,252	14.67	6,748	5.27	2,424	8.86	4,076	0.54	248
2009	44500	83.61	37,206	16.39	7,294	5.13	2,283	10.85	4,828	0.41	182
2008	46500	81.19	37,752	18.81	8,748	6.08	2,827	12.31	5,725	0.42	195
2007	48500	79.56	38,587	20.44	9,913	6.34	3,075	13.61	6,601	0.49	238
2006	51000	77.85	39,704	22.15	11,297	6.51	3,320	15.13	7,716	0.51	260
2005	51500	77.75	40,040	22.25	11,460	6.75	3,477	14.94	7,695	0.56	288
2004	48500	84.01	40,744	15.99	7,756	7.34	3,560	8.62	4,181	0.03	15

NOTE: 1 - PASSENGER VEHICLES = VEHICLE CLASS 1-3, 14, 15
 2 - TOTAL TRUCKS = VEHICLE CLASS 4-13
 3 - SINGLE UNIT TRUCKS = VEHICLE CLASS 4-7
 4 - COMBINATION TRAILER TRUCKS = VEHICLE CLASS 8-10
 5 - MULTI TRAILER TRUCKS = VEHICLE CLASS 11-13

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 VEHICLE CLASS HISTORY DATA

COUNTY: 01 -- CHARLOTTE
SITE: 0038 DESCRIPTION: SR 93/I 75, NORTHWEST OF KINGS HIGHWAY/CR 769

YEAR	AADT	PASSENGER VEHICLES		TOTAL TRUCKS		SINGLE UNIT TRUCKS		COMBINATION TRAILER TRUCKS		MULTI TRAILER TRUCKS	
		%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME	%	VOLUME
2019	56000	85.60	47,938	14.40	8,062	5.51	3,085	8.49	4,753	0.40	224
2018	51500	84.64	43,590	15.36	7,910	5.81	2,992	9.18	4,728	0.37	191
2017	51000	84.09	42,886	15.91	8,114	4.84	2,468	10.14	5,171	0.93	474
2015	49500	84.23	41,693	15.77	7,807	5.05	2,500	10.28	5,089	0.44	218
2014	45500	82.97	37,751	17.03	7,749	4.88	2,220	11.66	5,305	0.49	223
2013	42000	82.89	34,815	17.11	7,185	5.20	2,184	11.43	4,800	0.48	202
2012	43500	84.55	36,779	15.45	6,721	5.17	2,249	9.84	4,280	0.44	191
2011	40000	84.92	33,969	15.08	6,031	4.03	1,612	10.59	4,236	0.46	184
2010	39500	83.47	32,970	16.53	6,530	5.29	2,090	10.68	4,219	0.56	221
2009	39000	82.06	32,003	17.94	6,997	4.89	1,907	12.60	4,914	0.45	176
2008	40000	80.22	32,089	19.78	7,911	5.70	2,280	13.55	5,419	0.53	212
2007	43500	78.34	34,078	21.66	9,422	6.14	2,671	14.97	6,512	0.55	239
2006	47000	77.72	36,529	22.28	10,471	6.02	2,829	15.65	7,355	0.61	287
2005	49000	79.36	38,887	20.64	10,113	5.63	2,758	14.48	7,094	0.53	260
2004	47500	82.12	39,008	17.88	8,492	6.89	3,272	10.64	5,053	0.35	166

NOTE: 1 - PASSENGER VEHICLES = VEHICLE CLASS 1-3, 14, 15
2 - TOTAL TRUCKS = VEHICLE CLASS 4-13
3 - SINGLE UNIT TRUCKS = VEHICLE CLASS 4-7
4 - COMBINATION TRAILER TRUCKS = VEHICLE CLASS 8-10
5 - MULTI TRAILER TRUCKS = VEHICLE CLASS 11-13

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 0040 - SR 93/I 75, EAST OF SUMTER BLVD NORTH PORT

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	63000	C	W 31000		E 32000	9.00	56.70	13.40
2018	60500	C	W 30500		E 30000	9.00	56.40	13.00
2017	61500	C	W 31000		E 30500	9.00	56.30	13.30
2016	63000	C	W 31500		E 31500	9.00	54.00	14.30
2015	54000	C	W 27000		E 27000	9.00	54.00	13.90
2014	50000	C	W 25000		E 25000	9.00	56.20	15.10
2013	48500	C	W 24000		E 24500	9.00	56.10	14.60
2012	47000	C	W 23500		E 23500	9.00	55.80	14.80
2011	47000	C	W 23500		E 23500	9.00	55.50	14.20
2010	45500	C	W 23000		E 22500	9.78	53.88	15.00
2009	44500	C	W 22000		E 22500	9.49	56.51	16.30
2008	46500	C	W 23500		E 23000	9.80	55.31	18.10
2007	51000	C	W 25500		E 25500	9.29	52.37	17.60
2006	53000	C	W 27000		E 26000	9.57	51.00	20.40
2005	55000	C	W 27500		E 27500	9.60	51.40	17.50
2004	48000	C	W 23500		E 24500	9.60	51.20	17.50

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

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 0361 - SR-93/I-75, @PONCE DE LEON BLVD O/P, SARASOTA CO.

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	71772 C	N	35805	S	35967	9.00	59.90	12.30
2018	69464 C	N	34651	S	34813	9.00	59.60	12.20
2017	66927 C	N	33441	S	33486	9.00	58.90	12.00
2016	61200 C	N	32500	S	28700	9.00	58.60	11.20
2015	61129 C	N	32475	S	28654	9.00	58.60	11.20
2014	56960 C	N	29897	S	27063	9.00	58.60	11.20
2013	54191 C	N	27131	S	27060	9.00	58.10	11.40
2012	51232 C	N	25661	S	25571	9.00	57.60	11.20
2011	51220 C	N	25640	S	25580	9.00	57.10	11.10
2010	51903 C	N	25993	S	25910	9.80	52.52	10.90
2009	52003 C	N	26019	S	25984	9.59	57.18	11.40
2008	51649 C	N	25735	S	25914	9.78	55.81	12.70
2007	52653 C	N	25525	S	27128	9.29	52.37	19.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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I-75 Ramps



FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7001 - SR93/I-75 NB, OFF-RAMP TO CR762/TUCKERS BLVD X158

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	1800	F	0	0	10.50	99.90	14.10
2018	1700	C	N 1700	0	9.50	99.90	14.40
2017	1500	T	0	0	9.50	99.90	15.00
2016	1400	S	0	0	9.50	99.90	13.40
2015	1300	F	0	0	9.00	99.90	14.50
2014	1200	C	N 1200	0	9.00	99.90	15.10
2013	1100	S	0	0	9.00	99.90	15.20
2012	1100	F	0	0	9.00	99.90	14.40
2011	1100	C	N 1100	0	9.00	99.90	14.00
2010	1000	S	0	0	9.99	99.99	20.40
2009	1000	F	0	0	9.99	99.99	20.40
2008	1000	C	N 1000	0	10.06	99.99	20.40
2007	1500	S	0	0	9.49	99.99	19.90
2006	1500	F	0	0	9.60	99.99	21.60
2005	1400	C	N 1400	0	9.60	99.90	0.00

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

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7002 - SR93/I-75 SB,ON-RAMP FROM CR762/TUCKERS BLVD X158

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	1900 F	0	0	10.50	99.90	14.10
2018	1800 C	S 1800	0	9.50	99.90	14.40
2017	1500 T	0	0	9.50	99.90	15.00
2016	1400 S	0	0	9.50	99.90	13.40
2015	1300 F	0	0	9.00	99.90	14.50
2014	1200 C	S 1200	0	9.00	99.90	15.10
2013	1100 S	0	0	9.00	99.90	15.20
2012	1100 F	0	0	9.00	99.90	14.40
2011	1100 C	S 1100	0	9.00	99.90	14.00
2010	1100 S	0	0	9.99	99.99	23.70
2009	1100 F	0	0	9.99	99.99	23.70
2008	1100 C	S 1100	0	10.06	99.99	23.70
2007	1400 S	0	0	9.49	99.99	19.90
2006	1400 F	0	0	9.60	99.99	21.60
2005	1300 C	S 1300	0	9.60	99.90	0.00

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
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7003 - SR93/I-75 NB,ON-RAMP FROM CR762/TUCKERS BLVD X158

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	3900	F	0	0	10.50	99.90	12.60
2018	3700	C	N 3700	0	9.50	99.90	12.20
2017	3900	T	0	0	9.50	99.90	13.10
2016	3700	S	0	0	9.50	99.90	12.90
2015	3500	F	0	0	9.00	99.90	12.20
2014	3300	C	N 3300	0	9.00	99.90	11.90
2013	2800	S	0	0	9.00	99.90	12.00
2012	2800	F	0	0	9.00	99.90	11.80
2011	2800	C	N 2800	0	9.00	99.90	11.80
2010	2500	S	0	0	9.99	99.99	8.00
2009	2500	F	0	0	9.99	99.99	8.00
2008	2600	C	N 2600	0	10.06	99.99	8.00
2007	2500	S	0	0	9.49	99.99	19.90
2006	2500	F	0	0	9.60	99.99	21.60
2005	2400	C	N 2400	0	9.60	99.90	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7004 - SR93/I-75 SB,OFF-RAMP TO CR762/TUCKERS BLVD X158

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	3500 F	0	0	10.50	99.90	12.60
2018	3400 C	S 3400	0	9.50	99.90	12.20
2017	3600 T	0	0	9.50	99.90	13.10
2016	3400 S	0	0	9.50	99.90	12.90
2015	3200 F	0	0	9.00	99.90	12.20
2014	3000 C	S 3000	0	9.00	99.90	11.90
2013	2700 S	0	0	9.00	99.90	12.00
2012	2700 F	0	0	9.00	99.90	11.80
2011	2700 C	S 2700	0	9.00	99.90	11.80
2010	2500 S	0	0	9.99	99.99	7.40
2009	2500 F	0	0	9.99	99.99	7.40
2008	2600 C	S 2600	0	10.06	99.99	7.40
2007	2300 S	0	0	9.49	99.99	19.90
2006	2300 F	0	0	9.60	99.99	21.60
2005	2200 C	S 2200	0	9.60	99.90	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7011 - SR93/I-75 NB,OFF-RAMP TO CR768/N JONES LOOP X161

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2900 F	0	0	10.50	99.90	14.10
2018	2800 C	N 2800	0	9.50	99.90	14.40
2017	3000 S	0	0	9.50	99.90	15.00
2016	2800 F	0	0	9.50	99.90	13.40
2015	2700 C	N 2700	0	9.00	99.90	14.50
2014	2200 S	0	0	9.00	99.90	19.20
2013	2100 F	0	0	9.00	99.90	19.20
2012	2100 C	N 2100	0	9.00	99.90	19.20
2011	2400 S	0	0	9.00	99.90	17.40
2010	2400 F	0	0	9.99	99.99	17.40
2009	2400 C	N 2400	0	9.99	99.99	17.40
2008	2600 C	N 2600	0	10.06	99.99	18.40
2007	2900 S	0	0	9.49	99.99	19.90
2006	2900 F	0	0	9.60	99.99	21.60
2005	2800 C	N 2800	0	9.60	99.90	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7012 - SR93/I-75 SB,ON-RAMP FROM CR 768/N JONES LOOP X161

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	3800 F	0	0	10.50	99.90	14.10
2018	3600 C	S 3600	0	9.50	99.90	14.40
2017	3300 S	0	0	9.50	99.90	15.00
2016	3100 F	0	0	9.50	99.90	13.40
2015	2900 C	S 2900	0	9.00	99.90	14.50
2014	2400 S	0	0	9.00	99.90	17.50
2013	2300 F	0	0	9.00	99.90	17.50
2012	2300 C	S 2300	0	9.00	99.90	17.50
2011	2800 S	0	0	9.00	99.90	19.30
2010	2800 F	0	0	9.99	99.99	19.30
2009	2800 C	S 2800	0	9.99	99.99	19.30
2008	2800 C	S 2800	0	10.06	99.99	18.70
2007	3200 S	0	0	9.49	99.99	19.90
2006	3200 F	0	0	9.60	99.99	21.60
2005	3100 C	S 3100	0	9.60	99.90	0.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7013 - SR93/I-75 NB,ON-RAMP FROM CR768/N JONES LOOP X161

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5800	F	0	0	9.00	99.90	14.10
2018	5600	C	N 5600	0	9.00	99.90	14.40
2017	6100	S	0	0	9.00	99.90	15.00
2016	5800	F	0	0	9.00	99.90	13.40
2015	5500	C	N 5500	0	9.00	99.90	14.50
2014	5600	S			9.00	99.90	20.40
2013	5400	F	0	0	9.00	99.90	20.40
2012	5300	C	N 5300	0	9.00	99.90	20.40
2011	5000	S	0	0	9.00	99.90	17.80
2010	5000	F	0	0	9.99	99.99	17.80
2009	5100	C	N 5100	0	9.99	99.99	17.80
2008	4600	C	N 4600	0	10.06	99.99	19.80
2007	7700	S	0	0	9.49	99.99	19.90
2006	7600	F			9.60	99.99	21.60
2005	7300	C	N 7300		9.60	99.90	0.00

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FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7014 - SR93/I-75 SB, OFF-RAMP TO CR768/N JONES LOOP X161

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	6000	F	0	0	10.50	99.90	14.10
2018	5800	C	S 5800	0	9.50	99.90	14.40
2017	6600	S	0	0	9.50	99.90	15.00
2016	6200	F	0	0	9.50	99.90	13.40
2015	5900	C	S 5900	0	9.00	99.90	14.50
2014	5500	S			9.00	99.90	15.40
2013	5300	F	0	0	9.00	99.90	15.40
2012	5200	C	S 5200	0	9.00	99.90	15.40
2011	4800	S	0	0	9.00	99.90	18.90
2010	4800	F	0	0	9.99	99.99	18.90
2009	4900	C	S 4900	0	9.99	99.99	18.90
2008	4700	C	S 4700	0	10.06	99.99	20.70
2007	7200	S	0	0	9.49	99.99	19.90
2006	7200	F			9.60	99.99	21.60
2005	6900	C	S 6900		9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7021 - SR93/I-75 NB,OFF-RAMP TO SR35/US17 X164

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	4700 F	0	0	9.00	99.90	12.60
2018	4500 C	N 4500	0	9.00	99.90	12.20
2017	4300 T	0	0	9.00	99.90	13.10
2016	4100 S	0	0	9.00	99.90	12.90
2015	3900 F	0	0	9.00	99.90	12.20
2014	3700 C	N 3700	0	9.00	99.90	11.90
2013	3600 S	0	0	9.00	99.90	12.00
2012	3600 F	0	0	9.00	99.90	11.80
2011	3600 C	N 3600	0	9.00	99.90	11.80
2010	3400 S	0	0	9.99	99.99	13.90
2009	3400 F	0	0	9.99	99.99	13.90
2008	3500 C	N 3500	0	10.06	99.99	13.90
2007	3700 S	0	0	9.49	99.99	19.90
2006	3700 F	0	0	9.60	99.99	21.60
2005	3600 C	N 3600	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7022 - SR93/I-75 SB,ON-RAMP FROM SR35/US17 X164

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	4900	F	0	0	9.00	99.90	12.60
2018	4700	C	S 4700	0	9.00	99.90	12.20
2017	4100	T	0	0	9.00	99.90	13.10
2016	3900	S	0	0	9.00	99.90	12.90
2015	3700	F	0	0	9.00	99.90	12.20
2014	3500	C	S 3500	0	9.00	99.90	11.90
2013	3700	S	0	0	9.00	99.90	12.00
2012	3700	F	0	0	9.00	99.90	11.80
2011	3700	C	S 3700	0	9.00	99.90	11.80
2010	3300	S	0	0	9.99	99.99	11.90
2009	3300	F	0	0	9.99	99.99	11.90
2008	3400	C	S 3400	0	10.06	99.99	11.90
2007	4000	S	0	0	9.49	99.99	19.90
2006	4000	F	0	0	9.60	99.99	21.60
2005	3800	C	S 3800	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7023 - SR93/I-75 NB,ON-RAMP FROM SR35/US17 X164

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	7700 F	0	0	9.00	99.90	12.60
2018	7400 C	N 7400	0	9.00	99.90	12.20
2017	8500 T	0	0	9.00	99.90	13.10
2016	8000 S	0	0	9.00	99.90	12.90
2015	7600 F	0	0	9.00	99.90	12.20
2014	7200 C	N 7200	0	9.00	99.90	11.90
2013	5900 S	0	0	9.00	99.90	12.00
2012	5800 F	0	0	9.00	99.90	11.80
2011	5800 C	N 5800	0	9.00	99.90	11.80
2010	5300 S	0	0	9.99	99.99	13.80
2009	5400 F	0	0	9.99	99.99	13.80
2008	5500 C	N 5500	0	10.06	99.99	13.80
2007	7200 S	0	0	9.49	99.99	19.90
2006	7200 F	0	0	9.60	99.99	21.60
2005	6900 C	N 6900	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7024 - SR93/I-75 SB,OFF-RAMP TO SR35/US17 X164

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	8300 F	0	0	9.00	99.90	12.60
2018	8000 C	S 8000	0	9.00	99.90	12.20
2017	8700 T	0	0	9.00	99.90	13.10
2016	8200 S	0	0	9.00	99.90	12.90
2015	7800 F	0	0	9.00	99.90	12.20
2014	7400 C	S 7400	0	9.00	99.90	11.90
2013	6500 S	0	0	9.00	99.90	12.00
2012	6400 F	0	0	9.00	99.90	11.80
2011	6400 C	S 6400	0	9.00	99.90	11.80
2010	5500 S	0	0	9.99	99.99	13.60
2009	5600 F	0	0	9.99	99.99	13.60
2008	5700 C	S 5700	0	10.06	99.99	13.60
2007	7400 S	0	0	9.49	99.99	19.90
2006	7300 F	0	0	9.60	99.99	21.60
2005	7000 C	S 7000	0	9.60	99.90	0.00

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

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 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7031 - SR93/I-75 NB, OFF-RAMP TO CR776/HARBOR VIEW X167

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	4700	F	0	0	9.00	99.90	7.00
2018	4500	C	N 4500	0	9.00	99.90	7.10
2017	4800	T	0	0	9.00	99.90	7.10
2016	4500	S	0	0	9.00	99.90	6.30
2015	4300	F	0	0	9.00	99.90	5.20
2014	4100	C	N 4100	0	9.00	99.90	6.50
2013	4100	S	0	0	9.00	99.90	6.00
2012	4100	F	0	0	9.00	99.90	6.20
2011	4100	C	N 4100	0	9.00	99.90	5.30
2010	3400	S	0	0	9.99	99.99	5.80
2009	3400	F	0	0	9.99	99.99	5.80
2008	3500	C	N 3500	0	10.06	99.99	5.80
2007	3500	S	0	0	9.49	99.99	19.90
2006	3500	F	0	0	9.60	99.99	21.60
2005	3400	C	N 3400	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7032 - SR93/I-75 SB,ON-RAMP FROM CR776/HARBOR VIEW X167

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5300	F	0	0	9.00	99.90	7.00
2018	5100	C	S 5100	0	9.00	99.90	7.10
2017	5500	T	0	0	9.00	99.90	7.10
2016	5200	S	0	0	9.00	99.90	6.30
2015	4900	F	0	0	9.00	99.90	5.20
2014	4600	C	S 4600	0	9.00	99.90	6.50
2013	4200	S	0	0	9.00	99.90	6.00
2012	4200	F	0	0	9.00	99.90	6.20
2011	4200	C	S 4200	0	9.00	99.90	5.30
2010	3500	S	0	0	9.99	99.99	5.90
2009	3500	F	0	0	9.99	99.99	5.90
2008	3600	C	S 3600	0	10.06	99.99	5.90
2007	3700	S	0	0	9.49	99.99	19.90
2006	3700	F	0	0	9.60	99.99	21.60
2005	3600	C	S 3600	0	9.60	99.90	0.00

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

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TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7033 - SR93/I-75 NB,ON-RAMP FROM CR776/HARBOR VIEW X167

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	1600	F	0	0	9.00	99.90	7.00
2018	1500	C	N 1500	0	9.00	99.90	7.10
2017	1600	T	0	0	9.00	99.90	7.10
2016	1500	S	0	0	9.00	99.90	6.30
2015	1400	F	0	0	9.00	99.90	5.20
2014	1300	C	N 1300	0	9.00	99.90	6.50
2013	1200	S	0	0	9.00	99.90	6.00
2012	1200	F	0	0	9.00	99.90	6.20
2011	1200	C	N 1200	0	9.00	99.90	5.30
2010	1000	S	0	0	9.99	99.99	6.10
2009	1000	F	0	0	9.99	99.99	6.10
2008	1000	C	N 1000	0	10.06	99.99	6.10
2007	1000	S	0	0	9.49	99.99	19.90
2006	1000	F	0	0	9.60	99.99	21.60
2005	1000	C	N 1000	0	9.60	99.90	0.00

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

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2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7034 - SR93/I-75 SB,OFF-RAMP TO CR776/HARBOR VIEW X167

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	1400 F	0	0	9.00	99.90	7.00
2018	1300 C	S 1300	0	9.00	99.90	7.10
2017	1500 T	0	0	9.00	99.90	7.10
2016	1400 S	0	0	9.00	99.90	6.30
2015	1300 F	0	0	9.00	99.90	5.20
2014	1200 C	S 1200	0	9.00	99.90	6.50
2013	1100 S	0	0	9.00	99.90	6.00
2012	1100 F	0	0	9.00	99.90	6.20
2011	1100 C	S 1100	0	9.00	99.90	5.30
2010	950 S	0	0	9.99	99.99	8.00
2009	950 F	0	0	9.99	99.99	8.00
2008	950 C	S 950	0	10.06	99.99	8.00
2007	1000 S	0	0	9.49	99.99	19.90
2006	1000 F	0	0	9.60	99.99	21.60
2005	950 C	S 950	0	9.60	99.90	0.00

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

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2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7041 - SR93/I-75 NB,OFF-RAMP TO CR769/KINGS HWY X170

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	9300	F	0	0	9.00	99.90	7.00
2018	8900	C	N 8900	0	9.00	99.90	7.10
2017	8600	T	0	0	9.00	99.90	7.10
2016	8100	S	0	0	9.00	99.90	6.30
2015	7700	F	0	0	9.00	99.90	5.20
2014	7300	C	N 7300	0	9.00	99.90	6.50
2013	7000	S	0	0	9.00	99.90	6.00
2012	6900	F	0	0	9.00	99.90	6.20
2011	6900	C	N 6900	0	9.00	99.90	5.30
2010	5400	S	0	0	9.99	99.99	9.30
2009	5500	F	0	0	9.99	99.99	9.30
2008	5600	C	N 5600	0	10.06	99.99	9.30
2007	6300	S	0	0	9.49	99.99	19.90
2006	6300	F	0	0	9.60	99.99	21.60
2005	6100	C	N 6100	0	9.60	99.90	0.00

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

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 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7042 - SR93/I-75 SB,ON-RAMP FROM CR769/KINGS HWY X170

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	9500 F	0	0	9.00	99.90	7.00
2018	9100 C	S 9100	0	9.00	99.90	7.10
2017	9000 T	0	0	9.00	99.90	7.10
2016	8500 S	0	0	9.00	99.90	6.30
2015	8100 F	0	0	9.00	99.90	5.20
2014	7600 C	S 7600	0	9.00	99.90	6.50
2013	7200 S	0	0	9.00	99.90	6.00
2012	7100 F	0	0	9.00	99.90	6.20
2011	7100 C	S 7100	0	9.00	99.90	5.30
2010	5700 S	0	0	9.99	99.99	9.00
2009	5800 F	0	0	9.99	99.99	9.00
2008	5900 C	S 5900	0	10.06	99.99	9.00
2007	6700 S	0	0	9.49	99.99	19.90
2006	6700 F	0	0	9.60	99.99	21.60
2005	6400 C	S 6400	0	9.60	99.90	0.00

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

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 2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7043 - SR93/I-75 NB,ON-RAMP FROM CR769/KINGS HWY X170

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5500	F	0	0	9.00	99.90	7.00
2018	5300	C	N 5300	0	9.00	99.90	7.10
2017	6200	T	0	0	9.00	99.90	7.10
2016	5900	S	0	0	9.00	99.90	6.30
2015	5600	F	0	0	9.00	99.90	5.20
2014	5300	C	N 5300	0	9.00	99.90	6.50
2013	4300	S	0	0	9.00	99.90	6.00
2012	4300	F	0	0	9.00	99.90	6.20
2011	4300	C	N 4300	0	9.00	99.90	5.30
2010	3600	S	0	0	9.99	99.99	10.40
2009	3700	F	0	0	9.99	99.99	10.40
2008	3800	C	N 3800	0	10.06	99.99	10.40
2007	4500	S	0	0	9.49	99.99	19.90
2006	4500	F	0	0	9.60	99.99	21.60
2005	4300	C	N 4300	0	9.60	99.90	0.00

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

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TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 7044 - SR93/I-75 SB,OFF-RAMP TO CR769/KINGS HWY X170

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5800 F	0	0	9.00	99.90	7.00
2018	5600 C	S 5600	0	9.00	99.90	7.10
2017	5900 T	0	0	9.00	99.90	7.10
2016	5600 S	0	0	9.00	99.90	6.30
2015	5300 F	0	0	9.00	99.90	5.20
2014	5000 C	S 5000	0	9.00	99.90	6.50
2013	4600 S	0	0	9.00	99.90	6.00
2012	4600 F	0	0	9.00	99.90	6.20
2011	4600 C	S 4600	0	9.00	99.90	5.30
2010	3700 S	0	0	9.99	99.99	9.70
2009	3800 F	0	0	9.99	99.99	9.70
2008	3900 C	S 3900	0	10.06	99.99	9.70
2007	4400 S	0	0	9.49	99.99	19.90
2006	4400 F	0	0	9.60	99.99	21.60
2005	4200 C	S 4200	0	9.60	99.90	0.00

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

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2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7001 - SR93/I-75 NB,OFF-RAMP TO TOLEDO BLADE BLVD X179

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	3000 F	0	0	9.50	99.90	6.10
2018	2900 C	W 2900	0	9.50	99.90	6.40
2017	2600 T	0	0	9.50	99.90	7.00
2016	2500 S	0	0	9.50	99.90	6.50
2015	2400 F	0	0	9.00	99.90	6.00
2014	2300 C	W 2300	0	9.00	99.90	6.20
2013	2000 S	0	0	9.00	99.90	7.10
2012	2000 F	0	0	9.00	99.90	5.50
2011	2000 C	W 2000	0	9.00	99.90	5.90
2010	1900 S	0	0	9.78	99.99	6.10
2009	1900 F	0	0	9.49	99.99	5.30
2008	1900 C	W 1900	0	9.80	99.99	6.80
2007	2900 S	0	0	9.29	99.99	19.60
2006	2900 F	0	0	9.57	99.99	19.50
2005	2800 C	W 2800	0	9.60	99.90	0.00

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

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 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7002 - SR93/I-75 SB,ON-RAMP FROM TOLEDO BLADE BLVD X179

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2800 F	0	0	9.00	99.90	6.10
2018	2700 C	E 2700	0	9.00	99.90	6.40
2017	2600 T	0	0	9.00	99.90	7.00
2016	2500 S	0	0	9.00	99.90	6.50
2015	2400 F	0	0	9.00	99.90	6.00
2014	2300 C	E 2300	0	9.00	99.90	6.20
2013	2100 S	0	0	9.00	99.90	7.10
2012	2100 F	0	0	9.00	99.90	5.50
2011	2100 C	E 2100	0	9.00	99.90	5.90
2010	2000 S	0	0	9.78	99.99	6.10
2009	2000 F	0	0	9.49	99.99	5.30
2008	2000 C	E 2000	0	9.80	99.99	6.80
2007	2800 S	0	0	9.29	99.99	19.60
2006	2800 F	0	0	9.57	99.99	19.50
2005	2700 C	E 2700	0	9.60	99.90	0.00

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

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 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7003 - SR93/I-75 NB,ON-RAMP FROM TOLEDO BLAD BLVD X179

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	7600 F	0	0	9.00	99.90	6.10
2018	7300 C	W 7300	0	9.00	99.90	6.40
2017	7600 T	0	0	9.00	99.90	7.00
2016	7300 S	0	0	9.00	99.90	6.50
2015	7000 F	0	0	9.00	99.90	6.00
2014	6600 C	W 6600	0	9.00	99.90	6.20
2013	4800 S	0	0	9.00	99.90	7.10
2012	4700 F	0	0	9.00	99.90	5.50
2011	4700 C	W 4700	0	9.00	99.90	5.90
2010	4600 S	0	0	9.78	99.99	6.10
2009	4600 F	0	0	9.49	99.99	5.30
2008	4700 C	W 4700	0	9.80	99.99	6.80
2007	5400 S	0	0	9.29	99.99	19.60
2006	5400 F	0	0	9.57	99.99	19.50
2005	5300 C	W 5300	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7004 - SR93/I-75 SB, OFF-RAMP TO TOLEDO BLADE BLVD X179

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	7600 F	0	0	9.00	99.90	6.10
2018	7300 C	E 7300	0	9.00	99.90	6.40
2017	6700 T	0	0	9.00	99.90	7.00
2016	6400 S	0	0	9.00	99.90	6.50
2015	6100 F	0	0	9.00	99.90	6.00
2014	5800 C	E 5800	0	9.00	99.90	6.20
2013	4700 S	0	0	9.00	99.90	7.10
2012	4600 F	0	0	9.00	99.90	5.50
2011	4600 C	E 4600	0	9.00	99.90	5.90
2010	4500 S	0	0	9.78	99.99	6.10
2009	4500 F	0	0	9.49	99.99	5.30
2008	4600 C	E 4600	0	9.80	99.99	6.80
2007	5200 S	0	0	9.29	99.99	19.60
2006	5200 F	0	0	9.57	99.99	19.50
2005	5100 C	E 5100	0	9.60	99.90	0.00

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

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FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7011 - SR 93/I-75 NB, OFF-RAMP TO SUMTER BLVD X182

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2300 F	0	0	9.00	99.90	6.10
2018	2200 C	W 2200	0	9.00	99.90	6.40
2017	2200 T	0	0	9.00	99.90	7.00
2016	2100 S	0	0	9.00	99.90	6.50
2015	2000 F	0	0	9.00	99.90	6.00
2014	1900 C	W 1900	0	9.00	99.90	6.20
2013	1700 S	0	0	9.00	99.90	7.10
2012	1700 F	0	0	9.00	99.90	5.50
2011	1700 C	W 1700	0	9.00	99.90	5.90
2010	1500 S	0	0	9.78	99.99	6.10
2009	1500 F	0	0	9.49	99.99	5.30
2008	1500 C	W 1500	0	9.80	99.99	6.80
2007	2100 S	0	0	9.29	99.99	19.60
2006	2100 F	0	0	9.57	99.99	19.50
2005	2000 C	W 2000	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7012 - SR 93/I-75 SB, ON-RAMP FROM SUMTER BLVD X182

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2500 F	0	0	9.00	99.90	6.10
2018	2400 C	E 2400	0	9.00	99.90	6.40
2017	2300 T	0	0	9.00	99.90	7.00
2016	2200 S	0	0	9.00	99.90	6.50
2015	2100 F	0	0	9.00	99.90	6.00
2014	2000 C	E 2000	0	9.00	99.90	6.20
2013	1700 S	0	0	9.00	99.90	7.10
2012	1700 F	0	0	9.00	99.90	5.50
2011	1700 C	E 1700	0	9.00	99.90	5.90
2010	1600 S	0	0	9.78	99.99	6.10
2009	1600 F	0	0	9.49	99.99	5.30
2008	1600 C	E 1600	0	9.80	99.99	6.80
2007	2100 S	0	0	9.29	99.99	19.60
2006	2100 F	0	0	9.57	99.99	19.50
2005	2000 C	E 2000	0	9.60	99.90	0.00

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

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FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7013 - SR 93/I-75 NB, ON-RAMP FROM SUMTER BLVD X182

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5900 F	0	0	9.00	99.90	6.10
2018	5700 C	W 5700	0	9.00	99.90	6.40
2017	6000 T	0	0	9.00	99.90	7.00
2016	5700 S	0	0	9.00	99.90	6.50
2015	5500 F	0	0	9.00	99.90	6.00
2014	5200 C	W 5200	0	9.00	99.90	6.20
2013	4300 S	0	0	9.00	99.90	7.10
2012	4200 F	0	0	9.00	99.90	5.50
2011	4200 C	W 4200	0	9.00	99.90	5.90
2010	4300 S	0	0	9.78	99.99	6.10
2009	4300 F	0	0	9.49	99.99	5.30
2008	4400 C	W 4400	0	9.80	99.99	6.80
2007	5100 S	0	0	9.29	99.99	19.60
2006	5100 F	0	0	9.57	99.99	19.50
2005	5000 C	W 5000	0	9.60	99.90	0.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 7014 - SR 93/I-75 SB, OFF-RAMP TO SUMTER BLVD X182

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	6200 F	0	0	9.00	99.90	6.10
2018	5900 C	E 5900	0	9.00	99.90	6.40
2017	6100 T	0	0	9.00	99.90	7.00
2016	5800 S	0	0	9.00	99.90	6.50
2015	5600 F	0	0	9.00	99.90	6.00
2014	5300 C	E 5300	0	9.00	99.90	6.20
2013	4300 S	0	0	9.00	99.90	7.10
2012	4200 F	0	0	9.00	99.90	5.50
2011	4200 C	E 4200	0	9.00	99.90	5.90
2010	4500 S	0	0	9.78	99.99	6.10
2009	4500 F	0	0	9.49	99.99	5.30
2008	4600 C	E 4600	0	9.80	99.99	6.80
2007	5100 S	0	0	9.29	99.99	19.60
2006	5100 F	0	0	9.57	99.99	19.50
2005	5000 C	E 5000	0	9.60	99.90	0.00

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

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Appendix B

StreetLight Insight® Turning Movement Counts and Origin-Destination Data

Charlotte County I-75 Interchanges - StreetLight Data Turning Movement Counts

Interchange	From			To			Turning Movement Counts								
	ID	Name	Direction	ID	Name	Direction	All Day	Weekday AM				Weekday PM			
								6-9	6-7	7-8	8-9	3-6	3-4	4-5	5-6
Sumter Blvd.	121	I-75 south (east) of N River Rd	EB	1	I-75 north (west) of Choctaw Blvd	EB	27,750	3,308	880	1,143	1,285	7,666	2,359	2,620	2,687
Sumter Blvd.	121	I-75 south (east) of N River Rd	EB	123	Sumter Blvd north of I-75	NB	1,115	55	6	23	26	492	105	180	207
Sumter Blvd.	121	I-75 south (east) of N River Rd	EB	258	Sumter Blvd south of I-75	SB	5,109	456	113	192	151	2,136	531	781	824
Sumter Blvd.	259	Sumter Blvd north of I-75	SB	257	I-75 south (east) of N River Rd	WB	1,343	646	264	263	119	141	38	51	52
Sumter Blvd.	259	Sumter Blvd north of I-75	SB	258	Sumter Blvd south of I-75	SB	1,580	413	125	182	106	326	117	101	108
Sumter Blvd.	259	Sumter Blvd north of I-75	SB	1	I-75 north (west) of Choctaw Blvd	EB	649	195	61	68	66	116	32	39	45
Sumter Blvd.	122	Sumter Blvd south of I-75	NB	257	I-75 south (east) of N River Rd	WB	4,603	1,977	779	702	496	624	233	196	195
Sumter Blvd.	122	Sumter Blvd south of I-75	NB	123	Sumter Blvd north of I-75	NB	1,588	110	25	29	56	431	137	156	138
Sumter Blvd.	122	Sumter Blvd south of I-75	NB	1	I-75 north (west) of Choctaw Blvd	EB	2,376	575	117	250	208	531	157	185	189
Sumter Blvd.	137	I-75 north (west) of Choctaw Blvd	WB	123	Sumter Blvd north of I-75	NB	501	43	6	16	21	164	48	59	57
Sumter Blvd.	137	I-75 north (west) of Choctaw Blvd	WB	258	Sumter Blvd south of I-75	SB	2,216	340	89	126	125	632	218	177	237
Sumter Blvd.	137	I-75 north (west) of Choctaw Blvd	WB	257	I-75 south (east) of N River Rd	WB	28,383	6,567	1,915	2,433	2,219	4,996	1,763	1,723	1,510
Choctaw Blvd.	1	I-75 north (west) of Choctaw Blvd	EB	2	I-75 south (east) of Choctaw Blvd.	EB	25,477	3,486	937	1,220	1,329	6,011	2,003	2,013	1,995
Choctaw Blvd.	1	I-75 north (west) of Choctaw Blvd	EB	3	Choctaw Blvd. north of I-75	NB	162	17	10	4	3	62	13	16	33
Choctaw Blvd.	1	I-75 north (west) of Choctaw Blvd	EB	140	Choctaw Blvd. south of I-75	SB	7,152	722	118	288	316	2,672	634	932	1,106
Choctaw Blvd.	139	Choctaw Blvd. north of I-75	SB	137	I-75 north (west) of Choctaw Blvd	WB	218	106	36	55	15	49	9	20	20
Choctaw Blvd.	139	Choctaw Blvd. north of I-75	SB	140	Choctaw Blvd. south of I-75	SB	1,520	488	92	201	195	314	103	107	104
Choctaw Blvd.	139	Choctaw Blvd. north of I-75	SB	2	I-75 south (east) of Choctaw Blvd.	EB	300	105	49	34	22	46	13	14	19
Choctaw Blvd.	4	Choctaw Blvd. south of I-75	NB	137	I-75 north (west) of Choctaw Blvd	WB	7,032	2,529	898	939	692	1,132	407	379	346
Choctaw Blvd.	4	Choctaw Blvd. south of I-75	NB	3	Choctaw Blvd. north of I-75	NB	1,468	119	30	40	49	541	148	186	207
Choctaw Blvd.	4	Choctaw Blvd. south of I-75	NB	2	I-75 south (east) of Choctaw Blvd.	EB	2,783	745	243	271	231	624	194	223	207
Choctaw Blvd.	138	I-75 south (east) of Choctaw Blvd.	WB	3	Choctaw Blvd. north of I-75	NB	285	27	6	5	16	105	19	27	59
Choctaw Blvd.	138	I-75 south (east) of Choctaw Blvd.	WB	140	Choctaw Blvd. south of I-75	SB	2,765	425	115	132	178	757	213	261	283
Choctaw Blvd.	138	I-75 south (east) of Choctaw Blvd.	WB	137	I-75 north (west) of Choctaw Blvd	WB	25,636	4,626	1,164	1,693	1,769	4,931	1,740	1,673	1,518
Kings Hwy.	2	I-75 south (east) of Choctaw Blvd.	EB	143	I-75 south of Kings Hwy.	SB	22,617	3,574	1,051	1,254	1,269	4,985	1,689	1,712	1,584
Kings Hwy.	2	I-75 south (east) of Choctaw Blvd.	EB	5	Kings Hwy. east of I-75	NB	1,983	215	60	62	93	595	193	189	213
Kings Hwy.	2	I-75 south (east) of Choctaw Blvd.	EB	142	Kings Hwy. west of I-75	SB	2,812	404	85	147	172	767	218	240	309
Kings Hwy.	141	Kings Hwy. east of I-75	SB	138	I-75 south (east) of Choctaw Blvd.	WB	2,398	595	205	214	176	438	152	145	141
Kings Hwy.	141	Kings Hwy. east of I-75	SB	142	Kings Hwy. west of I-75	SB	10,255	1,807	410	754	643	2,211	681	726	804
Kings Hwy.	141	Kings Hwy. east of I-75	SB	143	I-75 south of Kings Hwy.	SB	2,196	566	139	214	213	474	132	155	187
Kings Hwy.	6	Kings Hwy. west of I-75	NB	138	I-75 south (east) of Choctaw Blvd.	WB	2,735	671	165	282	224	528	163	195	170
Kings Hwy.	6	Kings Hwy. west of I-75	NB	5	Kings Hwy. east of I-75	NB	11,594	1,040	219	363	458	3,124	975	1,023	1,126
Kings Hwy.	6	Kings Hwy. west of I-75	NB	143	I-75 south of Kings Hwy.	SB	6,310	1,434	425	579	430	1,366	435	451	480
Kings Hwy.	7	I-75 south of Kings Hwy.	NB	5	Kings Hwy. east of I-75	NB	1,968	291	46	127	118	542	158	198	186
Kings Hwy.	7	I-75 south of Kings Hwy.	NB	142	Kings Hwy. west of I-75	SB	5,062	790	156	330	304	1,387	397	459	531
Kings Hwy.	7	I-75 south of Kings Hwy.	NB	138	I-75 south (east) of Choctaw Blvd.	WB	22,415	3,715	910	1,283	1,522	4,595	1,597	1,538	1,460
Harbor View Rd.	143	I-75 south of Kings Hwy.	SB	145	I-75 south of Harbor View Rd.	SB	27,418	4,977	1,400	1,870	1,707	5,910	1,911	2,034	1,965
Harbor View Rd.	143	I-75 south of Kings Hwy.	SB	10	Harbor View Rd. east of I-75	NB	717	83	20	38	25	237	62	77	98
Harbor View Rd.	143	I-75 south of Kings Hwy.	SB	144	Harbor View Rd. west of I-75	SB	777	177	65	53	59	196	74	64	58
Harbor View Rd.	146	Harbor View Rd. east of I-75	SB	7	I-75 south of Kings Hwy.	NB	772	261	85	81	95	137	41	47	49
Harbor View Rd.	146	Harbor View Rd. east of I-75	SB	144	Harbor View Rd. west of I-75	SB	1,743	421	94	145	182	353	116	134	103
Harbor View Rd.	146	Harbor View Rd. east of I-75	SB	145	I-75 south of Harbor View Rd.	SB	3,597	1,384	401	490	493	607	180	193	234
Harbor View Rd.	8	Harbor View Rd. west of I-75	NB	7	I-75 south of Kings Hwy.	NB	688	133	39	48	46	174	63	58	53
Harbor View Rd.	8	Harbor View Rd. west of I-75	NB	10	Harbor View Rd. east of I-75	NB	1,919	195	36	89	70	525	162	171	192
Harbor View Rd.	8	Harbor View Rd. west of I-75	NB	145	I-75 south of Harbor View Rd.	SB	1,995	441	97	165	179	493	129	180	184
Harbor View Rd.	9	I-75 south of Harbor View Rd.	NB	10	Harbor View Rd. east of I-75	NB	3,341	228	31	86	111	1,166	247	500	419
Harbor View Rd.	9	I-75 south of Harbor View Rd.	NB	144	Harbor View Rd. west of I-75	SB	1,763	344	100	126	118	460	121	159	180
Harbor View Rd.	9	I-75 south of Harbor View Rd.	NB	7	I-75 south of Kings Hwy.	NB	26,634	4,165	929	1,542	1,694	6,019	1,979	2,025	2,015
Duncan Rd.	145	I-75 south of Harbor View Rd.	SB	149	I-75 south of Duncan Rd.	SB	24,147	4,162	1,159	1,530	1,473	5,145	1,643	1,824	1,678
Duncan Rd.	145	I-75 south of Harbor View Rd.	SB	11	Duncan Rd. east of I-75	EB	4,157	827	248	341	238	905	278	300	327
Duncan Rd.	145	I-75 south of Harbor View Rd.	SB	148	Duncan Rd. east of I-75	WB	5,299	1,883	466	689	728	1,056	308	326	422
Duncan Rd.	147	Duncan Rd. east of I-75	WB	9	I-75 south of Harbor View Rd.	NB	3,999	715	191	250	274	989	322	339	328
Duncan Rd.	147	Duncan Rd. east of I-75	WB	148	Duncan Rd. west of I-75	WB	6,188	1,561	337	633	591	1,217	421	389	407
Duncan Rd.	147	Duncan Rd. east of I-75	WB	149	I-75 south of Duncan Rd.	SB	3,382	707	226	266	215	642	214	214	214
Duncan Rd.	12	Duncan Rd. west of I-75	EB	9	I-75 south of Harbor View Rd.	NB	4,226	346	40	120	186	1,378	330	615	433
Duncan Rd.	12	Duncan Rd. west of I-75	EB	11	Duncan Rd. east of I-75	EB	5,414	436	75	157	204	1,628	462	594	572
Duncan Rd.	12	Duncan Rd. west of I-75	EB	149	I-75 south of Duncan Rd.	SB	1,493	222	45	97	80	383	133	129	121
Duncan Rd.	13	I-75 south of Duncan Rd.	NB	11	Duncan Rd. east of I-75	EB	3,340	506	110	186	210	822	240	276	306
Duncan Rd.	13	I-75 south of Duncan Rd.	NB	148	Duncan Rd. west of I-75	WB	1,215	240	69	81	90	271	82	86	103
Duncan Rd.	13	I-75 south of Duncan Rd.	NB	9	I-75 south of Harbor View Rd.	NB	24,280	3,832	883	1,439	1,510	5,429	1,753	1,829	1,847
Jones Loop Rd.	149	I-75 south of Duncan Rd.	SB	150	I-75 south of Jones Loop Rd.	SB	24,385	4,377	1,219	1,647	1,511	5,126	1,668	1,792	1,666
Jones Loop Rd.	149	I-75 south of Duncan Rd.	SB	16	Jones Loop Rd. east of I-75	EB	670	93	27	29	37	105	31	38	36
Jones Loop Rd.	149	I-75 south of Duncan Rd.	SB	151	Jones Loop Rd. west of I-75	WB	5,840	942	256	346	340	1,354	425	470	459
Jones Loop Rd.	152	Jones Loop Rd. east of I-75	WB	13	I-75 south of Duncan Rd.	NB	716	105	33	40	32	140	42	47	51
Jones Loop Rd.	152	Jones Loop Rd. east of I-75	WB	151	Jones Loop Rd. west of I-75	WB	2,511	422	127	162	133	519	188	175	156
Jones Loop Rd.	152	Jones Loop Rd. east of I-75	WB	150	I-75 south of Jones Loop Rd.	SB	1,238	123	40	34	49	255	73	98	84
Jones Loop Rd.	15	Jones Loop Rd. west of I-75	EB	13	I-75 south of Duncan Rd.	NB	4,893	988	246	391	351	978	307	319	352
Jones Loop Rd.	15	Jones Loop Rd. west of I-75	EB	16	Jones Loop Rd. east of I-75	EB	2,300	355	97	126	132	485	161	168	156
Jones Loop Rd.	15	Jones Loop Rd. west of I-75	EB	150	I-75 south of Jones Loop Rd.	SB	1,670	376	88	170	118	335	101	118	116
Jones Loop Rd.	14	I-75 south of Jones Loop Rd.	NB	16	Jones Loop Rd. east of I-75	EB	1,351	225	85	77	63	249	69	92	88
Jones Loop Rd.	14	I-75 south of Jones Loop Rd.	NB	151	Jones Loop Rd. west of I-75	WB	2,305	303	81	108	114	590	174	207	209
Jones Loop Rd.	14	I-75 south of Jones Loop Rd.	NB	13	I-75 south of Duncan Rd.	NB	24,530	3,789	896	1,170	1,523	5,647	1,828	1,904	1,915
Tuckers Grade	150	I-75 south of Jones Loop Rd.	SB	155	I-75 south of Tuckers Grade	SB	22,623	4,086	1,092	1,583	1,411	4,562	1,505	1,593	1,464
Tuckers Grade	150	I-75 south of Jones Loop Rd.	SB	17	Tuckers Grade east of I-75	EB	77	13	2	3	8	15	6	6	3
Tuckers Grade	150	I-75 south of Jones Loop Rd.	SB	154	Tuckers Grade west of I-75	WB	4,335	657</							

STUDY	BEGIN	END	Value	OriginPer	DestPer
Weekday-All-OD	01: I-75 south of Tuckers Grade	02: Tuckers Grade	1620.000000000000	25%	7%
Weekday-All-OD	01: I-75 south of Tuckers Grade	03: Jones Loop Rd	2968.000000000000	26%	12%
Weekday-All-OD	01: I-75 south of Tuckers Grade	04: Duncan Rd	2450.000000000000	15%	10%
Weekday-All-OD	01: I-75 south of Tuckers Grade	05: Harbor View Rd	1496.000000000000	20%	6%
Weekday-All-OD	01: I-75 south of Tuckers Grade	06: Kings Hwy	2987.000000000000	20%	12%
Weekday-All-OD	01: I-75 south of Tuckers Grade	07: Choctaw Blvd	783.000000000000	7%	3%
Weekday-All-OD	01: I-75 south of Tuckers Grade	08: Sumter Blvd	604.000000000000	6%	2%
Weekday-All-OD	01: I-75 south of Tuckers Grade	09: I-75 south (east) of N River Rd	11307.000000000000	32%	47%
Weekday-All-OD	02: Tuckers Grade	01: I-75 south of Tuckers Grade	1649.000000000000	7%	23%
Weekday-All-OD	02: Tuckers Grade	03: Jones Loop Rd	701.000000000000	6%	10%
Weekday-All-OD	02: Tuckers Grade	04: Duncan Rd	998.000000000000	6%	14%
Weekday-All-OD	02: Tuckers Grade	05: Harbor View Rd	388.000000000000	5%	5%
Weekday-All-OD	02: Tuckers Grade	06: Kings Hwy	835.000000000000	6%	12%
Weekday-All-OD	02: Tuckers Grade	07: Choctaw Blvd	213.000000000000	2%	3%
Weekday-All-OD	02: Tuckers Grade	08: Sumter Blvd	211.000000000000	2%	3%
Weekday-All-OD	02: Tuckers Grade	09: I-75 south (east) of N River Rd	2074.000000000000	6%	29%
Weekday-All-OD	03: Jones Loop Rd	01: I-75 south of Tuckers Grade	3052.000000000000	12%	28%
Weekday-All-OD	03: Jones Loop Rd	02: Tuckers Grade	588.000000000000	9%	5%
Weekday-All-OD	03: Jones Loop Rd	04: Duncan Rd	2100.000000000000	13%	19%
Weekday-All-OD	03: Jones Loop Rd	05: Harbor View Rd	824.000000000000	11%	8%
Weekday-All-OD	03: Jones Loop Rd	06: Kings Hwy	1278.000000000000	8%	12%
Weekday-All-OD	03: Jones Loop Rd	07: Choctaw Blvd	285.000000000000	3%	3%
Weekday-All-OD	03: Jones Loop Rd	08: Sumter Blvd	192.000000000000	2%	2%
Weekday-All-OD	03: Jones Loop Rd	09: I-75 south (east) of N River Rd	2608.000000000000	7%	24%
Weekday-All-OD	04: Duncan Rd	01: I-75 south of Tuckers Grade	2571.000000000000	10%	17%
Weekday-All-OD	04: Duncan Rd	02: Tuckers Grade	859.000000000000	13%	6%
Weekday-All-OD	04: Duncan Rd	03: Jones Loop Rd	2337.000000000000	20%	16%
Weekday-All-OD	04: Duncan Rd	05: Harbor View Rd	2855.000000000000	37%	19%
Weekday-All-OD	04: Duncan Rd	06: Kings Hwy	3178.000000000000	21%	21%
Weekday-All-OD	04: Duncan Rd	07: Choctaw Blvd	686.000000000000	6%	5%
Weekday-All-OD	04: Duncan Rd	08: Sumter Blvd	448.000000000000	4%	3%
Weekday-All-OD	04: Duncan Rd	09: I-75 south (east) of N River Rd	2086.000000000000	6%	14%
Weekday-All-OD	05: Harbor View Rd	01: I-75 south of Tuckers Grade	1459.000000000000	6%	17%
Weekday-All-OD	05: Harbor View Rd	02: Tuckers Grade	353.000000000000	5%	4%
Weekday-All-OD	05: Harbor View Rd	03: Jones Loop Rd	950.000000000000	8%	11%
Weekday-All-OD	05: Harbor View Rd	04: Duncan Rd	3534.000000000000	22%	41%
Weekday-All-OD	05: Harbor View Rd	06: Kings Hwy	1365.000000000000	9%	16%
Weekday-All-OD	05: Harbor View Rd	07: Choctaw Blvd	199.000000000000	2%	2%
Weekday-All-OD	05: Harbor View Rd	08: Sumter Blvd	123.000000000000	1%	1%
Weekday-All-OD	05: Harbor View Rd	09: I-75 south (east) of N River Rd	571.000000000000	2%	7%
Weekday-All-OD	06: Kings Hwy	01: I-75 south of Tuckers Grade	3113.000000000000	13%	20%
Weekday-All-OD	06: Kings Hwy	02: Tuckers Grade	762.000000000000	12%	5%
Weekday-All-OD	06: Kings Hwy	03: Jones Loop Rd	1349.000000000000	12%	9%
Weekday-All-OD	06: Kings Hwy	04: Duncan Rd	3635.000000000000	23%	24%
Weekday-All-OD	06: Kings Hwy	05: Harbor View Rd	1274.000000000000	17%	8%
Weekday-All-OD	06: Kings Hwy	07: Choctaw Blvd	1045.000000000000	9%	7%
Weekday-All-OD	06: Kings Hwy	08: Sumter Blvd	747.000000000000	7%	5%
Weekday-All-OD	06: Kings Hwy	09: I-75 south (east) of N River Rd	3464.000000000000	10%	23%
Weekday-All-OD	07: Choctaw Blvd	01: I-75 south of Tuckers Grade	859.000000000000	3%	7%
Weekday-All-OD	07: Choctaw Blvd	02: Tuckers Grade	220.000000000000	3%	2%
Weekday-All-OD	07: Choctaw Blvd	03: Jones Loop Rd	303.000000000000	3%	3%
Weekday-All-OD	07: Choctaw Blvd	04: Duncan Rd	769.000000000000	5%	7%
Weekday-All-OD	07: Choctaw Blvd	05: Harbor View Rd	206.000000000000	3%	2%
Weekday-All-OD	07: Choctaw Blvd	06: Kings Hwy	1151.000000000000	8%	10%
Weekday-All-OD	07: Choctaw Blvd	08: Sumter Blvd	1015.000000000000	10%	9%
Weekday-All-OD	07: Choctaw Blvd	09: I-75 south (east) of N River Rd	7221.000000000000	20%	61%
Weekday-All-OD	08: Sumter Blvd	01: I-75 south of Tuckers Grade	778.000000000000	3%	8%
Weekday-All-OD	08: Sumter Blvd	02: Tuckers Grade	214.000000000000	3%	2%
Weekday-All-OD	08: Sumter Blvd	03: Jones Loop Rd	224.000000000000	2%	2%
Weekday-All-OD	08: Sumter Blvd	04: Duncan Rd	469.000000000000	3%	5%
Weekday-All-OD	08: Sumter Blvd	05: Harbor View Rd	136.000000000000	2%	1%
Weekday-All-OD	08: Sumter Blvd	06: Kings Hwy	822.000000000000	5%	8%
Weekday-All-OD	08: Sumter Blvd	07: Choctaw Blvd	1150.000000000000	10%	11%
Weekday-All-OD	08: Sumter Blvd	09: I-75 south (east) of N River Rd	6483.000000000000	18%	63%
Weekday-All-OD	09: I-75 south (east) of N River Rd	01: I-75 south of Tuckers Grade	11367.000000000000	46%	32%
Weekday-All-OD	09: I-75 south (east) of N River Rd	02: Tuckers Grade	1814.000000000000	28%	5%
Weekday-All-OD	09: I-75 south (east) of N River Rd	03: Jones Loop Rd	2588.000000000000	23%	7%
Weekday-All-OD	09: I-75 south (east) of N River Rd	04: Duncan Rd	2111.000000000000	13%	6%
Weekday-All-OD	09: I-75 south (east) of N River Rd	05: Harbor View Rd	457.000000000000	6%	1%
Weekday-All-OD	09: I-75 south (east) of N River Rd	06: Kings Hwy	3531.000000000000	23%	10%
Weekday-All-OD	09: I-75 south (east) of N River Rd	07: Choctaw Blvd	6854.000000000000	61%	19%
Weekday-All-OD	09: I-75 south (east) of N River Rd	08: Sumter Blvd	6702.000000000000	67%	19%

Appendix C

FDOT District 1

TSM&O Traffic Signal Timing Data

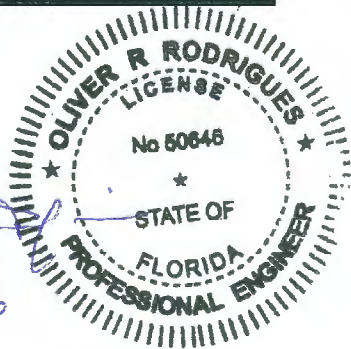
Time of Day Plan

Designed By: S.J.
 Date: 11/17/2015
 Checked By: O.R.
 Date: 11/17/2015

System ID:
 Section: *Various*
 Arterial: *Jones Loop Road*
 From: *Indian Springs Cemetery*
 To: *I-75 NB Exit*

OFF PEAK SEASON PLAN: From Week 19 to Week 43

Day	Time	Pattern	Cycle Length
Monday Thru Friday	0000 - 0700	-	FREE
	0700 - 0900	13	95
	0900 - 1500	14	90
	1500 - 1730	15	95
	1730 - 2000	16	95
	2000 - 2359	-	FREE
Saturday	0000 - 0700	-	FREE
	0700 - 0930	17	100
	0930 - 1500	18	95
	1500 - 1830	19	90
	1830 - 2030	20	95
	2030 - 2359	-	FREE
Sunday	0000 - 0800	-	FREE
	0800 - 1000	21	95
	1000 - 1500	22	95
	1500 - 1700	23	95
	1700 - 2000	24	95
	2000 - 2359	-	FREE


OR
 9/26/16

Designed By:	S. Jo
Date:	11/17/2015
Checked By:	O. Rodrigues
Date:	11/17/2015

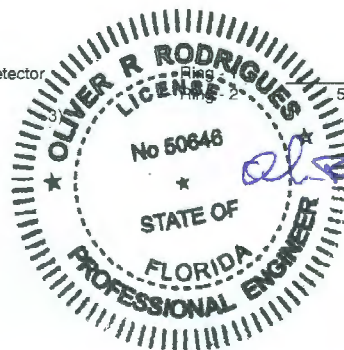
Location Details	
Section: 01075-310	Mile Post: 0.100
Major Street: Jones Loop Road	Orientation: E-W
Minor Street: I-75 SB Ramps	Orientation: N-S
Signal ID: 1021 (State) / 211 (County)	System ID:

Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB			WBL	EB		SB	
Turn Type					Prot/Perm				
Min Green		10			5	10		7	
Ext		5.0			3.0	5.0		3.0	
Yellow		4.9			4.9	4.9		4.5	
All Red		4.5			3.0	4.5		2.0	
Max I		60			30	60		30	
Max II		68			20	48		34	
Walk									
Flashing Don't Walk									
Detector Memory									
Det. Cross Switch.					YES				
Dual Entry		ON				ON			
Vehicle Recall		MAX				MAX			
CNA									
Rest in Walk									

Coordination Timings (seconds)													
Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
13		95		64			19	45		31	91	1	2
14		90		63			19	44		27	82	1	2
15		95		61			17	44		34	90	1	2
16		95		62			20	42		33	91	1	2
17		100		68			20	48		32	91	1	2
18		95		64			17	47		31	87	1	2
19		90		58			19	39		32	79	1	2
20		95		63			21	42		32	90	1	2
21		95		66			20	46		29	86	1	2
22		95		64			17	47		31	87	1	2
23		95		64			18	46		31	86	1	2
24		95		62			20	42		33	85	1	2

Offset Reference Point
End of Green

- Notes:
- 1) Program phase restrictions to omit phase 5 when phase 6 is green, in addition to detector cross switching.
 - 2) Add 8 seconds detection delay for minor street right turn movements. Use 'Max I' during FREE Operation and 'Max II' during coordination.
 - 4) Use Fixed Force Offs.
 - 5) Sequence 1 used during FREE operation
 - 6) Max recall Ø2 and Ø5 during coordination
 - 7) Controller Brand: Naztec
 - 7.a) Program 'Return Hold' during coordination
 - 7.b) Short/Long percentage is 5/17 for all patterns



SOP Special

2 5 6 8

Handwritten signature and date: 9/26/16

Designed By:	S. Jo
Date:	11/17/2015
Checked By:	O. Rodrigues
Date:	11/17/2015

Location Details	
Section: 01075-307	Mile Post: 0.156
Major Street: Jones Loop Road	Orientation: E-W
Minor Street: I-75 NB Ramps	Orientation: N-S
Signal ID: 1020 (State) / 212(County)	System ID:

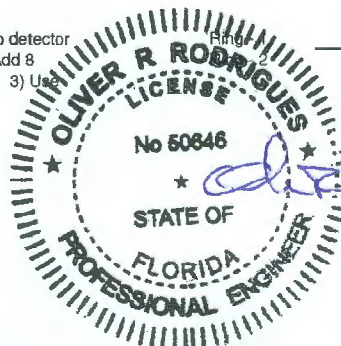
Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB		NB		EB			
Turn Type	Prot/Perm								
Min Green	5	10		7		10			
Ext	3.0	5.0		3.0		5.0			
Yellow	4.9	4.9		4.5		4.9			
All Red	2.0	4.8		2.0		4.8			
Max I	30	60		30		60			
Max II	44	35		23		78			
Walk									
Flashing Don't Walk									
Detector Memory									
Det. Cross Switch.	YES								
Dual Entry		ON				ON			
Vehicle Recall		MAX				MAX			
CNA									
Rest in Walk									

Coordination Timings (seconds)												
Pattern	C-S-O	Cycle Length	Splits						Offset	Sequence	Coord Ø	
13		95	41	33		21		74		43	1	2
14		90	37	32		21		69		36	1	2
15		95	42	31		22		73		44	1	2
16		95	38	34		23		72		47	1	2
17		100	44	34		22		78		41	1	2
18		95	41	32		22		73		39	1	2
19		90	35	33		22		68		37	1	2
20		95	37	35		23		72		45	1	2
21		95	40	33		22		73		40	1	2
22		95	41	32		22		73		39	1	2
23		95	39	34		22		73		43	1	2
24		95	39	33		23		72		40	1	2

Offset Reference Point
End of Green

Notes:

- 1) Program phase restrictions to omit phase 1 when phase 2 is green in addition to detector cross switching
- 2) Add 8 seconds detection delay for minor street right turn movements.
- 3) 'Max I' during FREE Operation and 'Max II' during coordination.
- 4) Use Fixed Force Offs.
- 5) Sequence 1 used during FREE operation
- 6) Max recall Ø2 and Ø6 during coordination
- 7) Controller Brand: Naztec
- 7.a) Program 'Return Hold' during coordination
- 7.b) Short/Long percentage is 5/17 for all patterns



Handwritten signature and date: 9/26/16

Time of Day Plan

Designed By:	NJS
Date:	7/18/19
Checked By:	DJP
Date:	7/18/19

Arterial: SR 35 (US 17)
 System ID: 01040A
 Section: 01040000
 From: I-75 Southbound Ramps
 To: CR 74 (Bermont Road)

ALL SEASON PLAN

Day	Time	Pattern	Cycle Length
Monday Thru Friday	0000 - 0630	-	FREE
	0630 - 0930	1	140
	0930 - 1400	2	120
	1400 - 1800	3	140
	1800 - 0000	-	FREE
Saturday	0000 - 0830	-	FREE
	0830 - 1830	4	110
	1830 - 0000	-	FREE
Sunday	0000 - 0900	-	FREE
	0900 - 1830	5	110
	1830 - 0000	-	FREE

Designed By:	RM
Date:	02/2020
Checked By:	
Date:	

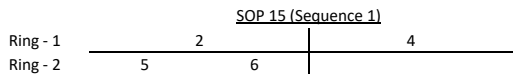
Location Details	
Section: 01040000	Mile Post: 2.069
Major Street: SR 35 (US 17)	Orientation: East-West
Minor Street: I-75 Southbound Ramps	Orientation: North-South
Sig ID: 38	System ID: 01040A

Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB		NB	WBL	EB			<i>WBL FYA operates with OLF (Ø6)</i>
Turn Type					Prot/Perm				
Min Green		15		7	5	15			
Ext		5.0		4.0	3.0	5.0			
Yellow		5.5		3.7	5.5	5.5			
All Red		3.0		2.2	3.0	3.0			
Max I		40		80	35	40			
Max II		80		60	35	55			
Walk									
Flashing Don't Walk									
Detector Memory									
Det. Cross Switch.					Ø2				
Dual Entry		ON				ON			
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									

Coordination Timings (seconds)													
Pattern	C/O/S	Cycle Length	Splits							Offset	Sequence	Coord Ø	
1		140		65		75	35	30			115	1	2
2		120		70		50	30	40			55	1	2
3		140		85		55	40	45			114	1	2
4		110		65		45	30	35			97	1	2
5		110		65		45	30	35			97	1	2

Offset Reference Point
<i>End of Green</i>

- Notes:
- 1) Use 'Max I' during FREE operation and 'Inhibit Max' during coordination.
 - 2) Use Floating Force Offs.
 - 3) Max recall Ø2 and Ø6 during coordination.
 - 4) Sequence 1 used during FREE operation.
 - 5) Program 2 seconds of FYA delay for Ø5.
 - 6) Program 8 seconds detection delay for minor street right turn movements.
 - 7) Controller Brand: Naztec
 - 7.a) Program phase restriction to omit Ø5 when Ø6 is green.
 - 7.b) Program 'Return Hold' during coordination.
 - 7.c) Short/Long percentage is 12/22 for all patterns.



Time of Day Plan

Designed By:	Existing
Date:	
Checked By:	
Date:	

System ID:
 Section: **Various**
 Arterial: **Kings Hwy/Veterans Blvd**
 From: **Tiseo Blvd**
 To: **Sandhill Blvd**

PEAK SEASON PLAN

Day	Time	Pattern	Cycle Length
Monday Thru Friday	0000 - 0600	-	FREE
	0600 - 1000	1	140
	1000 - 1400	2	140
	1400 - 1830	16	160
	1830 - 2100	4	140
	2100 - 2359	-	FREE
Saturday	0000 - 0730	-	FREE
	0730 - 0930	5	130
	0930 - 1700	2	140
	1700 - 2030	7	130
	2030 - 2359	-	FREE
Sunday	0000 - 0800	-	FREE
	0800 - 1030	8	130
	1030 - 1730	9	130
	1730 - 1930	10	130
	1930 - 2359	-	FREE

Designed By:	RM
Date:	06/2019
Checked By:	
Date:	

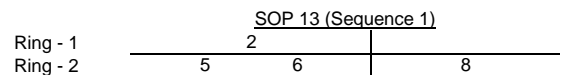
Location Details	
Section: 01075322	Mile Post: 0.280
Major Street: Kings Hwy	Orientation: E-W
Minor Street: I-75 SB Ramps	Orientation: N-S
Signal ID: 1494	System ID: 01075B

Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB			WBL	EB		SBL	4-Section FYA for movement 5
Turn Type					<i>Prot/Perm</i>			<i>Prot</i>	
Min Green		10			5	10		7	
Ext		5.0			3.0	5.0		3.0	
Yellow		4.9			4.9	4.9		4.5	
All Red		3.0			3.0	3.0		2.0	
Max I		60			25	60		25	
Max II		85			30	85		30	
Walk									
Flashing Don't Walk									
Detector Memory									
Det. Cross Switch.					ON				
Dual Entry		ON			ON				
Vehicle Recall		MAX				MAX			
CNA									
Rest in Walk									

Coordination Timings (seconds)														
Pattern	C-S-O	Cycle Length									Offset	Sequence	Coord Ø	
1		140		110				26	84		30	70	1	2
2		140		115				24	91		25	60	1	2
3		140		115				22	93		25	83	1	2
4		140		115				22	93		25	50	1	2
5		130		102				24	78		28	49	1	2
6		130		102				22	80		28	48	1	2
7		130		102				22	80		28	43	1	2
8		130		102				24	78		28	41	1	2
9		130		102				22	80		28	49	1	2
10		130		102				22	80		28	43	1	2
16		160		127				30	97		33	87	1	2

Offset Reference Point
End of Green

- Notes:
- 1) Use 'Max I' during FREE Operation and 'Max II' during coordination.
 - 2) Use Fixed Force Offs.
 - 3) Sequence 1 used during FREE operation
 - 4) Program Max recall for Ø2 and Ø6 during coordination
 - 5) Program phase restriction to omit movement 5 and redirect calls from movement 5 to movement 2, when movement 6 is green.
 - 6) Controller Brand: Naztec
 - 6.a) Program 'Return Hold' during coordination
 - 6.b) Short/Long percentage is 10/22 for all patterns
 - 7) Program "FYA Delay" of 2 seconds for movement 5



Appendix D

Operations Analysis Outputs

(Existing)

SYNCHRO WORKSHEETS - AM PEAKK



HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

Existing
 AM Peak

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	312	238	1	104	0	0	0	0	2	0	180
Future Vol, veh/h	0	312	238	1	104	0	0	0	0	2	0	180
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	347	264	1	116	0	0	0	0	2	0	200

Major/Minor	Major1			Major2			Minor2				
Conflicting Flow All	-	0	0	347	0	0			292	-	58
Stage 1	-	-	-	-	-	-			118	-	-
Stage 2	-	-	-	-	-	-			174	-	-
Critical Hdwy	-	-	-	4.14	-	-			6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-			5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-			3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	1209	-	0			675	0	996
Stage 1	0	-	-	-	-	0			894	0	-
Stage 2	0	-	-	-	-	0			839	0	-
Platoon blocked, %		-	-	-	-	-					
Mov Cap-1 Maneuver	-	-	-	1209	-	-			674	0	996
Mov Cap-2 Maneuver	-	-	-	-	-	-			674	0	-
Stage 1	-	-	-	-	-	-			894	0	-
Stage 2	-	-	-	-	-	-			838	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1209	-	674	996
HCM Lane V/C Ratio	-	-	0.001	-	0.003	0.201
HCM Control Delay (s)	-	-	8	-	10.4	9.5
HCM Lane LOS	-	-	A	-	B	A
HCM 95th %tile Q(veh)	-	-	0	-	0	0.7

HCM 6th TWSC
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

Existing
 AM Peak

Intersection												
Int Delay, s/veh	11.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↗			
Traffic Vol, veh/h	302	11	0	0	2	1	103	0	3	0	0	0
Future Vol, veh/h	302	11	0	0	2	1	103	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Yield	-	-	Yield	-	-	None
Storage Length	605	-	-	-	-	-	0	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	0	0
Mvmt Flow	336	12	0	0	2	1	114	0	3	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	2	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1619	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1619	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	7.5	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	303	1075	1619	-	-	-
HCM Lane V/C Ratio	0.378	0.003	0.207	-	-	-
HCM Control Delay (s)	23.9	8.4	7.8	-	-	-
HCM Lane LOS	C	A	A	-	-	-
HCM 95th %tile Q(veh)	1.7	0	0.8	-	-	-

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
 AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↑↑		↑↑
Traffic Volume (vph)	0	542	170	34	268	0	0	0	0	29	0	346
Future Volume (vph)	0	542	170	34	268	0	0	0	0	29	0	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		595	225		0	0		0	875		850
Storage Lanes	0		0	1		0	0		0	0		3
Taper Length (ft)	25			75			25			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	0.88
Frt		0.964										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3283	0	1703	3406	0	0	0	0	3303	0	2682
Flt Permitted				0.282						0.950		
Satd. Flow (perm)	0	3283	0	505	3406	0	0	0	0	3303	0	2682
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		51										
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1697			1005			1731				1734
Travel Time (s)		25.7			15.2			39.3				39.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	0%	0%	0%	6%	6%	6%
Adj. Flow (vph)	0	589	185	37	291	0	0	0	0	32	0	376
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	774	0	37	291	0	0	0	0	32	0	376
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1		1
Detector Template		Thru		Left	Thru					Left		Right
Leading Detector (ft)		100		20	100					20		20
Trailing Detector (ft)		0		0	0					0		0
Detector 1 Position(ft)		0		0	0					0		0
Detector 1 Size(ft)		6		20	6					20		20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		pm+pt	NA					Prot		Prot
Protected Phases		6		5	2					8		8

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
 AM Peak

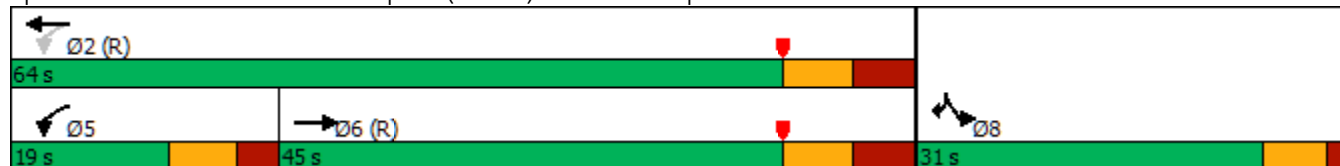


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2								
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		10.0		5.0	10.0					7.0		7.0
Minimum Split (s)		19.4		12.9	19.4					13.5		13.5
Total Split (s)		45.0		19.0	64.0					31.0		31.0
Total Split (%)		47.4%		20.0%	67.4%					32.6%		32.6%
Maximum Green (s)		35.6		11.1	54.6					24.5		24.5
Yellow Time (s)		4.9		4.9	4.9					4.5		4.5
All-Red Time (s)		4.5		3.0	4.5					2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		9.4		7.9	9.4					6.5		6.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		5.0		3.0	5.0					3.0		3.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		51.8		62.1	60.6					18.5		18.5
Actuated g/C Ratio		0.55		0.65	0.64					0.19		0.19
v/c Ratio		0.43		0.09	0.13					0.05		0.72
Control Delay		14.9		8.6	8.9					29.2		43.7
Queue Delay		0.0		0.0	0.0					0.0		0.0
Total Delay		14.9		8.6	8.9					29.2		43.7
LOS		B		A	A					C		D
Approach Delay		14.9			8.9							42.6
Approach LOS		B			A							D

Intersection Summary

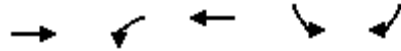
Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	95
Offset:	91 (96%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	21.0
Intersection LOS:	C
Intersection Capacity Utilization:	55.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp



Queues
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
 AM Peak



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	774	37	291	32	376
v/c Ratio	0.43	0.09	0.13	0.05	0.72
Control Delay	14.9	8.6	8.9	29.2	43.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	8.6	8.9	29.2	43.7
Queue Length 50th (ft)	145	10	44	8	121
Queue Length 95th (ft)	225	27	71	19	164
Internal Link Dist (ft)	1617		925		
Turn Bay Length (ft)		225		875	850
Base Capacity (vph)	1813	470	2173	851	691
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.08	0.13	0.04	0.54

Intersection Summary

HCM 6th Signalized Intersection Summary

23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	542	170	34	268	0	0	0	0	29	0	346
Future Volume (veh/h)	0	542	170	34	268	0	0	0	0	29	0	346
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	589	0	37	291	0				32	0	376
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	1888		497	2287	0				562	0	454
Arrive On Green	0.00	0.55	0.00	0.07	1.00	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3622	0	1725	3532	0				3346	0	2701
Grp Volume(v), veh/h	0	589	0	37	291	0				32	0	376
Grp Sat Flow(s),veh/h/ln	0	1721	0	1725	1721	0				1673	0	1351
Q Serve(g_s), s	0.0	8.9	0.0	0.8	0.0	0.0				0.8	0.0	12.8
Cycle Q Clear(g_c), s	0.0	8.9	0.0	0.8	0.0	0.0				0.8	0.0	12.8
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1888		497	2287	0				562	0	454
V/C Ratio(X)	0.00	0.31		0.07	0.13	0.00				0.06	0.00	0.83
Avail Cap(c_a), veh/h	0	1888		642	2287	0				863	0	697
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.7	0.0	8.0	0.0	0.0				33.2	0.0	38.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.1	0.1	0.0				0.0	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	0.0	0.3	0.0	0.0				0.3	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.1	0.0	8.1	0.1	0.0				33.2	0.0	43.2
LnGrp LOS	A	B		A	A	A				C	A	D
Approach Vol, veh/h		589	A		328						408	
Approach Delay, s/veh		12.1			1.0						42.4	
Approach LOS		B			A						D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		72.5			11.0	61.5		22.5				
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4		6.5				
Max Green Setting (Gmax), s		* 55			11.1	* 36		24.5				
Max Q Clear Time (g_c+I1), s		2.0			2.8	10.9		14.8				
Green Ext Time (p_c), s		3.7			0.0	7.0		1.2				

Intersection Summary























HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 		 			
Traffic Volume (vph)	391	180	0	0	196	45	106	0	77	0	0	0
Future Volume (vph)	391	180	0	0	196	45	106	0	77	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		800	0		775	0		0
Storage Lanes	1		0	0		1	2		3	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1703	3406	0	0	3406	1524	3303	0	2682	0	0	0
Flt Permitted	0.540						0.950					
Satd. Flow (perm)	968	3406	0	0	3406	1524	3303	0	2682	0	0	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)						119						
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1005			2114			1382				245
Travel Time (s)		15.2			32.0			31.4				5.6
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
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	0%	0%	0%
Adj. Flow (vph)	434	200	0	0	218	50	118	0	86	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	434	200	0	0	218	50	118	0	86	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 AM Peak

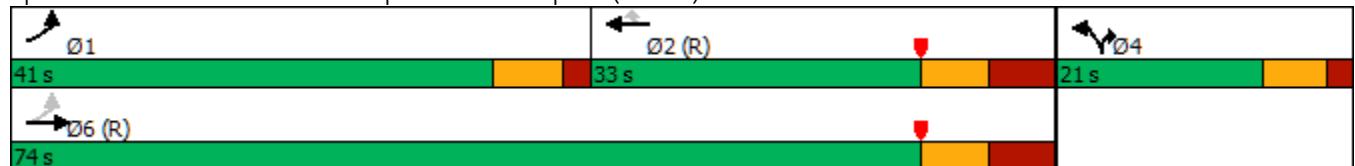


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Permitted Phases	6						2						
Detector Phase	1	6				2	2	4		4			
Switch Phase													
Minimum Initial (s)	5.0	10.0					10.0	10.0	7.0	7.0			
Minimum Split (s)	11.9	19.7					19.7	19.7	13.5	13.5			
Total Split (s)	41.0	74.0					33.0	33.0	21.0	21.0			
Total Split (%)	43.2%	77.9%					34.7%	34.7%	22.1%	22.1%			
Maximum Green (s)	34.1	64.3					23.3	23.3	14.5	14.5			
Yellow Time (s)	4.9	4.9					4.9	4.9	4.5	4.5			
All-Red Time (s)	2.0	4.8					4.8	4.8	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0					0.0	0.0	0.0	0.0			
Total Lost Time (s)	6.9	9.7					9.7	9.7	6.5	6.5			
Lead/Lag	Lead				Lag				Lag				
Lead-Lag Optimize?	Yes				Yes				Yes				
Vehicle Extension (s)	3.0	5.0					5.0	5.0	3.0	3.0			
Recall Mode	None	C-Max						C-Max	C-Max	None	None		
Act Effect Green (s)	72.7	69.9					49.5	49.5	8.9	8.9			
Actuated g/C Ratio	0.77	0.74					0.52	0.52	0.09	0.09			
v/c Ratio	0.51	0.08					0.12	0.06	0.38	0.34			
Control Delay	8.7	2.9					13.0	0.1	43.7	43.7			
Queue Delay	0.0	0.0					0.0	0.0	0.0	0.0			
Total Delay	8.7	2.9					13.0	0.1	43.7	43.7			
LOS	A	A					B	A	D	D			
Approach Delay	6.9						10.6	43.7					
Approach LOS	A						B	D					

Intersection Summary

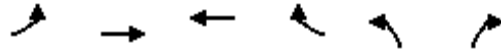
Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 43 (45%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 14.6
 Intersection Capacity Utilization 55.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)



Queues
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 AM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	434	200	218	50	118	86
v/c Ratio	0.51	0.08	0.12	0.06	0.38	0.34
Control Delay	8.7	2.9	13.0	0.1	43.7	43.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	2.9	13.0	0.1	43.7	43.7
Queue Length 50th (ft)	180	10	33	0	35	28
Queue Length 95th (ft)	5	1	63	0	60	52
Internal Link Dist (ft)		925	2034			
Turn Bay Length (ft)	130			800		775
Base Capacity (vph)	1004	2506	1775	851	504	409
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.08	0.12	0.06	0.23	0.21
Intersection Summary						

HCM 6th Signalized Intersection Summary
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖		↗			
Traffic Volume (veh/h)	391	180	0	0	196	45	106	0	77	0	0	0
Future Volume (veh/h)	391	180	0	0	196	45	106	0	77	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	434	200	0	0	218	0	118	0	86			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	886	2602	0	0	1927		245	0	198			
Arrive On Green	0.04	0.25	0.00	0.00	0.56	0.00	0.07	0.00	0.07			
Sat Flow, veh/h	1725	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	434	200	0	0	218	0	118	0	86			
Grp Sat Flow(s),veh/h/ln	1725	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	8.4	4.2	0.0	0.0	2.8	0.0	3.2	0.0	2.9			
Cycle Q Clear(g_c), s	8.4	4.2	0.0	0.0	2.8	0.0	3.2	0.0	2.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	886	2602	0	0	1927		245	0	198			
V/C Ratio(X)	0.49	0.08	0.00	0.00	0.11		0.48	0.00	0.43			
Avail Cap(c_a), veh/h	1292	2602	0	0	1927		511	0	412			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.1	10.3	0.0	0.0	9.8	0.0	42.3	0.0	42.1			
Incr Delay (d2), s/veh	0.4	0.1	0.0	0.0	0.1	0.0	1.5	0.0	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	1.1	0.0	0.0	1.0	0.0	1.4	0.0	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	10.3	0.0	0.0	9.9	0.0	43.7	0.0	43.6			
LnGrp LOS	A	B	A	A	A		D	A	D			
Approach Vol, veh/h		634			218	A		204				
Approach Delay, s/veh		7.7			9.9			43.7				
Approach LOS		A			A			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.6	62.9		13.5		81.5						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	34.1	* 23		14.5		* 64						
Max Q Clear Time (g_c+I1), s	10.4	4.8		5.2		6.2						
Green Ext Time (p_c), s	1.3	2.0		0.5		2.5						

Intersection Summary







HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
 AM Peak

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	
Traffic Volume (vph)	406	78	266	557	659	323
Future Volume (vph)	406	78	266	557	659	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	15
Storage Length (ft)		615	200		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Fr _t		0.850			0.956	
Fl _t Protected			0.950		0.968	
Satd. Flow (prot)	5036	1568	1752	5036	1707	0
Fl _t Permitted			0.331		0.968	
Satd. Flow (perm)	5036	1568	611	5036	1707	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		85			25	
Link Speed (mph)	55			55	30	
Link Distance (ft)	2534			1353	1359	
Travel Time (s)	31.4			16.8	30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	441	85	289	605	716	351
Shared Lane Traffic (%)						
Lane Group Flow (vph)	441	85	289	605	1067	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	40			40	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	0.88
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
 AM Peak

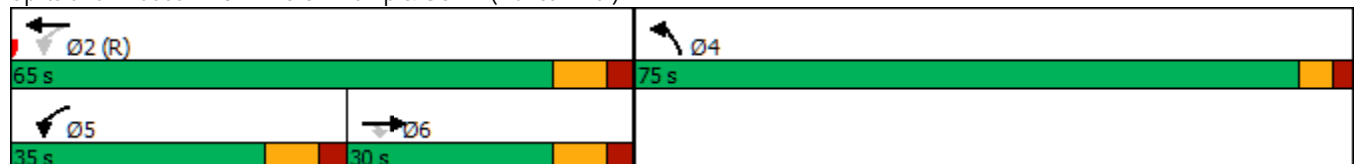


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	6		5	2	4	
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.5	23.5	13.5	23.5	12.9	
Total Split (s)	30.0	30.0	35.0	65.0	75.0	
Total Split (%)	21.4%	21.4%	25.0%	46.4%	53.6%	
Maximum Green (s)	21.5	21.5	26.5	56.5	69.1	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	3.0	3.0	3.0	3.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.5	8.5	8.5	8.5	5.9	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	4.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effct Green (s)	26.5	26.5	56.5	56.5	69.1	
Actuated g/C Ratio	0.19	0.19	0.40	0.40	0.49	
v/c Ratio	0.46	0.23	0.69	0.30	1.25	
Control Delay	53.2	11.8	54.4	40.0	153.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	53.2	11.8	54.4	40.0	153.0	
LOS	D	B	D	D	F	
Approach Delay	46.5			44.7	153.0	
Approach LOS	D			D	F	

Intersection Summary

Area Type:	Other
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	115 (82%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle:	130
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.25
Intersection Signal Delay:	91.5
Intersection LOS:	F
Intersection Capacity Utilization:	102.6%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 32: I-75 SB Ramp & US 17 (Duncan Rd.)



Queues
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
 AM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	441	85	289	605	1067
v/c Ratio	0.46	0.23	0.69	0.30	1.25
Control Delay	53.2	11.8	54.4	40.0	153.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	11.8	54.4	40.0	153.0
Queue Length 50th (ft)	132	0	252	183	~1202
Queue Length 95th (ft)	178	50	345	218	#1466
Internal Link Dist (ft)	2454			1273	1279
Turn Bay Length (ft)		615	200		
Base Capacity (vph)	953	365	462	2032	855
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.23	0.63	0.30	1.25

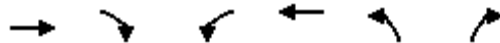
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	↓
Traffic Volume (veh/h)	406	78	266	557	659	323
Future Volume (veh/h)	406	78	266	557	659	323
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	441	0	289	605	716	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	1373		482	2371	757	
Arrive On Green	0.27	0.00	0.27	0.94	0.43	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1765	0
Grp Volume(v), veh/h	441	0	289	605	717	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	0
Q Serve(g_s), s	9.7	0.0	16.6	1.4	54.6	0.0
Cycle Q Clear(g_c), s	9.7	0.0	16.6	1.4	54.6	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1373		482	2371	758	
V/C Ratio(X)	0.32		0.60	0.26	0.95	
Avail Cap(c_a), veh/h	1373		575	2371	872	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.93	0.93	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	24.3	2.4	38.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.2	17.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	5.4	0.5	27.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	0.0	25.5	2.7	56.3	0.0
LnGrp LOS	D		C	A	E	
Approach Vol, veh/h	441	A		894	717	A
Approach Delay, s/veh	41.0			10.0	56.3	
Approach LOS	D			B	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		74.0		66.0	27.6	46.4
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		56.5		69.1	26.5	21.5
Max Q Clear Time (g_c+I1), s		3.4		56.6	18.6	11.7
Green Ext Time (p_c), s		8.3		3.5	0.5	2.9

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
AM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	
Traffic Volume (vph)	523	206	345	742	81	189
Future Volume (vph)	523	206	345	742	81	189
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850			0.906	
Flt Protected			0.950		0.985	
Satd. Flow (prot)	5036	1568	1752	5036	1646	0
Flt Permitted			0.387		0.985	
Satd. Flow (perm)	5036	1568	714	5036	1646	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		224			79	
Link Speed (mph)	55			55	30	
Link Distance (ft)	1353			1291	2169	
Travel Time (s)	16.8			16.0	49.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	568	224	375	807	88	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	568	224	375	807	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	6		5	2	4	

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
 AM Peak

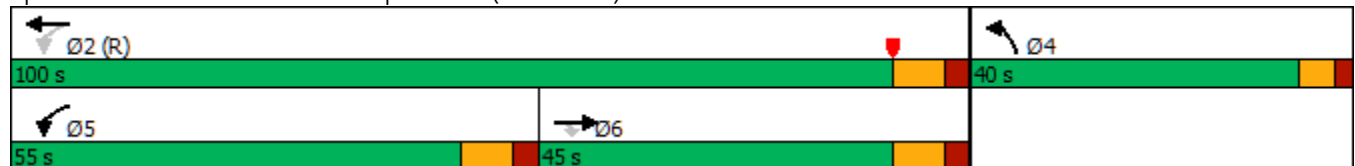


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.2	23.2	13.2	23.2	12.8	
Total Split (s)	45.0	45.0	55.0	100.0	40.0	
Total Split (%)	32.1%	32.1%	39.3%	71.4%	28.6%	
Maximum Green (s)	36.8	36.8	46.8	91.8	34.2	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	2.7	2.7	2.7	2.7	2.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	8.2	8.2	8.2	5.8	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	3.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effect Green (s)	76.9	76.9	101.7	101.7	24.3	
Actuated g/C Ratio	0.55	0.55	0.73	0.73	0.17	
v/c Ratio	0.21	0.23	0.59	0.22	0.83	
Control Delay	14.1	9.2	11.5	7.0	60.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.1	9.2	11.5	7.0	60.0	
LOS	B	A	B	A	E	
Approach Delay	12.8			8.4	60.0	
Approach LOS	B			A	E	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 132 (94%), Referenced to phase 2:WBTL, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 16.6
 Intersection LOS: B
 Intersection Capacity Utilization 66.2%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 34: I-75 NB Ramp & US 17 (Duncan Rd.)



Queues

34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing

AM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	568	224	375	807	293
v/c Ratio	0.21	0.23	0.59	0.22	0.83
Control Delay	14.1	9.2	11.5	7.0	60.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	9.2	11.5	7.0	60.0
Queue Length 50th (ft)	121	94	107	79	194
Queue Length 95th (ft)	m136	m113	194	123	281
Internal Link Dist (ft)	1273			1211	2089
Turn Bay Length (ft)			100		
Base Capacity (vph)	2765	962	865	3657	461
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.23	0.43	0.22	0.64

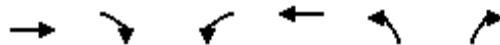
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	↓
Traffic Volume (veh/h)	523	206	345	742	81	189
Future Volume (veh/h)	523	206	345	742	81	189
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	568	0	375	807	88	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3547		743	4238	111	
Arrive On Green	0.70	0.00	0.08	0.84	0.06	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1748	0
Grp Volume(v), veh/h	568	0	375	807	89	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1768	0
Q Serve(g_s), s	5.3	0.0	7.8	4.3	7.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	7.8	4.3	7.0	0.0
Prop In Lane		1.00	1.00		0.99	0.00
Lane Grp Cap(c), veh/h	3547		743	4238	112	
V/C Ratio(X)	0.16		0.50	0.19	0.79	
Avail Cap(c_a), veh/h	3547		1196	4238	432	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.1	0.0	4.2	2.2	64.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	0.1	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.0	0.8	3.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.1	0.0	4.7	2.3	76.6	0.0
LnGrp LOS	A		A	A	E	
Approach Vol, veh/h	568	A		1182	89	A
Approach Delay, s/veh	7.1			3.1	76.6	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		125.3		14.7	19.1	106.2
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 92		* 34	* 47	* 37
Max Q Clear Time (g_c+I1), s		6.3		9.0	9.8	7.3
Green Ext Time (p_c), s		12.5		0.2	1.1	6.8
Intersection Summary						
HCM 6th Ctrl Delay			7.9			
HCM 6th LOS			A			

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

HCM 6th TWSC
43: Harbor View Rd. (CR 776) & I-75 SB Ramp

Existing
AM Peak

Intersection												
Int Delay, s/veh	7.6											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↙		↗					↕↔		↙	↕↕	
Traffic Vol, veh/h	38	0	62	0	0	0	0	137	165	490	301	0
Future Vol, veh/h	38	0	62	0	0	0	0	137	165	490	301	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	41	0	67	0	0	0	0	149	179	533	327	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1468	-	164	-	0	0	149	0	0
Stage 1	1393	-	-	-	-	-	-	-	-
Stage 2	75	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	117	0	849	-	0	-	1423	-	0
Stage 1	194	0	-	-	0	-	-	-	0
Stage 2	936	0	-	-	0	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	73	0	849	-	-	-	1423	-	-
Mov Cap-2 Maneuver	73	0	-	-	-	-	-	-	-
Stage 1	194	0	-	-	-	-	-	-	-
Stage 2	585	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	46	0	5.6
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	73	849	1423	-
HCM Lane V/C Ratio	-	-	0.566	0.079	0.374	-
HCM Control Delay (s)	-	-	105.3	9.6	9	-
HCM Lane LOS	-	-	F	A	A	-
HCM 95th %tile Q(veh)	-	-	2.4	0.3	1.8	-

HCM 6th TWSC
46: Harbor View Rd. (CR 776) & I-75 NB Ramp

Existing
AM Peak

Intersection

Int Delay, s/veh 3.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↘		↗	↘	↕			↕	↗
Traffic Vol, veh/h	0	0	0	126	0	112	48	127	0	0	665	81
Future Vol, veh/h	0	0	0	126	0	112	48	127	0	0	665	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	260	200	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	140	0	124	53	141	0	0	739	90






















Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	617	- 71 739	0 - - - 0
Stage 1	247	- - -	- - - - -
Stage 2	370	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	419	0 974 857	- 0 0 - -
Stage 1	768	0 - -	- 0 0 - -
Stage 2	666	0 - -	- 0 0 - -
Platoon blocked, %			- - - - -
Mov Cap-1 Maneuver	393	0 974 857	- - - - -
Mov Cap-2 Maneuver	393	0 - -	- - - - -
Stage 1	720	0 - -	- - - - -
Stage 2	666	0 - -	- - - - -

Approach	NW	NE	SW
HCM Control Delay, s	14.4	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NETNWLn1NWLn2	SWT	SWR
Capacity (veh/h)	857	- 393 974	- -	-
HCM Lane V/C Ratio	0.062	- 0.356 0.128	- -	-
HCM Control Delay (s)	9.5	- 19.1 9.2	- -	-
HCM Lane LOS	A	- C A	- -	-
HCM 95th %tile Q(veh)	0.2	- 1.6 0.4	- -	-

Lanes, Volumes, Timings
35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
AM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (vph)	86	0	159	0	0	0	0	772	549	183	1115	0
Future Volume (vph)	86	0	159	0	0	0	0	772	549	183	1115	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		0	450		0
Storage Lanes	2		1	0		0	0		1	1		0
Taper Length (ft)	100			25			25			50		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850							0.850		
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3335	0	1538	0	0	0	0	3438	1538	1719	3438	0
Flt Permitted	0.950									0.295		
Satd. Flow (perm)	3335	0	1538	0	0	0	0	3438	1538	534	3438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			173						597			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1888			1616			1339			802	
Travel Time (s)		42.9			36.7			20.3			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	93	0	173	0	0	0	0	839	597	199	1212	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	0	173	0	0	0	0	839	597	199	1212	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			42			44	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					2	1	1	2	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20		20					100	20	20	100	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	20		20					6	20	20	6	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot		Free					NA	Prot	pm+pt	NA	
Protected Phases	8							6	6	5	2	

Lanes, Volumes, Timings
35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
AM Peak

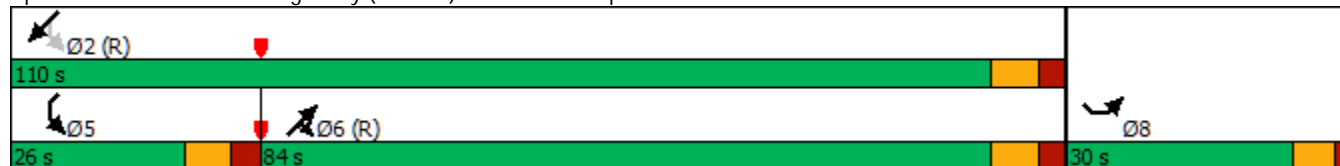


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	Free									2		
Detector Phase	8							6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0							10.0	10.0	5.0	10.0	
Minimum Split (s)	13.5							17.9	17.9	12.9	17.9	
Total Split (s)	30.0							84.0	84.0	26.0	110.0	
Total Split (%)	21.4%							60.0%	60.0%	18.6%	78.6%	
Maximum Green (s)	23.5							76.1	76.1	18.1	102.1	
Yellow Time (s)	4.5							4.9	4.9	4.9	4.9	
All-Red Time (s)	2.0							3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0							0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5							7.9	7.9	7.9	7.9	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0							5.0	5.0	3.0	5.0	
Recall Mode	None							C-Max	C-Max	None	C-Max	
Act Effect Green (s)	9.4		140.0					99.6	99.6	116.2	116.2	
Actuated g/C Ratio	0.07		1.00					0.71	0.71	0.83	0.83	
v/c Ratio	0.42		0.11					0.34	0.47	0.39	0.42	
Control Delay	68.0		0.2					8.4	1.9	5.6	7.9	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.4	
Total Delay	68.0		0.2					8.4	1.9	5.6	8.3	
LOS	E		A					A	A	A	A	
Approach Delay		23.9						5.7			7.9	
Approach LOS		C						A			A	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 70 (50%), Referenced to phase 2:SWTL and 6:NET, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 77.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D

Splits and Phases: 35: Kings Hwy (CR 769) & I-75 SB Ramp



Queues
35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
AM Peak


























Lane Group	SEL	SER	NET	NER	SWL	SWT
Lane Group Flow (vph)	93	173	839	597	199	1212
v/c Ratio	0.42	0.11	0.34	0.47	0.39	0.42
Control Delay	68.0	0.2	8.4	1.9	5.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	68.0	0.2	8.4	1.9	5.6	8.3
Queue Length 50th (ft)	42	0	138	0	61	341
Queue Length 95th (ft)	71	0	193	37	m63	328
Internal Link Dist (ft)			1259			722
Turn Bay Length (ft)	350				450	
Base Capacity (vph)	559	1538	2446	1266	596	2854
Starvation Cap Reductn	0	0	0	0	0	1014
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.11	0.34	0.47	0.33	0.66

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



















HCM 6th Signalized Intersection Summary
 35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
 AM Peak

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 	 	 	 	
Traffic Volume (veh/h)	86	0	159	0	0	0	0	772	549	183	1115	0
Future Volume (veh/h)	86	0	159	0	0	0	0	772	549	183	1115	0
Initial Q (Qb), veh	0	0	0					0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	93	0	0				0	839	0	199	1212	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	164	0					0	2593		556	2944	0
Arrive On Green	0.05	0.00	0.00				0.00	0.75	0.00	0.09	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	93	0	0				0	839	0	199	1212	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	3.8	0.0	0.0				0.0	11.3	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0				0.0	11.3	0.0	3.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	164	0					0	2593		556	2944	0
V/C Ratio(X)	0.57	0.00					0.00	0.32		0.36	0.41	0.00
Avail Cap(c_a), veh/h	566	0					0	2593		703	2944	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.63	0.63	0.00
Uniform Delay (d), s/veh	65.1	0.0	0.0				0.0	5.9	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0				0.0	0.3	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0				0.0	3.6	0.0	0.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	0.0	0.0				0.0	6.2	0.0	4.0	0.3	0.0
LnGrp LOS	E	A					A	A		A	A	A
Approach Vol, veh/h		93	A					839	A		1411	
Approach Delay, s/veh		68.2						6.2			0.8	
Approach LOS		E						A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		126.7			14.1	112.6		13.3				
Change Period (Y+Rc), s		7.9			7.9	7.9		6.5				
Max Green Setting (Gmax), s		102.1			18.1	76.1		23.5				
Max Q Clear Time (g_c+I1), s		2.0			5.8	13.3		5.8				
Green Ext Time (p_c), s		27.9			0.4	14.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			5.4									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NER, SER] is excluded from calculations of the approach delay and intersection delay.												

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
AM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	330	0	117	282	576	0	0	968	214
Future Volume (vph)	0	0	0	330	0	117	282	576	0	0	968	214
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	475		300	500		0	0		400
Storage Lanes	0		0	2		1	1		0	0		0
Taper Length (ft)	25			150			50			25		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850						0.973
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	3335	0	2707	1719	3438	0	0	3345	0
Flt Permitted				0.950			0.114					
Satd. Flow (perm)	0	0	0	3335	0	2707	206	3438	0	0	3345	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												25
Link Speed (mph)		30			30			45				45
Link Distance (ft)		1545			1882			802				1220
Travel Time (s)		35.1			42.8			12.2				18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	0	0	359	0	127	307	626	0	0	1052	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	359	0	127	307	626	0	0	1285	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			44				40
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1		1	1	2				2
Detector Template				Left		Right	Left	Thru				Thru
Leading Detector (ft)				20		20	20	100				100
Trailing Detector (ft)				0		0	0	0				0
Detector 1 Position(ft)				0		0	0	0				0
Detector 1 Size(ft)				20		20	20	6				6
Detector 1 Type				Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Queue (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Delay (s)				0.0		0.0	0.0	0.0				0.0
Detector 2 Position(ft)								94				94
Detector 2 Size(ft)								6				6
Detector 2 Type								Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0				0.0
Turn Type				Prot		Prot	pm+pt	NA				NA
Protected Phases				4		4	1	6				2

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
AM Peak



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases							6					
Detector Phase				4		4	1	6			2	
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	10.0			10.0	
Minimum Split (s)				13.5		13.5	12.9	17.9			17.9	
Total Split (s)				33.0		33.0	35.0	107.0			72.0	
Total Split (%)				23.6%		23.6%	25.0%	76.4%			51.4%	
Maximum Green (s)				26.5		26.5	27.1	99.1			64.1	
Yellow Time (s)				4.5		4.5	4.9	4.9			4.9	
All-Red Time (s)				2.0		2.0	3.0	3.0			3.0	
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.5		6.5	7.9	7.9			7.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0		3.0	3.0	5.0			5.0	
Recall Mode				None		None	None	C-Max			C-Max	
Act Effect Green (s)				20.3		20.3	105.3	105.3			75.2	
Actuated g/C Ratio				0.14		0.14	0.75	0.75			0.54	
v/c Ratio				0.74		0.32	0.78	0.24			0.71	
Control Delay				67.0		55.1	33.9	12.0			28.2	
Queue Delay				0.0		0.0	0.0	0.0			0.0	
Total Delay				67.0		55.1	33.9	12.0			28.2	
LOS				E		E	C	B			C	
Approach Delay					63.9			19.2			28.2	
Approach LOS					E			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	31.5
Intersection LOS:	C
Intersection Capacity Utilization	77.2%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 41: Kings Hwy (CR 769) & I-75 NB Ramp



Queues
41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
AM Peak



Lane Group	NWL	NWR	NEL	NET	SWT
Lane Group Flow (vph)	359	127	307	626	1285
v/c Ratio	0.74	0.32	0.78	0.24	0.71
Control Delay	67.0	55.1	33.9	12.0	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	55.1	33.9	12.0	28.2
Queue Length 50th (ft)	163	59	161	126	447
Queue Length 95th (ft)	210	92	263	236	623
Internal Link Dist (ft)				722	1140
Turn Bay Length (ft)	475	300	500		
Base Capacity (vph)	631	512	451	2586	1809
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.25	0.68	0.24	0.71
Intersection Summary					

HCM 6th Signalized Intersection Summary
 41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
 AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔		↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	330	0	117	282	576	0	0	968	214
Future Volume (veh/h)	0	0	0	330	0	117	282	576	0	0	968	214
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				359	0	127	307	626	0	0	1052	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				431	0	348	432	2669	0	0	2217	
Arrive On Green				0.13	0.00	0.13	0.02	0.25	0.00	0.00	0.64	0.00
Sat Flow, veh/h				3374	0	2723	1739	3561	0	0	3652	0
Grp Volume(v), veh/h				359	0	127	307	626	0	0	1052	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1739	1735	0	0	1735	0
Q Serve(g_s), s				14.5	0.0	6.0	7.5	20.0	0.0	0.0	22.0	0.0
Cycle Q Clear(g_c), s				14.5	0.0	6.0	7.5	20.0	0.0	0.0	22.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				431	0	348	432	2669	0	0	2217	
V/C Ratio(X)				0.83	0.00	0.36	0.71	0.23	0.00	0.00	0.47	
Avail Cap(c_a), veh/h				639	0	515	640	2669	0	0	2217	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				59.6	0.0	55.9	12.2	19.5	0.0	0.0	13.1	0.0
Incr Delay (d2), s/veh				6.0	0.0	0.6	2.1	0.2	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.6	0.0	2.1	3.0	9.3	0.0	0.0	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.6	0.0	56.5	14.3	19.7	0.0	0.0	13.8	0.0
LnGrp LOS				E	A	E	B	B	A	A	B	
Approach Vol, veh/h					486			933			1052	A
Approach Delay, s/veh					63.2			17.9			13.8	
Approach LOS					E			B			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.2	97.4		24.4		115.6						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	27.1	64.1		26.5		99.1						
Max Q Clear Time (g_c+I1), s	9.5	24.0		16.5		22.0						
Green Ext Time (p_c), s	0.8	17.0		1.4		9.5						

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
58: N. Toledo Blade Blvd./Choctaw Blvd. & I-75 SB Ramp

Existing
AM Peak

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙		↗					↑↑	↗	↙	↑↑	
Traffic Vol, veh/h	3	0	288	0	0	0	0	1080	271	22	329	0
Future Vol, veh/h	3	0	288	0	0	0	0	1080	271	22	329	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	400	-	-	-	-	-	490	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	0	0	0	4	4	4	4	4	4
Mvmt Flow	3	0	313	0	0	0	0	1174	295	24	358	0

Major/Minor	Minor2		Major1			Major2			
Conflicting Flow All	993	-	179	-	0	0	1174	0	0
Stage 1	406	-	-	-	-	-	-	-	-
Stage 2	587	-	-	-	-	-	-	-	-
Critical Hdwy	6.88	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	239	0	827	0	-	-	580	-	0
Stage 1	636	0	-	0	-	-	-	-	0
Stage 2	513	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	229	0	827	-	-	-	580	-	-
Mov Cap-2 Maneuver	229	0	-	-	-	-	-	-	-
Stage 1	636	0	-	-	-	-	-	-	-
Stage 2	492	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	229	827	580	-
HCM Lane V/C Ratio	-	-	0.014	0.379	0.041	-
HCM Control Delay (s)	-	-	20.9	12	11.5	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0	1.8	0.1	-

HCM 6th TWSC
55: Choctaw Blvd. & I-75 NB Ramp

Existing
AM Peak

Intersection

Int Delay, s/veh 796.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	116	0	30	939	144	0	0	235	42
Future Vol, veh/h	0	0	0	116	0	30	939	144	0	0	235	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	275	150	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	126	0	33	1021	157	0	0	255	46

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2327	- 79 255	0 - - - 0
Stage 1	2199	- - -	- - - - -
Stage 2	128	- - -	- - - - -
Critical Hdwy	6.88	- 6.98 4.18	- - - - -
Critical Hdwy Stg 1	5.88	- - -	- - - - -
Critical Hdwy Stg 2	5.88	- - -	- - - - -
Follow-up Hdwy	3.54	- 3.34 2.24	- - - - -
Pot Cap-1 Maneuver	~ 30	0 959 1293	- 0 0 - -
Stage 1	~ 68	0 - -	- 0 0 - -
Stage 2	878	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 6	0 959 1293	- - - - -
Mov Cap-2 Maneuver	~ 6	0 - -	- - - - -
Stage 1	~ 14	0 - -	- - - - -
Stage 2	878	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 8108.1	15	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1293	- 6 959	- -	
HCM Lane V/C Ratio	0.789	- 21.014 0.034	- -	
HCM Control Delay (s)	17.3	\$ 10202.7 8.9	- -	
HCM Lane LOS	C	- F A	- -	
HCM 95th %tile Q(veh)	8.9	- 17.7 0.1	- -	

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

HCM 6th TWSC
3: Sumter Blvd. & I-75 SB Ramp

Existing
AM Peak

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗					↕		↖	↗	
Traffic Vol, veh/h	23	0	192	0	0	0	0	758	250	68	308	0
Future Vol, veh/h	23	0	192	0	0	0	0	758	250	68	308	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	25	0	209	0	0	0	0	824	272	74	335	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	895	-	168	-	0	0	824	0	0
Stage 1	483	-	-	-	-	-	-	-	-
Stage 2	412	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	278	0	844	0	-	-	795	-	0
Stage 1	583	0	-	0	-	-	-	-	0
Stage 2	634	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	252	0	844	-	-	-	795	-	-
Mov Cap-2 Maneuver	252	0	-	-	-	-	-	-	-
Stage 1	583	0	-	-	-	-	-	-	-
Stage 2	575	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	252	844	795	-
HCM Lane V/C Ratio	-	-	0.099	0.247	0.093	-
HCM Control Delay (s)	-	-	20.9	10.7	10	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	1	0.3	-

HCM 6th TWSC
6: Sumter Blvd. & I-75 NB Ramp

Existing
AM Peak

Intersection												
Int Delay, s/veh	168.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	126	0	32	702	79	0	0	250	204
Future Vol, veh/h	0	0	0	126	0	32	702	79	0	0	250	204
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	340	80	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	137	0	35	763	86	0	0	272	222

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1748	- 43 272	0 - - - 0
Stage 1	1612	- - -	- - - - -
Stage 2	136	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	~ 76	0 1015 1281	- 0 0 - -
Stage 1	147	0 - -	- 0 0 - -
Stage 2	873	0 - -	- 0 0 - -
Platoon blocked, %			- - - - -
Mov Cap-1 Maneuver	~ 31	0 1015 1281	- - - - -
Mov Cap-2 Maneuver	~ 31	0 - -	- - - - -
Stage 1	~ 59	0 - -	- - - - -
Stage 2	873	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 1434.8	10.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1281	- 31 1015	- -	- -
HCM Lane V/C Ratio	0.596	- 4.418 0.034	- -	- -
HCM Control Delay (s)	11.9	- \$ 1797 8.7	- -	- -
HCM Lane LOS	B	- F A	- -	- -
HCM 95th %tile Q(veh)	4.2	- 16.4 0.1	- -	- -

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

SYNCHRO WORKSHEETS - PM PEAKK



HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

Existing
 PM Peak

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	348	108	3	169	0	0	0	0	3	0	351
Future Vol, veh/h	0	348	108	3	169	0	0	0	0	3	0	351
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	387	120	3	188	0	0	0	0	3	0	390

Major/Minor	Major1			Major2			Minor2				
Conflicting Flow All	-	0	0	387	0	0			388	-	94
Stage 1	-	-	-	-	-	-			194	-	-
Stage 2	-	-	-	-	-	-			194	-	-
Critical Hdwy	-	-	-	4.14	-	-			6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-			5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-			3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	1168	-	0			588	0	944
Stage 1	0	-	-	-	-	0			820	0	-
Stage 2	0	-	-	-	-	0			820	0	-
Platoon blocked, %		-	-	-							
Mov Cap-1 Maneuver	-	-	-	1168	-	-			586	0	944
Mov Cap-2 Maneuver	-	-	-	-	-	-			586	0	-
Stage 1	-	-	-	-	-	-			820	0	-
Stage 2	-	-	-	-	-	-			818	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1168	-	586	944
HCM Lane V/C Ratio	-	-	0.003	-	0.006	0.413
HCM Control Delay (s)	-	-	8.1	-	11.2	11.5
HCM Lane LOS	-	-	A	-	B	B
HCM 95th %tile Q(veh)	-	-	0	-	0	2.1

HCM 6th TWSC
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

Existing
 PM Peak

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↗			
Traffic Vol, veh/h	345	6	0	0	14	5	158	0	3	0	0	0
Future Vol, veh/h	345	6	0	0	14	5	158	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Yield	-	-	Yield	-	-	None
Storage Length	605	-	-	-	-	-	0	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	0	0
Mvmt Flow	383	7	0	0	16	6	176	0	3	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	16	0	0
Stage 1	-	-	773
Stage 2	-	-	8
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1600	0	332
Stage 1	-	0	416
Stage 2	-	0	1013
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1600	-	253
Mov Cap-2 Maneuver	-	-	253
Stage 1	-	-	317
Stage 2	-	-	1013

Approach	EB	WB	NB
HCM Control Delay, s	7.8	0	45.5
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	253	1078	1600	-	-	-
HCM Lane V/C Ratio	0.694	0.003	0.24	-	-	-
HCM Control Delay (s)	46.2	8.4	8	-	-	-
HCM Lane LOS	E	A	A	-	-	-
HCM 95th %tile Q(veh)	4.6	0	0.9	-	-	-

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
 PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↑↑		↑↑
Traffic Volume (vph)	0	561	118	97	338	0	0	0	0	38	0	470
Future Volume (vph)	0	561	118	97	338	0	0	0	0	38	0	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		595	225		0	0		0	875		850
Storage Lanes	0		0	1		0	0		0	0		3
Taper Length (ft)	25			75			25			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	0.88
Frt		0.974										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3317	0	1703	3406	0	0	0	0	3303	0	2682
Flt Permitted				0.273						0.950		
Satd. Flow (perm)	0	3317	0	489	3406	0	0	0	0	3303	0	2682
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		29										
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1697			1005			1731			1734	
Travel Time (s)		25.7			15.2			39.3			39.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	0%	0%	0%	6%	6%	6%
Adj. Flow (vph)	0	610	128	105	367	0	0	0	0	41	0	511
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	738	0	105	367	0	0	0	0	41	0	511
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			1	2				1		1
Detector Template		Thru			Left	Thru				Left		Right
Leading Detector (ft)		100			20	100				20		20
Trailing Detector (ft)		0			0	0				0		0
Detector 1 Position(ft)		0			0	0				0		0
Detector 1 Size(ft)		6			20	6				20		20
Detector 1 Type		Cl+Ex			Cl+Ex	Cl+Ex				Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0	0.0				0.0		0.0
Detector 1 Queue (s)		0.0			0.0	0.0				0.0		0.0
Detector 1 Delay (s)		0.0			0.0	0.0				0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA			pm+pt	NA				Prot		Prot
Protected Phases		6			5	2				8		8

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
 PM Peak

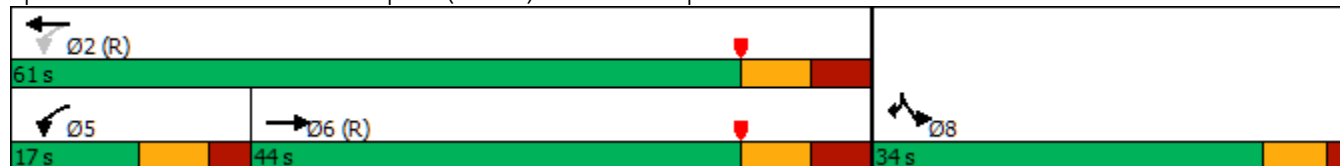


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2								
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		10.0		5.0	10.0					7.0		7.0
Minimum Split (s)		19.4		12.9	19.4					13.5		13.5
Total Split (s)		44.0		17.0	61.0					34.0		34.0
Total Split (%)		46.3%		17.9%	64.2%					35.8%		35.8%
Maximum Green (s)		34.6		9.1	51.6					27.5		27.5
Yellow Time (s)		4.9		4.9	4.9					4.5		4.5
All-Red Time (s)		4.5		3.0	4.5					2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		9.4		7.9	9.4					6.5		6.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		5.0		3.0	5.0					3.0		3.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		43.3		57.7	56.2					22.9		22.9
Actuated g/C Ratio		0.46		0.61	0.59					0.24		0.24
v/c Ratio		0.48		0.27	0.18					0.05		0.79
Control Delay		20.6		11.3	9.8					26.1		43.1
Queue Delay		0.0		0.0	0.0					0.0		0.0
Total Delay		20.6		11.3	9.8					26.1		43.1
LOS		C		B	A					C		D
Approach Delay		20.6			10.1							41.8
Approach LOS		C			B							D

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	95
Offset:	90 (95%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	24.4
Intersection LOS:	C
Intersection Capacity Utilization:	51.1%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

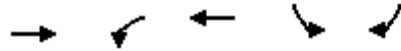


Queues

23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing

PM Peak



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	738	105	367	41	511
v/c Ratio	0.48	0.27	0.18	0.05	0.79
Control Delay	20.6	11.3	9.8	26.1	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	11.3	9.8	26.1	43.1
Queue Length 50th (ft)	162	30	57	9	163
Queue Length 95th (ft)	241	60	86	21	214
Internal Link Dist (ft)	1617		925		
Turn Bay Length (ft)		225		875	850
Base Capacity (vph)	1528	413	2016	956	776
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.25	0.18	0.04	0.66

Intersection Summary

HCM 6th Signalized Intersection Summary

23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

Existing
PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖↖		↖↖
Traffic Volume (veh/h)	0	561	118	97	338	0	0	0	0	38	0	470
Future Volume (veh/h)	0	561	118	97	338	0	0	0	0	38	0	470
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	610	0	105	367	0				41	0	511
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	1654		451	2110	0				734	0	593
Arrive On Green	0.00	0.48	0.00	0.10	1.00	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	3622	0	1725	3532	0				3346	0	2701
Grp Volume(v), veh/h	0	610	0	105	367	0				41	0	511
Grp Sat Flow(s),veh/h/ln	0	1721	0	1725	1721	0				1673	0	1351
Q Serve(g_s), s	0.0	10.6	0.0	2.8	0.0	0.0				0.9	0.0	17.3
Cycle Q Clear(g_c), s	0.0	10.6	0.0	2.8	0.0	0.0				0.9	0.0	17.3
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1654		451	2110	0				734	0	593
V/C Ratio(X)	0.00	0.37		0.23	0.17	0.00				0.06	0.00	0.86
Avail Cap(c_a), veh/h	0	1654		531	2110	0				969	0	782
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.6	0.0	10.6	0.0	0.0				29.3	0.0	35.7
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.3	0.2	0.0				0.0	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	0.0	0.9	0.1	0.0				0.4	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	0.0	10.8	0.2	0.0				29.3	0.0	43.4
LnGrp LOS	A	B		B	A	A				C	A	D
Approach Vol, veh/h		610	A		472						552	
Approach Delay, s/veh		16.2			2.5						42.4	
Approach LOS		B			A						D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		67.7			12.6	55.1		27.3				
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4		6.5				
Max Green Setting (Gmax), s		* 52			9.1	* 35		27.5				
Max Q Clear Time (g_c+I1), s		2.0			4.8	12.6		19.3				
Green Ext Time (p_c), s		4.8			0.1	6.9		1.5				

Intersection Summary























HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 		 			
Traffic Volume (vph)	319	280	0	0	273	47	162	0	92	0	0	0
Future Volume (vph)	319	280	0	0	273	47	162	0	92	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		800	0		775	0		0
Storage Lanes	1		0	0		1	2		3	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1703	3406	0	0	3406	1524	3303	0	2682	0	0	0
Flt Permitted	0.497						0.950					
Satd. Flow (perm)	891	3406	0	0	3406	1524	3303	0	2682	0	0	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)						119						
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1005			2114			1381				245
Travel Time (s)		15.2			32.0			31.4				5.6
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
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	0%	0%	0%
Adj. Flow (vph)	354	311	0	0	303	52	180	0	102	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	311	0	0	303	52	180	0	102	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 PM Peak

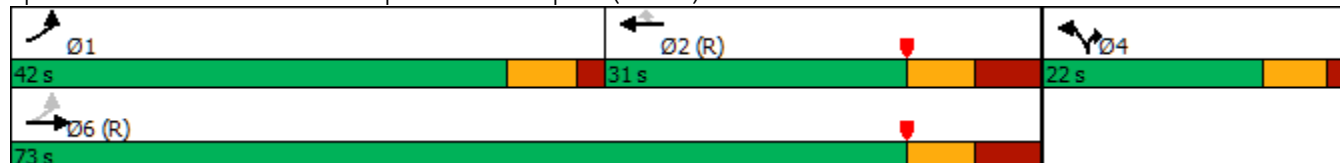


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6						2					
Detector Phase	1	6				2	2	4		4		
Switch Phase												
Minimum Initial (s)	5.0	10.0					10.0	10.0	7.0	7.0		
Minimum Split (s)	11.9	19.7					19.7	19.7	13.5	13.5		
Total Split (s)	42.0	73.0					31.0	31.0	22.0	22.0		
Total Split (%)	44.2%	76.8%					32.6%	32.6%	23.2%	23.2%		
Maximum Green (s)	35.1	63.3					21.3	21.3	15.5	15.5		
Yellow Time (s)	4.9	4.9					4.9	4.9	4.5	4.5		
All-Red Time (s)	2.0	4.8					4.8	4.8	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0					0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.9	9.7					9.7	9.7	6.5	6.5		
Lead/Lag	Lead					Lag		Lag				
Lead-Lag Optimize?	Yes					Yes		Yes				
Vehicle Extension (s)	3.0	5.0					5.0	5.0	3.0	3.0		
Recall Mode	None	C-Max					C-Max	C-Max	None	None		
Act Effect Green (s)	71.1	68.3					49.3	49.3	10.5	10.5		
Actuated g/C Ratio	0.75	0.72					0.52	0.52	0.11	0.11		
v/c Ratio	0.46	0.13					0.17	0.06	0.49	0.35		
Control Delay	5.7	2.1					13.4	0.1	44.1	41.7		
Queue Delay	0.0	0.0					0.0	0.0	0.0	0.0		
Total Delay	5.7	2.1					13.4	0.1	44.1	41.7		
LOS	A	A					B	A	D	D		
Approach Delay	4.0						11.4		43.2			
Approach LOS	A						B		D			

Intersection Summary

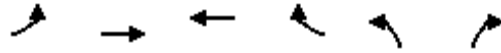
Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 44 (46%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 14.5
 Intersection LOS: B
 Intersection Capacity Utilization 51.1%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)



Queues
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
 PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	354	311	303	52	180	102
v/c Ratio	0.46	0.13	0.17	0.06	0.49	0.35
Control Delay	5.7	2.1	13.4	0.1	44.1	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	2.1	13.4	0.1	44.1	41.7
Queue Length 50th (ft)	3	1	47	0	53	32
Queue Length 95th (ft)	4	2	85	0	84	59
Internal Link Dist (ft)		925	2034			
Turn Bay Length (ft)	130			800		775
Base Capacity (vph)	966	2449	1768	848	538	437
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.13	0.17	0.06	0.33	0.23
Intersection Summary						

HCM 6th Signalized Intersection Summary

26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

Existing
PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘↗		↗↘			
Traffic Volume (veh/h)	319	280	0	0	273	47	162	0	92	0	0	0
Future Volume (veh/h)	319	280	0	0	273	47	162	0	92	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	354	311	0	0	303	0	180	0	102			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	809	2578	0	0	1972		268	0	216			
Arrive On Green	0.03	0.25	0.00	0.00	0.57	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1725	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	354	311	0	0	303	0	180	0	102			
Grp Sat Flow(s),veh/h/ln	1725	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	6.8	6.7	0.0	0.0	3.9	0.0	5.0	0.0	3.4			
Cycle Q Clear(g_c), s	6.8	6.7	0.0	0.0	3.9	0.0	5.0	0.0	3.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	809	2578	0	0	1972		268	0	216			
V/C Ratio(X)	0.44	0.12	0.00	0.00	0.15		0.67	0.00	0.47			
Avail Cap(c_a), veh/h	1267	2578	0	0	1972		546	0	441			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.1	11.5	0.0	0.0	9.5	0.0	42.5	0.0	41.8			
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.0	0.2	0.0	2.9	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	2.0	0.0	0.0	1.3	0.0	2.1	0.0	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	11.6	0.0	0.0	9.7	0.0	45.4	0.0	43.4			
LnGrp LOS	A	B	A	A	A		D	A	D			
Approach Vol, veh/h		665			303	A		282				
Approach Delay, s/veh		8.8			9.7			44.6				
Approach LOS		A			A			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.7	64.1		14.1		80.9						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	35.1	* 21		15.5		* 63						
Max Q Clear Time (g_c+I1), s	8.8	5.9		7.0		8.7						
Green Ext Time (p_c), s	1.0	2.6		0.7		4.0						

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

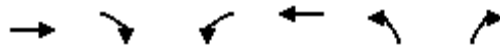
Lanes, Volumes, Timings
32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
PM Peak

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↖	
Traffic Volume (vph)	1039	114	234	372	321	293
Future Volume (vph)	1039	114	234	372	321	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	15
Storage Length (ft)		615	200		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Fr _t		0.850			0.936	
Fl _t Protected			0.950		0.975	
Satd. Flow (prot)	5036	1568	1752	5036	1683	0
Fl _t Permitted			0.124		0.975	
Satd. Flow (perm)	5036	1568	229	5036	1683	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		124			36	
Link Speed (mph)	55			55	30	
Link Distance (ft)	2534			1353	1359	
Travel Time (s)	31.4			16.8	30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	1129	124	254	404	349	318
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1129	124	254	404	667	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	40			40	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	0.88
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
 PM Peak

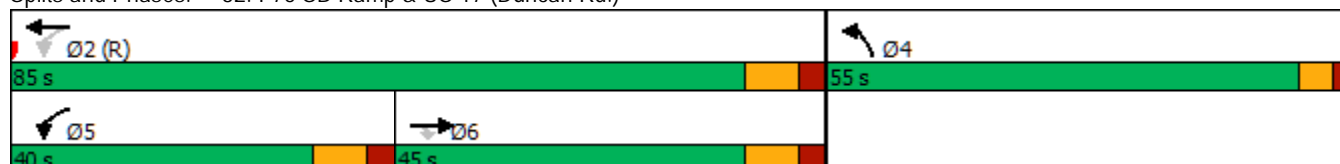


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	6		5	2	4	
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.5	23.5	13.5	23.5	12.9	
Total Split (s)	45.0	45.0	40.0	85.0	55.0	
Total Split (%)	32.1%	32.1%	28.6%	60.7%	39.3%	
Maximum Green (s)	36.5	36.5	31.5	76.5	49.1	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	3.0	3.0	3.0	3.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.5	8.5	8.5	8.5	5.9	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	4.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effct Green (s)	48.1	48.1	76.5	76.5	49.1	
Actuated g/C Ratio	0.34	0.34	0.55	0.55	0.35	
v/c Ratio	0.65	0.20	0.74	0.15	1.09	
Control Delay	42.1	6.8	50.7	14.1	103.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	42.1	6.8	50.7	14.1	103.0	
LOS	D	A	D	B	F	
Approach Delay	38.6			28.2	103.0	
Approach LOS	D			C	F	

Intersection Summary

Area Type:	Other
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	114 (81%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.09
Intersection Signal Delay:	52.6
Intersection LOS:	D
Intersection Capacity Utilization:	87.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 32: I-75 SB Ramp & US 17 (Duncan Rd.)



Queues
32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
PM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1129	124	254	404	667
v/c Ratio	0.65	0.20	0.74	0.15	1.09
Control Delay	42.1	6.8	50.7	14.1	103.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	6.8	50.7	14.1	103.0
Queue Length 50th (ft)	317	0	180	57	-659
Queue Length 95th (ft)	408	49	m258	m72	#903
Internal Link Dist (ft)	2454			1273	1279
Turn Bay Length (ft)		615	200		
Base Capacity (vph)	1728	619	467	2751	613
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.20	0.54	0.15	1.09

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

32: I-75 SB Ramp & US 17 (Duncan Rd.)

Existing
PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	1039	114	234	372	321	293
Future Volume (veh/h)	1039	114	234	372	321	293
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	1129	0	254	404	349	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	2733		390	3434	386	
Arrive On Green	0.54	0.00	0.03	0.22	0.22	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1762	0
Grp Volume(v), veh/h	1129	0	254	404	350	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	0
Q Serve(g_s), s	18.5	0.0	8.2	8.9	27.0	0.0
Cycle Q Clear(g_c), s	18.5	0.0	8.2	8.9	27.0	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	2733		390	3434	388	
V/C Ratio(X)	0.41		0.65	0.12	0.90	
Avail Cap(c_a), veh/h	2733		651	3434	620	
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.88	0.88	1.00	0.00
Uniform Delay (d), s/veh	19.1	0.0	15.1	21.0	53.2	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.6	0.1	13.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	3.4	3.4	13.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.3	0.0	16.7	21.0	66.4	0.0
LnGrp LOS	B		B	C	E	
Approach Vol, veh/h	1129	A		658	350	A
Approach Delay, s/veh	19.3			19.4	66.4	
Approach LOS	B			B	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		103.4		36.6	19.4	84.0
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		76.5		49.1	31.5	36.5
Max Q Clear Time (g_c+I1), s		10.9		29.0	10.2	20.5
Green Ext Time (p_c), s		5.3		1.7	0.6	10.0
Intersection Summary						
HCM 6th Ctrl Delay			27.0			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
 PM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	
Traffic Volume (vph)	805	527	299	520	86	259
Future Volume (vph)	805	527	299	520	86	259
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850			0.898	
Flt Protected			0.950		0.988	
Satd. Flow (prot)	5036	1568	1752	5036	1637	0
Flt Permitted			0.258		0.988	
Satd. Flow (perm)	5036	1568	476	5036	1637	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		573			99	
Link Speed (mph)	55			55	30	
Link Distance (ft)	1353			1291	2169	
Travel Time (s)	16.8			16.0	49.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	875	573	325	565	93	282
Shared Lane Traffic (%)						
Lane Group Flow (vph)	875	573	325	565	375	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	6		5	2	4	

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
 PM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.2	23.2	13.2	23.2	12.8	
Total Split (s)	55.0	55.0	50.0	105.0	35.0	
Total Split (%)	39.3%	39.3%	35.7%	75.0%	25.0%	
Maximum Green (s)	46.8	46.8	41.8	96.8	29.2	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	2.7	2.7	2.7	2.7	2.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	8.2	8.2	8.2	5.8	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	3.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effect Green (s)	74.1	74.1	98.5	98.5	27.5	
Actuated g/C Ratio	0.53	0.53	0.70	0.70	0.20	
v/c Ratio	0.33	0.52	0.67	0.16	0.94	
Control Delay	14.2	13.4	15.3	7.2	71.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.2	13.4	15.3	7.2	71.9	
LOS	B	B	B	A	E	
Approach Delay	13.9			10.2	71.9	
Approach LOS	B			B	E	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 120 (86%), Referenced to phase 2:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 20.7
 Intersection LOS: C
 Intersection Capacity Utilization 71.3%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 34: I-75 NB Ramp & US 17 (Duncan Rd.)



Queues

34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing

PM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	875	573	325	565	375
v/c Ratio	0.33	0.52	0.67	0.16	0.94
Control Delay	14.2	13.4	15.3	7.2	71.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	13.4	15.3	7.2	71.9
Queue Length 50th (ft)	234	351	103	60	255
Queue Length 95th (ft)	m278	m429	146	75	#442
Internal Link Dist (ft)	1273			1211	2089
Turn Bay Length (ft)			100		
Base Capacity (vph)	2666	1099	716	3544	419
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.52	0.45	0.16	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

Existing
 PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	805	527	299	520	86	259
Future Volume (veh/h)	805	527	299	520	86	259
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	875	0	325	565	93	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3580		578	4223	116	
Arrive On Green	0.71	0.00	0.07	0.83	0.07	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1749	0
Grp Volume(v), veh/h	875	0	325	565	94	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1768	0
Q Serve(g_s), s	8.6	0.0	6.6	2.9	7.3	0.0
Cycle Q Clear(g_c), s	8.6	0.0	6.6	2.9	7.3	0.0
Prop In Lane		1.00	1.00		0.99	0.00
Lane Grp Cap(c), veh/h	3580		578	4223	117	
V/C Ratio(X)	0.24		0.56	0.13	0.80	
Avail Cap(c_a), veh/h	3580		985	4223	369	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.3	0.0	4.6	2.2	64.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.1	11.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	1.8	0.5	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.3	0.0	5.5	2.2	76.2	0.0
LnGrp LOS	A		A	A	E	
Approach Vol, veh/h	875	A		890	94	A
Approach Delay, s/veh	7.3			3.4	76.2	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		124.9		15.1	17.8	107.1
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 97		* 29	* 42	* 47
Max Q Clear Time (g_c+I1), s		4.9		9.3	8.6	10.6
Green Ext Time (p_c), s		7.8		0.2	0.9	12.0

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 43: Harbor View Rd. (CR 776) & I-75 SB Ramp

Existing
 PM Peak

Intersection												
Int Delay, s/veh	4.4											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↙		↗					↕↔		↙	↕↕	
Traffic Vol, veh/h	80	0	65	0	0	0	0	229	180	193	293	0
Future Vol, veh/h	80	0	65	0	0	0	0	229	180	193	293	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	89	0	72	0	0	0	0	254	200	214	326	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	881	-	163	-	0	0	254	0	0
Stage 1	754	-	-	-	-	-	-	-	-
Stage 2	127	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	284	0	850	0	-	-	1301	-	0
Stage 1	423	0	-	0	-	-	-	-	0
Stage 2	882	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	237	0	850	-	-	-	1301	-	-
Mov Cap-2 Maneuver	237	0	-	-	-	-	-	-	-
Stage 1	423	0	-	-	-	-	-	-	-
Stage 2	737	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	20.3	0	3.3
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	237	850	1301	-
HCM Lane V/C Ratio	-	-	0.375	0.085	0.165	-
HCM Control Delay (s)	-	-	29	9.6	8.3	-
HCM Lane LOS	-	-	D	A	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0.3	0.6	-

HCM 6th TWSC
46: Harbor View Rd. (CR 776) & I-75 NB Ramp

Existing
PM Peak

Intersection

Int Delay, s/veh 7.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↘		↗	↘	↕			↕	↗
Traffic Vol, veh/h	0	0	0	159	0	411	59	250	0	0	327	50
Future Vol, veh/h	0	0	0	159	0	411	59	250	0	0	327	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	260	200	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	173	0	447	64	272	0	0	355	54






















Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	578	- 136 355	0 - - - 0
Stage 1	400	- - -	- - - - -
Stage 2	178	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	444	0 885 1193	- 0 0 - -
Stage 1	643	0 - -	- 0 0 - -
Stage 2	832	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	420	0 885 1193	- - - - -
Mov Cap-2 Maneuver	420	0 - -	- - - - -
Stage 1	608	0 - -	- - - - -
Stage 2	832	0 - -	- - - - -

Approach	NW	NE	SW
HCM Control Delay, s	14.9	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NETNWLn1NWLn2	SWT	SWR
Capacity (veh/h)	1193	- 420 885	- -	
HCM Lane V/C Ratio	0.054	- 0.411 0.505	- -	
HCM Control Delay (s)	8.2	- 19.4 13.1	- -	
HCM Lane LOS	A	- C B	- -	
HCM 95th %tile Q(veh)	0.2	- 2 2.9	- -	

Lanes, Volumes, Timings
35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
PM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (vph)	189	0	242	0	0	0	0	1173	416	155	1350	0
Future Volume (vph)	189	0	242	0	0	0	0	1173	416	155	1350	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		0	450		0
Storage Lanes	2		1	0		0	0		1	1		0
Taper Length (ft)	100			25			25			50		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850							0.850		
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3335	0	1538	0	0	0	0	3438	1538	1719	3438	0
Flt Permitted	0.950									0.168		
Satd. Flow (perm)	3335	0	1538	0	0	0	0	3438	1538	304	3438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			263						376			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1888			1616			1339			802	
Travel Time (s)		42.9			36.7			20.3			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	205	0	263	0	0	0	0	1275	452	168	1467	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	205	0	263	0	0	0	0	1275	452	168	1467	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			42			44	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					2	1	1	2	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20		20					100	20	20	100	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	20		20					6	20	20	6	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot		Free					NA	Prot	pm+pt	NA	
Protected Phases	8							6	6	5	2	

Lanes, Volumes, Timings
 35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
 PM Peak

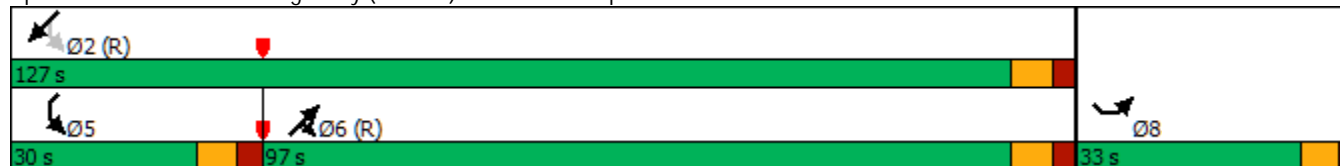


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Permitted Phases	Free									2			
Detector Phase	8							6	6	5	2		
Switch Phase													
Minimum Initial (s)	7.0							10.0	10.0	5.0	10.0		
Minimum Split (s)	13.5							17.9	17.9	12.9	17.9		
Total Split (s)	33.0							97.0	97.0	30.0	127.0		
Total Split (%)	20.6%							60.6%	60.6%	18.8%	79.4%		
Maximum Green (s)	26.5							89.1	89.1	22.1	119.1		
Yellow Time (s)	4.5							4.9	4.9	4.9	4.9		
All-Red Time (s)	2.0							3.0	3.0	3.0	3.0		
Lost Time Adjust (s)	0.0							0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5							7.9	7.9	7.9	7.9		
Lead/Lag									Lag	Lag	Lead		
Lead-Lag Optimize?									Yes	Yes	Yes		
Vehicle Extension (s)	3.0							5.0	5.0	3.0	5.0		
Recall Mode	None							C-Max	C-Max	None	C-Max		
Act Effect Green (s)	15.1		160.0				113.4	113.4	130.5	130.5			
Actuated g/C Ratio	0.09		1.00				0.71	0.71	0.82	0.82			
v/c Ratio	0.65		0.17				0.52	0.38	0.51	0.52			
Control Delay	79.4		0.2				12.3	2.7	10.4	5.5			
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.1			
Total Delay	79.4		0.2				12.3	2.7	10.4	5.6			
LOS	E		A				B	A	B	A			
Approach Delay			34.9				9.8				6.1		
Approach LOS			C				A				A		

Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 87 (54%), Referenced to phase 2:SWTL and 6:NET, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 11.3
 Intersection LOS: B
 Intersection Capacity Utilization 73.5%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 35: Kings Hwy (CR 769) & I-75 SB Ramp



Queues
 35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
 PM Peak
























Lane Group	SEL	SER	NET	NER	SWL	SWT
Lane Group Flow (vph)	205	263	1275	452	168	1467
v/c Ratio	0.65	0.17	0.52	0.38	0.51	0.52
Control Delay	79.4	0.2	12.3	2.7	10.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	79.4	0.2	12.3	2.7	10.4	5.6
Queue Length 50th (ft)	108	0	296	22	27	282
Queue Length 95th (ft)	150	0	418	71	93	304
Internal Link Dist (ft)			1259			722
Turn Bay Length (ft)	350				450	
Base Capacity (vph)	552	1538	2436	1199	443	2803
Starvation Cap Reductn	0	0	0	0	0	342
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.17	0.52	0.38	0.38	0.60
Intersection Summary						

HCM 6th Signalized Intersection Summary



















35: Kings Hwy (CR 769) & I-75 SB Ramp

Existing
PM Peak

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (veh/h)	189	0	242	0	0	0	0	1173	416	155	1350	0
Future Volume (veh/h)	189	0	242	0	0	0	0	1173	416	155	1350	0
Initial Q (Qb), veh	0	0	0					0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	205	0	0				0	1275	0	168	1467	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	256	0					0	2590		365	2894	0
Arrive On Green	0.08	0.00	0.00				0.00	0.75	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	205	0	0				0	1275	0	168	1467	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	9.6	0.0	0.0				0.0	23.6	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	0.0				0.0	23.6	0.0	3.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	256	0					0	2590		365	2894	0
V/C Ratio(X)	0.80	0.00					0.00	0.49		0.46	0.51	0.00
Avail Cap(c_a), veh/h	559	0					0	2590		539	2894	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	72.7	0.0	0.0				0.0	8.1	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	5.8	0.0	0.0				0.0	0.7	0.0	0.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0				0.0	8.0	0.0	1.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.5	0.0	0.0				0.0	8.8	0.0	7.3	0.4	0.0
LnGrp LOS	E	A					A	A		A	A	A
Approach Vol, veh/h		205	A					1275	A		1635	
Approach Delay, s/veh		78.5						8.8			1.1	
Approach LOS		E						A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		141.4			14.0	127.4		18.6				
Change Period (Y+Rc), s		7.9			7.9	7.9		6.5				
Max Green Setting (Gmax), s		119.1			22.1	89.1		26.5				
Max Q Clear Time (g_c+I1), s		2.0			5.7	25.6		11.6				
Green Ext Time (p_c), s		42.9			0.4	27.1		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			9.4									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NER, SER] is excluded from calculations of the approach delay and intersection delay.												

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
PM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	0	146	150	1212	0	0	1076	145
Future Volume (vph)	0	0	0	429	0	146	150	1212	0	0	1076	145
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	475		300	500		0	0		400
Storage Lanes	0		0	2		1	1		0	0		0
Taper Length (ft)	25			150			50			25		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850						0.982
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	3335	0	2707	1719	3438	0	0	3376	0
Flt Permitted				0.950			0.121					
Satd. Flow (perm)	0	0	0	3335	0	2707	219	3438	0	0	3376	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												11
Link Speed (mph)		30			30			45				45
Link Distance (ft)		1545			1882			802				1220
Travel Time (s)		35.1			42.8			12.2				18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	0	0	466	0	159	163	1317	0	0	1170	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	466	0	159	163	1317	0	0	1328	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			44				40
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1		1	1	2				2
Detector Template				Left		Right	Left	Thru				Thru
Leading Detector (ft)				20		20	20	100				100
Trailing Detector (ft)				0		0	0	0				0
Detector 1 Position(ft)				0		0	0	0				0
Detector 1 Size(ft)				20		20	20	6				6
Detector 1 Type				Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Queue (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Delay (s)				0.0		0.0	0.0	0.0				0.0
Detector 2 Position(ft)								94				94
Detector 2 Size(ft)								6				6
Detector 2 Type								Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0				0.0
Turn Type				Prot		Prot	pm+pt	NA				NA
Protected Phases				4		4	1	6				2

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
PM Peak

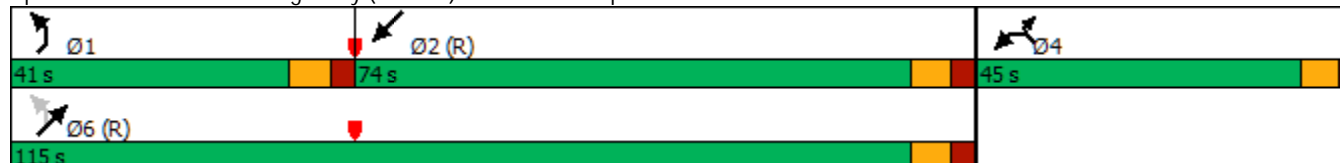


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases							6					
Detector Phase				4		4	1	6			2	
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	10.0			10.0	
Minimum Split (s)				13.5		13.5	12.9	17.9			17.9	
Total Split (s)				45.0		45.0	41.0	115.0			74.0	
Total Split (%)				28.1%		28.1%	25.6%	71.9%			46.3%	
Maximum Green (s)				38.5		38.5	33.1	107.1			66.1	
Yellow Time (s)				4.5		4.5	4.9	4.9			4.9	
All-Red Time (s)				2.0		2.0	3.0	3.0			3.0	
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.5		6.5	7.9	7.9			7.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0		4.0	3.0	5.0			5.0	
Recall Mode				None		None	None	C-Max			C-Max	
Act Effect Green (s)				29.1		29.1	116.5	116.5			93.9	
Actuated g/C Ratio				0.18		0.18	0.73	0.73			0.59	
v/c Ratio				0.77		0.32	0.55	0.53			0.67	
Control Delay				70.7		57.6	27.3	7.3			26.2	
Queue Delay				0.0		0.0	0.0	0.0			0.0	
Total Delay				70.7		57.6	27.3	7.3			26.2	
LOS				E		E	C	A			C	
Approach Delay					67.4			9.5			26.2	
Approach LOS					E			A			C	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	108 (68%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	26.5
Intersection LOS:	C
Intersection Capacity Utilization	73.5%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 41: Kings Hwy (CR 769) & I-75 NB Ramp



Queues

41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing

PM Peak



Lane Group	NWL	NWR	NEL	NET	SWT
Lane Group Flow (vph)	466	159	163	1317	1328
v/c Ratio	0.77	0.32	0.55	0.53	0.67
Control Delay	70.7	57.6	27.3	7.3	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.7	57.6	27.3	7.3	26.2
Queue Length 50th (ft)	241	82	39	165	476
Queue Length 95th (ft)	290	117	117	181	691
Internal Link Dist (ft)				722	1140
Turn Bay Length (ft)	475	300	500		
Base Capacity (vph)	802	651	469	2502	1985
Starvation Cap Reductn	0	0	0	131	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.24	0.35	0.56	0.67

Intersection Summary

HCM 6th Signalized Intersection Summary
 41: Kings Hwy (CR 769) & I-75 NB Ramp

Existing
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔↔		↔↔	↔	↕↕			↕↔	
Traffic Volume (veh/h)	0	0	0	429	0	146	150	1212	0	0	1076	145
Future Volume (veh/h)	0	0	0	429	0	146	150	1212	0	0	1076	145
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				466	0	159	163	1317	0	0	1170	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				561	0	453	346	2580	0	0	2245	
Arrive On Green				0.17	0.00	0.17	0.09	1.00	0.00	0.00	0.65	0.00
Sat Flow, veh/h				3374	0	2723	1739	3561	0	0	3652	0
Grp Volume(v), veh/h				466	0	159	163	1317	0	0	1170	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1739	1735	0	0	1735	0
Q Serve(g_s), s				21.4	0.0	8.3	5.1	0.0	0.0	0.0	28.7	0.0
Cycle Q Clear(g_c), s				21.4	0.0	8.3	5.1	0.0	0.0	0.0	28.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				561	0	453	346	2580	0	0	2245	
V/C Ratio(X)				0.83	0.00	0.35	0.47	0.51	0.00	0.00	0.52	
Avail Cap(c_a), veh/h				812	0	655	624	2580	0	0	2245	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				64.5	0.0	59.0	11.4	0.0	0.0	0.0	15.0	0.0
Incr Delay (d2), s/veh				6.0	0.0	0.7	0.8	0.6	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.7	0.0	2.9	1.7	0.2	0.0	0.0	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.5	0.0	59.7	12.3	0.6	0.0	0.0	15.9	0.0
LnGrp LOS				E	A	E	B	A	A	A	B	
Approach Vol, veh/h					625			1480			1170	A
Approach Delay, s/veh					67.7			1.9			15.9	
Approach LOS					E			A			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.5	111.4		33.1		126.9						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	33.1	66.1		38.5		107.1						
Max Q Clear Time (g_c+I1), s	7.1	30.7		23.4		2.0						
Green Ext Time (p_c), s	0.4	18.4		3.2		33.3						

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

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

HCM 6th TWSC
58: N. Toledo Blade Blvd./Choctaw Blvd. & I-75 SB Ramp

Existing
PM Peak

Intersection												
Int Delay, s/veh	101.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙		↗					↑↑	↗	↙	↑↑	
Traffic Vol, veh/h	12	0	1048	0	0	0	0	548	223	14	368	0
Future Vol, veh/h	12	0	1048	0	0	0	0	548	223	14	368	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	400	-	-	-	-	-	490	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	0	0	0	4	4	4	4	4	4
Mvmt Flow	13	0	1139	0	0	0	0	596	242	15	400	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	728	-	200	-	0	0	596	0	0
Stage 1	430	-	-	-	-	-	-	-	-
Stage 2	298	-	-	-	-	-	-	-	-
Critical Hdwy	6.88	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	354	0	~ 801	0	-	-	963	-	0
Stage 1	618	0	-	0	-	-	-	-	0
Stage 2	721	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	348	0	~ 801	-	-	-	963	-	-
Mov Cap-2 Maneuver	348	0	-	-	-	-	-	-	-
Stage 1	618	0	-	-	-	-	-	-	-
Stage 2	709	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	211.4	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	348	801	963	-
HCM Lane V/C Ratio	-	-	0.037	1.422	0.016	-
HCM Control Delay (s)	-	-	15.7	213.6	8.8	-
HCM Lane LOS	-	-	C	F	A	-
HCM 95th %tile Q(veh)	-	-	0.1	50.7	0	-

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

HCM 6th TWSC
55: Choctaw Blvd. & I-75 NB Ramp

Existing
PM Peak

Intersection

Int Delay, s/veh 183.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↗
Traffic Vol, veh/h	0	0	0	261	0	27	423	137	0	0	121	13
Future Vol, veh/h	0	0	0	261	0	27	423	137	0	0	121	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	275	150	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	290	0	30	470	152	0	0	134	14

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1159	- 76 134	0 - - - 0
Stage 1	1092	- - -	- - - - -
Stage 2	67	- - -	- - - - -
Critical Hdwy	6.88	- 6.98 4.18	- - - - -
Critical Hdwy Stg 1	5.88	- - -	- - - - -
Critical Hdwy Stg 2	5.88	- - -	- - - - -
Follow-up Hdwy	3.54	- 3.34 2.24	- - - - -
Pot Cap-1 Maneuver	~ 186	0 963 1434	- 0 0 - -
Stage 1	~ 279	0 - -	- 0 0 - -
Stage 2	942	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 125	0 963 1434	- - - - -
Mov Cap-2 Maneuver	~ 125	0 - -	- - - - -
Stage 1	~ 187	0 - -	- - - - -
Stage 2	942	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 612.3	6.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1434	- 125 963	- -	-
HCM Lane V/C Ratio	0.328	- 2.32 0.031	- -	-
HCM Control Delay (s)	8.7	-\$ 674.7 8.9	- -	-
HCM Lane LOS	A	- F A	- -	-
HCM 95th %tile Q(veh)	1.4	- 25 0.1	- -	-

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

HCM 6th TWSC
3: Sumter Blvd. & I-75 SB Ramp

Existing
PM Peak

Intersection												
Int Delay, s/veh	22.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙		↗					↕		↙	↕	
Traffic Vol, veh/h	180	0	781	0	0	0	0	352	185	39	278	0
Future Vol, veh/h	180	0	781	0	0	0	0	352	185	39	278	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	196	0	849	0	0	0	0	383	201	42	302	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	578	-	151	-	0	0	383	0	0
Stage 1	386	-	-	-	-	-	-	-	-
Stage 2	192	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	444	0	865	-	-	-	1165	-	0
Stage 1	654	0	-	-	-	-	-	-	0
Stage 2	819	0	-	-	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	428	0	865	-	-	-	1165	-	-
Mov Cap-2 Maneuver	428	0	-	-	-	-	-	-	-
Stage 1	654	0	-	-	-	-	-	-	-
Stage 2	790	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	42.9	0	1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	428	865	1165	-
HCM Lane V/C Ratio	-	-	0.457	0.981	0.036	-
HCM Control Delay (s)	-	-	20.3	48.1	8.2	-
HCM Lane LOS	-	-	C	E	A	-
HCM 95th %tile Q(veh)	-	-	2.3	16.9	0.1	-

HCM 6th TWSC
6: Sumter Blvd. & I-75 NB Ramp

Existing
PM Peak

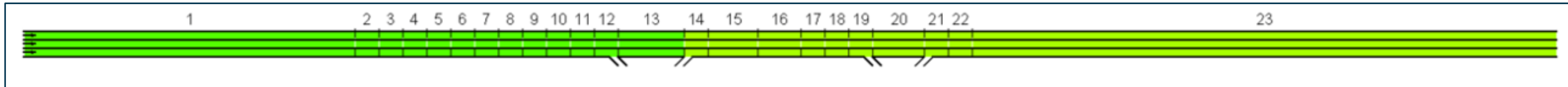
Intersection												
Int Delay, s/veh	13.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	182	0	53	196	336	0	0	135	52
Future Vol, veh/h	0	0	0	182	0	53	196	336	0	0	135	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	340	80	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	198	0	58	213	365	0	0	147	57

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	865	- 183 147	0 - - - 0
Stage 1	791	- - -	- - - - -
Stage 2	74	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	291	0 825 1425	- 0 0 - -
Stage 1	405	0 - -	- 0 0 - -
Stage 2	937	0 - -	- 0 0 - -
Platoon blocked, %			- - - - -
Mov Cap-1 Maneuver	248	0 825 1425	- - - - -
Mov Cap-2 Maneuver	248	0 - -	- - - - -
Stage 1	345	0 - -	- - - - -
Stage 2	937	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	48.1	2.9	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1425	- 248 825	- -	- -
HCM Lane V/C Ratio	0.15	- 0.798 0.07	- -	- -
HCM Control Delay (s)	8	- 59.3 9.7	- -	- -
HCM Lane LOS	A	- F A	- -	- -
HCM 95th %tile Q(veh)	0.5	- 6 0.2	- -	- -

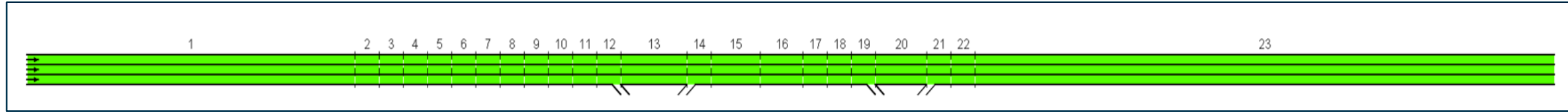
FREEVAL OUTPUTS - I-75 NORTHBOUND



I-75 Northbound Charlotte County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name												Toledo Blade/Choctaw		Toledo Blade/Choctaw						Sumter		Sumter	
Segment Length (ft)	20300	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	4100	1500	3060	2640	1500	1500	1500	3210	1500	1500	35300

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
		Speed Contours (mi/h)	#1 6:15 - 6:30	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	66.9	73.1	66.1	72.9	73.1	73.1	73.1	67.2	73.0	66.0
D/C Contours	#2 6:30 - 6:45	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.35	0.35	0.35	0.35	0.35	0.35	0.33	0.44	0.44	0.44
	#3 6:45 - 7:00	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.26	0.39	0.39	0.39	0.39	0.39	0.39	0.37	0.50	0.50	0.50
	#4 7:00 - 7:15	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.28	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.54	0.54	0.54
	#5 7:15 - 7:30	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.30	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.56	0.56	0.56
	#6 7:30 - 7:45	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.28	0.42	0.42	0.42	0.42	0.42	0.42	0.39	0.52	0.52	0.52
	#7 7:45 - 8:00	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.29	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.56	0.56	0.56
	#8 8:00 - 8:15	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.43	0.43	0.43	0.43	0.43	0.43	0.41	0.55	0.55	0.55
	#9 8:15 - 8:30	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.31	0.47	0.47	0.47	0.47	0.47	0.47	0.44	0.59	0.59	0.59
	#10 8:30 - 8:45	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.31	0.47	0.47	0.47	0.47	0.47	0.47	0.44	0.59	0.59	0.59
	#11 8:45 - 9:00	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.44	0.44	0.44	0.44	0.44	0.44	0.41	0.55	0.55	0.55
	#12 9:00 - 9:15	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.44	0.44	0.44	0.44	0.44	0.44	0.41	0.55	0.55	0.55
	Total Density (pc/mi/ln)	#1 6:15 - 6:30	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.8	7.4	12.4	11.2	11.2	11.2	11.2	12.2	10.6	15.6	14.1
#2 6:30 - 6:45		8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	9.2	7.8	13.0	11.7	11.7	11.7	11.7	12.8	11.1	16.4	14.8	14.8
#3 6:45 - 7:00		8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.8	8.3	13.9	12.5	12.5	12.5	12.5	13.6	11.8	17.5	15.8	15.8
#4 7:00 - 7:15		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.8	8.3	14.0	12.6	12.6	12.6	12.6	13.7	11.9	17.6	15.9	15.9
#5 7:15 - 7:30		9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.6	9.0	15.1	13.6	13.6	13.6	13.6	14.8	12.9	19.1	17.3	17.3
#6 7:30 - 7:45		10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	11.1	9.4	15.8	14.2	14.2	14.2	14.2	15.4	13.4	20.0	18.1	18.1
#7 7:45 - 8:00		9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	10.3	8.8	14.7	13.2	13.2	13.2	13.2	14.3	12.5	18.5	16.7	16.7
#8 8:00 - 8:15		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.9	9.3	15.7	14.1	14.1	14.1	14.1	15.3	13.3	19.8	17.9	17.9
#9 8:15 - 8:30		9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	10.7	9.1	15.4	13.8	13.8	13.8	13.8	15.0	13.0	19.4	17.5	17.5
#10 8:30 - 8:45		10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	11.5	9.8	16.5	14.8	14.8	14.8	14.8	16.1	14.0	21.0	19.0	19.0
#11 8:45 - 9:00		10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	11.6	9.8	16.6	14.9	14.9	14.9	14.9	16.1	14.0	21.0	19.1	19.1
#12 9:00 - 9:15		9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	10.8	9.2	15.5	13.9	13.9	13.9	13.9	15.1	13.2	19.6	17.7	17.7
LOS Contours	#1 6:15 - 6:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
	#2 6:30 - 6:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
	#3 6:45 - 7:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
	#4 7:00 - 7:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
	#5 7:15 - 7:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
	#6 7:30 - 7:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#7 7:45 - 8:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#8 8:00 - 8:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#9 8:15 - 8:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#10 8:30 - 8:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#11 8:45 - 9:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C
	#12 9:00 - 9:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	B	C	C

I-75 Northbound (AM PEAK) - Sarasota County

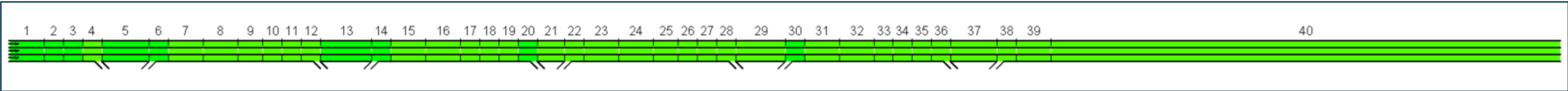


I-75 Northbound Charlotte County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name												Toledo Blade/ Choctaw		Toledo Blade/ Choctaw					Sumter		Sumter		
Segment Length (ft)	20300	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	4100	1500	3060	2640	1500	1500	1500	3210	1500	1500	35900

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
		Speed Contours (mi/h)	#1 15:00 - 15:15	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	66.4	73.1	66.7	73.0	73.1	73.1	73.1	66.7	73.0	67.0
D/C Contours	#2 15:15 - 15:30	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.31	0.31	0.31	0.31	0.31	0.31	0.27	0.31	0.31	0.31
	#3 15:30 - 15:45	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.24	0.30	0.30	0.30	0.30	0.30	0.30	0.27	0.30	0.30	0.30
	#4 15:45 - 16:00	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.27	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.30	0.34	0.34
	#5 16:00 - 16:15	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.26	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.32	0.32
	#6 16:15 - 16:30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.27	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.30	0.33	0.33
	#7 16:30 - 16:45	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.31	0.35	0.35
	#8 16:45 - 17:00	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.26	0.32	0.32	0.32	0.32	0.32	0.32	0.29	0.33	0.33	0.33
	#9 17:00 - 17:15	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.27	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.30	0.34	0.34
	#10 17:15 - 17:30	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.35	0.35	0.35	0.35	0.35	0.35	0.31	0.35	0.35	0.35
	#11 17:30 - 17:45	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.32	0.32
	#12 17:45 - 18:00	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.22	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.25	0.28	0.28
	Total Density (pc/mi/ln)	#1 15:00 - 15:15	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	10.0	7.8	10.7	9.8	9.8	9.8	9.8	10.7	8.7	10.7	9.8
#2 15:15 - 15:30		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0	7.8	10.6	9.7	9.7	9.7	9.7	10.6	8.7	10.6	9.7	9.7
#3 15:30 - 15:45		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.9	7.7	10.5	9.6	9.6	9.6	9.6	10.5	8.6	10.5	9.7	9.7
#4 15:45 - 16:00		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	8.6	11.8	10.7	10.7	10.7	10.7	11.7	9.6	11.8	10.8	10.8
#5 16:00 - 16:15		9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	10.4	8.1	11.1	10.1	10.1	10.1	10.1	11.1	9.0	11.1	10.2	10.2
#6 16:15 - 16:30		9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	10.9	8.5	11.6	10.6	10.6	10.6	10.6	11.6	9.4	11.6	10.6	10.6
#7 16:30 - 16:45		10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	11.4	8.9	12.1	11.0	11.0	11.0	11.0	12.1	9.9	12.2	11.1	11.1
#8 16:45 - 17:00		9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.6	8.3	11.3	10.3	10.3	10.3	10.3	11.3	9.2	11.3	10.4	10.4
#9 17:00 - 17:15		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	8.6	11.8	10.7	10.7	10.7	10.7	11.7	9.6	11.8	10.8	10.8
#10 17:15 - 17:30		10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	11.3	8.8	12.1	11.0	11.0	11.0	11.0	12.0	9.8	12.1	11.0	11.0
#11 17:30 - 17:45		9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	10.3	8.1	11.0	10.0	10.0	10.0	10.0	11.0	9.0	11.0	10.1	10.1
#12 17:45 - 18:00		8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	9.1	7.1	9.7	8.9	8.9	8.9	8.9	9.8	7.9	9.7	8.9	8.9
LOS Contours	#1 15:00 - 15:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#2 15:15 - 15:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#3 15:30 - 15:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#4 15:45 - 16:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#5 16:00 - 16:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#6 16:15 - 16:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#7 16:30 - 16:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#8 16:45 - 17:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#9 17:00 - 17:15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#10 17:15 - 17:30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#11 17:30 - 17:45	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	#12 17:45 - 18:00	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

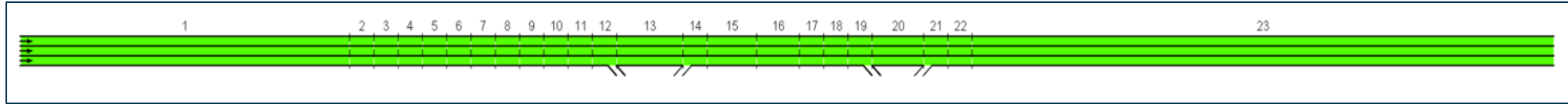
I-75 Northbound (PM PEAK) – Sarasota County

FREEVAL OUTPUTS - I-75 SOUTHBOUND



I-75 Southbound Charlotte County	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40				
General Purpose Segment Name				Kings		Kings						Harbor View		Harbor View						US 17		US 17						N. Jones Loop		N. Jones Loop							Tuckers Grade		Tuckers Grade					
Segment Length (ft)	2640	1500	1500	1500	3580	1500	2640	2640	1920	1500	1500	1500	3900	1500	2640	2640	1520	1500	1500	1500	2070	1500	2640	2640	1920	1500	1500	1500	3800	1500	1500	1500	3800	1500	2640	2640	1440	1500	1500	1500	3560	1500	2640	38760

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40	
Speed Contours (mi/h)	#1 6:15 - 6:30	73.1	73.1	73.1	66.2	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.0	73.0	67.2	72.9	73.1	73.1	73.1	73.1	73.1	60.7	72.4	66.6	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.7	72.9	73.1	73.1	73.1	73.1	66.5	73.0	67.3	72.9	73.1
	#2 6:30 - 6:45	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.0	73.0	67.1	72.9	73.1	73.1	73.1	73.1	73.1	64.1	72.6	66.4	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.6	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.2	72.9	73.1
	#3 6:45 - 7:00	73.1	73.1	73.1	66.2	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.0	73.0	67.1	72.9	73.1	73.1	73.1	73.1	73.1	64.1	72.6	66.4	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.2	72.9	73.1
	#4 7:00 - 7:15	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	63.9	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#5 7:15 - 7:30	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	63.9	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#6 7:30 - 7:45	73.1	73.1	73.1	66.2	73.0	66.5	72.9	73.1	73.1	73.1	73.1	67.2	73.0	66.7	72.9	73.1	73.1	73.1	73.1	73.1	63.0	72.6	66.2	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.4	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.0	72.9	73.1
	#7 7:45 - 8:00	73.1	73.1	73.1	66.2	73.0	66.5	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.7	72.9	73.1	73.1	73.1	73.1	73.1	63.0	72.6	66.2	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.4	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.0	72.9	73.1
	#8 8:00 - 8:15	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	64.0	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.6	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#9 8:15 - 8:30	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	63.9	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#10 8:30 - 8:45	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	63.9	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#11 8:45 - 9:00	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	66.9	72.9	73.1	73.1	73.1	73.1	73.1	63.9	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
	#12 9:00 - 9:15	73.1	73.1	73.1	66.2	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.0	72.9	73.1	73.1	73.1	73.1	73.1	64.0	72.6	66.3	72.9	73.1	73.1	73.1	73.1	65.9	73.0	67.6	72.9	73.1	73.1	73.1	73.1	66.6	73.0	67.1	72.9	73.1
D/C Contours	#1 6:15 - 6:30	0.16	0.16	0.16	0.16	0.13	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.16	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.16	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.19	0.19	0.19	
	#2 6:30 - 6:45	0.19	0.19	0.19	0.19	0.16	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.19	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.19	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.19	0.22	0.22	0.22	
	#3 6:45 - 7:00	0.18	0.18	0.18	0.18	0.15	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.18	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.18	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.18	0.21	0.21	0.21	
	#4 7:00 - 7:15	0.21	0.21	0.21	0.21	0.17	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.26	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.21	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.21	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.21	0.24	0.24	0.24	
	#5 7:15 - 7:30	0.21	0.21	0.21	0.21	0.18	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.22	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.21	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.21	0.25	0.25	0.25	
	#6 7:30 - 7:45	0.23	0.23	0.23	0.23	0.19	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.24	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.23	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.24	0.28	0.28	0.28	
	#7 7:45 - 8:00	0.23	0.23	0.23	0.23	0.19	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.23	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.23	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.23	0.27	0.27	0.27	
	#8 8:00 - 8:15	0.20	0.20	0.20	0.20	0.17	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.25	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.21	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.20	0.24	0.24	0.24	
	#9 8:15 - 8:30	0.21	0.21	0.21	0.21	0.17	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.21	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.21	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.21	0.25	0.25	0.25	
	#10 8:30 - 8:45	0.21	0.21	0.21	0.21	0.18	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.22	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.21	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.22	0.25	0.25	0.25	
	#11 8:45 - 9:00	0.20	0.20	0.20	0.20	0.17	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.26	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.21	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.20	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.21	0.24	0.24	0.24	
	#12 9:00 - 9:15	0.20	0.20	0.20	0.20	0.17	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.25	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.20	0.24	0.24	0.24	
Total Density (pc/mi/ln)	#1 6:15 - 6:30	5.1	5.1	5.1	5.7	4.3	7.5	6.8	6.8	6.8	6.8	7.4	6.5	9.5	8.8	8.8	8.8	8.8	8.8	10.6	5.2	7.1	6.5	6.5	6.5	6.5	6.5	7.2	5.1	6.3	5.8	5.8	5.8	5.8	6.4	5.2	6.6	6.1	6.1			
	#2 6:30 - 6:45	5.9	5.9	5.9	6.5	4.9	8.7	7.9	7.9	7.9	7.9	8.6	7.5	11.1	10.1	10.1	10.1	10.1	10.1	11.6	6.0	8.2	7.5	7.5	7.5	7.5	7.5	8.3	5.9	7.3	6.8	6.8	6.8	7.4	6.0	7.6	7.0	7.0				
	#3 6:45 - 7:00	5.7	5.7	5.7	6.3	4.8	8.4	7.6	7.6	7.6	7.6	8.3	7.2	10.7	9.8	9.8	9.8	9.8	9.8	11.2	5.8	7.9	7.2	7.2	7.2	7.2	7.2	8.0	5.7	7.0	6.5	6.5	6.5	7.2	5.8	7.4	6.8	6.8				
	#4 7:00 - 7:15	6.5	6.5	6.5	7.2	5.5	9.6	8.7	8.7	8.7	8.7	9.5	8.3	12.2	11.2	11.2	11.2	11.2	11.2	12.8	6.7	9.1	8.3	8.3	8.3	8.3	8.3															



I-75 Southbound Charlotte County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name												Sumter		Sumter					Toledo Blade/ Choctaw		Toledo Blade/ Choctaw		
Segment Length (ft)	22450	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	3630	1500	2870	2640	1500	1500	1500	4050	1500	1500	33000

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
		Speed Contours (mi/h)	#1 15:00 - 15:15	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	65.2	73.0	66.4	72.9	73.1	73.1	73.1	64.2	73.0	66.9
	#2 15:15 - 15:30	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	65.2	73.0	66.4	72.9	73.1	73.1	73.1	64.2	73.0	66.9	72.6	73.1
	#3 15:30 - 15:45	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	65.1	73.0	66.2	72.9	73.1	73.1	73.1	64.1	73.0	66.9	72.6	73.1
	#4 15:45 - 16:00	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	65.1	73.0	66.2	72.9	73.1	73.1	73.1	64.1	73.0	66.9	72.6	73.1
	#5 16:00 - 16:15	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	65.0	73.0	66.1	72.9	73.0	73.0	73.0	64.1	73.0	66.8	72.6	73.1
	#6 16:15 - 16:30	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	65.1	73.0	66.2	72.9	73.1	73.1	73.1	64.1	73.0	66.9	72.6	73.1
	#7 16:30 - 16:45	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	65.0	73.0	66.1	72.9	73.0	73.0	73.0	64.1	73.0	66.8	72.6	73.1
	#8 16:45 - 17:00	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	65.0	73.0	66.1	72.9	73.0	73.0	73.0	64.1	73.0	66.8	72.6	73.1
	#9 17:00 - 17:15	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	65.1	73.0	66.3	72.9	73.1	73.1	73.1	64.2	73.0	66.9	72.6	73.1
	#10 17:15 - 17:30	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	65.2	73.0	66.5	72.9	73.1	73.1	73.1	64.3	73.0	67.0	72.6	73.1
	#11 17:30 - 17:45	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	65.2	73.0	66.5	72.9	73.1	73.1	73.1	64.2	73.0	67.0	72.6	73.1
	#12 17:45 - 18:00	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	65.2	73.0	66.6	72.9	73.1	73.1	73.1	64.3	73.0	67.1	72.6	73.1
	D/C Contours	#1 15:00 - 15:15	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.41	0.44	0.44	0.44	0.44	0.44	0.44	0.29	0.32	0.32	0.32
		#2 15:15 - 15:30	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.41	0.44	0.44	0.44	0.44	0.44	0.44	0.29	0.32	0.32	0.32
		#3 15:30 - 15:45	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.43	0.46	0.46	0.46	0.46	0.46	0.46	0.31	0.34	0.34	0.34
		#4 15:45 - 16:00	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.43	0.46	0.46	0.46	0.46	0.46	0.46	0.31	0.34	0.34	0.34
		#5 16:00 - 16:15	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.45	0.48	0.48	0.48	0.48	0.48	0.48	0.32	0.36	0.36	0.36
		#6 16:15 - 16:30	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.43	0.46	0.46	0.46	0.46	0.46	0.46	0.31	0.34	0.34	0.34
		#7 16:30 - 16:45	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.45	0.48	0.48	0.48	0.48	0.48	0.48	0.32	0.36	0.36	0.36
		#8 16:45 - 17:00	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.44	0.48	0.48	0.48	0.48	0.48	0.48	0.32	0.35	0.35	0.35
		#9 17:00 - 17:15	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.42	0.45	0.45	0.45	0.45	0.45	0.45	0.30	0.33	0.33	0.33
		#10 17:15 - 17:30	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.38	0.41	0.41	0.41	0.41	0.41	0.41	0.28	0.31	0.31	0.31
		#11 17:30 - 17:45	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.39	0.42	0.42	0.42	0.42	0.42	0.42	0.28	0.31	0.31	0.31
		#12 17:45 - 18:00	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.37	0.40	0.40	0.40	0.40	0.40	0.40	0.27	0.30	0.30	0.30
	Total Density (pc/mi/ln)	#1 15:00 - 15:15	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	19.2	12.9	15.3	13.9	13.9	13.9	13.9	15.8	9.3	11.3	10.3	10.3
		#2 15:15 - 15:30	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	19.2	12.9	15.3	13.9	13.9	13.9	13.9	15.8	9.3	11.2	10.3	10.3
		#3 15:30 - 15:45	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	20.2	13.6	16.1	14.6	14.6	14.6	14.6	16.6	9.7	11.8	10.8	10.8
		#4 15:45 - 16:00	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	20.2	13.6	16.2	14.6	14.6	14.6	14.6	16.7	9.8	11.9	10.9	10.9
		#5 16:00 - 16:15	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.1	14.2	16.9	15.3	15.3	15.3	15.3	17.4	10.2	12.4	11.3	11.3
		#6 16:15 - 16:30	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	20.3	13.6	16.2	14.7	14.7	14.7	14.7	16.7	9.8	11.9	10.9	10.9
		#7 16:30 - 16:45	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	21.2	14.3	17.0	15.4	15.4	15.4	15.4	17.5	10.2	12.5	11.4	11.4
		#8 16:45 - 17:00	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	21.0	14.1	16.7	15.2	15.2	15.2	15.2	17.3	10.1	12.3	11.2	11.2
		#9 17:00 - 17:15	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	19.7	13.3	15.7	14.3	14.3	14.3	14.3	16.2	9.5	11.6	10.6	10.6
		#10 17:15 - 17:30	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	18.1	12.2	14.4	13.1	13.1	13.1	13.1	14.9	8.7	10.6	9.7	9.7
		#11 17:30 - 17:45	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	18.5	12.4	14.7	13.4	13.4	13.4	13.4	15.2	8.9	10.8	9.9	9.9
		#12 17:45 - 18:00	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	17.5	11.8	14.0	12.7	12.7	12.7	12.7	14.5	8.5	10.3	9.4	9.4
	LOS Contours	#1 15:00 - 15:15	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	B	B	C	B	B	B	B
		#2 15:15 - 15:30	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	B	B	C	B	B	B	B
		#3 15:30 - 15:45	C	C	C	C	C	C	C	C	C	C	C	B	B	C	C	C	C	C	B	B	B	B
		#4 15:45 - 16:00	C	C	C	C	C	C	C	C	C	C	C	B	B	C	C	C	C	C	B	B	B	B
		#5 16:00 - 16:15	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	B	B	B	B
		#6 16:15 - 16:30	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	B	B	B	B
		#7 16:30 - 16:45	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	B	B	B	B
		#8 16:45 - 17:00	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	B	B	B	B
		#9 17:00 - 17:15	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	B	B	B	B
		#10 17:15 - 17:30	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	B	C	B	B	B	B
		#11 17:30 - 17:45	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	B	C	B	B	B	B
		#12 17:45 - 18:00	C	C																				



Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40
General Purpose Segment Name				Kings		Kings						Harbor View		Harbor View						US 17		US 17						N. Jones Loop		N. Jones Loop						Tuckers Grade		Tuckers Grade		
Segment Length (ft)	2640	1500	1500	1500	3580	1500	2640	2640	1920	1500	1500	1500	3300	1500	2640	2640	1520	1500	1500	1500	2070	1500	2640	2640	1920	1500	1500	1500	3800	1500	2640	2640	1440	1500	1500	1500	3560	1500	2640	38760

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40
Speed Contours (mi/h)	#1 15:00 - 15:15	73.1	73.1	73.1	66.0	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.1	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.3	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#2 15:15 - 15:30	73.1	73.1	73.1	66.0	73.0	66.8	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.1	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.2	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#3 15:30 - 15:45	73.1	73.1	73.1	66.0	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.1	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.1	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#4 15:45 - 16:00	73.1	73.1	73.1	66.0	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.0	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.1	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#5 16:00 - 16:15	73.1	73.1	73.1	66.0	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.2	73.1	67.0	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.0	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#6 16:15 - 16:30	73.1	73.1	73.1	66.0	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.0	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.1	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#7 16:30 - 16:45	73.1	73.1	73.1	66.0	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.2	73.1	67.0	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.0	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#8 16:45 - 17:00	73.1	73.1	73.1	66.0	73.0	66.6	72.9	73.1	73.1	73.1	73.1	67.2	73.0	67.0	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.0	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#9 17:00 - 17:15	73.1	73.1	73.1	66.0	73.0	66.7	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.1	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.1	72.9	73.1	73.1	73.1	73.1	65.7	73.0	67.3	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#10 17:15 - 17:30	73.1	73.1	73.1	66.0	73.0	66.9	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.2	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.2	72.9	73.1	73.1	73.1	73.1	65.8	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.4	72.9	73.1
	#11 17:30 - 17:45	73.1	73.1	73.1	66.0	73.0	66.8	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.2	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.2	72.9	73.1	73.1	73.1	73.1	65.8	73.0	67.4	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.3	72.9	73.1
	#12 17:45 - 18:00	73.1	73.1	73.1	66.0	73.0	66.9	72.9	73.1	73.1	73.1	73.1	67.1	73.0	67.3	72.9	73.1	73.1	73.1	73.1	62.2	72.5	66.3	72.9	73.1	73.1	73.1	73.1	65.8	73.0	67.5	72.9	73.1	73.1	73.1	73.1	66.1	73.0	67.4	72.9	73.1
	D/C Contours	#1 15:00 - 15:15	0.32	0.32	0.32	0.32	0.26	0.34	0.34	0.34	0.34	0.34	0.34	0.32	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.28	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.26	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.24	0.26	0.26
#2 15:15 - 15:30		0.31	0.31	0.31	0.31	0.25	0.33	0.33	0.33	0.33	0.33	0.33	0.31	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.27	0.32	0.32	0.32	0.32	0.32	0.32	0.25	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.23	0.25	0.25	0.25
#3 15:30 - 15:45		0.33	0.33	0.33	0.33	0.26	0.35	0.35	0.35	0.35	0.35	0.35	0.33	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.29	0.34	0.34	0.34	0.34	0.34	0.34	0.26	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.24	0.26	0.26	0.26
#4 15:45 - 16:00		0.33	0.33	0.33	0.33	0.27	0.35	0.35	0.35	0.35	0.35	0.35	0.33	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.29	0.34	0.34	0.34	0.34	0.34	0.34	0.27	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.24	0.26	0.26	0.26	
#5 16:00 - 16:15		0.34	0.34	0.34	0.34	0.28	0.36	0.36	0.36	0.36	0.36	0.36	0.34	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.36	0.36	0.36	0.36	0.36	0.36	0.28	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.25	0.27	0.27	0.27	
#6 16:15 - 16:30		0.33	0.33	0.33	0.33	0.27	0.35	0.35	0.35	0.35	0.35	0.35	0.33	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.29	0.34	0.34	0.34	0.34	0.34	0.34	0.27	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.24	0.26	0.26	0.26	
#7 16:30 - 16:45		0.34	0.34	0.34	0.34	0.28	0.36	0.36	0.36	0.36	0.36	0.36	0.34	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.36	0.36	0.36	0.36	0.36	0.36	0.28	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.25	0.27	0.27	0.27	
#8 16:45 - 17:00		0.34	0.34	0.34	0.34	0.28	0.36	0.36	0.36	0.36	0.36	0.36	0.34	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.30	0.35	0.35	0.35	0.35	0.35	0.35	0.27	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.25	0.27	0.27	0.27	
#9 17:00 - 17:15		0.32	0.32	0.32	0.32	0.26	0.34	0.34	0.34	0.34	0.34	0.34	0.32	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.28	0.33	0.33	0.33	0.33	0.33	0.33	0.26	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.24	0.25	0.25	0.25	
#10 17:15 - 17:30		0.29	0.29	0.29	0.29	0.24	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.29	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.26	0.31	0.31	0.31	0.31	0.31	0.31	0.24	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.22	0.23	0.23	0.23	
#11 17:30 - 17:45		0.30	0.30	0.30	0.30	0.24	0.32	0.32	0.32	0.32	0.32	0.32	0.30	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.26	0.31	0.31	0.31	0.31	0.31	0.31	0.24	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.22	0.24	0.24	0.24	
#12 17:45 - 18:00		0.29	0.29	0.29	0.29	0.23	0.30	0.30	0.30	0.30	0.30	0.30	0.28	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.25	0.30	0.30	0.30	0.30	0.30	0.30	0.23	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.21	0.23	0.23	0.23	
Total Density (pc/mi/ln)		#1 15:00 - 15:15	10.2	10.2	10.2	11.3	8.3	11.9	10.8	10.8	10.8	10.8	11.8	10.2	12.9	11.8	11.8	11.8	11.8	11.8	11.8	13.9	9.1	11.7	10.6	10.6	10.6	10.6	10.6	11.8	8.3	10.1	9.3	9.3	9.3	9.3	10.3	7.7	8.9	8.2	8.2
	#2 15:15 - 15:30	9.9	9.9	9.9	11.0	8.0	11.5	10.5	10.5	10.5	10.5	11.4	9.9	12.5	11.5	11.5	11.5	11.5	11.5	11.5	13.5	8.7	11.4	10.3	10.3	10.3	10.3	11.5	8.0	9.7	9.0	9.0	9.0	9.0	9.9	7.4	8.6	7.9	7.9		
	#3 15:30 - 15:45	10.4	10.4	10.4	11.5	8.4	12.1	11.0	11.0	11.0	11.0	12.0	10.4	13.2	12.1	12.1	12.1	12.1	12.1	12.1	14.2	9.2	12.0	10.8	10.8	10.8	10.8	12.0	8.4	10.2	9.4	9.4	9.4	9.4	10.4	7.7	9.0	8.3	8.3		
	#4 15:45 - 16:00	10.4	10.4	10.4	11.6	8.4	12.1	11.1	11.1	11.1	11.1	12.1	10.4	13.2	12.1																										

Appendix E

Crash Analysis Memorandums

May 25, 2021

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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

To: Joshua A. Jester, EI
FDOT, District One
Environmental Management Office

From: Deepika Fields, PE
Stantec

Subject: I-75 Crash Analysis – South of River
Road Interchange (MP 16.3 to MP 19.7)

Date: May 25, 2021

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

This memo documents the detailed crash analysis of the I-75 northbound mainline section at the horizontal curve just south of the North River Road interchange (PC, MP 17.711 to PT, MP 18.809). This location was identified on the District's Top 20 crash locations based on the number of fatal crashes over the three-year period from 2016-2018. The following evaluation provides crash data analysis for both directions of travel of the approximate 3-mile I-75 segment between Milepost 16.3 and Milepost 19.7. Although I-75 generally follows a north/south alignment through the state, it runs east/west in this section of Sarasota County. The posted speed limit is 70 mph and there is no existing lighting along the study segment.

CRASH TYPE AND SEVERITY

Crash data was obtained from Signal Four Analytics for the 5-year period from January 2016 through December 2020. During this period, 212 crashes occurred along I-75 and consisted of 143 property damage only, 62 injury and 7 fatal crashes (see Figure 1).

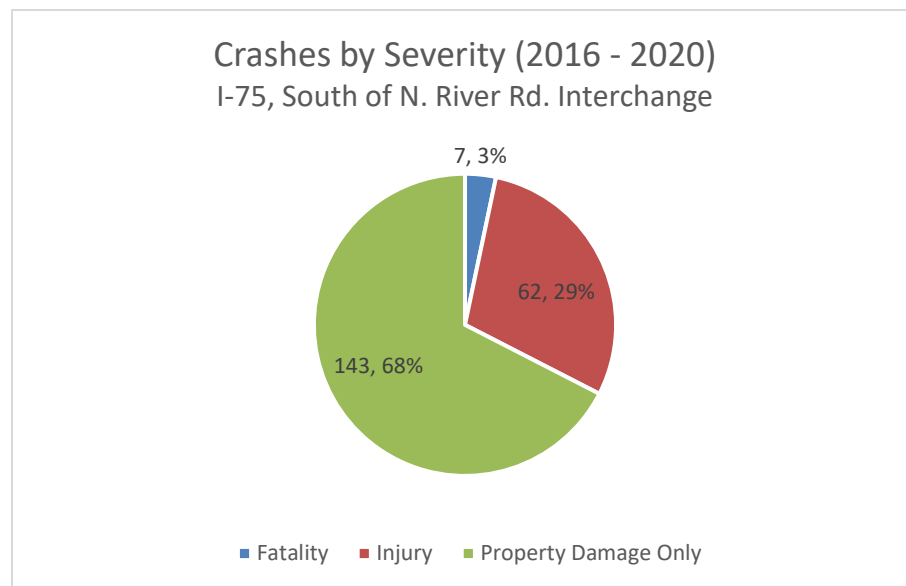


Figure 1: Crashes By Severity

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

The crashes from year to year showed a sharp decrease from 2016 to 2017 with a 66% reduction in the number of crashes. In subsequent years the trend fluctuates, alternating between increases and decline (see Figure 2). A capacity enhancement project was completed in the end of 2016 that widened the Interstate from 4 to 6 lanes.

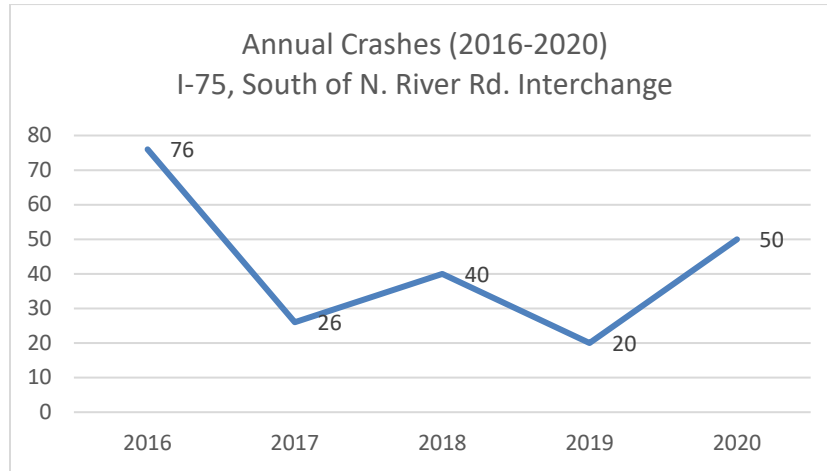


Figure 2: I-75 Annual Crashes (2016-2020)

The most frequent types of crashes were rear end (72) and off road (36). The crash type totals are shown in Figure 3 for the full study period and in Figure 4 for each individual year. The 39 crashes classified as “other” constitute 18% of all crashes and are described in Table 1.

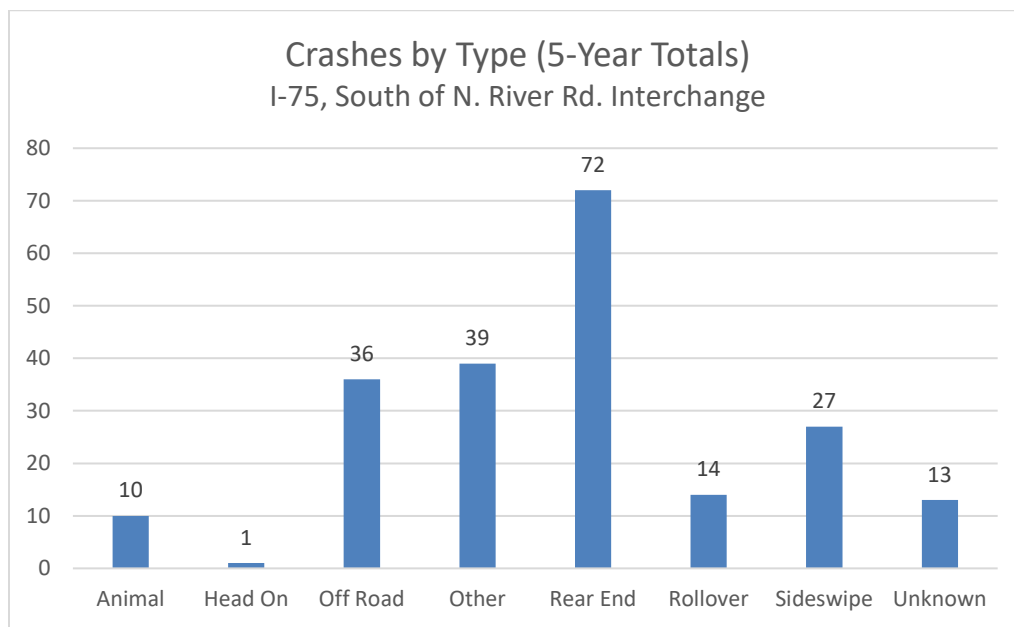


Figure 3: Crashes By Type (5-Year Totals)

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

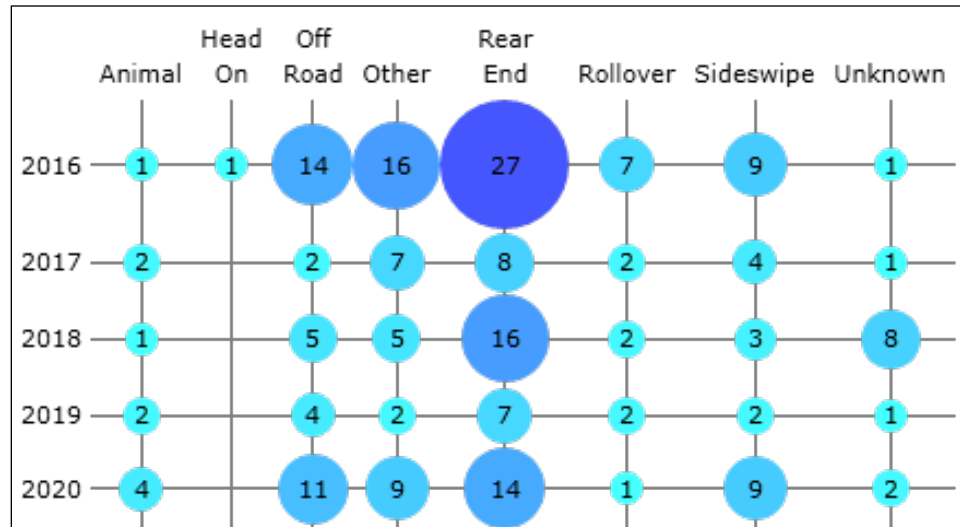


Figure 4: Crashes By Type (Individual Years)

Table 1: "Other" Crash Type	
First Harmful Event	Number of Crashes
Sideswipe, Same Direction	4
Front to Rear	2
Cargo/Equipment Loss or Shift	1
Fell/Jumped From Motor Vehicle	1
Jackknife	1 (1 in work zone)
Motor Vehicle in Transport	6 (4 in wet surface conditions, 1 in work zone)
Other Non-Collision	10 (3 in work zone)
Other Non-Fixed Object	7 (1 in lane closure area, 1 Physical Obstruction)
Parked Motor Vehicle	1
Ran into Water/Canal	3
Struck by Falling, Shifting Cargo	1
Thrown or Falling Object	1
Work Zone/Maintenance Equipment	1
Total	39

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

CRASH LOCATIONS

Figure 5 shows the locations of crashes along the I-75 study segment by type of crash as derived from crash reports. Of the total 212 crashes, about 70% (147 crashes) occurred in the northbound direction of travel. The crashes in the northbound direction were evaluated in closer detail by subdividing into 3 segments: south of the curve, through the limits of the curve and north of the curve. The I-75 northbound crash types by location are summarized in Table 2.

Table 2: I-75 Northbound Crashes - Location Summary					
Crash Type	Number of Crashes by Location				
	Tangent Section South of Curve	Curve Limits (PC to PT)	Tangent Section North of Curve	Total	% Total
Animal	1	0	4	5	3%
Head On	0	0	1	1	1%
Off Road	5	11	13	29	20%
Other	10	8	4	22	15%
Rear End	20	14	17	51	35%
Rollover	8	1	2	11	7%
Sideswipe	12	3	3	18	12%
Unknown	5	2	3	10	7%
Total	61	39	47	147	100%

The majority of crashes along the I-75 northbound tangent section south of the curve were rear end (20) followed by sideswipe (12). The crashes through the curve limits (PC to PT) primarily consisted of rear end (14) followed by off road (11). Just beyond the curve at the end of the bifurcation area and approaching the River Road exit, the majority of crashes were rear end (17) and off road (13).

CRASH CONDITIONS

Table 3 shows the lighting conditions for the crashes. Over 70% of the crashes occurred during daytime. For the eight crashes listed as occurring under dark-lighted conditions, the majority of these were located just south of River Road which has existing high-mast lighting at the interchange.

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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

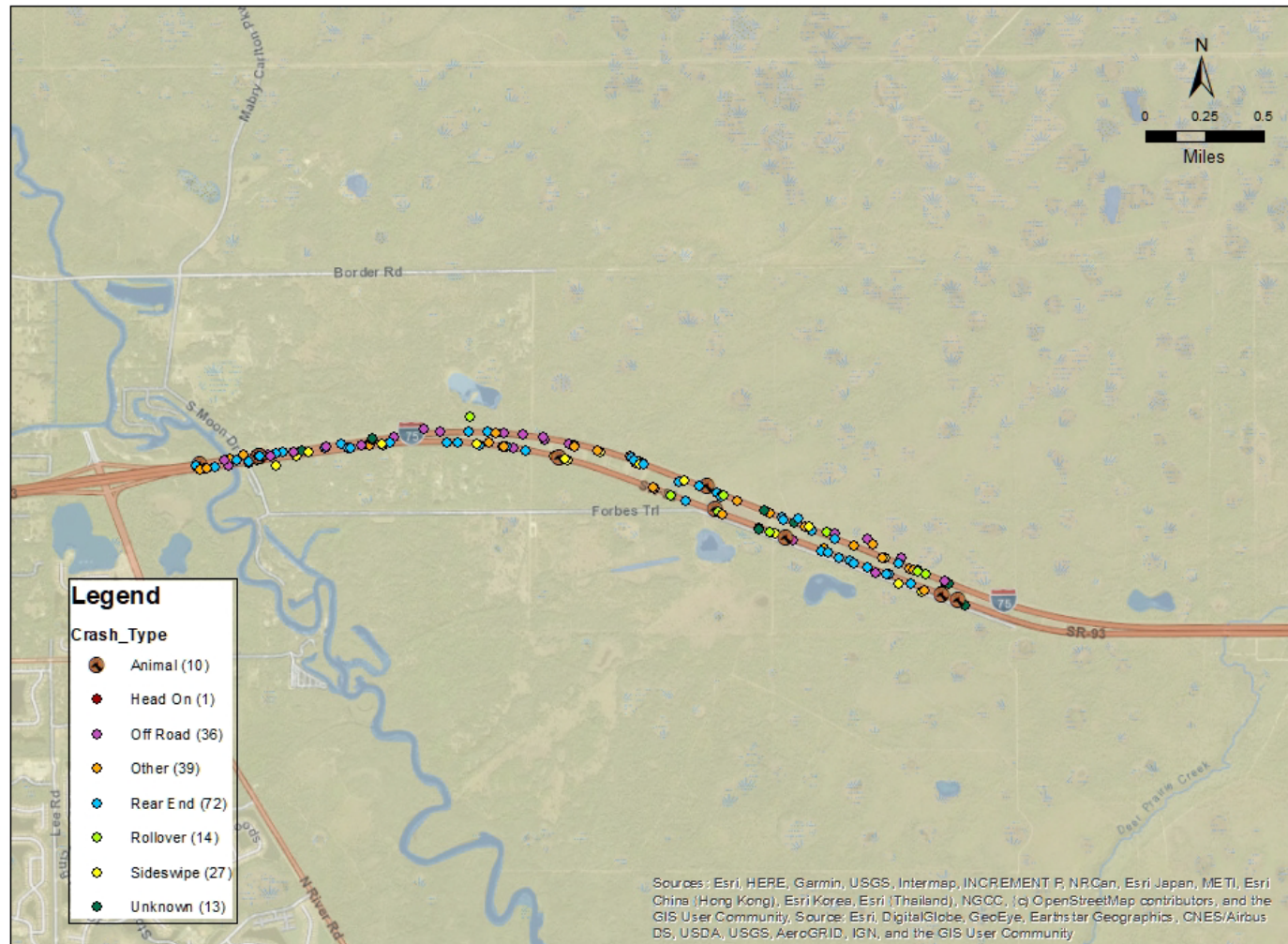


Figure 5: Crashes By Type & Location (2016-2020)

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

Lighting Condition	2016	2017	2018	2019	2020	Total
Dark - Lighted	1	2	1	1	3	8
Dark - Not Lighted	11	5	12	7	11	46
Dawn		1		1		2
Daylight	61	18	27	9	34	149
Dusk	3			2	2	7
Total	76	26	40	20	50	212

Table 4 shows the road surface conditions for all crashes in the study corridor; 73% of the crashes occurred under dry surface conditions and 27% occurred under wet surface conditions.

Road Surface Condition	2016	2017	2018	2019	2020	Total
Dry	50	24	31	15	35	155
Wet	26	2	9	5	15	57
Total	76	26	40	20	50	212

Table 5 shows the road surface conditions for the 3 segments in the northbound direction of travel. Although only 27% of the overall northbound crashes occurred under wet road surface conditions, through the curve limits section about 41% of the crashes were under wet road surface conditions.

Road Surface Condition	Number of Crashes by Location							
	Tangent South of Curve		Curve Limits (PC to PT)		Tangent North of Curve		Total	
Wet	10	16%	16	41%	13	28%	39	27%
Dry	51	84%	23	59%	34	72%	108	73%
Total	61	100%	39	100%	47	100%	147	100%

Rear End (72 crashes, 34%) and Off Road (36 crashes, 17%) constitute the most frequent type of study corridor crashes. Road surface conditions for these two types of crashes were reviewed (see Table 6). While only 14% of Rear End crashes occurred under wet road surface conditions, nearly 56% of Off Road crashes occurred under the same.

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

Table 6: Rear End & Off Road Crashes - Road Surface Condition						
Road Surface Condition	Off Road			Rear End		
	NB	SB	Total	NB	SB	Total
Dry	13	3	16	45	17	62
Wet	15	5	20	5	5	10
Total	28	8	36	50	22	72

ANIMAL CRASHES

Ten animal crashes occurred along the study corridor; seven were in the southbound direction and three were northbound. The animal collisions were spread out on I-75 with five occurring in the tangent section south of the curve, one within the curve and four in the tangent section north of the curve, near the Myakka River crossing. Figure 6 shows the approximate location of the animal crashes based on crash report data. Eight of the crashes resulted in property damage only and two resulted in injury. Seven occurred in dark-not lighted conditions, two in daylight and one in dark-lighted condition. Table 7 provides a summary of the animal crashes.

FATAL CRASHES

The seven fatal crashes along both directions of the corridor were reviewed in greater detail. Figure 7 shows the approximate location of the fatal crashes based on crash report data. Four of these occurred in the northbound direction and three in the southbound direction of travel. Table 8 provides a summary of the conditions associated with the fatal crashes.

In the northbound direction, three of the fatal crashes occurred within the tangent section approaching the curve and one occurred in the beginning of the curve segment. In the southbound direction, one crash occurred in the tangent section just before the curve and two occurred within the curve segment.

Four of the seven fatal crashes were attributable to driver behavior such as careless driving, excessive speeding or failure to slow down sufficiently resulting in either rear end or off road crashes. Of these, one was on a wet surface and one was in a work zone.

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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

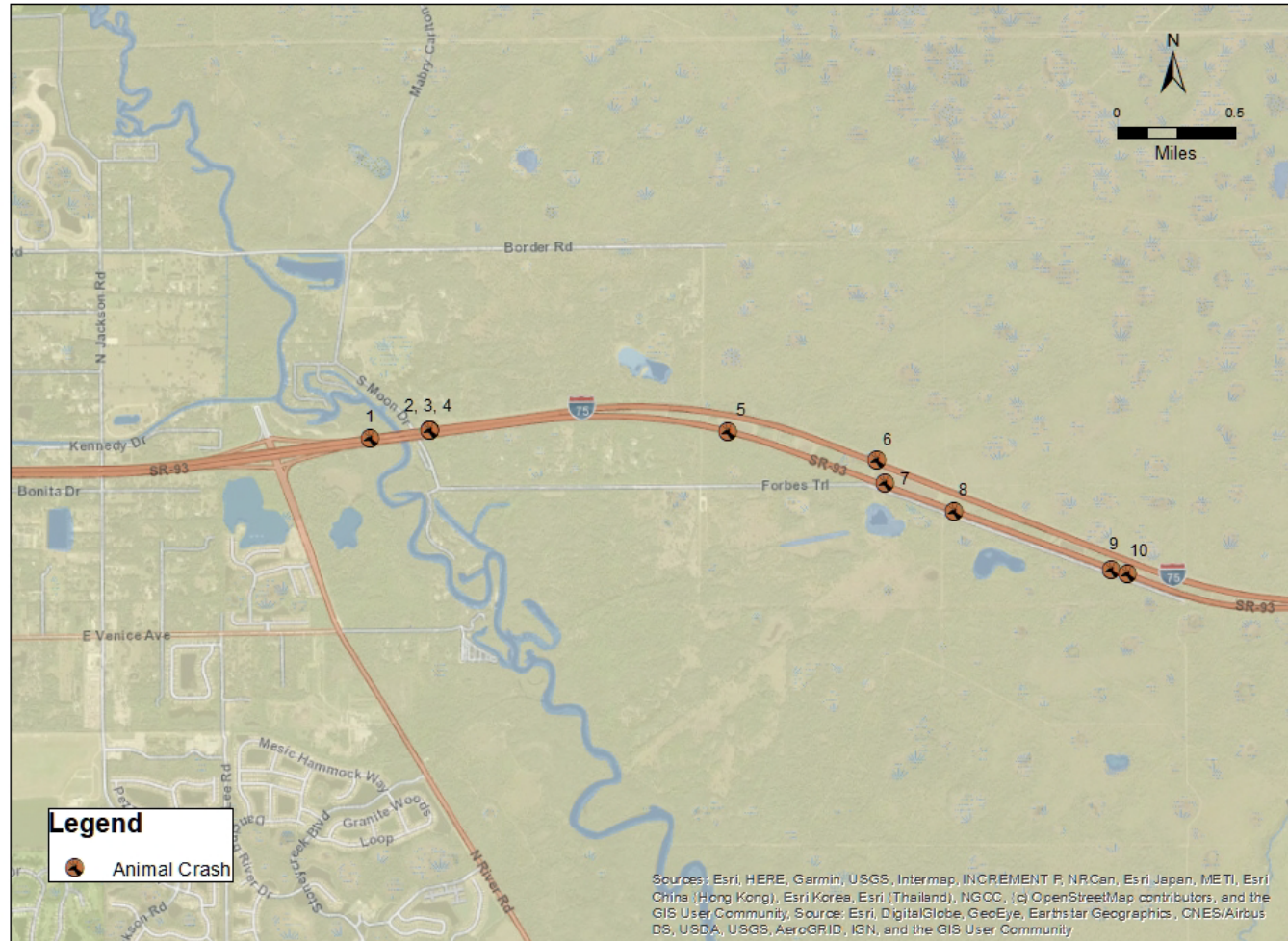


Figure 6: I-75 Animal Crashes (2016-2020)

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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

Table 7: I-75 Animal Crash Summary

Crash Number	Crash Date	Severity	Animal Type Involved	Weather	Lighting	Road Surface	Work Zone	Drug/ Alcohol Related	Estimated Vehicle Damages
1	11/30/2020	Property Damage Only	Bobcat or Fox	Clear	Dark - Lighted	Dry	N	N	\$ 2,000
2	9/27/2018	Property Damage Only	Deer	Cloudy	Dark - Not Lighted	Wet	N	N	\$ 10,000
3	11/3/2016	Property Damage Only	Deer	Clear	Dark - Not Lighted	Dry	Work on Shoulder or Median	N	\$ 2,000
4	11/8/2017	Property Damage Only	Deer	Clear	Daylight	Dry	N	N	\$ 3,500
5	9/14/2020	Property Damage Only	Deer	Cloudy	Daylight	Wet	N	N	\$ 6,000
6	5/16/2017	Injury	Alligator	Cloudy	Dark - Not Lighted	Dry	N	N	\$ 14,500
7	5/5/2020	Property Damage Only	Deer	Cloudy	Dark - Not Lighted	Dry	N	N	\$ 8,000
8	9/13/2019	Property Damage Only	Deer	Clear	Dark - Not Lighted	Dry	N	N	\$ 10,000
9	5/31/2019	Property Damage Only	Alligator	Clear	Dark - Not Lighted	Dry	N	N	\$ 8,000
10	9/2/2020	Injury	Unidentified	Clear	Dark - Not Lighted	Dry	N	N	\$ 1,000

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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

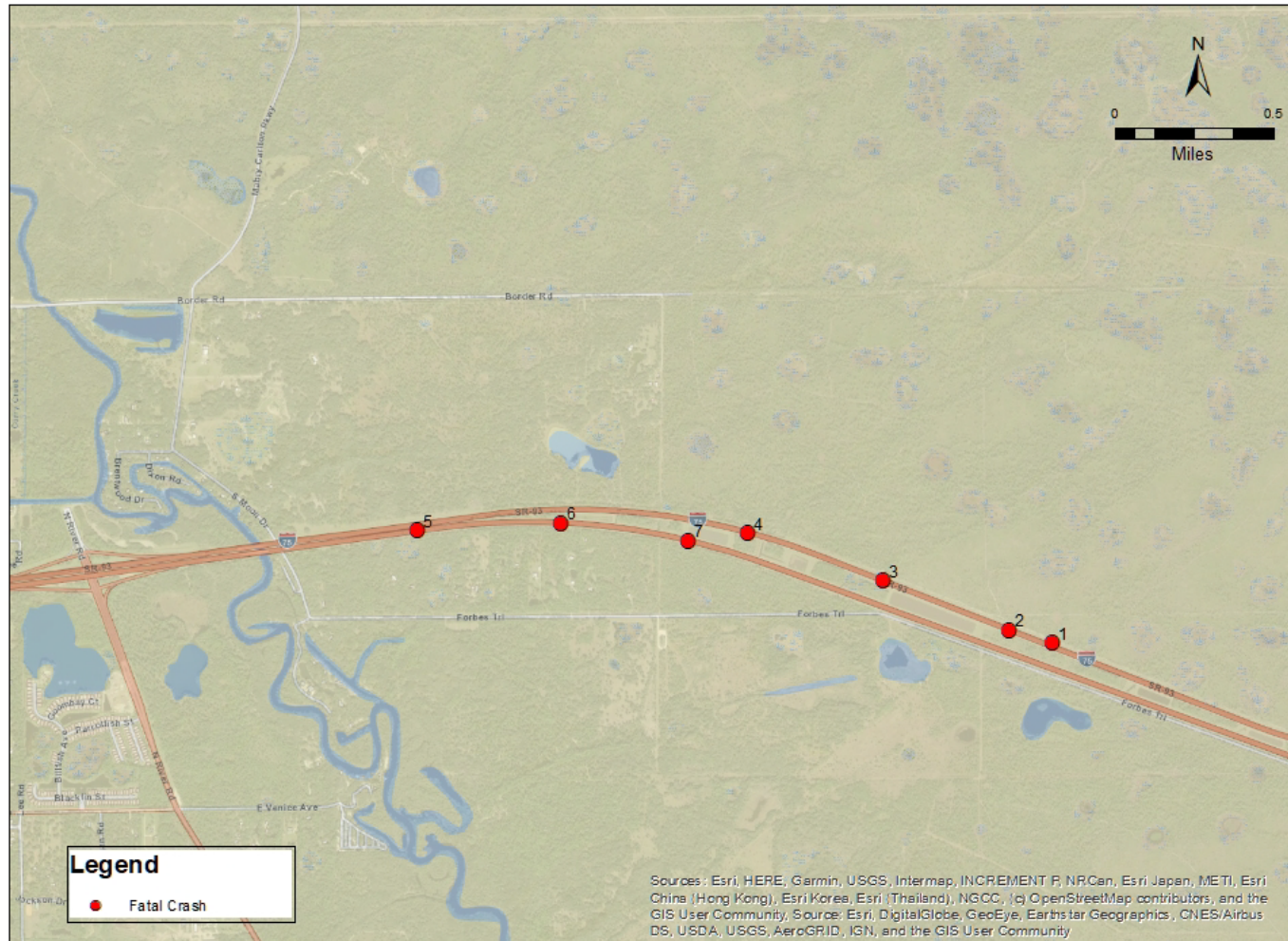


Figure 7: I-75 Fatal Crashes (2016-2020)

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

Table 8: I-75 Fatal Crash Summary													
Crash Number	Crash Date	Location	Crash Type	Contributing Factor (Driver)	Other Factors/ Events	Fatalities	Injuries	Weather	Lighting	Road Surface	Work Zone	Drug/ Alcohol Related	Estimated Damages
1	3/14/2016	I-75 NB, 3 Miles south of CR 777/ N. River Road	Rollover	Over-correcting/ Over-steering	Blown Tire/ Tire Tread Separation, Lost Control, Struck Berm, Overturned	1	3	Clear	Daylight	Dry	Work on Shoulder or Median	N	\$ 7,500
2	1/8/2018	I-75 NB, 3 Miles south of CR 777/ N. River Road	Collision w/ non-fixed object/ Ran-off Roadway/ Overturned-Rollover	none	Struck Road Debris (Separated Wheel/Tire)	1	1	Cloudy	Dark - Not Lighted	Dry	N	N/A	\$ 11,500
3	9/12/2020	I-75 NB, 2.5 Miles south of CR 777/ N. River Road	Rear End	Careless Driving	Struck a standing tree	1	0	Clear	Daylight	Dry	N	Y	\$ 11,000
4	7/17/2020	I-75 NB, 2 Miles south of CR 777/ N. River Road	Ran off Roadway/ Collided with Berm, Collided with Tree	Careless Driving/ Driving Too Fast for Conditions	Failed to Maintain control (90 mph est. speed)	1	0	Rain	Daylight	Wet	N	Y	\$ 20,000
5	7/28/2018	I-75 SB, 1.3 Miles south of CR 777/ N. River Road	Rear End	Failed to Yield to Slower Traffic Ahead	Ran off roadway, Collided with tree in median	1	1	Clear	Dark - Not Lighted	Dry	N	N	\$ 35,000
6	9/21/2016	I-75 SB, 1.5 Miles south of CR 777/ N. River Road	Rear End	Failed to Slow in Time	Vehicle ahead (Semi-Trailer) made left turn into dirt cut through in median (15 mph est. speed)	1	0	Clear	Daylight	Dry	Work on Shoulder or Median	N	\$ 30,000
7	12/14/2018	I-75 SB, 1.9 Miles south of CR 777/ N. River Road	Other (Passenger Fell from Vehicle), Hit & Run	none	Passenger attempted to secure door and fell out of vehicle landing in center lane, then struck by trailer of following vehicle.	1	0	Cloudy	Daylight	Dry	N	N	-

Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

CRASH RATE ANALYSIS

A crash rate analysis was completed for the total crashes and the fatal and incapacitating injury (F & I) crashes. This analysis was done for all crash types and off road crash type for the 3.4-mile, I-75 study segment south of River Road between Milepost 16.3 and Milepost 19.7. The overall crash rate for *all crashes* is 0.495 which exceeds the district average of 0.425 for the Rural-Interstate class category¹. The F & I crash rate for all crashes is 0.056 which is lower than 0.082 (proportion of F & I crashes in Florida)². The overall crash rate and the F & I crash rate for *off road crashes* are below the respective district and statewide rates. Table 9 provides a summary of the crash rates.

Table 9: I-75 Crash Rate Analysis									
Crash Type	AADT*	Total Crashes	Crash Rate	NB Crashes	SB Crashes	Fatal & Incapacitating Crashes	F & I Crash Rate	F & I NB Crashes	F & I SB Crashes
All	69,054	212	0.495	147	65	24	0.056	18	6
Off Road	69,054	36	0.084	28	8	4	0.009	3	1

*Source: FDOT 2020 Historical AADT Report, Site: 17-0361 – I-75 @ Ponce De Leon Blvd, 5-Year (2016-2020) Average

Based on a review of the crash data for the I-75 section south of the North River Road interchange, the following observations are noted.

1. Rear End and Off Road crashes were the majority of crashes (108, 51%).
2. The majority of crashes were in the Northbound direction (147, 69%).
3. More than half of the Rear End crashes occurred in the AM or PM peak periods (22 crashes 7-9 AM, 16 crashes 3:30-5:30 PM).
4. More than half of the Off Road crashes occurred under wet road surface conditions.
5. The Curve limits experienced a higher rate of wet:dry crashes compared to the tangent sections.
6. Eight out of the ten animal crashes occurred in Dark lighting conditions; majority were injury only (8) and 2 were PDO.
7. Existing guardrail/ wire cable barrier is installed in the following locations:
 - Northbound direction
 - MP 18.5 – MP 19.4, In the median adjacent to the left shoulder in the
 - MP 19.4 through River Road interchange, adjacent to both left and right shoulders between
 - Southbound direction
 - MP 19.5 - MP 19.9 both sides of roadway
 - MP 16.9 - MP 17.2 in median between left shoulder and retention pond

¹ FDOT 5-Year Rates (2014-2018) District 1 Averages

² Figure 8-5 (HSM Crash Distribution for Florida), FDOT Safety Analysis Guidebook for PD&E Studies, Jan. 2019

May 25, 2021

Joshua A. Jester, EI

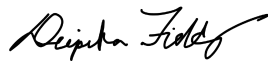
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Reference: I-75 Central Corridor Master Plan – Crash Analysis Memorandum

Crash countermeasures and roadway improvements to address crashes related to congestion, speeding vehicles, driver error/ roadway departure and/ or wet weather/ skidding that may be considered in this location include:

- High friction surface treatments
- Assess geometry/cross slope to ensure curve is up to current standards
- Assess drainage issues potentially causing excess water on pavement
- Dynamic curve warning systems
- Variable message signs to alert traffic to slow moving traffic ahead
- Variable speed limit signs during wet weather conditions
- Wildlife directional and barrier fencing maintenance/ improvements

Stantec



Deepika Fields, PE

Phone: 407-710-3341

Fax: 407-710-3383



Memorandum

To: Kati Sherrard, PE
Joshua Jester, EI
Interstate Program, FDOT - District One

From: Deepika Fields, PE
Stantec

Project/File: Interstate Program Management GEC
FPID: 442521-1-22-01, Contract No.:
CA142

Date: October 31, 2022

I-75 CENTRAL CORRIDOR SAFETY ANALYSIS FROM BAYSHORE ROAD/SR 78 TO TUCKERS GRADE (LEE & CHARLOTTE COUNTY)

This memo documents the detailed crash analysis of the I-75 mainline section between Bayshore Road/SR 78 (MP 28.389 to MP 34.138 in Lee County) and Tuckers Grade (MP 0.000 to MP 8.488 in Charlotte County). The following evaluation provides crash data analysis for both directions of travel of the approximate 14-mile segment at the south end of the I-75 Connect Central Corridor. In this vicinity, I-75 follows a southeast to northwest alignment. The posted speed limit is 70 mph. There is no existing lighting along the corridor except at the interchanges.

Crash data was obtained from the University of Florida GeoPlan Center's Signal Four Analytics system. This analysis provides data for all crashes occurring between January 1, 2017 and December 31, 2021. An additional eight months of data available for January 1 through September 12, 2022 was also screened for serious and fatal injury crashes.

CRASH TYPE AND SEVERITY

During the 5-year period between January 1, 2017 and December 31, 2021, 347 crashes occurred along I-75 consisting of 246 no injury, 77 minor injury, 18 serious (incapacitating) injury, five fatal crashes and one non-traffic fatality crash (see Figure 1).

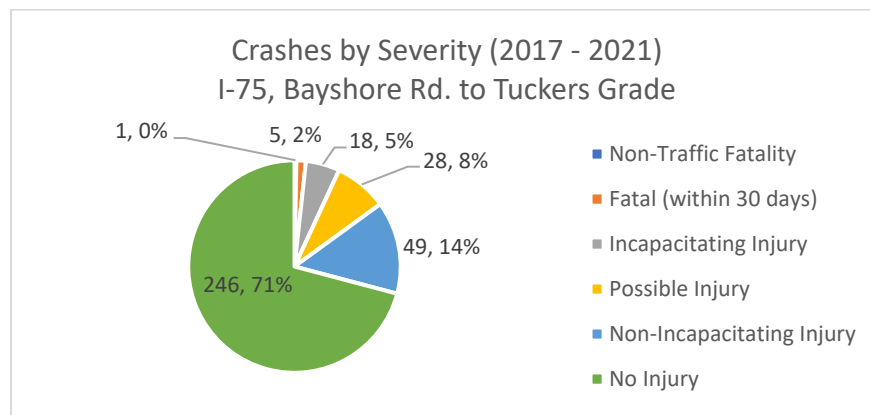


Figure 1: Crashes By Severity*

*Note: Non-traffic fatality is defined as fatality from a non-motor vehicle-related cause, such as a heart attack.



The crashes from year to year showed a 23% decrease from 2017 to 2018. In subsequent years the trend showed increases, with a sharp rise of 38% from 2020 to 2021 (see Figure 2).

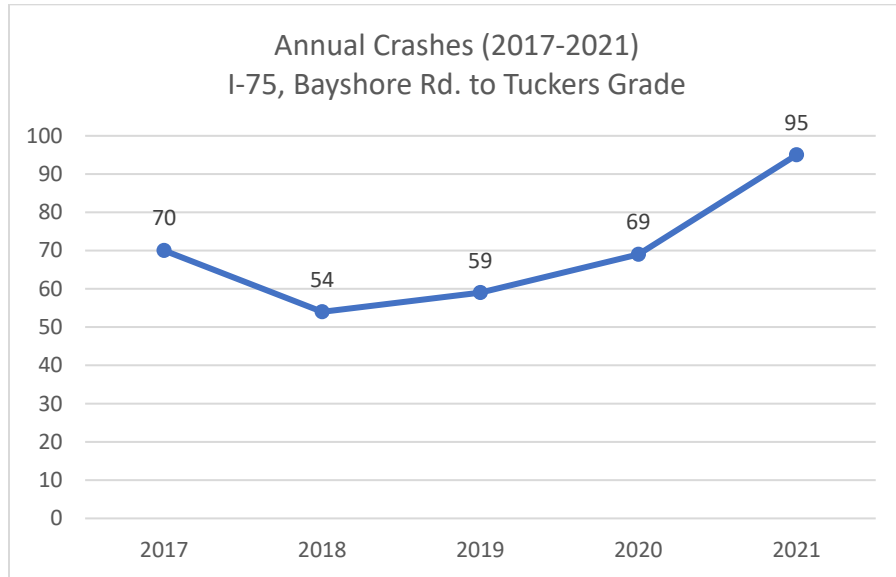


Figure 2: I-75 Annual Crashes (2017-2021)

The most frequent types of crashes were off road (97) and rear end (64), followed by sideswipe and single-vehicle crashes (62 each). The crashes by type are shown in Figure 3 for the 5-year period and in Figure 4 for each individual year. The 23 crashes classified as “other” or “unknown” constitute ~7% of all crashes; the harmful events associated with these crashes are described in Table 1.

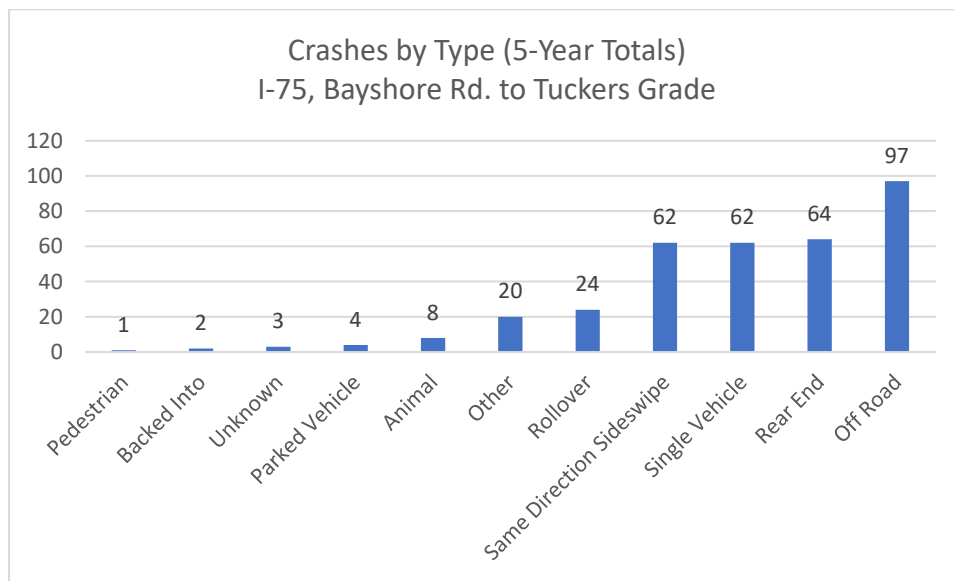


Figure 3: Crashes By Type (5-Year Totals)

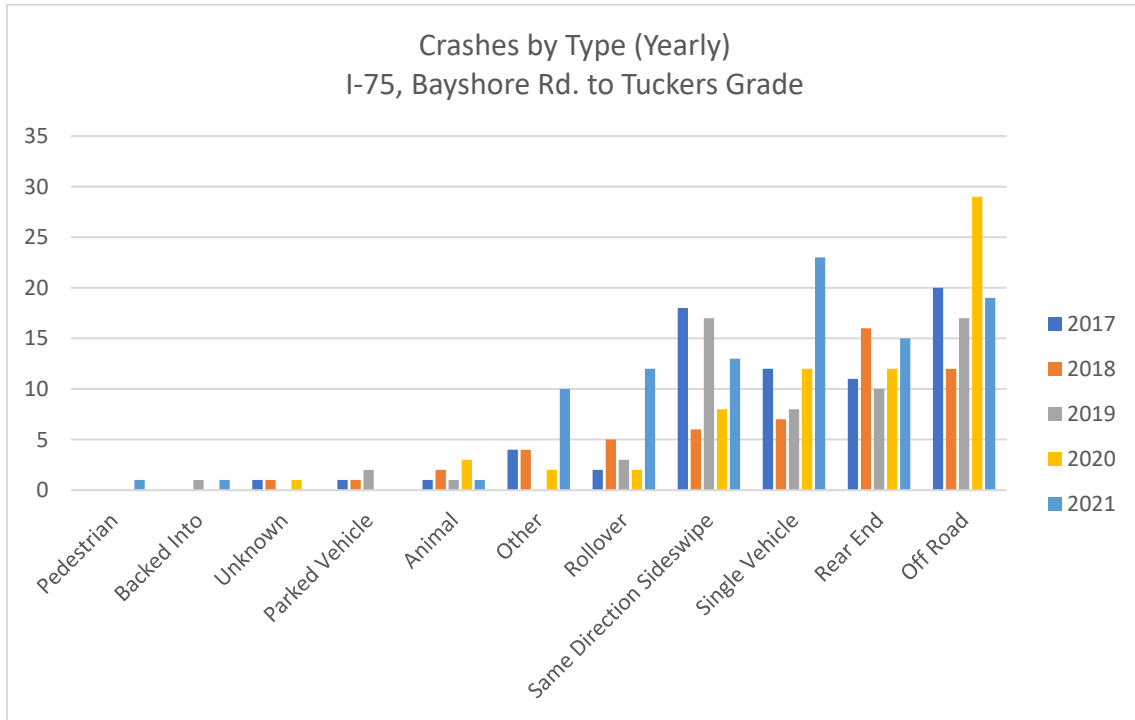
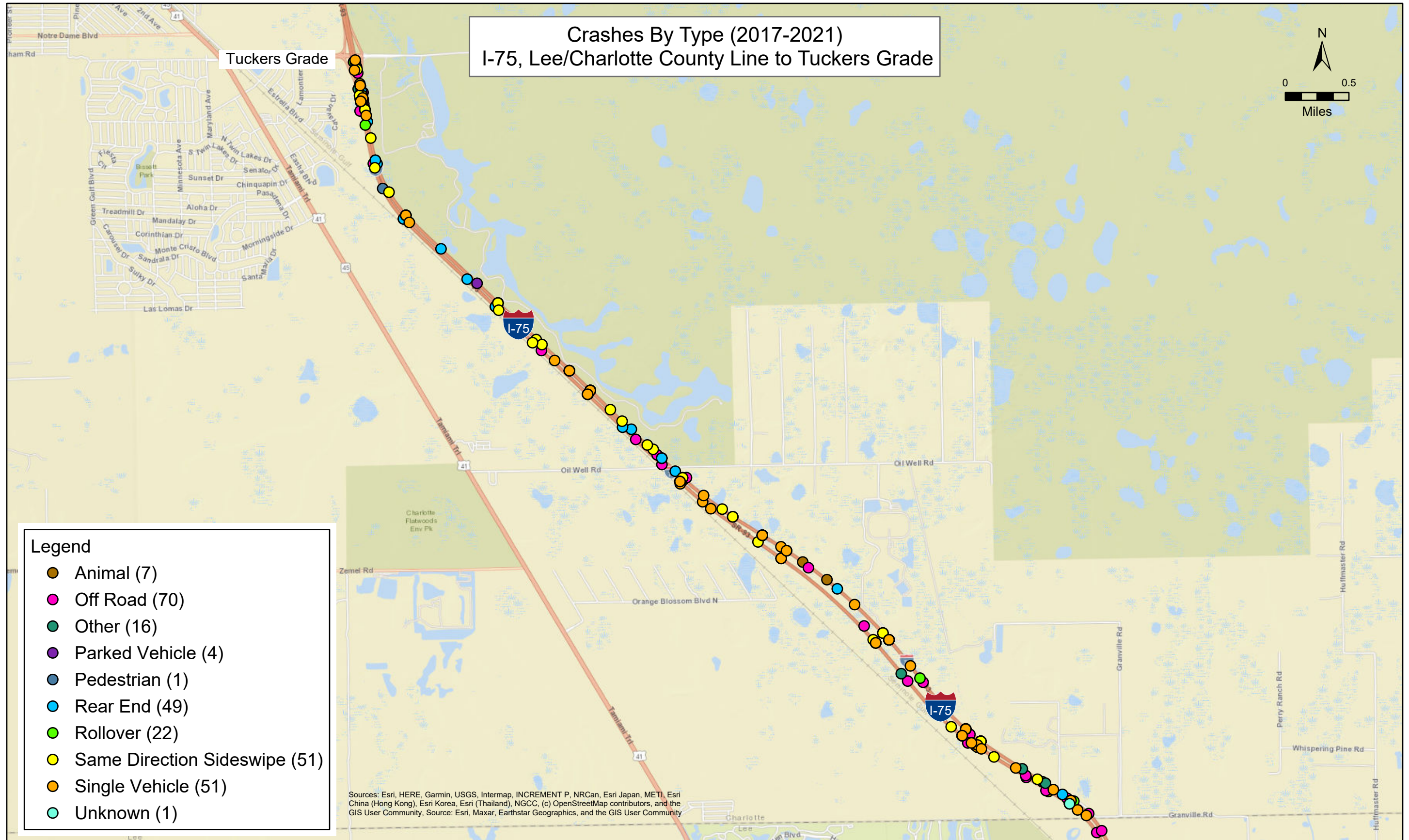


Figure 4: Crashes By Type (Individual Years)

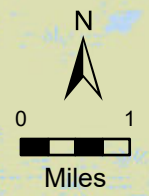
First Harmful Event	Number of Crashes
Struck by Falling, Shifting Cargo	9
Motor Vehicle in Transport	7
Cargo/Equipment Loss or Shift	3
Other Non-Collision	1
Other Non-Fixed Object	3
Total	23

CRASH LOCATIONS

The crash locations along the I-75 study segment by type of crash as derived from Signal Four Analytics GIS mapping are depicted in Figure 5 and Figure 6. Of the total 347 crashes from 2017-2021 with vehicle travel direction identified in the crash reports, about 52% (181 crashes) occurred in the southbound direction of travel and 48% (166 crashes) in the northbound direction. Based on the crash reports, sixty-one percent (61%, 59 crashes) of off road crashes, the most predominant crash type, occurred in the southbound direction of travel. The locations of off road crashes are depicted in Figure 7 and a heat map is provided in Figure 8. The highest number of off road crashes occurred near the Tuckers Grade interchange and the bifurcated areas along the curve sections near MM 149.6 and MM 151 north of the County Line followed by MM 143.5 just north of the Bayshore Road interchange.



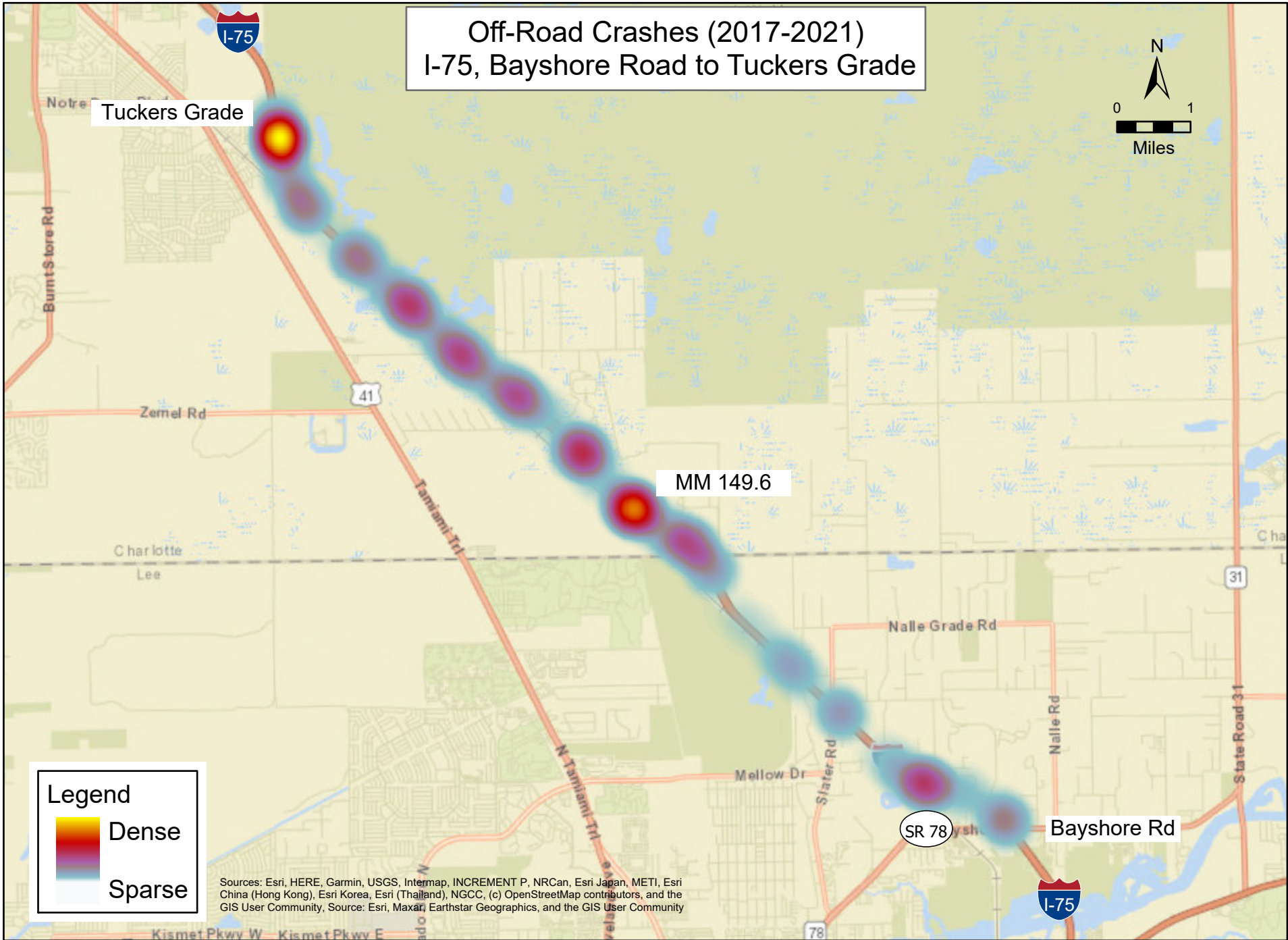
Off-Road Crashes (2017-2021) I-75, Bayshore Road to Tuckers Grade



Legend

- Off Road

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community





CRASH CONDITIONS

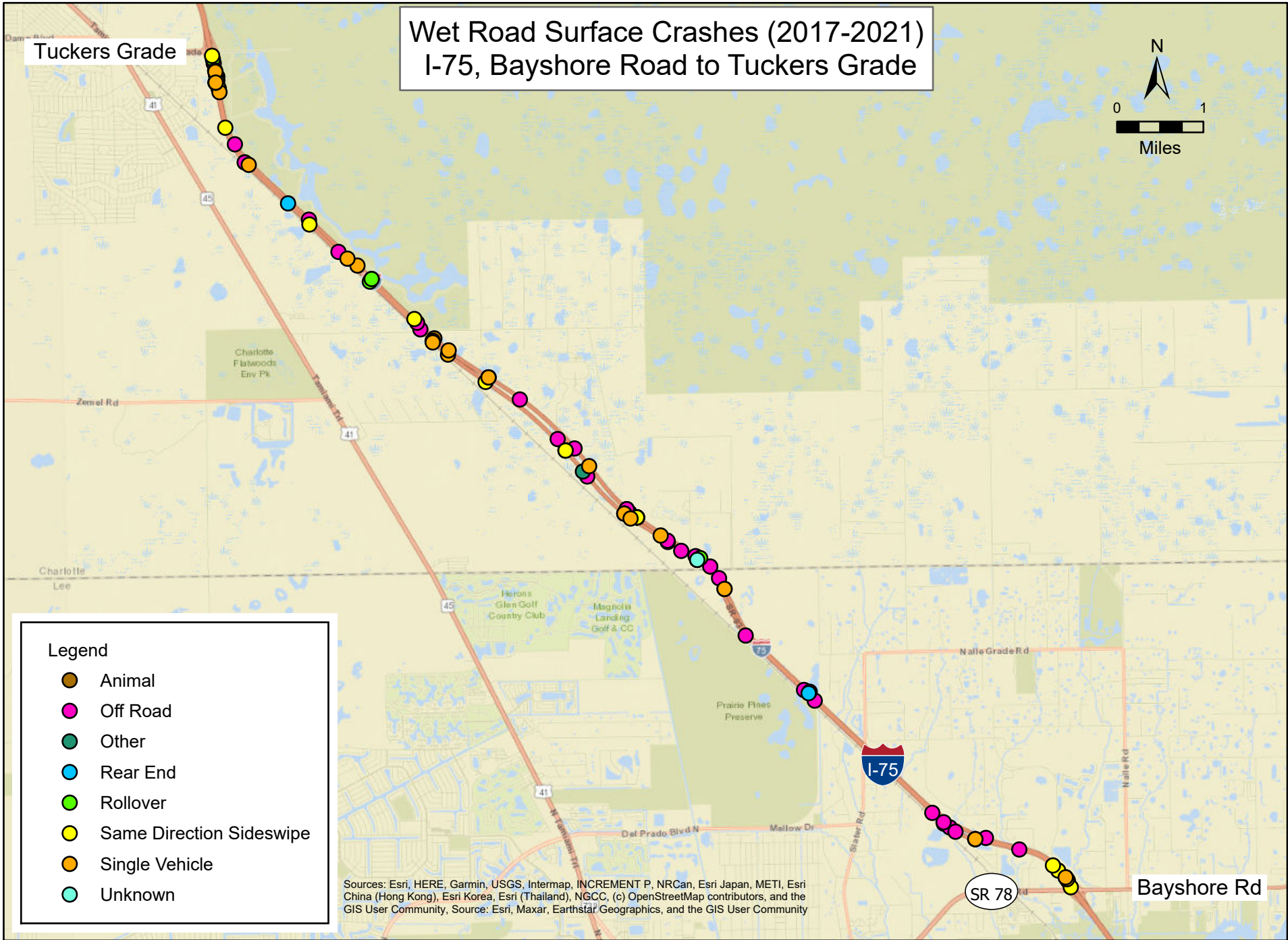
Table 3 shows the lighting conditions for all crashes in the study corridor. Approximately 64% of the crashes occurred during daylight and 28% under dark conditions. Both Bayshore Road and Tuckers Grade interchanges have existing high mast lighting; however, the I-75 mainline section between these interchanges does not have lighting.

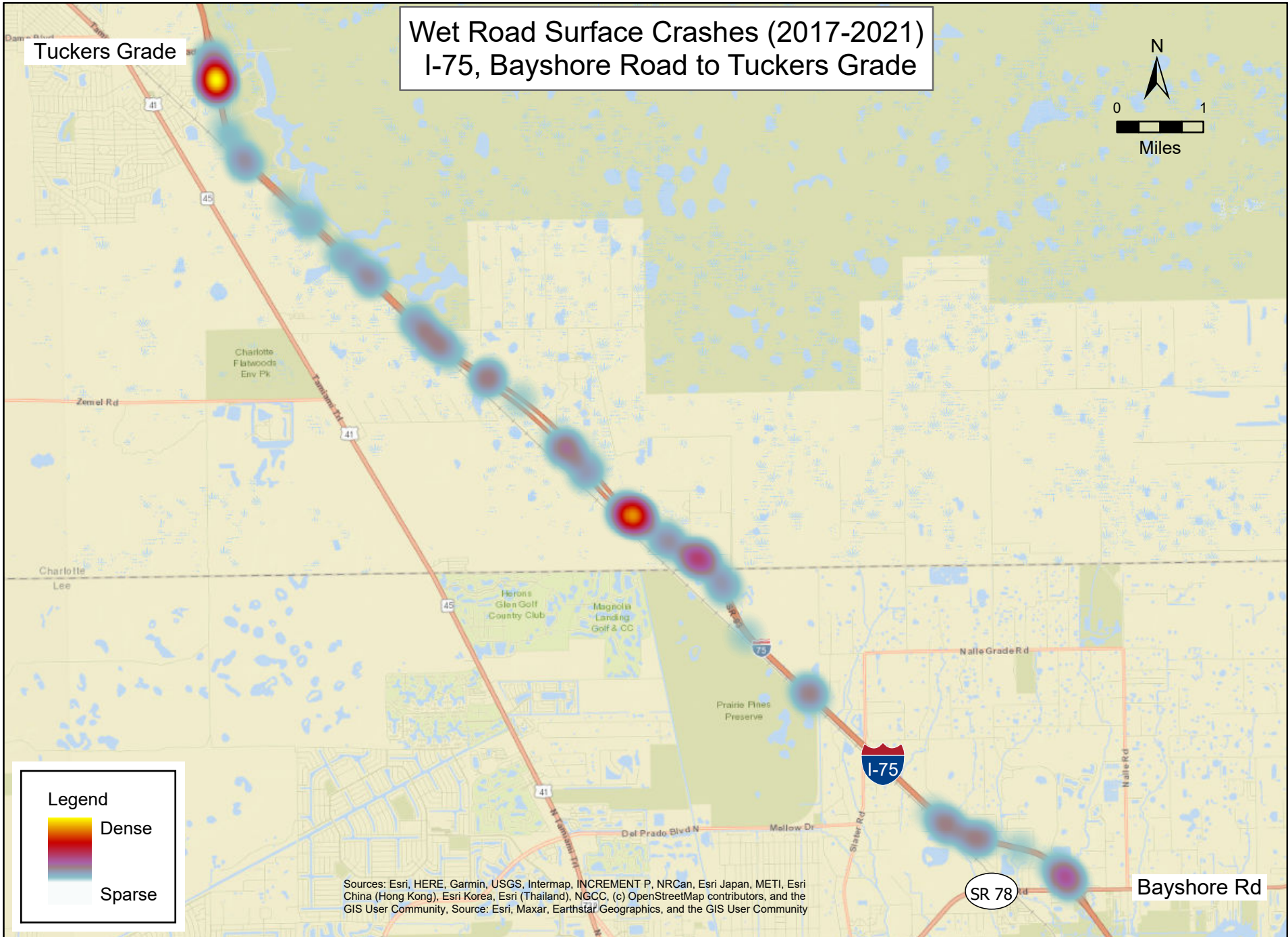
Lighting Condition	2017	2018	2019	2020	2021	Total	Percent Total
Daylight	49	32	35	41	64	221	64%
Dark - Not Lighted	15	15	17	16	21	84	24%
Dark - Lighted	2	5	2	3	3	15	4%
Dusk	3	2	3	5	2	15	4%
Dawn	1	0	1	3	5	10	3%
Other	0	0	0	1	0	1	<1%
Dark - Unknown Lighting	0	0	1	0	0	1	<1%
Total	70	54	59	69	95	347	100%

Table 3 shows the road surface conditions for all crashes in the study corridor; 69% of the crashes occurred under dry surface conditions and 31% occurred under wet surface conditions. Table 4 provides the crash types associated with wet road surface conditions. The first harmful events associated with the “single vehicle” crashes are also listed in Table 4. Figure 9 and Figure 10 show the locations of wet road surface condition crashes based on Signal Four Analytics GIS mapping. The largest occurrence of “wet” crashes was near the Tuckers Grade interchange, and near MM 149.5 north of the Lee/Charlotte county Line.

Road Surface Condition	2017	2018	2019	2020	2021	Total	Percent Total
Dry	49	43	42	40	66	240	69%
Wet	21	11	17	28	29	106	31%
Other	0	0	0	1	0	1	<1%
Total	70	54	59	69	95	347	100%

Crash Type	Number of Crashes
Off Road	51
Single Vehicle	21
<i>Ran into Water/Canal</i>	8
<i>Motor Vehicle in Transport</i>	7
<i>Other Non-Collision</i>	5
<i>Immersion</i>	1
Same Direction Sideswipe	14
Rear End	8
Rollover	9
Animal	1
Unknown (Cut off by vehicle and ran off road into ditch to avoid collision)	1
Other (Angle, vehicle spun and struck adjacent vehicle’s side)	1







Off Road (97 crashes, 28%), rear end (64 crashes, 18%), sideswipe (62 crashes, 18%) and single vehicle (62 crashes, 18%) constitute the most frequent types along the study corridor. Road surface conditions for these crashes were reviewed (see Table 5). While only 13% of rear end and 23% of sideswipe crashes occurred under wet road surface conditions, nearly 34% of single vehicle and 52% of off road crashes occurred under the same.

Road Surface	Off Road	Rear End	Sideswipe	Single
Dry	46	56	48	41
Wet	51	8	14	21
Other	1	0	0	0
Total	98	64	62	62

FATAL AND SERIOUS INJURY CRASHES (2017-2022)

Fatal and serious (incapacitating) injury (F & I) crashes were evaluated for the full five-year period from January 1, 2017 through December 31, 2021 and for an additional nine-month period from January 1, 2022 through September 12, 2022. The partial year 2022 includes data that was available as of September 12, 2022, when data was retrieved from the Signal Four Analytics database. The fatal and serious injury crash locations based on Signal Four Analytics GIS mapping are depicted in Figure 11.

Six (6) fatal and twenty-three (23) serious injury crashes occurred along I-75 during the 5-year, 9-month study period. Of the 29 F & I crashes, 17 of them (59%) occurred at night. The majority of F & I crashes (15 out of 29) occurred during the weekend days (Friday, Saturday and Sunday) and about 34% (10 crashes) occurred between the hours of 8:00 PM and midnight (see Figure 12).

Of the 23 serious injury crashes, 5 were in 2018, 4 in 2019, 1 in 2020, 8 in 2021 and 5 in 2022; none were in 2017. The serious injury crash types included 11 rear end, 6 off road, 3 rollover, 2 parked vehicle and one overturned vehicle crash. Twelve of the serious injury crashes occurred in daylight, nine in dark-not lighted, one in dark-lighted and one under dawn lighting conditions. The crash statistics associated with the serious injury crashes are summarized in Table 7.

The six fatal crashes along both directions of the corridor were reviewed in greater detail. A review of the crash reports showed that two of the fatal crashes occurred in the northbound travel lanes and four in the southbound direction of travel. Table 8 provides a summary of the conditions associated with the fatal crashes.

CRASH RATE ANALYSIS (2017-2021)

A crash rate analysis was completed for the total crashes and the fatal and incapacitating injury (F & I) crashes for the full five-year period from 2017-2021. This analysis was done for all crash types and off road crash type for the I-75 study segment between Bayshore Road and Tuckers Grade. The crash rates were determined for each segment by County and are summarized in Table 9.

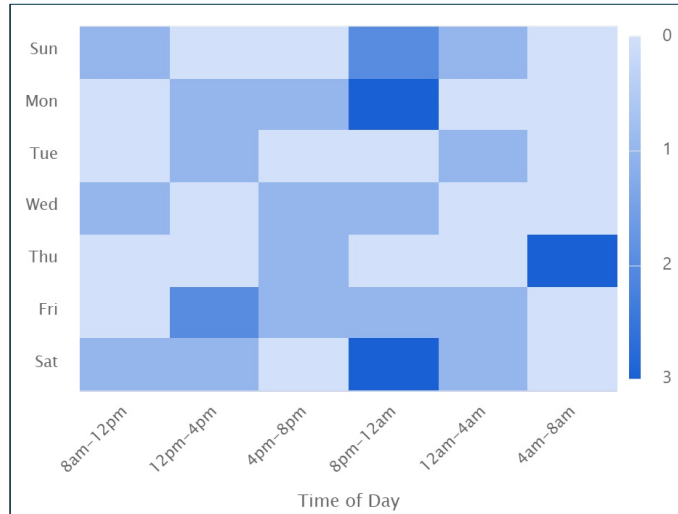


Figure 12: Fatal and Serious Injury Crashes (2017-2022) Day and Time

The overall crash rates for *all crash types* are 0.151 for the Lee County segment and 0.361 for the Charlotte County segment. Both segment rates are below the district average of 0.435 and statewide average of 0.454 for the Interstate-Rural class category. The F & I crash rate for *all crash types* is 0.012 for the Lee County segment and 0.023 for the Charlotte County segment. The F & I crashes represent approximately 7.8% of all crashes along the Lee County segment and 6.3% along the Charlotte County segment, both of which are lower than 8.2% (proportion of F & I crashes in Florida based on KABCO Crash Distribution in the 2022 FDOT Design Manual).

The crash rates for *off road crash types* are also provided for informational purposes. The crash rates for *off road crashes* for all severities are 0.057 for the Lee County segment and 0.091 for the Charlotte County segment. The F & I crash rate for *off road crash types* is 0.006 for the Lee County segment and 0.008 for the Charlotte County segment.

Table 6: I-75 Crash Rate Analysis									
Crash Type	AADT	Total Crashes	Crash Rate	NB Crashes	SB Crashes	F & I Crashes	F & I Crash Rate	F & I NB Crashes	F & I SB Crashes
I-75 Lee County Segment (Bayshore Road to Lee/Charlotte County Line)									
All	48,200	77	0.151	29	48	6	0.012	3	3
Off Road	48,200	29	0.057	9	20	3	0.006	2	1
I-75 Charlotte County Segment (Lee/Charlotte County Line to Tuckers Grade)									
All	48,200	270	0.361	137	133	17	0.023	11	6
Off Road	48,200	68	0.091	29	39	6	0.008	4	2

Notes:

1. AADT source: FDOT 2021 Historical AADT Report, Site: 12-0062 – SR93/I-75 NW of SR 78/Bayshore Rd, 5-Year (2017-2021) Average
2. NB = Northbound, SB = Southbound
3. I-75 Lee County approximate segment length used in crash rate calculation - 5.8 miles
4. I-75 Charlotte County approximate segment length used in crash rate calculation - 8.5 miles



Table 7: I-75 Serious Injury Crash Summary

Crash Date	Crash Time	Crash Type	Contributing Factor(s) (Driver or Other)	Number of Injuries	Weather	Lighting	Road Surface	Drug and/or Alcohol Related	Estimated Total Damage Amount
1/2/2018	3:58 PM	Rear End	Failed to Keep in Proper Lane	1	Clear	Daylight	Dry	N	\$15,000
4/2/2018	5:00 PM	Rollover	Operated MV in Careless or Negligent Manner	1	Clear	Daylight	Dry	N	\$13,000
5/14/2018	9:11 PM	Off Road	Operated MV in Careless or Negligent Manner	1	Rain	Dark - Not Lighted	Wet	N	\$20,000
9/17/2018	12:18 PM	Rear End	Operated MV in Careless or Negligent Manner	1	Clear	Daylight	Dry	N	\$8,000
10/20/2018	12:25 PM	Other (Rear End)	Careless Driving, Speeding	5 ¹	Clear	Daylight	Dry	Y	\$28,200
1/1/2019	12:15 PM	Rear End	No Contributing Action (Hit and Run)	2	Clear	Dark - Not Lighted	Dry	N	\$24,000
1/26/2019	10:48 AM	Off Road	Operated MV in Careless or Negligent Manner	1	Cloudy	Daylight	Dry	N	\$10,000
6/16/2019	9:57 AM	Rear End	Operated MV in Careless or Negligent Manner	1	Cloudy	Daylight	Dry	N	\$11,000
11/14/2019	4:14 AM	Parked Vehicle	Operated MV in Careless or Negligent Manner	2	Clear	Dark - Lighted	Dry	N	\$7,500
4/29/2020	6:02 PM	Off Road	Operated MV in Careless or Negligent Manner	1	Clear	Daylight	Other	Y	\$0
2/6/2021	2:17 AM	Rear End	Operated MV in Careless or Negligent Manner	1	Fog, Smog, Smoke	Dark - Not Lighted	Dry	Y	\$23,000
3/14/2021	1:34 AM	Off Road	Failed to Keep in Proper Lane	2	Clear	Dark - Not Lighted	Dry	N	\$8,000
6/3/2021	7:50 AM	Rear End	Operated MV in Careless or Negligent Manner	2	Clear	Daylight	Dry	N	\$17,500
8/2/2021	9:13 PM	Rear End	Operated MV in Careless or Negligent Manner	5 ²	Clear	Dark - Not Lighted	Dry	Y	\$15,000
9/3/2021	3:28 AM	Off Road	Operated MV in Careless or Negligent Manner	1	Cloudy	Dark - Not Lighted	Wet	N	\$2,000
9/23/2021	6:46 AM	Rear End	Operated MV in Careless or Negligent Manner	1	Clear	Dawn	Dry	N	\$6,000
10/11/2021	8:27 PM	Rear End	Operated MV in Careless or Negligent Manner	2	Clear	Dark - Not Lighted	Dry	N	\$21,000
12/31/2021	1:33 PM	Off Road	No Contributing Action	1	Clear	Daylight	Dry	N	\$5,000
2/6/2022	8:21 PM	Rollover	Operated MV in Careless or Negligent Manner	1	Clear	Dark - Not Lighted	Dry	N	\$15,000
5/7/2022	10:59 PM	Rear End	Failed to Yield Right-of-Way	7 ³	Cloudy	Dark - Not Lighted	Wet	N	\$4,000
5/13/2022	3:12 PM	Rollover	Ran Off Roadway	1	Clear	Daylight	Dry	N	\$50,000
6/1/2022	10:25 AM	Other (Overturned)	Wrong Side or Wrong Way (Hit and Run)	2	Clear	Daylight	Dry	N	\$4,000
6/30/2022	6:10 PM	Parked Vehicle	Operated MV in Careless or Negligent Manner	3	Rain	Daylight	Wet	N	\$25,000

Notes:
1. Crash involved three vehicles.
2. Crash involved two vehicles.
3. Crash involved two vehicles, one of which was trying to avoid colliding with a third vehicle that was stopped facing wrong way (northbound) in the southbound travel lane.



Table 8: I-75 Fatal Crash Summary

Crash Number	Crash Date & Time	Location	Crash Type	Contributing Factor(s) (Driver or Other)	Other Factors/ Events	Fatality Count	Injury Count	Weather	Lighting	Road Surface	Drug and/or Alcohol Related	Estimated Total Damage Amount
1	5/10/2019 7:42 PM	I-75 NB Outside lane Approaching MM 148 North of Lee/Charlotte County Line	Off Road	Careless Driving, Poor tire tread depth	Ran off roadway onto right shoulder, rotated clockwise before colliding with concrete utility pole/ light support	1	1 - Non- incapacitating	Rain	Dusk	Wet	N	\$14,000
2	3/21/2020 10:31 PM	I-75 SB Inside lane ½ mile north of SR 78 (Bayshore Road)	Off Road	Careless Driving	Vehicle drifted onto left side paved shoulder, colliding with guardrail, then rotating and traversing across all lanes before overturning twice, causing driver to be ejected. Vehicle final rest was on west side of highway. Driver was not wearing seatbelt.	1	0	Clear	Dark - Not Lighted	Dry	N	\$16,000
3	6/21/2020 11:03 PM	I-75 SB Inside lane on the SR 78 (Bayshore Road) overpass	Head-On	Wrong side or Wrong Way	Vehicle driving northbound (wrong way) on I-75 SB collided with SB vehicle and came to uncontrolled stop. Driver exited the vehicle and walked into path of another SB vehicle.	1	4 - Non- incapacitating	Clear	Dark - Lighted	Dry	Y	\$20,000
4	8/20/2021 9:54 PM	I-75 SB Inside lane 2 miles south of Tuckers Grade	Off Road, Collision with Tree	Careless Driving	Ran off roadway curve left, rotated counterclockwise in median, collided with tree.	1	1 - Incapacitating	Cloudy	Dark - Not Lighted	Wet	N	\$10,000
5	12/04/2021 10:36 PM	I-75 SB Inside lane ~2.8 miles south of Tuckers Grade	Pedestrian	Non-motorist walking along roadway against traffic(in or adjacent to travel lane)	Vehicle driver failed to see non-motorist walking in SB inside lane due to dark lighting. Pedestrian was in roadway improperly when struck by vehicle. Pedestrian tested positive for drugs.	1	2 - Non- incapacitating	Clear	Dark - Not Lighted	Dry	N	\$2,000
6	8/17/2022 9:12 PM	I-75 NB Inside lane MM 156, ~3750 ft. south of Tuckers Grade	Off Road, Rollover, Collision with Tree	Careless and Aggressive driving, Speeding related	Vehicle traveling inside lane at high rate of speed, lost control, entered left median, rolled over and collided with trees before catching fire and becoming fully engulfed.	2	1 - Incapacitating	Cloudy	Dark - Not Lighted	Dry	N	\$25,000



Table 9: I-75 Crash Rate Analysis									
Crash Type	AADT	Total Crashes	Crash Rate	NB Crashes	SB Crashes	F & I Crashes	F & I Crash Rate	F & I NB Crashes	F & I SB Crashes
I-75 Lee County Segment (Bayshore Road to Lee/Charlotte County Line)									
All	48,200	77	0.151	29	48	6	0.012	3	3
Off Road	48,200	29	0.057	9	20	3	0.006	2	1
I-75 Charlotte County Segment (Lee/Charlotte County Line to Tuckers Grade)									
All	48,200	270	0.361	137	133	17	0.023	11	6
Off Road	48,200	68	0.091	29	39	6	0.008	4	2
Notes:									
5. AADT source: FDOT 2021 Historical AADT Report, Site: 12-0062 – SR93/I-75 NW of SR 78/Bayshore Rd, 5-Year (2017-2021) Average									
6. NB = Northbound, SB = Southbound									
7. I-75 Lee County approximate segment length used in crash rate calculation - 5.8 miles									
8. I-75 Charlotte County approximate segment length used in crash rate calculation - 8.5 miles									

Based on a review of the crash data for the I-75 segments between Bayshore Road/SR 78 and Tuckers Grade, the following observations are noted.

1. The overall crash rates for all crash types are less than the district and statewide average rates.
2. Most of the crashes were in the Southbound direction (181 crashes, 52%).
3. The afternoon periods between 2:00 PM and 7:00 PM had the highest occurrence of crashes (total 137 crashes, 39%), averaging 27 crashes/hour.
4. Off road crashes were the predominant crash type (97 crashes, 28%).
5. Off road crashes predominantly occurred in the Southbound direction (59, 61%).
6. More than half of the off road crashes occurred under wet road surface conditions (51 crashes, 53%).
7. Of the 97 off road crashes, about 8% (8 crashes) resulted in serious or fatal injuries.
8. Five of the six fatal crashes occurred under dark conditions and one under dusk.
9. Existing guardrail/ barriers are installed in the following locations:
 - Lee County
 - Entire study limits (MP 28.389 to MP 34.138) - within the median, adjacent to the Northbound and Southbound inside shoulders



- Charlotte County
 - MP 1.008 to MP 1.065 – inside & outside shoulders, Northbound approach to bridge over Sandy Hartman’s Canal
 - MP 1.090 to MP 1.147 - inside & outside shoulders, Southbound approach to bridge over Sandy Hartman’s Canal
 - MP 1.601 to MP 1.662 – within median, Southbound & Northbound adjacent to retention pond
 - MP 2.536 to 2.667 - within median, Southbound & Northbound adjacent to retention pond
 - MP 3.060 to 3.13 - within median, Southbound & Northbound adjacent to retention pond
 - MP 4.246 to MP 4.319 - inside & outside shoulders, Northbound and Southbound, under Oil Well Road overpass bridge
 - MP 7.262 to MP 8.242 – within median adjacent to Southbound lanes at curve PC MP 7.105
 - MP 8.186 to MP 8.488 – cable barrier within median adjacent to Northbound lanes at Tuckers Grade

CRASH COUNTERMEASURES

Four of the six fatal crashes involved vehicles that ran off the roadway. Countermeasures to address crashes related to driver error/ roadway departure and/ or wet weather/ skidding conditions that may be considered for the study segments include:

- Providing adequate pavement friction (High friction surface treatments)
- Assessing horizontal curve safety - assess geometry/cross slope to ensure curve sections are up to current standards
- Assess drainage issues potentially causing excess water on pavement
- Variable speed limit signs during wet weather conditions

A fatal crash in June 2020 involved a wrong way driver traveling northbound in the southbound lanes near the SR 78 overpass. A wrong way vehicle detection system has been installed at the SR 80 southbound exit ramp (south of where the fatal crash occurred).

Sincerely,

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Appendix F

I-75 Feasibility Study Traffic Forecast Memorandum (March 2021)

&

Directional Distribution (D Factor) Summary

I-75 Feasibility Study Traffic Forecast Memorandum (March 2021)

March 10, 2021

Joshua A. Jester, EI

Page 1 of 10

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

To: Joshua A. Jester, EI
FDOT, District One
Environmental Management Office

From: Luis Diaz, PE
Stantec

Subject: I-75 Traffic Forecasting

Date: March 10, 2021

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

This memo documents the methodology used to develop future traffic forecasts for the I-75 Feasibility Study in Charlotte County. The project traffic forecast limits extend north along I-75 from south of the Lee/Charlotte County line to south of the North River Road interchange in Sarasota County, a distance of approximately 40 miles. Seven existing interchanges are located along I-75, which is a six-lane facility throughout the project limits.

EXISTING TRAFFIC DATA

Existing traffic volumes were utilized to conduct existing conditions traffic operational analysis and in development of design traffic for future years. The existing traffic volumes for the I-75 study area were available from historical data published by FDOT Florida Traffic Online (2019). The two telemetered traffic monitoring sites at the south and north ends of the corridor were held as anchor points and the mainline Annual Average Daily Traffic (AADT) was balanced in each direction. The resulting existing AADT along I-75 and the interchange ramps are summarized in Table 1.

Table 1: Existing Annual Average Daily Traffic	
I-75 Segment/ Facility	2019 AADT
Lee County Line to Tuckers Grade (CR 762)	54,300
Tuckers Grade NB Off Ramp	1,800
Tuckers Grade NB On Ramp	3,900
Tuckers Grade SB Off Ramp	3,500
Tuckers Grade SB On Ramp	1,900
Tuckers Grade to North Jones Loop Road (CR 768)	58,000
North Jones Loop Road NB Off Ramp	2,900
North Jones Loop Road NB On Ramp	5,800
North Jones Loop Road SB Off Ramp	6,000
North Jones Loop Road SB On Ramp	3,800
North Jones Loop Road (CR 768) to US 17/ Duncan Road	63,100
US 17 NB Off Ramp	4,700
US 17 NB On Ramp	7,700
US 17 SB Off Ramp	8,300

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Table 1: Existing Annual Average Daily Traffic	
I-75 Segment/ Facility	2019 AADT
US 17 SB On Ramp	4,900
US 17/ Duncan Road to Harbor View Road (CR 776)	69,500
Harbor View Road NB Off Ramp	4,700
Harbor View Road NB On Ramp	1,600
Harbor View Road SB Off Ramp	1,400
Harbor View Road SB On Ramp	5,300
Harbor View Road (CR 776) to Kings Hwy (CR 769)	62,500
Kings Hwy NB Off Ramp	9,300
Kings Hwy NB On Ramp	5,500
Kings Hwy SB Off Ramp	5,800
Kings Hwy SB On Ramp	9,500
Kings Hwy (CR 769) to Toledo Blade Blvd.	55,000
Toledo Blade Blvd. NB Off Ramp	3,000
Toledo Blade Blvd. NB On Ramp	7,600
Toledo Blade Blvd. SB Off Ramp	7,600
Toledo Blade Blvd. SB On Ramp	2,800
Toledo Blade Blvd. to Sumter Blvd.	64,400
Sumter Blvd. NB Off Ramp	2,300
Sumter Blvd. NB On Ramp	5,900
Sumter Blvd. SB Off Ramp	6,200
Sumter Blvd. SB On Ramp	2,500
Sumter Blvd. to River Road	71,700

Existing traffic characteristics include the design traffic factors K, D, and T. These parameters are used to determine future year design hour traffic volumes along the project study area roadways and intersections. The design hour factor, K, is the ratio of the AADT that occurs during the design hour for the design year. The Directional Distribution factor, D, is the percentage of the total, two-way design hour traffic traveling in the peak direction. The daily truck volume is determined by the T factor, the percentage of trucks using a roadway in one day.

For traffic analysis of the peak hour, the T_f factor, which is the percentage of truck traffic during the peak hour, is used. T_f values were computed by dividing T by two to derive the truck percentage during the peak hour. The design traffic factors in the I-75 Feasibility Study traffic analysis area were based on guidance in the FDOT 2019 Project Traffic Forecasting (PTF) Handbook and the historical data shown in Table 2.

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Table 2: Existing Traffic Factors					
FDOT Traffic Count Site	Location along I-75	K	D	T	T _f
12-0062	Northwest of SR 78/ Bayshore Rd.	10.5	58.7	15.6	7.8
01-0055	South of Tuckers Grade (CR 762)	10.5	55.9	13.9	7.0
01-0034	Southeast of North Jones Loop Rd./ CR 768	10.5	55.9	13.2	6.6
01-0350	Airport Rd. (Southeast of US 17)	10.5	51.8	13.0	6.5
01-0036	Southeast of Harbor View Rd./ CR 776	9.0	55.9	14.0	7.0
01-0037	Southeast of Kings Highway/ CR 769	9.0	55.9	14.5	7.3
01-0038	Northwest of Kings Highway/ CR 769	9.0	55.9	14.4	7.2
17-0040	East of Sumter Blvd., North Port	9.0	56.7	13.4	6.7
17-0361	Ponce De Leon Blvd. (West of Sumter Blvd.)	9.0	59.9	12.3	6.2
		Average	56.3	13.8	6.9

Source: FDOT 2019 Historical AADT Report

The Standard K factor of 9.0 for freeways, arterials and highways in urbanized areas will be used for the entire I-75 corridor based on the following:

- project corridor lies primarily within the FDOT urbanized boundary,
- area population exceeds 50,000 in the study area counties,
- future land uses along the corridor and interchanges include commercial/ mixed use, activity center, and DRI in addition to low/medium-density residential, and
- the average K₃₀ value for both telemetered traffic count sites is 9.36

The directional distribution factor (D=56.3%) and truck factors (T=13.8%, T_f=6.9%) were computed using the historical averages for all count locations. The computed D value is within the acceptable range of demand D values for an Urban Freeway as recommended in the PTF Handbook.

FUTURE TRAFFIC DEVELOPMENT

Future year traffic forecasts are based on the procedures outlined in the FDOT PTF Handbook. The travel demand forecasting methodology includes establishing the forecast years and determining growth based on the regional travel demand model forecasts, historical traffic trends and population estimates.

Travel Demand Model

The regional travel demand model for the I-75 Feasibility Study project area is the I-75 Southwest Connect District One Regional Planning Model (I-75 SW Connect D1RPM) which has a base year of 2015 and horizon year of 2040. The project traffic analysis years are 2025 for Opening Year and 2045 for Design Year.

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Base Year Model Calibration & Validation

Model calibration and validation is completed prior to running the future year model to ensure that the base year model is accurately reflecting existing travel demand and behavior, thereby being a useful tool to forecast future travel. The development of the I-75 SW Connect D1RPM included extensive review of the I-75 Southwest Connect study area 2015 and 2040 network attributes, socioeconomic data, turn penalties and prohibitors, and external model volumes.

Due to the extensive calibration and validation effort completed for the I-75 Southwest Connect D1RPM, only minor model refinements were incorporated to create the 2015 I-75 Feasibility Study travel demand model for Charlotte County. This included refinements to the highway network file and roadway penalty file. Within the 2015 highway network, the counts on the I-75 corridor (including ramps) between the Jacaranda Boulevard interchange and SR 80 interchange were balanced. Fourteen new penalties were added on I-75 ramps to accurately reflect 2015 conditions on the roadway network.

The model validation process compares the base year 2015 model volumes to observed traffic counts to determine the degree of model accuracy. The metrics specified in the FDOT PTF Handbook were used to test this accuracy. The model validation statistics included volume-over-count ratios by facility type and % Root Mean Square Error (RMSE) by volume group; the results are summarized in Table 3 and Table 4, respectively. All model validation statistics were met for the I-75 study area.

Table 3: Base Year 2015 Model - Volume Over Count Ratio

Facility Type	Volume	Count	V/C	No. of Links	Criteria	Check
Freeways	411,531	425,939	0.97	16	+/- 7%	-3%
Divided Arterial	41,601	47,700	0.87	6	+/- 15%	-13%
Undivided Arterial	-	-	N/A	0	+/- 15%	N/A
Collector	-	-	N/A	0	+/- 25%	N/A
One-Way Road	-	-	N/A	0	+/- 25%	N/A
Ramps	150,300	120,673	1.25	28	+/- 25%*	25%

*statistical accuracy assumed; not defined in FSUTMS-Cube Framework Phase II Model Calibration and Validation Standards

Table 4: Base Year 2015 Model - %RMSE Summary

Volume Group (Vehicles per Day)	Model Checks				Standards		%RMSE
	Volume	Count	V/C	No. of Links	Acceptable	Preferable	
LT 5,000	68,065	50,352	1.35	18	100%	45%	61%
5,000 - 9,999	86,475	77,021	1.12	12	45%	35%	29%
10,000 - 14,999	37,360	41,000	0.91	4	35%	27%	26%
15,000 - 19,999	0	0	0	0	30%	25%	0%

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Table 4: Base Year 2015 Model - %RMSE Summary							
Volume Group (Vehicles per Day)	Model Checks				Standards		%RMSE
	Volume	Count	V/C	No. of Links	Acceptable	Preferable	
20,000 - 29,999	324,859	331,867	0.98	13	27%	15%	15%
30,000 - 49,999	86,672	94,072	0.92	3	25%	15%	12%
50,000 - 59,999	0	0	0	0	20%	10%	0%
60,000+	0	0	0	0	19%	10%	0%
Areawide	603,432	594,312	1.02	50	45%	35%	21%

Table 5 shows the base year 2015 model volumes compared to observed counts along with the v/c ratios for the I-75 corridor segments.

Table 5: 2015 V/C Ratio on I-75 Corridor				
Direction	Segment	Count	Model AADT (Volume*MOCF)	V/C
I-75 SB	I-75 SB From River Road to Sumter Blvd.	31,290	28,049	0.90
	I-75 SB From Sumter Blvd. to Toledo Blade Blvd.	27,864	23,703	0.85
	I-75 SB From Toledo Blade Blvd. to Kings Hwy	24,245	20,953	0.86
	I-75 SB From Kings Hwy to CR 776	27,174	24,481	0.90
	I-75 SB From CR 776 to US 17	30,833	30,724	1.00
	I-75 SB From US 17 to CR 768	26,843	28,584	1.06
	I-75 SB From CR 768 to Tuckers Grade	23,928	27,546	1.15
	I-75 SB From Tuckers Grade to SR 78	22,071	26,626	1.21
I-75 NB	I-75 NB From SR 78 to Tuckers Grade	21,339	26,153	1.23
	I-75 NB From Tuckers Grade to CR 768	23,444	27,459	1.17
	I-75 NB From CR 768 to US 17	26,083	26,047	1.00
	I-75 NB From US 17 to CR 776	29,556	27,565	0.93
	I-75 NB From CR 776 to Kings Hwy	26,543	23,429	0.88
	I-75 NB From Kings Hwy to Toledo Blade Blvd.	24,181	20,197	0.84
	I-75 NB From Toledo Blade Blvd. to Sumter Blvd.	28,596	22,116	0.77
	I-75 NB From Sumter Blvd. to River Road	31,949	27,899	0.87

Model Growth Rates

Model growth rates were computed for the I-75 corridor based on the 2015 base year and 2040 horizon year No-Build volumes. The model volumes represent Peak Season Weekday Average Daily Traffic (PSWADT) and thus were adjusted with Model Output Conversion Factors (MOCF)* consistent with the D1RPM I-75 Southwest Connect Study to convert to model AADTs as follows:

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

- Sarasota County MOCF = 0.88
- I-75 in Sarasota County MOCF = 0.92
- Charlotte County MOCF = 0.88
- I-75 in Charlotte County MOCF = 0.87

*Source: FDOT Florida Traffic Online 2018 Peak Season Factor Category Report.

The resulting MOCF-adjusted volumes are shown in Table 6. The average annual model growth rate for the I-75 corridor is 0.8%.

I-75 Segment/ Facility	Base Year 2015 Model Volume			No-Build 2040 Model Volume			Growth Rate
	NB	SB	Total	NB	SB	Total	
Tuckers Grade to SR 78	26,153	26,626	52,779	26,858	27,248	54,106	0.1%
CR 768 to Tuckers Grade	27,459	27,546	55,005	28,836	28,379	57,215	0.2%
US 17 to CR 768	26,047	28,584	54,631	28,507	31,397	59,904	0.4%
CR 776 to US 17	27,565	30,724	58,289	31,070	34,067	65,138	0.5%
Kings Hwy to CR 776	23,429	24,481	47,910	28,336	29,906	58,242	0.9%
Toledo Blade Blvd. to Kings Hwy.	20,197	20,953	41,150	26,902	28,258	55,160	1.4%
Sumter Blvd. to Toledo Blade Blvd.	22,116	23,703	45,819	31,941	33,903	65,843	1.7%
River Road to Sumter Blvd.	27,899	28,049	55,948	38,906	38,584	77,490	1.5%
Subarea Average							0.8%

The model growth rates for the interchange cross streets along the I-75 corridor were also computed. The cross-street growth rates ranged from a minimum of -1.3% to a maximum of 28.4% and are summarized in Table 7.

Interchange Cross Streets	2015	2015	2015	2040	2040	2040	Growth Rate
	NB/EB	SB/WB	Total	NB/EB	SB/WB	Total	
Tuckers Grade - West of I-75	5,555	5,166	10,721	12,406	11,547	23,953	4.9%
Tuckers Grade - East of I-75	147	147	294	1,192	1,192	2,384	28.4%
CR 768 - West of I-75	8,846	11,273	20,119	13,225	16,297	29,522	1.9%
CR 768 - East of I-75	2,145	2,096	4,241	8,424	8,111	16,535	11.6%
US 17 - West of I-75	6,570	8,000	14,570	6,514	6,956	13,470	-0.3%
US 17 - East of I-75	11,361	12,162	23,523	11,966	12,298	24,264	0.1%
CR 776 - West of I-75	4,729	3,232	7,961	6,271	5,345	11,616	1.8%
CR 776 - East of I-75	8,696	9,329	18,025	9,222	9,740	18,962	0.2%
Kings Hwy. - West of I-75	21,041	20,207	41,248	21,067	20,031	41,098	0.0%
Kings Hwy. - East of I-75	14,387	13,854	28,241	15,484	14,663	30,147	0.3%
Toledo Blade Blvd. - South of I-75	11,090	11,830	22,920	19,971	20,305	40,276	3.0%
Toledo Blade Blvd. - North of I-75	3,325	3,311	6,636	2,335	2,162	4,497	-1.3%
Sumter Blvd. - South of I-75	9,397	8,014	17,411	12,729	10,666	23,395	1.4%
Sumter Blvd. - North of I-75	4,719	4,711	9,430	3,487	3,609	7,096	-1.0%

Historical Traffic Trend Growth

Historical traffic volumes for the I-75 Study Area were available from data published by FDOT Florida Traffic Online (2019). Linear regression analysis was performed using the historical count data available for various count stations along the study corridor. The average growth rate for the corridor using the most recent 10-year (2010-2019) historical traffic volumes is 4.4%. Additional linear regression analyses were completed using historical traffic volumes from 2004 and 2007. For the 2007 data set, five of the eight FDOT count station data yielded trend R² values >75%, with an average trend annual historic growth rate of 3.1% along I-75. However, when utilizing the 2004 historical counts as the base year, all of the count stations' trend R² values were 51% or less. Per guidance in the FDOT Project Traffic Forecasting Handbook, growth with the goodness-of-fit as measured by R²>75% should be considered when determining growth factors using trends. The trends growth rate analysis using 2007 as the base year is summarized in Table 8.

Table 8: Historical Traffic Counts Growth Rates							
FDOT Traffic Count Station*	Location	2019 AADT	2007 AADT	2045 AADT	Trend R ²	Trend Growth Rate - Annual Historic	Trend Growth Rate - 2019 to 2045
12-0062	SR 93/I-75, Northwest of SR 78/ Bayshore Road	50,000	41,500	70,400	63.80%	2.5%	2.0%
01-0034	SR 93/I 75, Southeast of North Jones Loop Rd/ CR 768	54,000	43,500	83,700	75.28%	3.0%	2.2%
01-0350*	SR-93/I-75, @Airport Rd, Punta Gorda, Charlotte Co.	63,300	50,600	99,400	75.36%	3.4%	2.4%
01-0036	SR 93/I 75, 0.4 Mi SE of Harbor View Road/ CR 776	66,000	54,000	99,000	80.99%	2.7%	2.0%
01-0037	SR 93/I 75, Southeast of Kings Highway/ CR 769	60,000	48,500	89,800	70.60%	2.8%	2.1%
01-0038	SR 93/I 75, Northwest of Kings Highway/ CR 769	56,000	43,500	87,900	79.41%	3.5%	2.5%
17-0040	SR 93/I 75, East of Sumter Blvd North Port	63,000	51,000	101,600	71.33%	3.6%	2.5%
17-0361*	SR-93/I-75, @Ponce De Leon Blvd, Sarasota Co.	71,800	52,700	113,600	82.30%	3.7%	2.6%
					Average:	3.1%	2.3%
Source: FDOT Florida Traffic Online (2019) * Denotes Telemetered Traffic Monitoring Site; all other stations are Portable Traffic Monitoring Sites							

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Population Growth

Population data was available from the University of Florida’s Bureau of Economic and Business Research (BEBR) Population Studies Program. Population estimates for 2019 and projections for future year 2045 for the three study area counties are shown in Table 9. The average growth rates for the study area counties based on the low, medium, and high projections are 0.4%, 1.3% and 2.3%, respectively.

County	2019 Population	2045 Low Population	Low AGR	2045 Medium Population	Medium AGR	2045 High Population	High AGR
Lee	735,148	863,900	0.7%	1,056,600	1.7%	1,257,100	2.7%
Charlotte	181,770	188,900	0.2%	232,500	1.1%	284,600	2.2%
Sarasota	426,275	463,900	0.3%	546,500	1.1%	639,200	1.9%
	Average		0.4%		1.3%		2.3%

AGR = Annual Growth Rate
 Source: Florida Population Studies, Vol. 53, Bulletin 186, January 2020, Bureau of Economic and Business Research.

Growth Rate Recommendation & Future Traffic Forecasts

Various methods of developing future traffic projections for the study corridor based on guidance provided in the 2019 FDOT PTF Handbook were reviewed. The D1RPM model projections yielded an average growth rate of 0.8% along the I-75 mainline while the historical traffic trends analysis (2007-2019) and medium population projections resulted in growth rates of 3.1% and 1.3%, respectively.

The recommended growth rates were determined based on review of all the methods described and with consideration to comments provided by the Systems Planning Office. The attachment provides the analysis/ data for the basis of the following recommended growth rates for the study area shown in Table 10.

Roadway/ Facility	Location	Recommended Growth Rate
I-75	Between Tuckers Grade and Kings Highway	1.5%
I-75	Between Kings Highway and River Road	2.0%
Cross-Streets		
Tuckers Grade	West of I-75	3.1%
Tuckers Grade	East of I-75	5.0%
CR 768 (Jones Loop Road)	West of I-75	4.0%
CR 768 (Jones Loop Road)	East of I-75	5.0%
US 17 (Duncan Road)	West of I-75	1.2%
US 17 (Duncan Road)	East of I-75	1.3%
CR 776 (Harborview Road)	West of I-75	2.0%

Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Roadway/ Facility	Location	Recommended Growth Rate
CR 776 (Harborview Road)	East of I-75	0.5%
Kings Highway	West of I-75	1.1%
Kings Highway	East of I-75	0.5%
Toledo Blade Boulevard	South of I-75	2.9%
Toledo Blade Boulevard	North of I-75	0.5%
Sumter Boulevard	South of I-75	1.7%
Sumter Boulevard	North of I-75	5.0%

The future 2045 projected traffic volumes along the I-75 study corridor using different methods are shown in Table 11. An average growth rate of 1.5% for the south section of I-75 and 2.0% for the north section of I-75 is recommended to develop future design year demand volumes for use in evaluating future conditions.

I-75 Segment/ Facility	2019 Balanced AADT	2045 AADT		
		2040 No Build Model Volumes + 0.8%/yr. Model Growth	Historical Trend Line Projection	2019 Balanced AADT + 1.5%/yr. or 2.0%/yr. Combined Average Growth
Lee County Line to Tuckers Grade (CR 762)	54,300	56,500	70,500	75,500
Tuckers Grade to North Jones Loop Road (CR 768)	58,000	59,500	83,500	80,500
North Jones Loop Road (CR 768) to US 17/ Duncan Road	63,100	62,500	99,500	87,500
US 17/ Duncan Road to Harbor View Road (CR 776)	69,500	67,500	99,000	96,500
Harbor View Road (CR 776) to Kings Hwy (CR 769)	62,500	60,500	90,000	87,000
Kings Hwy (CR 769) to Toledo Blade Blvd.	55,000	60,500	88,000	83,500
Toledo Blade Blvd. to Sumter Blvd.	64,400	68,500	102,000	98,000
Sumter Blvd. to River Road	71,700	80,500	114,000	109,000

The mainline volumes shown in Table 11 and projected crossroad AADT volumes determined using growth rates in Table 10 were used in estimating the projected 2045 interchange ramp AADT volumes. The crossroad AADT projections along with traffic characteristic (K, D) factors as described previously and based on the FDOT PTF Handbook were used to estimate the future No Build 2045 turning movements at the interchanges. The resulting estimated 2045 ramp AADT volumes and mainline AADTs after balancing along the corridor are shown in Table 12.

March 10, 2021

Joshua A. Jester, EI

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Reference: I-75 Feasibility Study Traffic Forecast Memorandum

Table 12: Future Traffic Forecast Volumes (Mainline & Ramps)	
I-75 Segment/ Facility	2045 AADT *
Lee County Line to Tuckers Grade (CR 762)	75,500
Tuckers Grade NB Off Ramp & SB On Ramp	7,000
Tuckers Grade NB On Ramp & SB Off Ramp	12,000
Tuckers Grade to North Jones Loop Road (CR 768)	80,500
North Jones Loop Road NB Off Ramp & SB On Ramp**	13,500
North Jones Loop Road NB On Ramp & SB Off Ramp**	24,000
North Jones Loop Road (CR 768) to US 17/ Duncan Road	91,000
US 17 NB Off Ramp & SB On Ramp	13,000
US 17 NB On Ramp & SB Off Ramp	20,500
US 17/ Duncan Road to Harbor View Road (CR 776)	98,500
Harbor View Road NB Off Ramp & SB On Ramp	15,000
Harbor View Road NB On Ramp & SB Off Ramp	4,500
Harbor View Road (CR 776) to Kings Hwy (CR 769)	88,000
Kings Hwy NB Off Ramp & SB On Ramp	21,000
Kings Hwy NB On Ramp & SB Off Ramp	16,000
Kings Hwy (CR 769) to Toledo Blade Blvd.	83,000
Toledo Blade Blvd. NB Off Ramp & SB On Ramp	10,500
Toledo Blade Blvd. NB On Ramp & SB Off Ramp	24,500
Toledo Blade Blvd. to Sumter Blvd.	97,000
Sumter Blvd. NB Off Ramp & SB On Ramp	12,000
Sumter Blvd. NB On Ramp & SB Off Ramp	22,000
Sumter Blvd. to River Road	107,000
*Rounded volumes based on 2019 Project Traffic Forecasting Handbook convention.	
**Ramp volumes obtained from North Jones Loop Road Traffic Forecasting Technical Memo (2-5-21)	

Stantec

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Attachment: growth_rate.xlsx (1 sheet)

Roadway/ Facility	Location	Historical Traffic Count Growth Rates (Based on FDOT Florida Traffic Online 2019)			District 1 Regional Planning Model Growth Rates	BEBR Medium Population Projections Growth Rate	Selected Growth Rate
		2004-2019 AADT	2007-2019 AADT	2010-2019 AADT	2015 Base Year & 2040 Horizon Year	Lee, Charlotte & Sarasota Counties	
		A	B	C	D	E	
I-75	SR 78 to Tuckers Grade	1.2%	2.5%	3.8%	0.1%	1.3%	1.5%
I-75	Tuckers Grade to CR 768	1.7%	3.0%	4.2%	0.2%	1.1%	
I-75	CR 768 to US 17	2.0%	3.4%	5.0%	0.4%	1.1%	
I-75	US 17 to CR 776	1.2%	2.7%	3.4%	0.5%	1.1%	
I-75	CR 776 to Kings Hwy	1.5%	2.8%	4.2%	0.9%	1.1%	
I-75	Kings Hwy. to Toledo Blade Blvd.	1.4%	3.5%	4.7%	1.4%	1.1%	2.0%
I-75	Toledo Blade Blvd. to Sumter Blvd.	1.9%	3.6%	5.1%	1.7%	1.1%	
I-75	Sumter Blvd. to River Road	-	3.7%	5.1%	1.5%	1.1%	
I-75 Average		1.5%	3.1%	4.4%	0.8%	1.1%	1.7%
*xx% = Trend R ² >75%							
		2008-2019 AADT*		D1 RPM Growth Rates	BEBR Medium Population Projections Growth Rate	Average	Selected Growth Rate
Tuckers Grade	West of I-75	3.4%		4.9%	1.1%	3.1%	3.1%
Tuckers Grade	East of I-75	-		28.4%	1.1%	14.8%	5.0%
CR 768 (Jones Loop Road)	West of I-75	9.1%		1.9%	1.1%	4.0%	4.0%
CR 768 (Jones Loop Road)	East of I-75	2.6%		11.6%	1.1%	5.1%	5.0%
US 17 (Duncan Road)	West of I-75	2.9%		-0.3%	1.1%	1.2%	1.2%
US 17 (Duncan Road)	East of I-75	2.6%		0.1%	1.1%	1.3%	1.3%
CR 776 (Harborview Road)	West of I-75	3.1%		1.8%	1.1%	2.0%	2.0%
CR 776 (Harborview Road)	East of I-75	-0.1%		0.2%	1.1%	0.4%	0.5%
Kings Highway	West of I-75	2.3%		0.0%	1.1%	1.1%	1.1%
Kings Highway	East of I-75	0.5%		0.3%	1.1%	0.6%	0.5%
Toledo Blade Boulevard	South of I-75	4.7%		3.0%	1.1%	2.9%	2.9%
Toledo Blade Boulevard	North of I-75	2.4%		-1.3%	1.1%	0.7%	0.5%
Sumter Boulevard	South of I-75	2.7%		1.4%	1.1%	1.7%	1.7%
Sumter Boulevard	North of I-75	23.9%		-1.0%	1.1%	8.0%	5.0%
Cross-Streets Average		4.6%		3.6%	1.1%	3.4%	2.4%
*xx% = Trend R ² >75%				Use: Min. Growth Rate =0.5%, Max Growth Rate = 5.0%			

*AADT range is from 2012-2019 based on FTO count availability

*AADT range is from 2011-2019 based on FTO count availability

BEBR Population Growth By County							
County	2019 Population	2045 Low pop.	low AGR	2045 Med pop.	Med AGR	2045 High pop.	High AGR
Lee	735,148	863,900	0.7%	1,056,600	1.7%	1,257,100	2.7%
Charlotte	181,770	188,900	0.2%	232,500	1.1%	284,600	2.2%
Sarasota	426,275	463,900	0.3%	546,500	1.1%	639,200	1.9%
Average:			0.4%		1.3%		2.3%
Length (miles)		Med AGR					
Lee County I-75 Segment Length	5.8	41%	1.7%				
Charlotte County I-75 Segment Length	8.5	59%	1.1%				
Total Length	14.3	Weighted Avg.	1.3%				

Directional Distribution (D Factor) Summary



Directional Distribution (D Factor) – Cross Streets

I-75 Cross Street	Approach/ Leg	AM Peak Hour				PM Peak Hour			
		Volume		D Factor		Volume		D Factor	
		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Tuckers Grade	West of I-75	550	284	0.66	0.34	456	520	0.47	0.53
Tuckers Grade	East of I-75	15	3	0.83	0.17	9	19	0.32	0.68
US 17 (Duncan Road)	West of I-75	484	1216	0.28	0.72	1153	693	0.62	0.38
US 17 (Duncan Road)	East of I-75	712	1087	0.40	0.60	1064	819	0.57	0.43
CR 776 (Harborview)	West of I-75	302	363	0.45	0.55	409	358	0.53	0.47
CR 776 (Harborview)	East of I-75	239	746	0.24	0.76	661	377	0.64	0.36
Kings Highway	West of I-75	1321	1274	0.51	0.49	1589	1592	0.49	0.51
Kings Highway	East of I-75	693	1182	0.37	0.63	1358	1221	0.53	0.47
Toledo Blade Boulevard	South of I-75	1351	617	0.69*	0.31	771	1416	0.35	0.65*
Toledo Blade Boulevard	North of I-75	174	277	0.39	0.61	164	134	0.55	0.45
Sumter Boulevard	South of I-75	1008	500	0.67	0.33	537	1059	0.34	0.66*
Sumter Boulevard	North of I-75	111	513	0.18	0.82*	389	187	0.68*	0.32

*Recommended D Factor of 58% for Urban Arterial (FDOT 2019 Project Traffic Forecasting Handbook) to achieve better closure between iterative estimate and forecast volumes.

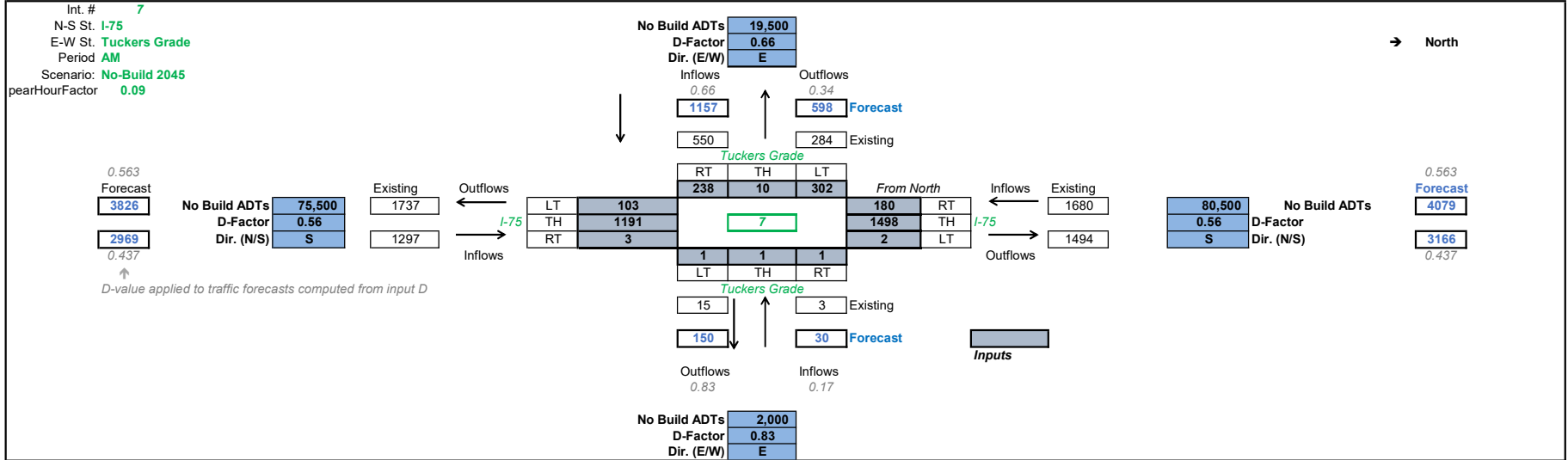
Appendix G

Future No-Build Peak Hour

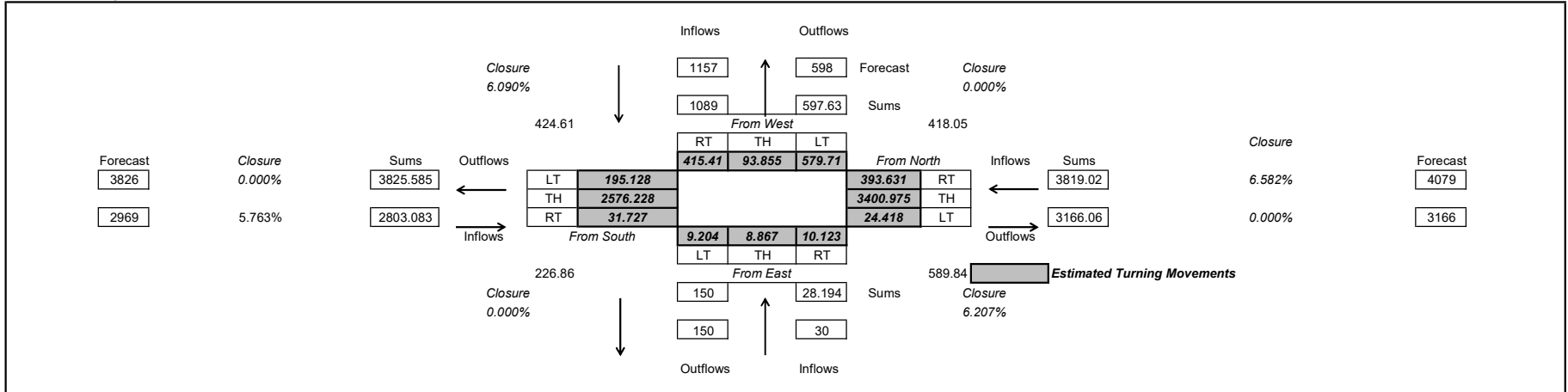
Volume Development

Iterative Method Estimated Turning Movements

Input Volumes

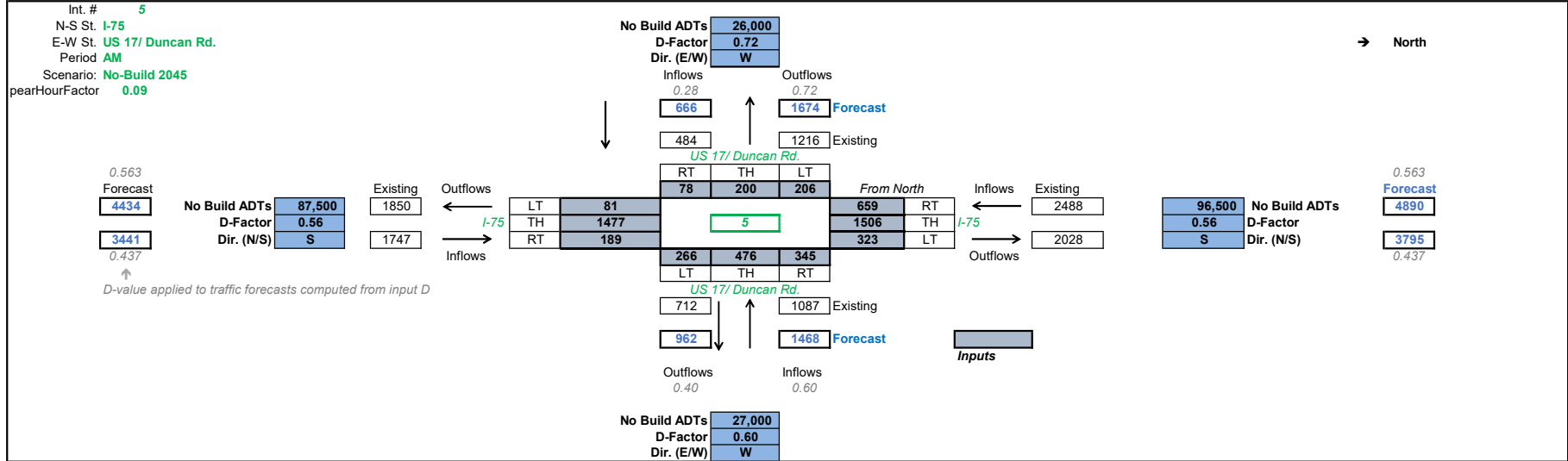


Estimated Turning Movements

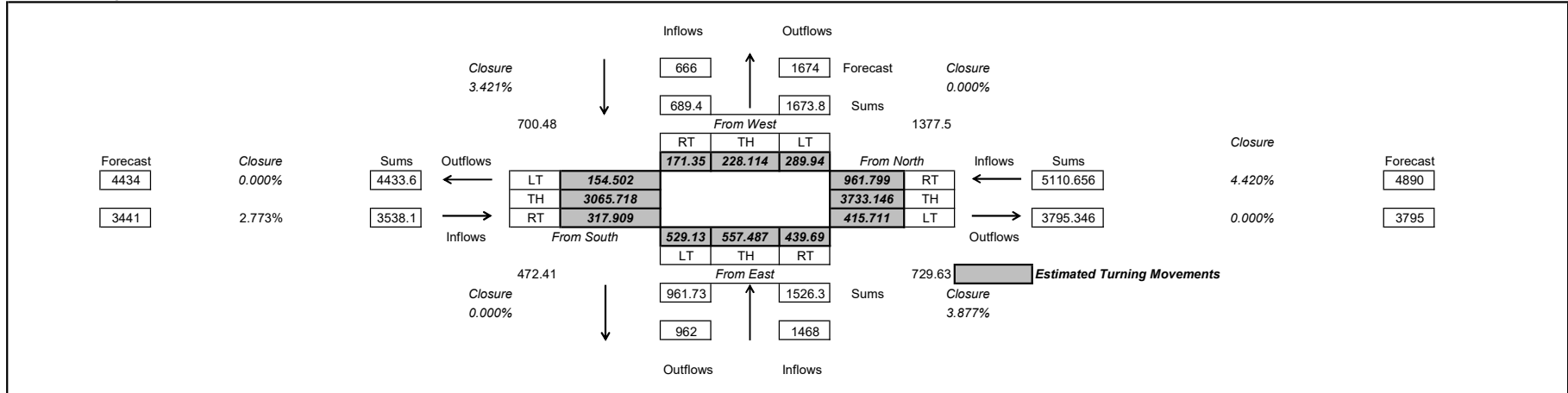


Iterative Method Estimated Turning Movements

Input Volumes

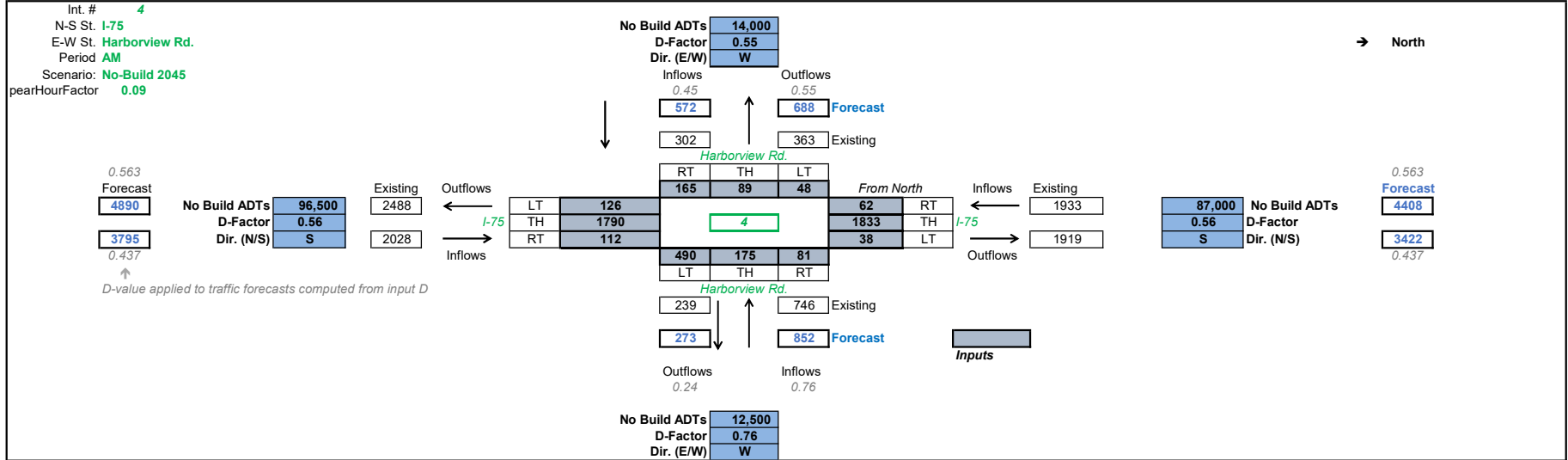


Estimated Turning Movements

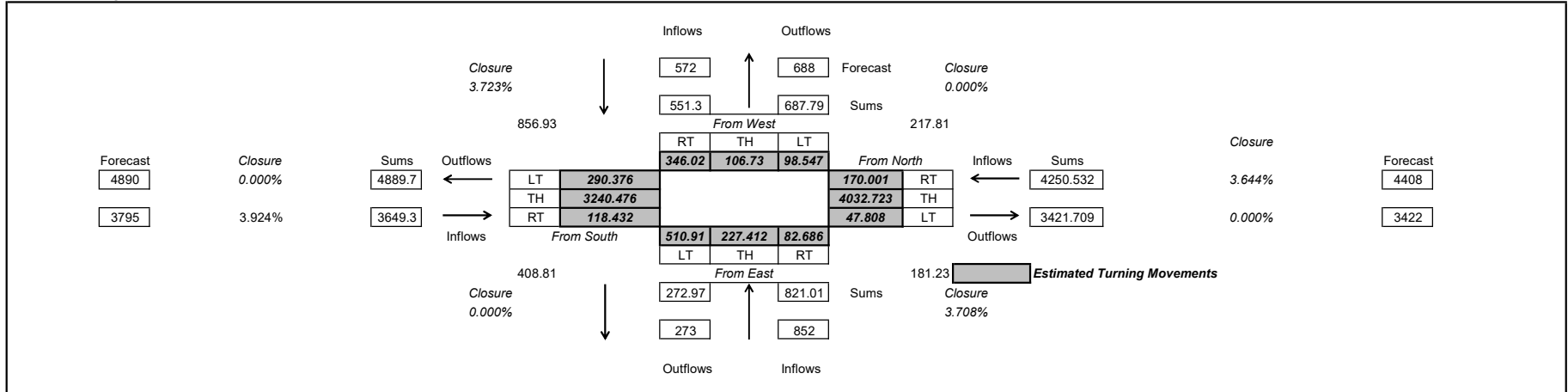


Iterative Method Estimated Turning Movements

Input Volumes

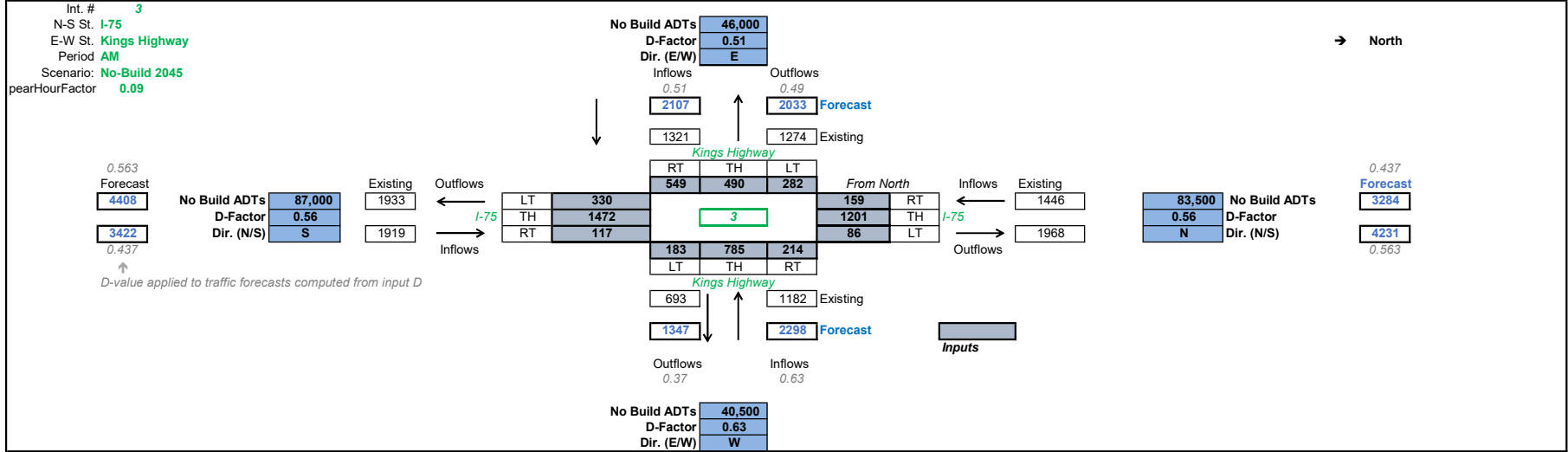


Estimated Turning Movements

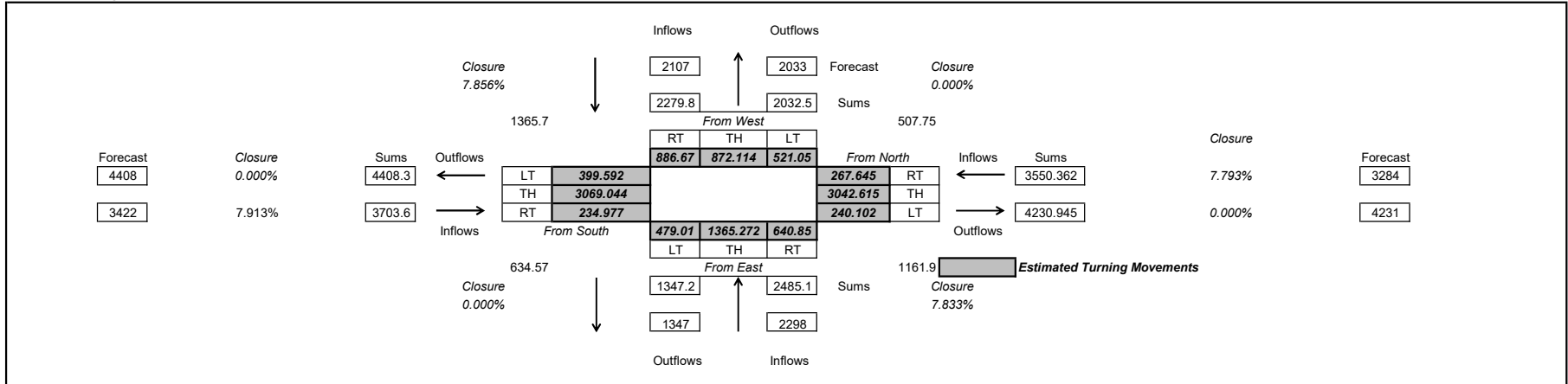


Iterative Method Estimated Turning Movements

Input Volumes

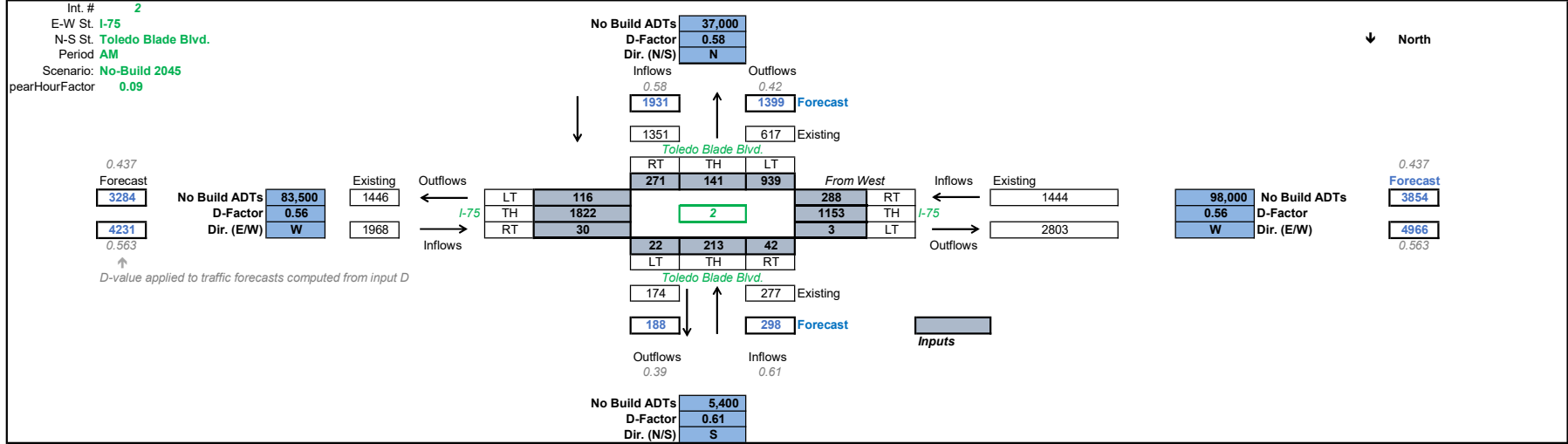


Estimated Turning Movements

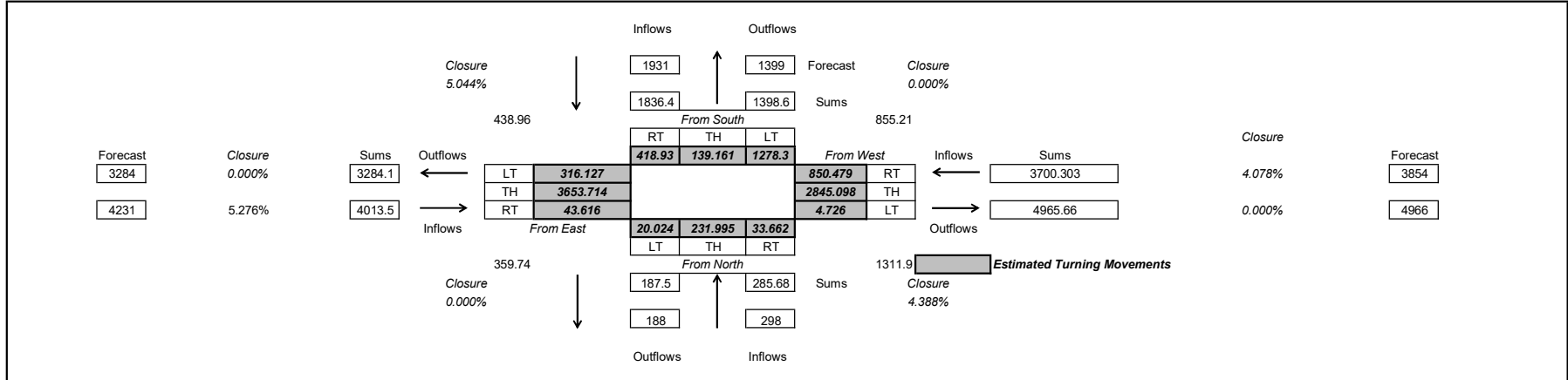


Iterative Method Estimated Turning Movements

Input Volumes

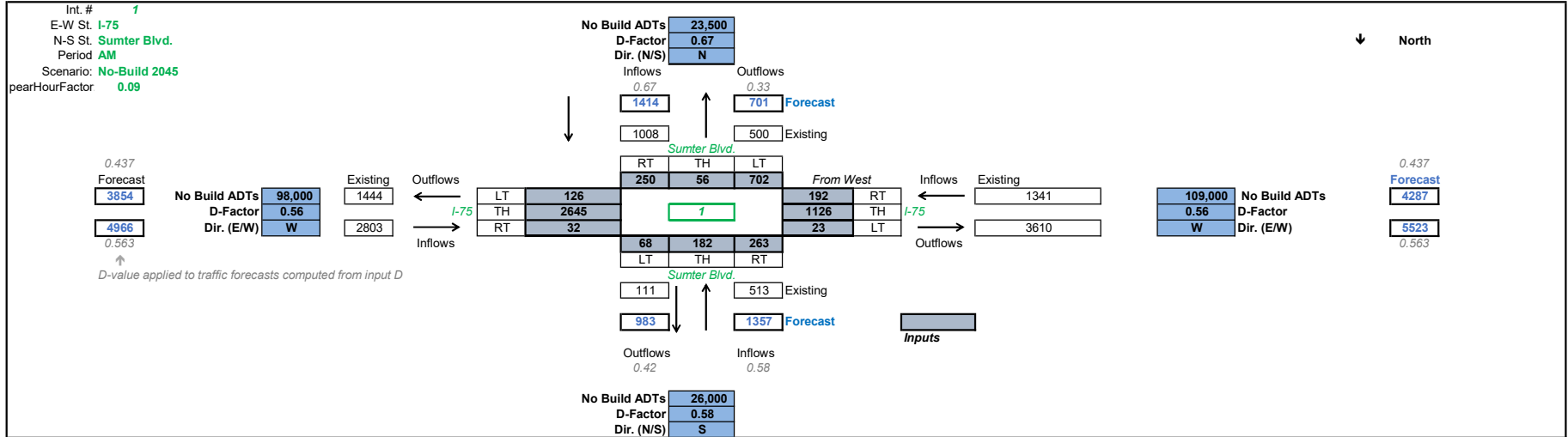


Estimated Turning Movements

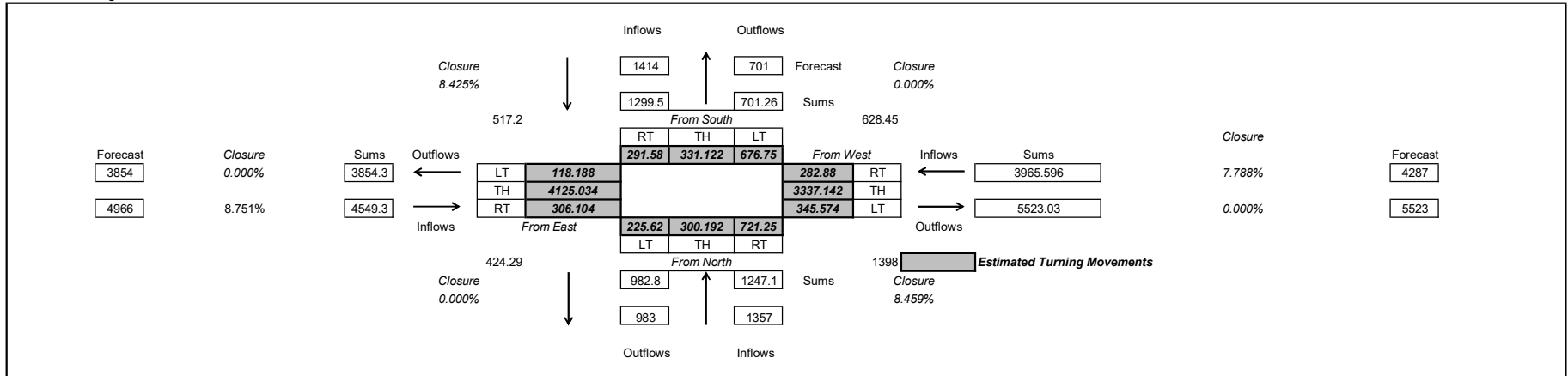


Iterative Method Estimated Turning Movements

Input Volumes

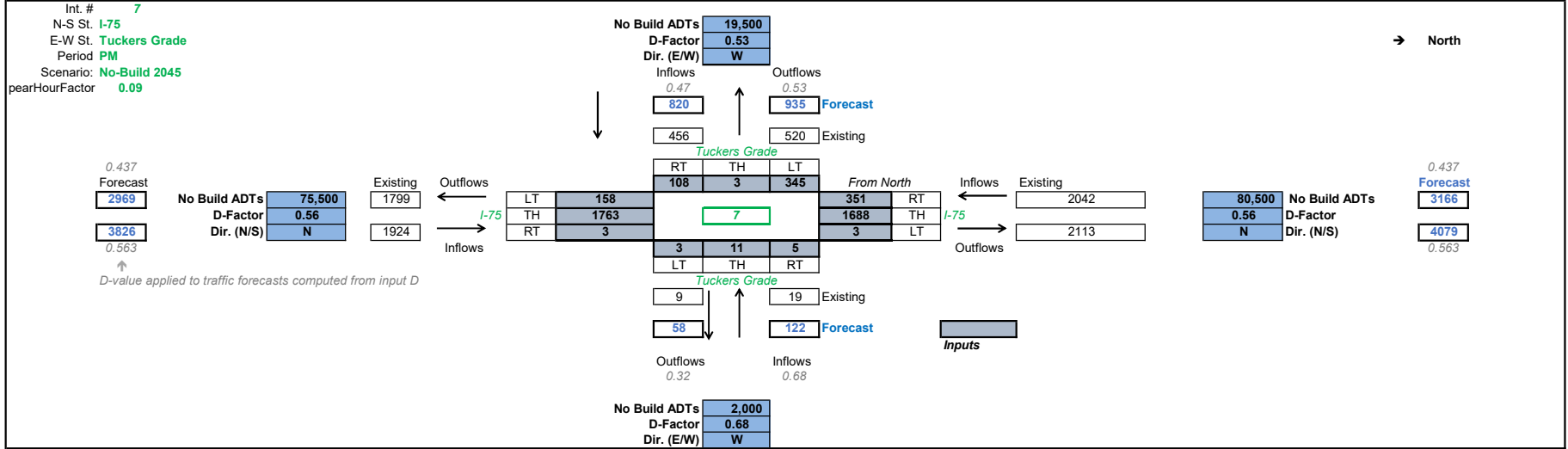


Estimated Turning Movements

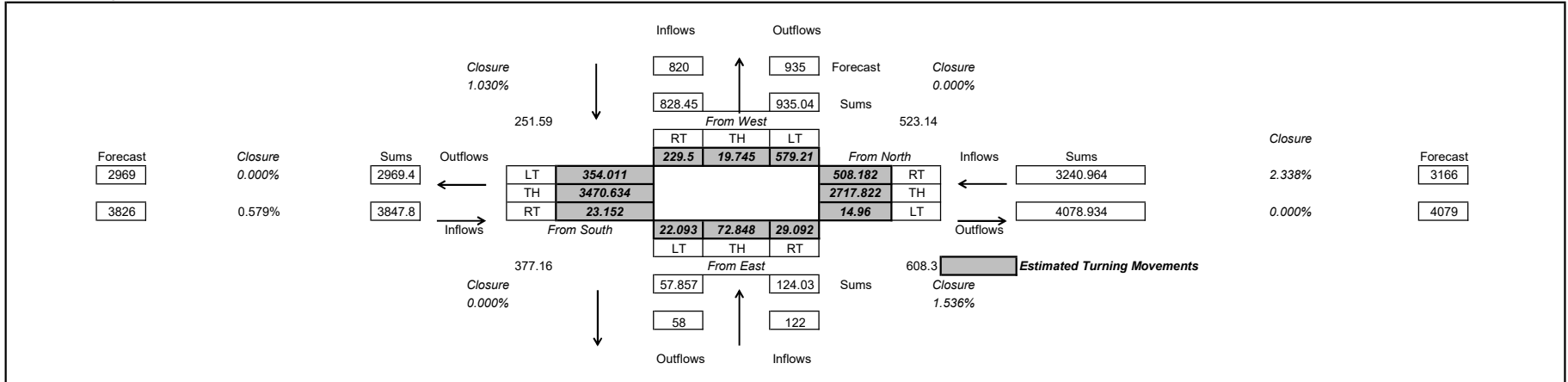


Iterative Method Estimated Turning Movements

Input Volumes

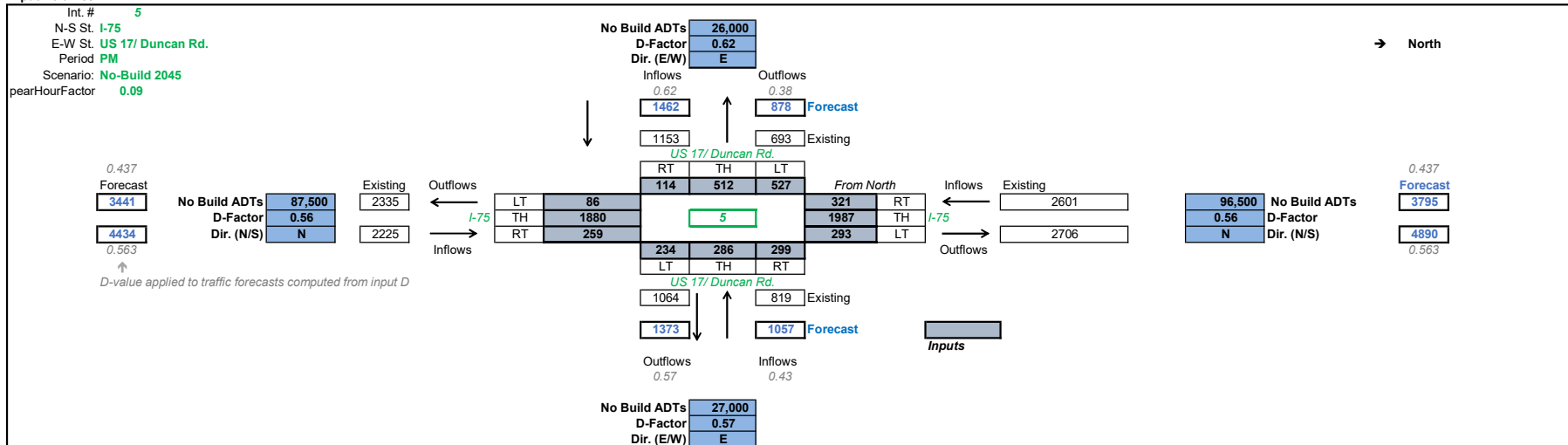


Estimated Turning Movements

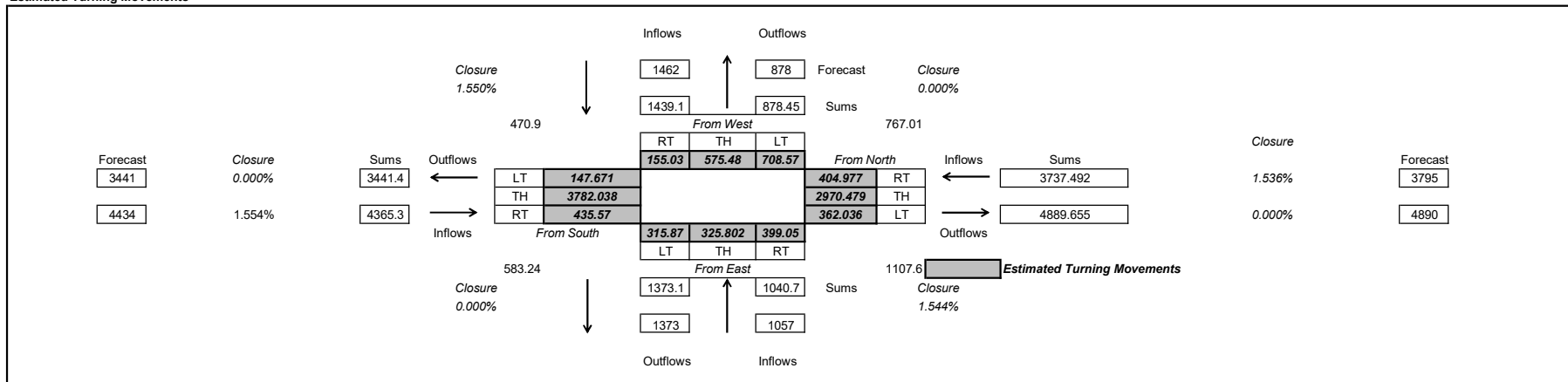


Iterative Method Estimated Turning Movements

Input Volumes

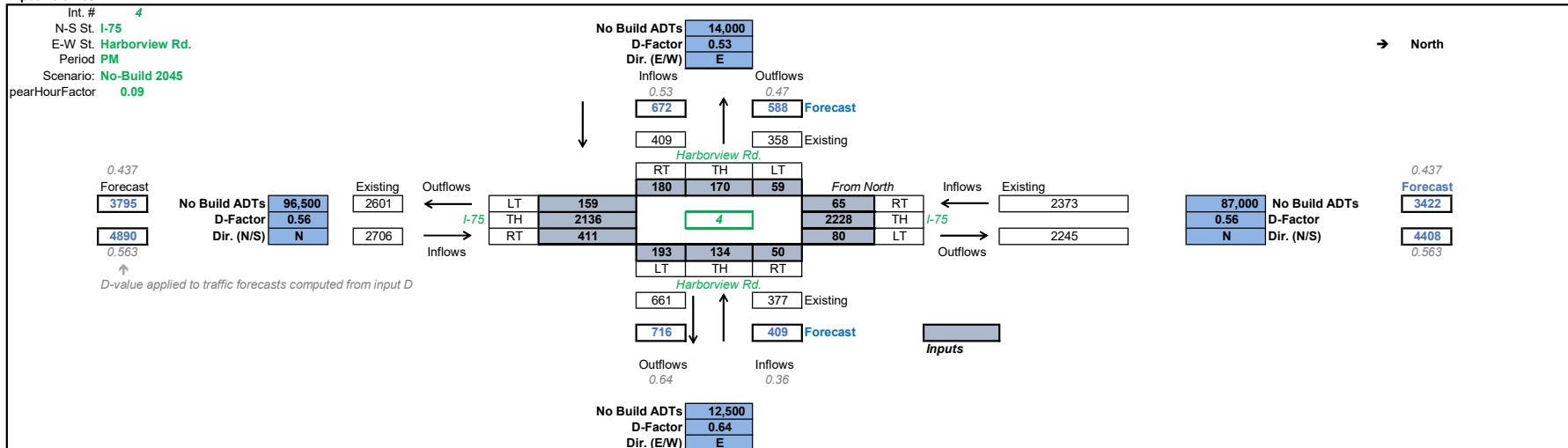


Estimated Turning Movements

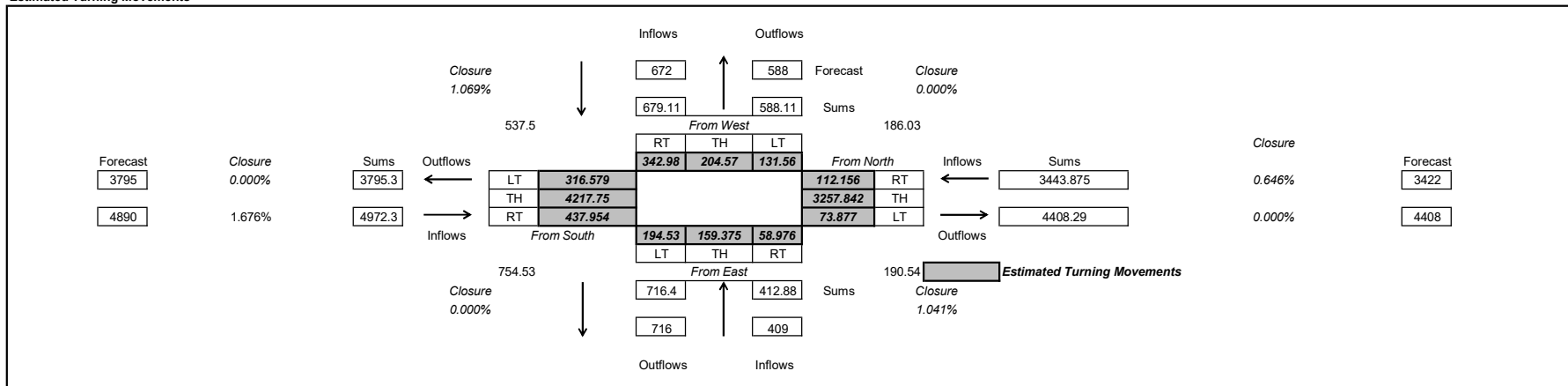


Iterative Method Estimated Turning Movements

Input Volumes

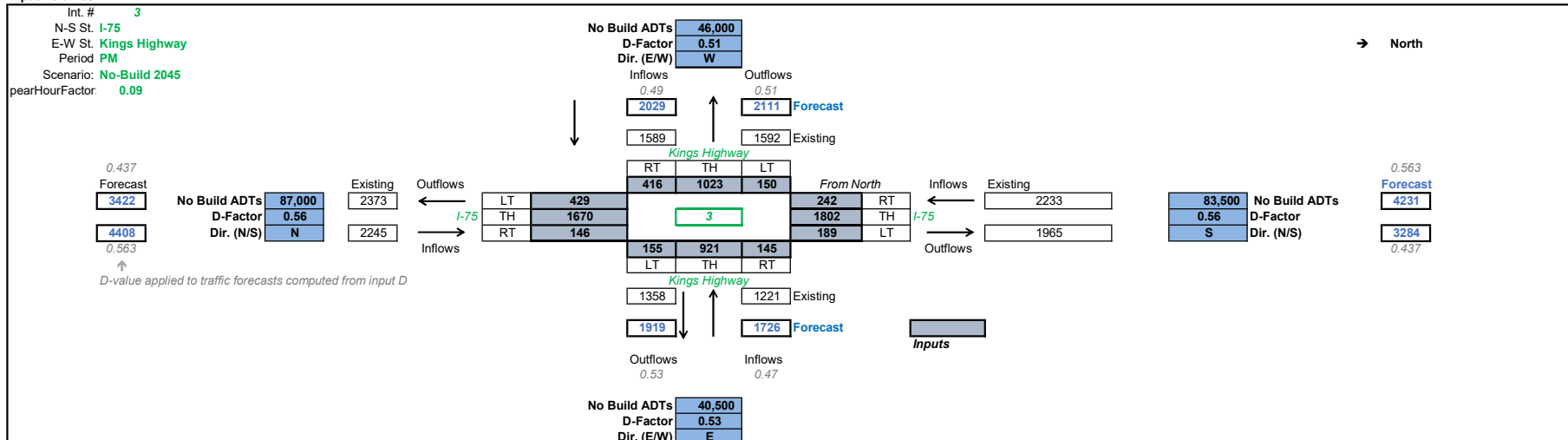


Estimated Turning Movements

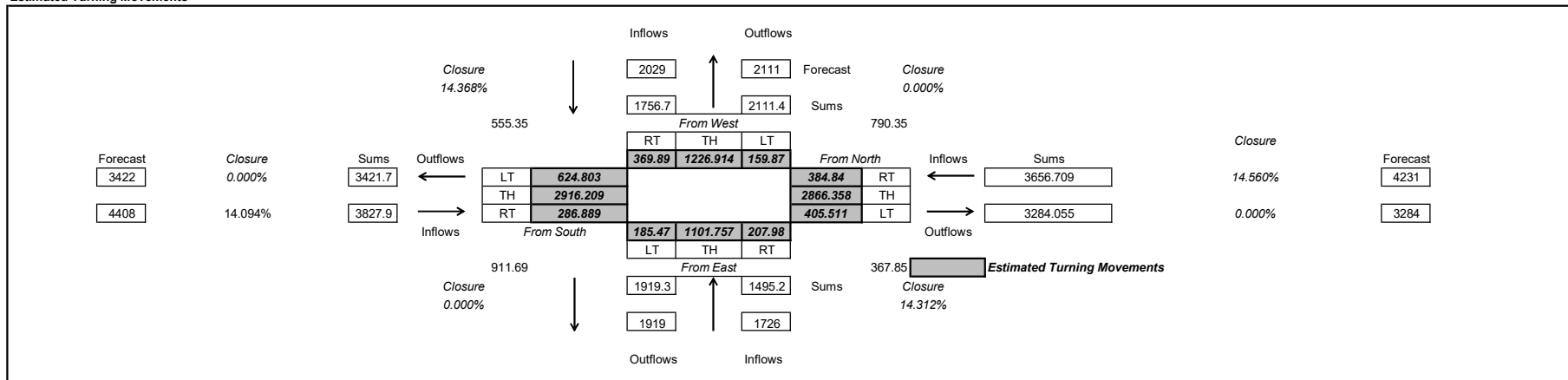


Iterative Method Estimated Turning Movements

Input Volumes

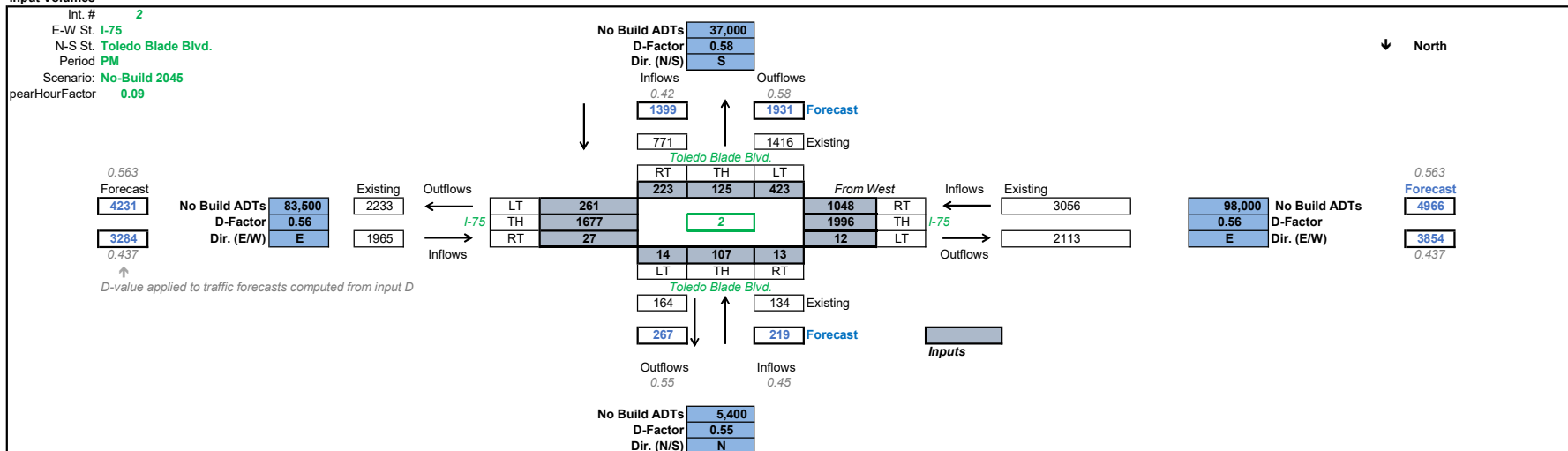


Estimated Turning Movements

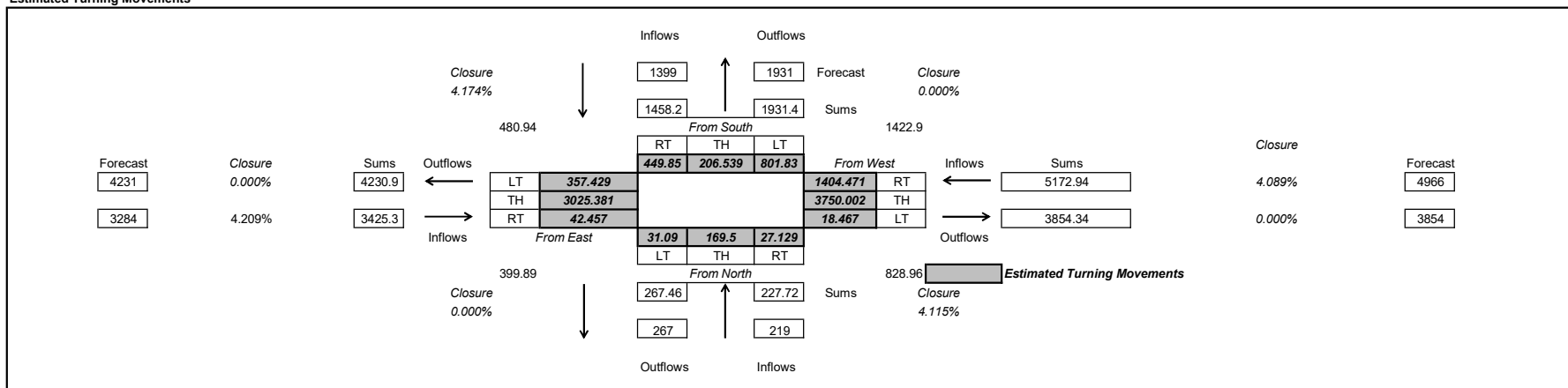


Iterative Method Estimated Turning Movements

Input Volumes

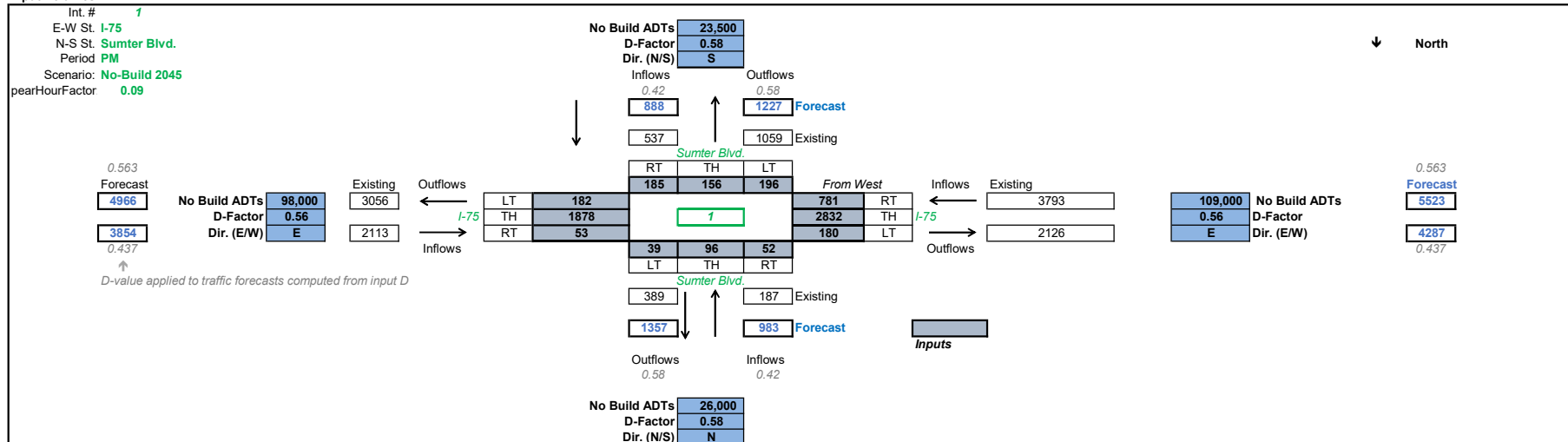


Estimated Turning Movements

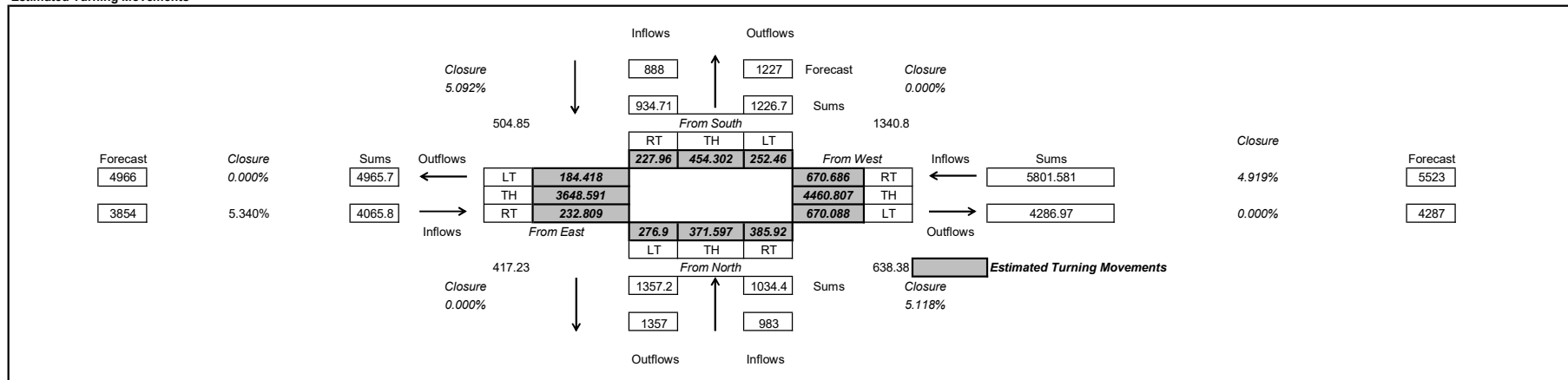


Iterative Method Estimated Turning Movements

Input Volumes



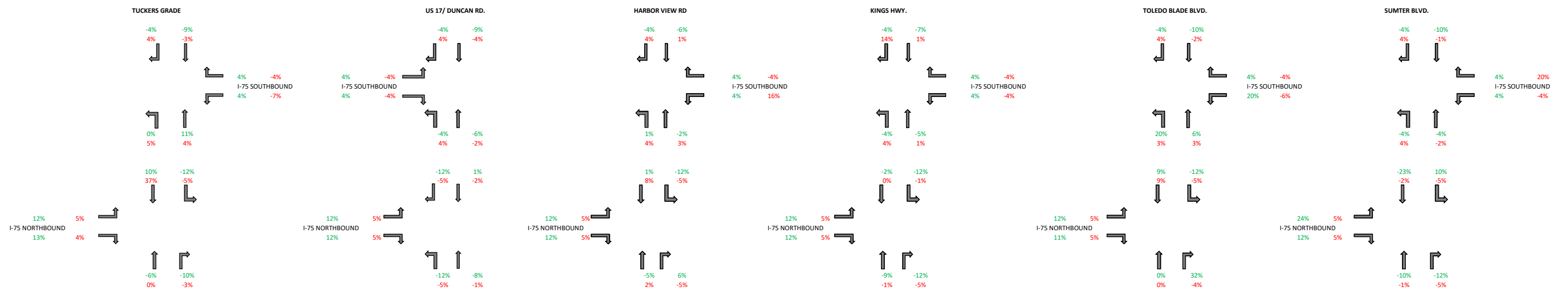
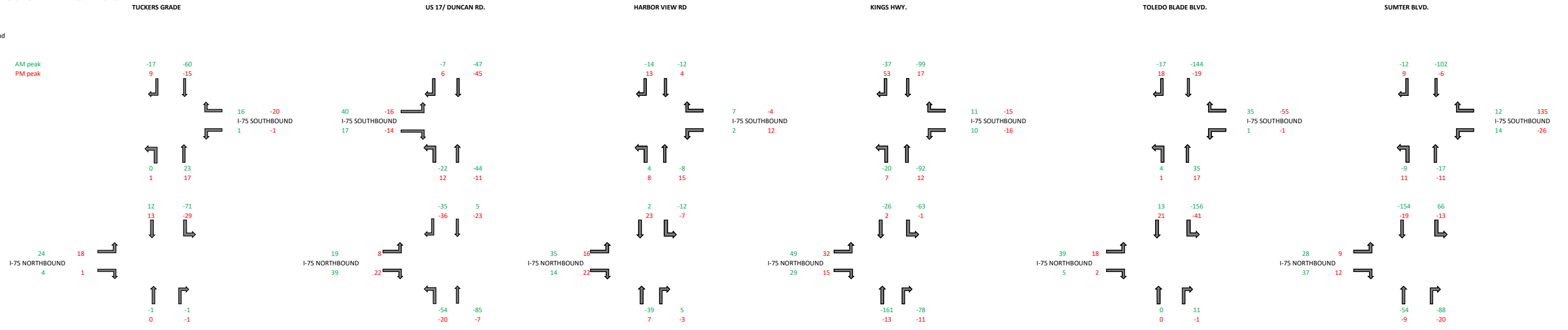
Estimated Turning Movements



TURNING MOVEMENT VOLUMES - REFINEMENT & BALANCING

Volume Difference between Balanced turning movements and Estimated turning movements

xx AM peak
xx PM peak



AM PEAK HOUR I-75 SOUTHBOUND

	Estimated Through	Balanced Through	Volume Difference	% Change
North of Sumter Blvd	3966	4287	321	8%
Sumter Blvd	3966	4287	321	8%
Toledo Blade Blvd	3701	4129	428	12%
Kings Hwy	3551	3664	113	3%
Harbor View Rd	4251	4444	193	5%
US 17/Duncan Rd	5111	5063	-48	-1%
North Jones Loop Rd	4493	4299	-194	-4%
Tuckers Grade	3819	3854	35	1%
South of Tuckers Grade	3825	3826	1	0%

AM PEAK HOUR I-75 NORTHBOUND

	Estimated Through	Balanced Through	Volume Difference	% Change
North of Sumter Blvd	5692	5523	-169	-3%
Sumter Blvd	4561	4636	75	2%
Toledo Blade Blvd	4014	3873	-141	-4%
Kings Hwy	3704	3565	-139	-4%
Harbor View Rd	3648	3847	199	5%
US 17/Duncan Rd	3539	3737	198	6%
North Jones Loop Rd	3040	3232	192	6%
Tuckers Grade	2803	2969	166	6%
South of Tuckers Grade	2803	2969	166	6%

PM PEAK HOUR I-75 SOUTHBOUND

	Estimated Through	Balanced Through	Volume Difference	% Change
North of Sumter Blvd	5970	5523	-447	-7%
Sumter Blvd	5970	5523	-447	-7%
Toledo Blade Blvd	5172	4598	-574	-11%
Kings Hwy	3657	3732	75	2%
Harbor View Rd	3459	3587	128	4%
US 17/Duncan Rd	3737	3952	215	6%
North Jones Loop Rd	3658	3704	46	1%
Tuckers Grade	3241	3209	-32	-1%
South of Tuckers Grade	2969	2968	-1	0%

PM PEAK HOUR I-75 NORTHBOUND

	Estimated Through	Balanced Through	Volume Difference	% Change
North of Sumter Blvd	4287	4286	-1	0%
Sumter Blvd	4066	4119	53	1%
Toledo Blade Blvd	3424	3751	327	10%
Kings Hwy	3828	4354	526	14%
Harbor View Rd	4973	4966	-7	0%
US 17/Duncan Rd	4366	4528	162	4%
North Jones Loop Rd	4092	4008	-84	-2%
Tuckers Grade	3848	3826	-22	-1%
South of Tuckers Grade	3848	3826	-22	-1%

Appendix H

Operations Analysis Outputs (Future 2045 No Build and Build)

**SYNCHRO WORKSHEETS
2045 NO BUILD
AM PEAK**



HCM 6th TWSC
 3: Sumter Blvd. & I-75 SB Ramp

2045 No Build
 AM Peak

Intersection												
Int Delay, s/veh	251											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↕		↘	↕	
Traffic Vol, veh/h	360	0	295	0	0	0	0	906	280	217	401	0
Future Vol, veh/h	360	0	295	0	0	0	0	906	280	217	401	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	391	0	321	0	0	0	0	985	304	236	436	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1401	-	218	-	0	0	985	0	0
Stage 1	908	-	-	-	-	-	-	-	-
Stage 2	493	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 130	0	783	0	-	-	691	-	0
Stage 1	~ 351	0	-	0	-	-	-	-	0
Stage 2	576	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	~ 86	0	783	-	-	-	691	-	-
Mov Cap-2 Maneuver	~ 86	0	-	-	-	-	-	-	-
Stage 1	~ 351	0	-	-	-	-	-	-	-
Stage 2	~ 379	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 938	0	4.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	86	783	691	-
HCM Lane V/C Ratio	-	-	4.55	0.41	0.341	-
HCM Control Delay (s)	-	-	\$ 1696.3	12.7	12.9	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	41.7	2	1.5	-

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

Intersection												
Int Delay, s/veh	652.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	146	0	343	743	523	0	0	472	633
Future Vol, veh/h	0	0	0	146	0	343	743	523	0	0	472	633
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	340	80	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	159	0	373	808	568	0	0	513	688

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2441	- 284 513	0 - - - 0
Stage 1	2184	- - -	- - - - -
Stage 2	257	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	~ 26	0 710 1042	- 0 0 - -
Stage 1	~ 71	0 - -	- 0 0 - -
Stage 2	759	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 6	0 710 1042	- - - - -
Mov Cap-2 Maneuver	~ 6	0 - -	- - - - -
Stage 1	~ 16	0 - -	- - - - -
Stage 2	759	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 3787.8	11.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1042	- 6 710	- -	- -
HCM Lane V/C Ratio	0.775	-26.449 0.525	- -	- -
HCM Control Delay (s)	19.2	\$ 12650.1 15.5	- -	- -
HCM Lane LOS	C	- F C	- -	- -
HCM 95th %tile Q(veh)	8.1	- 21.8 3.1	- -	- -

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

HCM 6th TWSC
 58: N. Toledo Blade Blvd./Choctaw Blvd. & I-75 SB Ramp

2045 No Build
 AM Peak

Intersection												
Int Delay, s/veh	61.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↑↑	↗	↘	↑↑	
Traffic Vol, veh/h	6	0	885	0	0	0	0	1273	402	24	583	0
Future Vol, veh/h	6	0	885	0	0	0	0	1273	402	24	583	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	400	-	-	-	-	-	490	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	0	0	0	4	4	4	4	4	4
Mvmt Flow	7	0	962	0	0	0	0	1384	437	26	634	0

Major/Minor	Minor2		Major1			Major2			
Conflicting Flow All	1378	-	317	-	0	0	1384	0	0
Stage 1	686	-	-	-	-	-	-	-	-
Stage 2	692	-	-	-	-	-	-	-	-
Critical Hdwy	6.88	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	133	0	~ 673	0	-	-	481	-	0
Stage 1	456	0	-	0	-	-	-	-	0
Stage 2	453	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	126	0	~ 673	-	-	-	481	-	-
Mov Cap-2 Maneuver	126	0	-	-	-	-	-	-	-
Stage 1	456	0	-	-	-	-	-	-	-
Stage 2	429	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	218.8	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	126	673	481	-
HCM Lane V/C Ratio	-	-	0.052	1.429	0.054	-
HCM Control Delay (s)	-	-	35.1	220	12.9	-
HCM Lane LOS	-	-	E	F	B	-
HCM 95th %tile Q(veh)	-	-	0.2	44.3	0.2	-

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

Intersection

Int Delay, s/veh 32352.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	355	0	49	1122	157	0	0	252	45
Future Vol, veh/h	0	0	0	355	0	49	1122	157	0	0	252	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	275	150	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	386	0	53	1220	171	0	0	274	49

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2748	- 86 274	0 - - - 0
Stage 1	2611	- - -	- - - - -
Stage 2	137	- - -	- - - - -
Critical Hdwy	6.88	- 6.98 4.18	- - - - -
Critical Hdwy Stg 1	5.88	- - -	- - - - -
Critical Hdwy Stg 2	5.88	- - -	- - - - -
Follow-up Hdwy	3.54	- 3.34 2.24	- - - - -
Pot Cap-1 Maneuver	~ 15	0 949 1272	- 0 0 - -
Stage 1	~ 40	0 - -	- 0 0 - -
Stage 2	869	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 1	0 949 1272	- - - - -
Mov Cap-2 Maneuver	~ 1	0 - -	- - - - -
Stage 1	~ 2	0 - -	- - - - -
Stage 2	869	0 - -	- - - - -






















Approach	WB	NB	SB
HCM Control Delay, s	\$ 158462.4	30.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1272	- 1 949	- -	-
HCM Lane V/C Ratio	0.959	- 385.87 0.056	- -	-
HCM Control Delay (s)	34.7	\$ 180333.4 9	- -	-
HCM Lane LOS	D	- F A	- -	-
HCM 95th %tile Q(veh)	18.4	- 50.9 0.2	- -	-

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

Lanes, Volumes, Timings
35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
AM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (vph)	250	0	279	0	0	0	0	1294	850	459	1673	0
Future Volume (vph)	250	0	279	0	0	0	0	1294	850	459	1673	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		0	450		0
Storage Lanes	2		1	0		0	0		1	1		0
Taper Length (ft)	100			25			25			50		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850							0.850		
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3335	0	1538	0	0	0	0	3438	1538	1719	3438	0
Flt Permitted	0.950									0.089		
Satd. Flow (perm)	3335	0	1538	0	0	0	0	3438	1538	161	3438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			248						629			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1888			1616			1339			802	
Travel Time (s)		42.9			36.7			20.3			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	272	0	303	0	0	0	0	1407	924	499	1818	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	0	303	0	0	0	0	1407	924	499	1818	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			42			44	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					2	1	1	2	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20		20					100	20	20	100	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	20		20					6	20	20	6	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot		Free					NA	Prot	pm+pt	NA	
Protected Phases	8							6	6	5	2	

Lanes, Volumes, Timings
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
 AM Peak

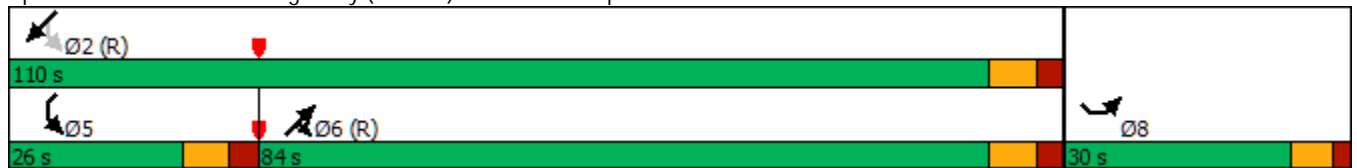


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR		
Permitted Phases	Free									2				
Detector Phase	8									6	6	5	2	
Switch Phase														
Minimum Initial (s)	7.0									10.0	10.0	5.0	10.0	
Minimum Split (s)	13.5									17.9	17.9	12.9	17.9	
Total Split (s)	30.0									84.0	84.0	26.0	110.0	
Total Split (%)	21.4%									60.0%	60.0%	18.6%	78.6%	
Maximum Green (s)	23.5									76.1	76.1	18.1	102.1	
Yellow Time (s)	4.5									4.9	4.9	4.9	4.9	
All-Red Time (s)	2.0									3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0									0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5									7.9	7.9	7.9	7.9	
Lead/Lag									Lag	Lag	Lead			
Lead-Lag Optimize?									Yes	Yes	Yes			
Vehicle Extension (s)	3.0									5.0	5.0	3.0	5.0	
Recall Mode	None									C-Max	C-Max	None	C-Max	
Act Effect Green (s)	16.7		140.0								76.1	76.1	108.9	108.9
Actuated g/C Ratio	0.12		1.00								0.54	0.54	0.78	0.78
v/c Ratio	0.69		0.20								0.75	0.82	1.24	0.68
Control Delay	67.9		0.3								27.9	14.9	138.7	19.7
Queue Delay	0.0		0.0								0.0	0.0	0.0	28.7
Total Delay	67.9		0.3								27.9	14.9	138.7	48.4
LOS	E		A								C	B	F	D
Approach Delay				32.3						22.8		67.8		
Approach LOS				C						C		E		

Intersection Summary






















Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 70 (50%), Referenced to phase 2:SWTL and 6:NET, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay: 43.8
 Intersection LOS: D
 Intersection Capacity Utilization 121.3%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 35: Kings Hwy (CR 769) & I-75 SB Ramp





















HCM 6th Signalized Intersection Summary
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
 AM Peak

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (veh/h)	250	0	279	0	0	0	0	1294	850	459	1673	0
Future Volume (veh/h)	250	0	279	0	0	0	0	1294	850	459	1673	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	272	0	0				0	1407	0	499	1818	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	331	0					0	2127		407	2772	0
Arrive On Green	0.10	0.00	0.00				0.00	0.61	0.00	0.26	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	272	0	0				0	1407	0	499	1818	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	11.1	0.0	0.0				0.0	36.9	0.0	18.1	0.0	0.0
Cycle Q Clear(g_c), s	11.1	0.0	0.0				0.0	36.9	0.0	18.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	331	0					0	2127		407	2772	0
V/C Ratio(X)	0.82	0.00					0.00	0.66		1.23	0.66	0.00
Avail Cap(c_a), veh/h	566	0					0	2127		407	2772	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	61.9	0.0	0.0				0.0	17.6	0.0	24.8	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	0.0				0.0	1.6	0.0	104.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0				0.0	14.1	0.0	23.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	0.0	0.0				0.0	19.3	0.0	129.0	0.1	0.0
LnGrp LOS	E	A					A	B		F	A	A
Approach Vol, veh/h		272	A					1407	A		2317	
Approach Delay, s/veh		67.0						19.3			27.9	
Approach LOS		E						B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		119.8			26.0	93.8		20.2				
Change Period (Y+Rc), s		7.9			7.9	7.9		6.5				
Max Green Setting (Gmax), s		102.1			18.1	76.1		23.5				
Max Q Clear Time (g_c+I1), s		2.0			20.1	38.9		13.1				
Green Ext Time (p_c), s		61.7			0.0	23.5		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			27.5									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [NER, SER] is excluded from calculations of the approach delay and intersection delay.												

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 No Build
AM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	449	0	264	458	1086	0	0	1683	563
Future Volume (vph)	0	0	0	449	0	264	458	1086	0	0	1683	563
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	475		300	500		0	0		400
Storage Lanes	0		0	2		1	1		0	0		0
Taper Length (ft)	25			150			50			25		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850						0.962
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	3335	0	2707	1719	3438	0	0	3307	0
Flt Permitted				0.950			0.056					
Satd. Flow (perm)	0	0	0	3335	0	2707	101	3438	0	0	3307	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												43
Link Speed (mph)		30			30			45				45
Link Distance (ft)		1545			1882			802				1220
Travel Time (s)		35.1			42.8			12.2				18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	0	0	488	0	287	498	1180	0	0	1829	612
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	488	0	287	498	1180	0	0	2441	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			44				40
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1		1	1	2				2
Detector Template				Left		Right	Left	Thru				Thru
Leading Detector (ft)				20		20	20	100				100
Trailing Detector (ft)				0		0	0	0				0
Detector 1 Position(ft)				0		0	0	0				0
Detector 1 Size(ft)				20		20	20	6				6
Detector 1 Type				Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Queue (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Delay (s)				0.0		0.0	0.0	0.0				0.0
Detector 2 Position(ft)								94				94
Detector 2 Size(ft)								6				6
Detector 2 Type								Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0				0.0
Turn Type				Prot		Prot	pm+pt	NA				NA
Protected Phases				4		4	1	6				2

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 No Build
AM Peak

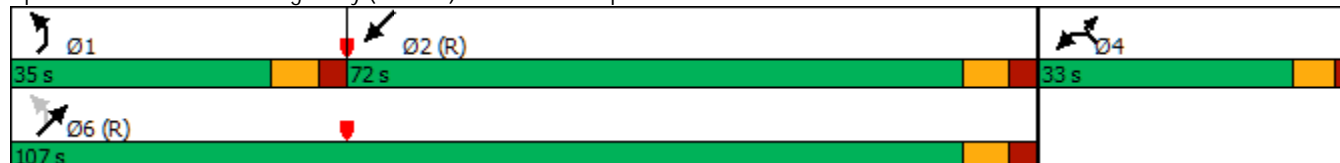


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases							6					
Detector Phase				4		4	1	6			2	
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	10.0			10.0	
Minimum Split (s)				13.5		13.5	12.9	17.9			17.9	
Total Split (s)				33.0		33.0	35.0	107.0			72.0	
Total Split (%)				23.6%		23.6%	25.0%	76.4%			51.4%	
Maximum Green (s)				26.5		26.5	27.1	99.1			64.1	
Yellow Time (s)				4.5		4.5	4.9	4.9			4.9	
All-Red Time (s)				2.0		2.0	3.0	3.0			3.0	
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.5		6.5	7.9	7.9			7.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0		3.0	3.0	5.0			5.0	
Recall Mode				None		None	None	C-Max			C-Max	
Act Effect Green (s)				24.5		24.5	101.1	101.1			64.1	
Actuated g/C Ratio				0.18		0.18	0.72	0.72			0.46	
v/c Ratio				0.84		0.61	1.22	0.48			1.59	
Control Delay				69.3		58.9	141.7	10.1			296.4	
Queue Delay				55.6		0.0	0.0	0.4			0.1	
Total Delay				124.9		58.9	141.7	10.5			296.5	
LOS				F		E	F	B			F	
Approach Delay					100.4			49.5			296.5	
Approach LOS					F			D			F	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:SWT and 6:NETL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.59
 Intersection Signal Delay: 180.8
 Intersection LOS: F
 Intersection Capacity Utilization 121.3%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 41: Kings Hwy (CR 769) & I-75 NB Ramp



HCM 6th Signalized Intersection Summary
41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 No Build
AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔		↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	449	0	264	458	1086	0	0	1683	563
Future Volume (veh/h)	0	0	0	449	0	264	458	1086	0	0	1683	563
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				488	0	287	498	1180	0	0	1829	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				559	0	451	388	2537	0	0	1670	
Arrive On Green				0.17	0.00	0.17	0.06	0.24	0.00	0.00	0.48	0.00
Sat Flow, veh/h				3374	0	2723	1739	3561	0	0	3652	0
Grp Volume(v), veh/h				488	0	287	498	1180	0	0	1829	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1739	1735	0	0	1735	0
Q Serve(g_s), s				19.8	0.0	13.8	27.1	40.7	0.0	0.0	67.4	0.0
Cycle Q Clear(g_c), s				19.8	0.0	13.8	27.1	40.7	0.0	0.0	67.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				559	0	451	388	2537	0	0	1670	
V/C Ratio(X)				0.87	0.00	0.64	1.28	0.47	0.00	0.00	1.10	
Avail Cap(c_a), veh/h				639	0	515	388	2537	0	0	1670	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.59	0.59	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				57.0	0.0	54.5	58.0	29.7	0.0	0.0	36.3	0.0
Incr Delay (d2), s/veh				11.6	0.0	2.1	138.9	0.4	0.0	0.0	52.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.3	0.0	4.9	29.6	19.0	0.0	0.0	39.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				68.5	0.0	56.5	196.9	30.1	0.0	0.0	89.2	0.0
LnGrp LOS				E	A	E	F	C	A	A	F	
Approach Vol, veh/h					775			1678			1829	A
Approach Delay, s/veh					64.1			79.6			89.2	
Approach LOS					E			E			F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	35.0	75.3		29.7		110.3						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	27.1	64.1		26.5		99.1						
Max Q Clear Time (g_c+I1), s	29.1	69.4		21.8		42.7						
Green Ext Time (p_c), s	0.0	0.0		1.5		23.0						

Intersection Summary

HCM 6th Ctrl Delay	80.9
HCM 6th LOS	F

Notes

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

HCM 6th TWSC
43: Harbor View Rd. (CR 776) & I-75 SB Ramp

2045 No Build
AM Peak

Intersection												
Int Delay, s/veh	14.5											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↙		↗					↕↔		↙	↕↕	
Traffic Vol, veh/h	50	0	177	0	0	0	0	193	332	515	509	0
Future Vol, veh/h	50	0	177	0	0	0	0	193	332	515	509	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	54	0	192	0	0	0	0	210	361	560	553	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1778	-	277	-	0	0	210	0	0
Stage 1	1673	-	-	-	-	-	-	-	-
Stage 2	105	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	73	0	717	0	-	-	1351	-	0
Stage 1	136	0	-	0	-	-	-	-	0
Stage 2	905	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	~ 43	0	717	-	-	-	1351	-	-
Mov Cap-2 Maneuver	~ 43	0	-	-	-	-	-	-	-
Stage 1	136	0	-	-	-	-	-	-	-
Stage 2	529	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	91.7	0	4.8
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	43	717	1351	-
HCM Lane V/C Ratio	-	-	1.264	0.268	0.414	-
HCM Control Delay (s)	-	-	\$ 374.2	11.9	9.5	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	5.3	1.1	2.1	-

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

HCM 6th TWSC
46: Harbor View Rd. (CR 776) & I-75 NB Ramp

2045 No Build
AM Peak

Intersection												
Int Delay, s/veh	30.1											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↘		↗	↘	↕			↕	↗
Traffic Vol, veh/h	0	0	0	325	0	132	87	156	0	0	699	88
Future Vol, veh/h	0	0	0	325	0	132	87	156	0	0	699	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	260	200	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	353	0	143	95	170	0	0	760	96

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	740	- 85 760	0 - - - 0
Stage 1	360	- - -	- - - - -
Stage 2	380	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	~ 350	0 954 841	- 0 0 - -
Stage 1	674	0 - -	- 0 0 - -
Stage 2	658	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 310	0 954 841	- - - - -
Mov Cap-2 Maneuver	~ 310	0 - -	- - - - -
Stage 1	598	0 - -	- - - - -
Stage 2	658	0 - -	- - - - -

Approach	NW	NE	SW
HCM Control Delay, s	96.1	3.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NETNWLn1NWLn2	SWT	SWR
Capacity (veh/h)	841	- 310 954	- -	-
HCM Lane V/C Ratio	0.112	- 1.14 0.15	- -	-
HCM Control Delay (s)	9.8	- 131.3 9.4	- -	-
HCM Lane LOS	A	- F A	- -	-
HCM 95th %tile Q(veh)	0.4	- 14.5 0.5	- -	-

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

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↙	↑↑↑	↖	
Traffic Volume (vph)	471	164	507	669	1002	433
Future Volume (vph)	471	164	507	669	1002	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	15
Storage Length (ft)		615	200		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Fr _t		0.850			0.959	
Fl _t Protected			0.950		0.966	
Satd. Flow (prot)	5036	1568	1752	5036	1709	0
Fl _t Permitted			0.245		0.966	
Satd. Flow (perm)	5036	1568	452	5036	1709	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		178			22	
Link Speed (mph)	55			55	30	
Link Distance (ft)	2534			1353	1359	
Travel Time (s)	31.4			16.8	30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	512	178	551	727	1089	471
Shared Lane Traffic (%)						
Lane Group Flow (vph)	512	178	551	727	1560	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	40			40	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	0.88
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak

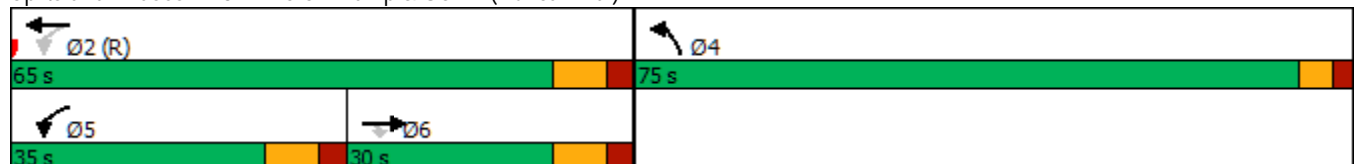


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	6		5	2	4	
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.5	23.5	13.5	23.5	12.9	
Total Split (s)	30.0	30.0	35.0	65.0	75.0	
Total Split (%)	21.4%	21.4%	25.0%	46.4%	53.6%	
Maximum Green (s)	21.5	21.5	26.5	56.5	69.1	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	3.0	3.0	3.0	3.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.5	8.5	8.5	8.5	5.9	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	4.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effct Green (s)	21.5	21.5	56.5	56.5	69.1	
Actuated g/C Ratio	0.15	0.15	0.40	0.40	0.49	
v/c Ratio	0.66	0.46	1.29	0.36	1.83	
Control Delay	60.5	11.1	183.9	41.6	401.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	60.5	11.1	183.9	41.6	401.8	
LOS	E	B	F	D	F	
Approach Delay	47.8			103.0	401.8	
Approach LOS	D			F	F	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 115 (82%), Referenced to phase 2:WBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.83
 Intersection Signal Delay: 224.3
 Intersection LOS: F
 Intersection Capacity Utilization 141.6%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 32: I-75 SB Ramp & US 17 (Duncan Rd.)



HCM 6th Signalized Intersection Summary
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	471	164	507	669	1002	433
Future Volume (veh/h)	471	164	507	669	1002	433
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	512	0	551	727	1089	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	778		437	2044	871	
Arrive On Green	0.15	0.00	0.38	0.81	0.49	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1766	0
Grp Volume(v), veh/h	512	0	551	727	1090	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	0
Q Serve(g_s), s	13.3	0.0	26.5	5.4	69.1	0.0
Cycle Q Clear(g_c), s	13.3	0.0	26.5	5.4	69.1	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	778		437	2044	872	
V/C Ratio(X)	0.66		1.26	0.36	1.25	
Avail Cap(c_a), veh/h	778		437	2044	872	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.71	0.71	1.00	0.00
Uniform Delay (d), s/veh	55.8	0.0	33.7	8.6	35.5	0.0
Incr Delay (d2), s/veh	2.8	0.0	129.7	0.3	121.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	25.4	1.6	58.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.6	0.0	163.3	8.9	157.3	0.0
LnGrp LOS	E		F	A	F	
Approach Vol, veh/h	512	A		1278	1090	A
Approach Delay, s/veh	58.6			75.5	157.3	
Approach LOS	E			E	F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.0		75.0	35.0	30.0
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		56.5		69.1	26.5	21.5
Max Q Clear Time (g_c+I1), s		7.4		71.1	28.5	15.3
Green Ext Time (p_c), s		10.3		0.0	0.0	2.4

Intersection Summary

HCM 6th Ctrl Delay	103.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	
Traffic Volume (vph)	649	255	386	1002	174	357
Future Volume (vph)	649	255	386	1002	174	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850			0.909	
Flt Protected			0.950		0.984	
Satd. Flow (prot)	5036	1568	1752	5036	1650	0
Flt Permitted			0.300		0.984	
Satd. Flow (perm)	5036	1568	553	5036	1650	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		277			70	
Link Speed (mph)	55			55	30	
Link Distance (ft)	1353			1291	2169	
Travel Time (s)	16.8			16.0	49.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	705	277	420	1089	189	388
Shared Lane Traffic (%)						
Lane Group Flow (vph)	705	277	420	1089	577	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	6		5	2	4	

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak

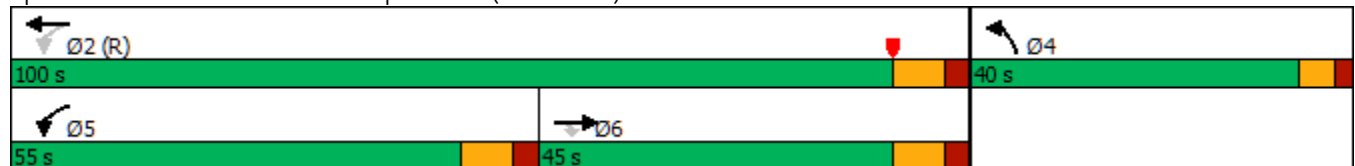


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.2	23.2	13.2	23.2	12.8	
Total Split (s)	45.0	45.0	55.0	100.0	40.0	
Total Split (%)	32.1%	32.1%	39.3%	71.4%	28.6%	
Maximum Green (s)	36.8	36.8	46.8	91.8	34.2	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	2.7	2.7	2.7	2.7	2.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	8.2	8.2	8.2	5.8	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	3.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effect Green (s)	60.7	60.7	91.8	91.8	34.2	
Actuated g/C Ratio	0.43	0.43	0.66	0.66	0.24	
v/c Ratio	0.32	0.33	0.75	0.33	1.27	
Control Delay	22.8	14.1	20.2	10.9	174.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.8	14.1	20.2	10.9	174.8	
LOS	C	B	C	B	F	
Approach Delay	20.3			13.5	174.8	
Approach LOS	C			B	F	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 132 (94%), Referenced to phase 2:WBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.27
 Intersection Signal Delay: 46.0
 Intersection LOS: D
 Intersection Capacity Utilization 84.0%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 34: I-75 NB Ramp & US 17 (Duncan Rd.)



HCM 6th Signalized Intersection Summary
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	↓
Traffic Volume (veh/h)	649	255	386	1002	174	357
Future Volume (veh/h)	649	255	386	1002	174	357
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	705	0	420	1089	189	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3099		644	3935	217	
Arrive On Green	0.61	0.00	0.11	0.78	0.12	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1758	0
Grp Volume(v), veh/h	705	0	420	1089	190	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1768	0
Q Serve(g_s), s	8.8	0.0	11.7	8.6	14.8	0.0
Cycle Q Clear(g_c), s	8.8	0.0	11.7	8.6	14.8	0.0
Prop In Lane		1.00	1.00		0.99	0.00
Lane Grp Cap(c), veh/h	3099		644	3935	218	
V/C Ratio(X)	0.23		0.65	0.28	0.87	
Avail Cap(c_a), veh/h	3099		1047	3935	432	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.3	0.0	7.5	4.4	60.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.2	10.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	3.7	2.2	7.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	0.0	8.7	4.6	70.7	0.0
LnGrp LOS	B		A	A	E	
Approach Vol, veh/h	705	A		1509	190	A
Approach Delay, s/veh	12.3			5.7	70.7	
Approach LOS	B			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		117.0		23.0	23.1	93.9
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 92		* 34	* 47	* 37
Max Q Clear Time (g_c+I1), s		10.6		16.8	13.7	10.8
Green Ext Time (p_c), s		19.7		0.5	1.2	8.3

Intersection Summary

HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖↖		↖↖
Traffic Volume (vph)	0	1500	465	150	930	0	0	0	0	130	0	930
Future Volume (vph)	0	1500	465	150	930	0	0	0	0	130	0	930
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		595	225		0	0		0	875		850
Storage Lanes	0		0	1		0	0		0	0		3
Taper Length (ft)	25			75			25			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	0.88
Frt		0.965										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3286	0	1703	3406	0	0	0	0	3303	0	2682
Flt Permitted				0.088						0.950		
Satd. Flow (perm)	0	3286	0	158	3406	0	0	0	0	3303	0	2682
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		49										
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1697			1005			1731				1734
Travel Time (s)		25.7			15.2			39.3				39.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	0%	0%	0%	6%	6%	6%
Adj. Flow (vph)	0	1630	505	163	1011	0	0	0	0	141	0	1011
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2135	0	163	1011	0	0	0	0	141	0	1011
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		15		9	15		9	15		9		15
Number of Detectors		2		1	2					1		1
Detector Template		Thru		Left	Thru					Left		Right
Leading Detector (ft)		100		20	100					20		20
Trailing Detector (ft)		0		0	0					0		0
Detector 1 Position(ft)		0		0	0					0		0
Detector 1 Size(ft)		6		20	6					20		20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		pm+pt	NA					Prot		Prot
Protected Phases		6		5	2					8		8

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 AM Peak

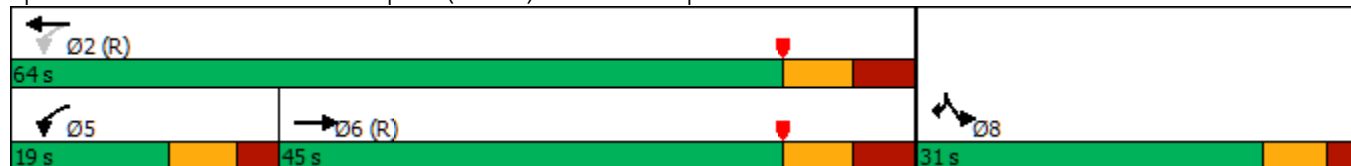


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2								
Detector Phase	6			5	2				8	8		
Switch Phase												
Minimum Initial (s)	10.0			5.0	10.0				7.0	7.0		
Minimum Split (s)	19.4			12.9	19.4				13.5	13.5		
Total Split (s)	45.0			19.0	64.0				31.0	31.0		
Total Split (%)	47.4%			20.0%	67.4%				32.6%	32.6%		
Maximum Green (s)	35.6			11.1	54.6				24.5	24.5		
Yellow Time (s)	4.9			4.9	4.9				4.5	4.5		
All-Red Time (s)	4.5			3.0	4.5				2.0	2.0		
Lost Time Adjust (s)	0.0			0.0	0.0				0.0	0.0		
Total Lost Time (s)	9.4			7.9	9.4				6.5	6.5		
Lead/Lag	Lag			Lead								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	5.0			3.0	5.0				3.0	3.0		
Recall Mode	C-Max			None	C-Max				None	None		
Act Effect Green (s)	37.3			56.1	54.6				24.5	24.5		
Actuated g/C Ratio	0.39			0.59	0.57				0.26	0.26		
v/c Ratio	1.62			0.66	0.52				0.17	1.46		
Control Delay	307.0			22.4	1.4				28.0	245.8		
Queue Delay	0.0			0.0	0.0				0.0	0.0		
Total Delay	307.0			22.4	1.4				28.0	245.8		
LOS	F			C	A				C	F		
Approach Delay	307.0									219.1		
Approach LOS	F									F		

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 91 (96%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.62
 Intersection Signal Delay: 204.6 Intersection LOS: F
 Intersection Capacity Utilization 100.0% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp



HCM 6th Signalized Intersection Summary
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	1500	465	150	930	0	0	0	0	130	0	930
Future Volume (veh/h)	0	1500	465	150	930	0	0	0	0	130	0	930
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	1630	0	163	1011	0				141	0	1011
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	1442		201	1978	0				863	0	697
Arrive On Green	0.00	0.42	0.00	0.07	0.57	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3622	0	1725	3532	0				3346	0	2701
Grp Volume(v), veh/h	0	1630	0	163	1011	0				141	0	1011
Grp Sat Flow(s),veh/h/ln	0	1721	0	1725	1721	0				1673	0	1351
Q Serve(g_s), s	0.0	39.8	0.0	4.8	16.8	0.0				3.1	0.0	24.5
Cycle Q Clear(g_c), s	0.0	39.8	0.0	4.8	16.8	0.0				3.1	0.0	24.5
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1442		201	1978	0				863	0	697
V/C Ratio(X)	0.00	1.13		0.81	0.51	0.00				0.16	0.00	1.45
Avail Cap(c_a), veh/h	0	1442		277	1978	0				863	0	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.21	0.21	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.6	0.0	21.7	12.2	0.0				27.3	0.0	35.3
Incr Delay (d2), s/veh	0.0	68.0	0.0	2.8	0.2	0.0				0.1	0.0	211.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	28.2	0.0	1.8	5.5	0.0				1.2	0.0	28.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	95.5	0.0	24.4	12.4	0.0				27.4	0.0	246.3
LnGrp LOS	A	F		C	B	A				C	A	F
Approach Vol, veh/h		1630	A		1174						1152	
Approach Delay, s/veh		95.5			14.0						219.5	
Approach LOS		F			B						F	
Timer - Assigned Phs		2			5	6			8			
Phs Duration (G+Y+Rc), s		64.0			14.8	49.2			31.0			
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4			6.5			
Max Green Setting (Gmax), s		* 55			11.1	* 36			24.5			
Max Q Clear Time (g_c+I1), s		18.8			6.8	41.8			26.5			
Green Ext Time (p_c), s		15.4			0.1	0.0			0.0			

Intersection Summary























HCM 6th Ctrl Delay	107.5
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 		 			
Traffic Volume (vph)	915	715	0	0	820	160	260	0	310	0	0	0
Future Volume (vph)	915	715	0	0	820	160	260	0	310	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		800	0		775	0		0
Storage Lanes	1		0	0		1	2		3	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1703	3406	0	0	3406	1524	3303	0	2682	0	0	0
Flt Permitted	0.132						0.950					
Satd. Flow (perm)	237	3406	0	0	3406	1524	3303	0	2682	0	0	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)						174						
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1005			2114			1382			245	
Travel Time (s)		15.2			32.0			31.4			5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	0%	0%	0%
Adj. Flow (vph)	995	777	0	0	891	174	283	0	337	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	995	777	0	0	891	174	283	0	337	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 AM Peak

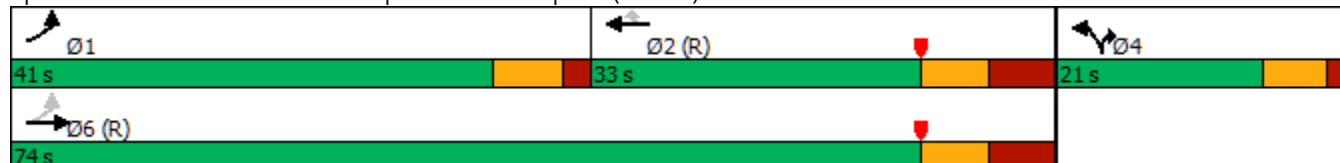


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Permitted Phases	6						2						
Detector Phase	1	6					2	2	4		4		
Switch Phase													
Minimum Initial (s)	5.0	10.0					10.0	10.0	7.0	7.0			
Minimum Split (s)	11.9	19.7					19.7	19.7	13.5	13.5			
Total Split (s)	41.0	74.0					33.0	33.0	21.0	21.0			
Total Split (%)	43.2%	77.9%					34.7%	34.7%	22.1%	22.1%			
Maximum Green (s)	34.1	64.3					23.3	23.3	14.5	14.5			
Yellow Time (s)	4.9	4.9					4.9	4.9	4.5	4.5			
All-Red Time (s)	2.0	4.8					4.8	4.8	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0					0.0	0.0	0.0	0.0			
Total Lost Time (s)	6.9	9.7					9.7	9.7	6.5	6.5			
Lead/Lag	Lead					Lag		Lag					
Lead-Lag Optimize?	Yes					Yes		Yes					
Vehicle Extension (s)	3.0	5.0					5.0	5.0	3.0	3.0			
Recall Mode	None	C-Max						C-Max	C-Max	None	None		
Act Effect Green (s)	67.4	64.6					23.3	23.3	14.2	14.2			
Actuated g/C Ratio	0.71	0.68					0.25	0.25	0.15	0.15			
v/c Ratio	1.42	0.34					1.07	0.34	0.58	0.84			
Control Delay	205.8	0.8					86.3	6.7	42.7	59.3			
Queue Delay	0.0	0.0					0.0	0.0	0.0	0.0			
Total Delay	205.8	0.8					86.3	6.7	42.7	59.3			
LOS	F	A					F	A	D	E			
Approach Delay	115.9						73.3	51.7					
Approach LOS	F						E	D					

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 43 (45%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.42
 Intersection Signal Delay: 91.3 Intersection LOS: F
 Intersection Capacity Utilization 100.0% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)



HCM 6th Signalized Intersection Summary
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘↗		↗↘			
Traffic Volume (veh/h)	915	715	0	0	820	160	260	0	310	0	0	0
Future Volume (veh/h)	915	715	0	0	820	160	260	0	310	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	995	777	0	0	891	0	283	0	337			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	695	2353	0	0	867		488	0	394			
Arrive On Green	0.12	0.23	0.00	0.00	0.25	0.00	0.15	0.00	0.15			
Sat Flow, veh/h	1725	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	995	777	0	0	891	0	283	0	337			
Grp Sat Flow(s),veh/h/ln	1725	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	34.1	17.9	0.0	0.0	23.9	0.0	7.5	0.0	11.6			
Cycle Q Clear(g_c), s	34.1	17.9	0.0	0.0	23.9	0.0	7.5	0.0	11.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	695	2353	0	0	867		488	0	394			
V/C Ratio(X)	1.43	0.33	0.00	0.00	1.03		0.58	0.00	0.86			
Avail Cap(c_a), veh/h	695	2353	0	0	867		511	0	412			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.2	18.6	0.0	0.0	35.5	0.0	37.9	0.0	39.6			
Incr Delay (d2), s/veh	195.1	0.0	0.0	0.0	37.7	0.0	1.5	0.0	15.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	55.1	8.1	0.0	0.0	13.9	0.0	3.1	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	231.3	18.6	0.0	0.0	73.2	0.0	39.4	0.0	55.2			
LnGrp LOS	F	B	A	A	F		D	A	E			
Approach Vol, veh/h		1772			891	A		620				
Approach Delay, s/veh		138.0			73.2			48.0				
Approach LOS		F			E			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	41.0	33.6		20.4		74.6						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	34.1	* 23		14.5		* 64						
Max Q Clear Time (g_c+I1), s	36.1	25.9		13.6		19.9						
Green Ext Time (p_c), s	0.0	0.0		0.3		11.8						

Intersection Summary

HCM 6th Ctrl Delay	103.4
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

2045 No Build
 AM Peak

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	614	398	9	227	0	0	0	0	25	0	410
Future Vol, veh/h	0	614	398	9	227	0	0	0	0	25	0	410
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	667	433	10	247	0	0	0	0	27	0	446

Major/Minor	Major1			Major2			Minor2				
Conflicting Flow All	-	0	0	667	0	0			601	-	124
Stage 1	-	-	-	-	-	-			267	-	-
Stage 2	-	-	-	-	-	-			334	-	-
Critical Hdwy	-	-	-	4.14	-	-			6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-			5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-			3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	919	-	0			432	0	904
Stage 1	0	-	-	-	-	0			754	0	-
Stage 2	0	-	-	-	-	0			697	0	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	919	-	-			427	0	904
Mov Cap-2 Maneuver	-	-	-	-	-	-			427	0	-
Stage 1	-	-	-	-	-	-			754	0	-
Stage 2	-	-	-	-	-	-			689	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.3	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	919	-	427	904
HCM Lane V/C Ratio	-	-	0.011	-	0.064	0.493
HCM Control Delay (s)	-	-	9	-	14	12.8
HCM Lane LOS	-	-	A	-	B	B
HCM 95th %tile Q(veh)	-	-	0	-	0.2	2.8

HCM 6th TWSC
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

2045 No Build
 AM Peak

Intersection												
Int Delay, s/veh	179											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↗			
Traffic Vol, veh/h	509	130	0	0	17	9	219	0	36	0	0	0
Future Vol, veh/h	509	130	0	0	17	9	219	0	36	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Yield	-	-	Yield	-	-	None
Storage Length	605	-	-	-	-	-	0	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	0	0
Mvmt Flow	566	144	0	0	19	10	243	0	40	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	19	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1596	0	~ 156
Stage 1	-	0	~ 226
Stage 2	-	0	1011
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1596	-	~ 101
Mov Cap-2 Maneuver	-	-	~ 101
Stage 1	-	-	~ 146
Stage 2	-	-	1011

Approach	EB	WB	NB
HCM Control Delay, s	6.8	0	\$ 628.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	101	975	1596	-	-	-
HCM Lane V/C Ratio	2.409	0.041	0.354	-	-	-
HCM Control Delay (s)	\$ 730.8	8.9	8.5	-	-	-
HCM Lane LOS	F	A	A	-	-	-
HCM 95th %tile Q(veh)	21.9	0.1	1.6	-	-	-

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

**SYNCHRO WORKSHEETS
2045 NO BUILD
PM PEAK**



HCM 6th TWSC
3: Sumter Blvd. & I-75 SB Ramp

2045 No Build
PM Peak

Intersection

Int Delay, s/veh 1023.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙		↗					↕		↙	↕	
Traffic Vol, veh/h	644	0	806	0	0	0	0	701	237	288	544	0
Future Vol, veh/h	644	0	806	0	0	0	0	701	237	288	544	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	700	0	876	0	0	0	0	762	258	313	591	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1598	-	296	-	0	0	762	0	0
Stage 1	1217	-	-	-	-	-	-	-	-
Stage 2	381	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 96	0	~ 697	0	-	-	840	-	0
Stage 1	~ 241	0	-	0	-	-	-	-	0
Stage 2	~ 657	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	~ 60	0	~ 697	-	-	-	840	-	-
Mov Cap-2 Maneuver	~ 60	0	-	-	-	-	-	-	-
Stage 1	~ 241	0	-	-	-	-	-	-	-
Stage 2	~ 412	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$	2271.3	0	4.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	60	697	840	-
HCM Lane V/C Ratio	-	-	11.667	1.257	0.373	-
HCM Control Delay (s)	-	-	\$ 4929.8	147.1	11.8	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	83.2	32.5	1.7	-

Notes

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

Intersection												
Int Delay, s/veh	186.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↕			↕	↗
Traffic Vol, veh/h	0	0	0	193	0	245	239	1106	0	0	639	366
Future Vol, veh/h	0	0	0	193	0	245	239	1106	0	0	639	366
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	340	80	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	210	0	266	260	1202	0	0	695	398

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2070	- 601 695	0 - - - 0
Stage 1	1722	- - -	- - - - -
Stage 2	348	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	~ 46	0 441 890	- 0 0 - -
Stage 1	~ 128	0 - -	- 0 0 - -
Stage 2	683	0 - -	- 0 0 - -
Platoon blocked, %			- - - - -
Mov Cap-1 Maneuver	~ 33	0 441 890	- - - - -
Mov Cap-2 Maneuver	~ 33	0 - -	- - - - -
Stage 1	~ 91	0 - -	- - - - -
Stage 2	683	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 1180.6	1.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	890	- 33 441	- -	-
HCM Lane V/C Ratio	0.292	- 6.357 0.604	- -	-
HCM Control Delay (s)	10.7	\$ 2647.9 24.8	- -	-
HCM Lane LOS	B	- F C	- -	-
HCM 95th %tile Q(veh)	1.2	- 25.2 3.9	- -	-

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

Intersection												
Int Delay, s/veh	206.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↑↑	↗	↘	↑↑	
Traffic Vol, veh/h	17	0	1349	0	0	0	0	989	468	32	544	0
Future Vol, veh/h	17	0	1349	0	0	0	0	989	468	32	544	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	400	-	-	-	-	-	490	100	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	0	0	0	4	4	4	4	4	4
Mvmt Flow	18	0	1466	0	0	0	0	1075	509	35	591	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1199	-	296	-	0	0	1075	0	0
Stage 1	661	-	-	-	-	-	-	-	-
Stage 2	538	-	-	-	-	-	-	-	-
Critical Hdwy	6.88	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	175	0	~ 694	0	-	-	633	-	0
Stage 1	470	0	-	0	-	-	-	-	0
Stage 2	544	0	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	165	0	~ 694	-	-	-	633	-	-
Mov Cap-2 Maneuver	165	0	-	-	-	-	-	-	-
Stage 1	470	0	-	-	-	-	-	-	-
Stage 2	514	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	514.5	0	0.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	165	694	633	-
HCM Lane V/C Ratio	-	-	0.112	2.113	0.055	-
HCM Control Delay (s)	-	-	29.6	520.6	11	-
HCM Lane LOS	-	-	D	F	B	-
HCM 95th %tile Q(veh)	-	-	0.4	101.9	0.2	-

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

Intersection

Int Delay, s/veh 2183.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	375	0	44	761	245	0	0	201	26
Future Vol, veh/h	0	0	0	375	0	44	761	245	0	0	201	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	275	150	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	408	0	48	827	266	0	0	218	28

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2029	- 133 218	0 - - - 0
Stage 1	1920	- - -	- - - - -
Stage 2	109	- - -	- - - - -
Critical Hdwy	6.88	- 6.98 4.18	- - - - -
Critical Hdwy Stg 1	5.88	- - -	- - - - -
Critical Hdwy Stg 2	5.88	- - -	- - - - -
Follow-up Hdwy	3.54	- 3.34 2.24	- - - - -
Pot Cap-1 Maneuver	~ 49	0 885 1334	- 0 0 - -
Stage 1	~ 98	0 - -	- 0 0 - -
Stage 2	898	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 19	0 885 1334	- - - - -
Mov Cap-2 Maneuver	~ 19	0 - -	- - - - -
Stage 1	~ 37	0 - -	- - - - -
Stage 2	898	0 - -	- - - - -






















Approach	WB	NB	SB
HCM Control Delay, s	\$ 8586.6	9.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	1334	- 19 885	- -	-
HCM Lane V/C Ratio	0.62	-21.453 0.054	- -	-
HCM Control Delay (s)	12	-\$ 9593 9.3	- -	-
HCM Lane LOS	B	- F A	- -	-
HCM 95th %tile Q(veh)	4.6	- 51.5 0.2	- -	-

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

Lanes, Volumes, Timings
35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
PM Peak

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	
Traffic Volume (vph)	390	0	370	0	0	0	0	1404	423	192	1739	0
Future Volume (vph)	390	0	370	0	0	0	0	1404	423	192	1739	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		0	450		0
Storage Lanes	2		1	0		0	0		1	1		0
Taper Length (ft)	100			25			25			50		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850							0.850		
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3335	0	1538	0	0	0	0	3438	1538	1719	3438	0
Flt Permitted	0.950									0.088		
Satd. Flow (perm)	3335	0	1538	0	0	0	0	3438	1538	159	3438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			239						320			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1888			1616			1339			802	
Travel Time (s)		42.9			36.7			20.3			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	424	0	402	0	0	0	0	1526	460	209	1890	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	424	0	402	0	0	0	0	1526	460	209	1890	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			42			44	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					2	1	1	2	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20		20					100	20	20	100	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	20		20					6	20	20	6	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot		Free					NA	Prot	pm+pt	NA	
Protected Phases	8							6	6	5	2	

Lanes, Volumes, Timings
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
 PM Peak

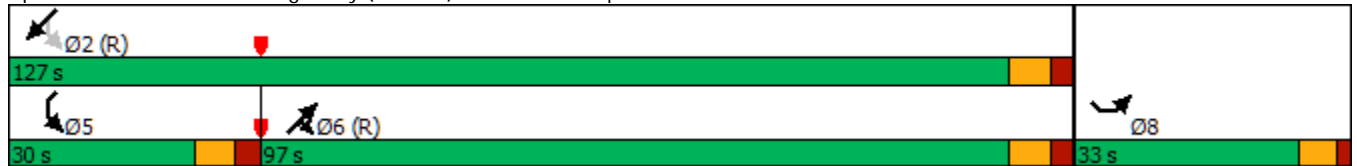


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	Free									2		
Detector Phase	8						6			6	5	2
Switch Phase												
Minimum Initial (s)	7.0						10.0			10.0	5.0	10.0
Minimum Split (s)	13.5						17.9			17.9	12.9	17.9
Total Split (s)	33.0						97.0			97.0	30.0	127.0
Total Split (%)	20.6%						60.6%			60.6%	18.8%	79.4%
Maximum Green (s)	26.5						89.1			89.1	22.1	119.1
Yellow Time (s)	4.5						4.9			4.9	4.9	4.9
All-Red Time (s)	2.0						3.0			3.0	3.0	3.0
Lost Time Adjust (s)	0.0						0.0			0.0	0.0	0.0
Total Lost Time (s)	6.5						7.9			7.9	7.9	7.9
Lead/Lag							Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Vehicle Extension (s)	3.0						5.0	5.0	3.0	5.0		
Recall Mode	None						C-Max	C-Max	None	C-Max		
Act Effect Green (s)	24.2		160.0				97.4	97.4	121.4	121.4		
Actuated g/C Ratio	0.15		1.00				0.61	0.61	0.76	0.76		
v/c Ratio	0.84		0.26				0.73	0.43	0.75	0.72		
Control Delay	81.4		0.4				26.0	6.5	36.2	11.5		
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.5		
Total Delay	81.4		0.4				26.0	6.5	36.2	12.0		
LOS	F		A				C	A	D	B		
Approach Delay				42.0						14.4		
Approach LOS				D						B		

Intersection Summary
























Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 87 (54%), Referenced to phase 2:SWTL and 6:NET, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 21.9
 Intersection LOS: C
 Intersection Capacity Utilization 87.6%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 35: Kings Hwy (CR 769) & I-75 SB Ramp



HCM 6th Signalized Intersection Summary
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 No Build
 PM Peak

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	 							 			 	 
Traffic Volume (veh/h)	390	0	370	0	0	0	0	1404	423	192	1739	0
Future Volume (veh/h)	390	0	370	0	0	0	0	1404	423	192	1739	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	424	0	0				0	1526	0	209	1890	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	474	0					0	2307		275	2670	0
Arrive On Green	0.14	0.00	0.00				0.00	0.66	0.00	0.11	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	424	0	0				0	1526	0	209	1890	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	19.8	0.0	0.0				0.0	42.1	0.0	6.4	0.0	0.0
Cycle Q Clear(g_c), s	19.8	0.0	0.0				0.0	42.1	0.0	6.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	474	0					0	2307		275	2670	0
V/C Ratio(X)	0.89	0.00					0.00	0.66		0.76	0.71	0.00
Avail Cap(c_a), veh/h	559	0					0	2307		419	2670	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.31	0.31	0.00
Uniform Delay (d), s/veh	67.6	0.0	0.0				0.0	16.0	0.0	20.2	0.0	0.0
Incr Delay (d2), s/veh	15.2	0.0	0.0				0.0	1.5	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	0.0	0.0				0.0	16.0	0.0	4.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.8	0.0	0.0				0.0	17.5	0.0	21.5	0.5	0.0
LnGrp LOS	F	A					A	B		C	A	A
Approach Vol, veh/h		424	A					1526	A		2099	
Approach Delay, s/veh		82.8						17.5			2.6	
Approach LOS		F						B			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		131.0			16.7	114.3		29.0				
Change Period (Y+Rc), s		7.9			7.9	7.9		6.5				
Max Green Setting (Gmax), s		119.1			22.1	89.1		26.5				
Max Q Clear Time (g_c+I1), s		2.0			8.4	44.1		21.8				
Green Ext Time (p_c), s		72.5			0.5	29.3		0.7				

Intersection Summary

HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

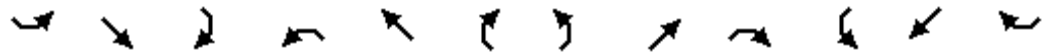
2045 No Build
PM Peak



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔↔		↔↔	↔	↕↕			↕↕	
Traffic Volume (vph)	0	0	0	657	0	302	159	1635	0	0	1274	197
Future Volume (vph)	0	0	0	657	0	302	159	1635	0	0	1274	197
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	475		300	500		0	0		400
Storage Lanes	0		0	2		1	1		0	0		0
Taper Length (ft)	25			150			50			25		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850						0.980
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	3335	0	2707	1719	3438	0	0	3369	0
Flt Permitted				0.950			0.044					
Satd. Flow (perm)	0	0	0	3335	0	2707	80	3438	0	0	3369	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												13
Link Speed (mph)		30			30			45				45
Link Distance (ft)		1545			1882			802				1220
Travel Time (s)		35.1			42.8			12.2				18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	0	0	714	0	328	173	1777	0	0	1385	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	714	0	328	173	1777	0	0	1599	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			44				40
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1		1	1	2				2
Detector Template				Left		Right	Left	Thru				Thru
Leading Detector (ft)				20		20	20	100				100
Trailing Detector (ft)				0		0	0	0				0
Detector 1 Position(ft)				0		0	0	0				0
Detector 1 Size(ft)				20		20	20	6				6
Detector 1 Type				Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Queue (s)				0.0		0.0	0.0	0.0				0.0
Detector 1 Delay (s)				0.0		0.0	0.0	0.0				0.0
Detector 2 Position(ft)								94				94
Detector 2 Size(ft)								6				6
Detector 2 Type								Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0				0.0
Turn Type				Prot		Prot	pm+pt	NA				NA
Protected Phases				4		4	1	6				2

Lanes, Volumes, Timings
41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 No Build
PM Peak

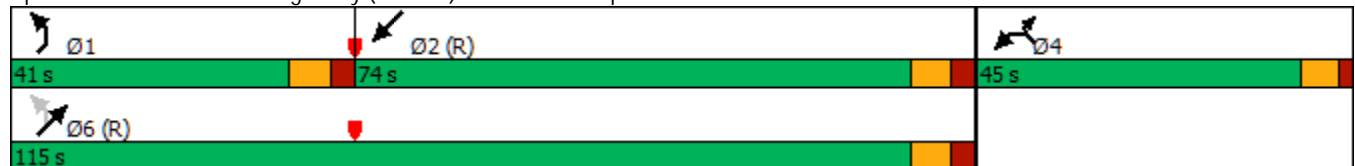


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases							6					
Detector Phase				4		4	1	6			2	
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	10.0			10.0	
Minimum Split (s)				13.5		13.5	12.9	17.9			17.9	
Total Split (s)				45.0		45.0	41.0	115.0			74.0	
Total Split (%)				28.1%		28.1%	25.6%	71.9%			46.3%	
Maximum Green (s)				38.5		38.5	33.1	107.1			66.1	
Yellow Time (s)				4.5		4.5	4.9	4.9			4.9	
All-Red Time (s)				2.0		2.0	3.0	3.0			3.0	
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.5		6.5	7.9	7.9			7.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0		4.0	3.0	5.0			5.0	
Recall Mode				None		None	None	C-Max			C-Max	
Act Effect Green (s)				37.8		37.8	107.8	107.8			83.9	
Actuated g/C Ratio				0.24		0.24	0.67	0.67			0.52	
v/c Ratio				0.91		0.51	0.80	0.77			0.90	
Control Delay				75.3		56.2	78.0	12.9			42.9	
Queue Delay				0.0		0.0	0.0	0.2			0.0	
Total Delay				75.3		56.2	78.0	13.1			42.9	
LOS				E		E	E	B			D	
Approach Delay					69.3			18.9			42.9	
Approach LOS					E			B			D	

Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 108 (68%), Referenced to phase 2:SWT and 6:NETL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 38.7
 Intersection LOS: D
 Intersection Capacity Utilization 87.6%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 41: Kings Hwy (CR 769) & I-75 NB Ramp



HCM 6th Signalized Intersection Summary
 41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 No Build
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔↔		↔↔	↔	↕↕			↕↕	
Traffic Volume (veh/h)	0	0	0	657	0	302	159	1635	0	0	1274	197
Future Volume (veh/h)	0	0	0	657	0	302	159	1635	0	0	1274	197
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				714	0	328	173	1777	0	0	1385	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				780	0	630	254	2355	0	0	1986	
Arrive On Green				0.23	0.00	0.23	0.11	1.00	0.00	0.00	0.57	0.00
Sat Flow, veh/h				3374	0	2723	1739	3561	0	0	3652	0
Grp Volume(v), veh/h				714	0	328	173	1777	0	0	1385	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1739	1735	0	0	1735	0
Q Serve(g_s), s				33.0	0.0	16.8	6.7	0.0	0.0	0.0	45.5	0.0
Cycle Q Clear(g_c), s				33.0	0.0	16.8	6.7	0.0	0.0	0.0	45.5	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				780	0	630	254	2355	0	0	1986	
V/C Ratio(X)				0.92	0.00	0.52	0.68	0.75	0.00	0.00	0.70	
Avail Cap(c_a), veh/h				812	0	655	515	2355	0	0	1986	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				60.0	0.0	53.8	22.3	0.0	0.0	0.0	24.3	0.0
Incr Delay (d2), s/veh				14.9	0.0	1.0	1.8	1.3	0.0	0.0	2.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.8	0.0	5.9	2.9	0.4	0.0	0.0	18.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				74.9	0.0	54.7	24.1	1.3	0.0	0.0	26.4	0.0
LnGrp LOS				E	A	D	C	A	A	A	C	
Approach Vol, veh/h					1042			1950			1385	A
Approach Delay, s/veh					68.5			3.3			26.4	
Approach LOS					E			A			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.0	99.5		43.5		116.5						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	33.1	66.1		38.5		107.1						
Max Q Clear Time (g_c+I1), s	8.7	47.5		35.0		2.0						
Green Ext Time (p_c), s	0.4	14.0		2.0		60.9						

Intersection Summary







HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

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

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	
Traffic Volume (vph)	1239	161	328	463	389	348
Future Volume (vph)	1239	161	328	463	389	348
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	15
Storage Length (ft)		615	200		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Fr _t		0.850			0.936	
Fl _t Protected			0.950		0.974	
Satd. Flow (prot)	5036	1568	1752	5036	1682	0
Fl _t Permitted			0.081		0.974	
Satd. Flow (perm)	5036	1568	149	5036	1682	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		175			35	
Link Speed (mph)	55			55	30	
Link Distance (ft)	2534			1353	1359	
Travel Time (s)	31.4			16.8	30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	1347	175	357	503	423	378
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1347	175	357	503	801	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	40			40	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	0.88
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	

Lanes, Volumes, Timings
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak

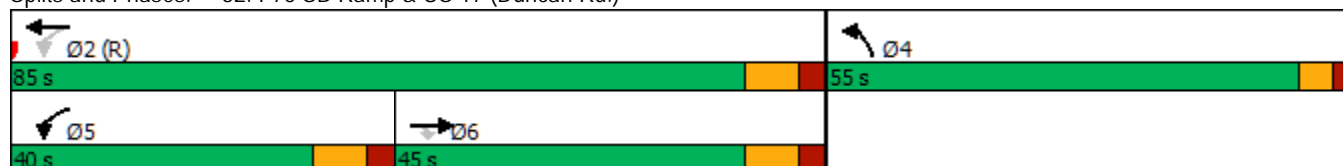


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	6		5	2	4	
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.5	23.5	13.5	23.5	12.9	
Total Split (s)	45.0	45.0	40.0	85.0	55.0	
Total Split (%)	32.1%	32.1%	28.6%	60.7%	39.3%	
Maximum Green (s)	36.5	36.5	31.5	76.5	49.1	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	3.0	3.0	3.0	3.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.5	8.5	8.5	8.5	5.9	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	4.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effct Green (s)	40.7	40.7	76.5	76.5	49.1	
Actuated g/C Ratio	0.29	0.29	0.55	0.55	0.35	
v/c Ratio	0.92	0.30	0.91	0.18	1.31	
Control Delay	59.3	6.9	72.8	13.5	186.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.3	6.9	72.8	13.5	186.3	
LOS	E	A	E	B	F	
Approach Delay	53.2			38.2	186.3	
Approach LOS	D			D	F	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 114 (81%), Referenced to phase 2:WBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.31
 Intersection Signal Delay: 82.7
 Intersection LOS: F
 Intersection Capacity Utilization 104.1%
 ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 32: I-75 SB Ramp & US 17 (Duncan Rd.)



HCM 6th Signalized Intersection Summary
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↘	
Traffic Volume (veh/h)	1239	161	328	463	389	348
Future Volume (veh/h)	1239	161	328	463	389	348
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	1347	0	357	503	423	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	2210		390	3222	460	
Arrive On Green	0.44	0.00	0.05	0.21	0.26	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1763	0
Grp Volume(v), veh/h	1347	0	357	503	424	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	0
Q Serve(g_s), s	28.6	0.0	16.6	11.4	32.6	0.0
Cycle Q Clear(g_c), s	28.6	0.0	16.6	11.4	32.6	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	2210		390	3222	462	
V/C Ratio(X)	0.61		0.91	0.16	0.92	
Avail Cap(c_a), veh/h	2210		542	3222	620	
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.33	0.33	1.00	0.00
Uniform Delay (d), s/veh	30.3	0.0	34.5	24.6	50.3	0.0
Incr Delay (d2), s/veh	0.7	0.0	6.5	0.0	16.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	8.4	4.7	16.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.0	0.0	41.0	24.7	67.2	0.0
LnGrp LOS	C		D	C	E	
Approach Vol, veh/h	1347	A		860	424	A
Approach Delay, s/veh	31.0			31.4	67.2	
Approach LOS	C			C	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.5		42.5	28.0	69.6
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		76.5		49.1	31.5	36.5
Max Q Clear Time (g_c+I1), s		13.4		34.6	18.6	30.6
Green Ext Time (p_c), s		6.7		1.9	0.8	4.9

Intersection Summary

HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↖	
Traffic Volume (vph)	914	673	379	635	156	458
Future Volume (vph)	914	673	379	635	156	458
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			150		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850			0.899	
Flt Protected			0.950		0.987	
Satd. Flow (prot)	5036	1568	1752	5036	1637	0
Flt Permitted			0.200		0.987	
Satd. Flow (perm)	5036	1568	369	5036	1637	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		606			95	
Link Speed (mph)	55			55	30	
Link Distance (ft)	1353			1291	2169	
Travel Time (s)	16.8			16.0	49.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	993	732	412	690	170	498
Shared Lane Traffic (%)						
Lane Group Flow (vph)	993	732	412	690	668	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	52	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	6		5	2	4	

Lanes, Volumes, Timings
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak

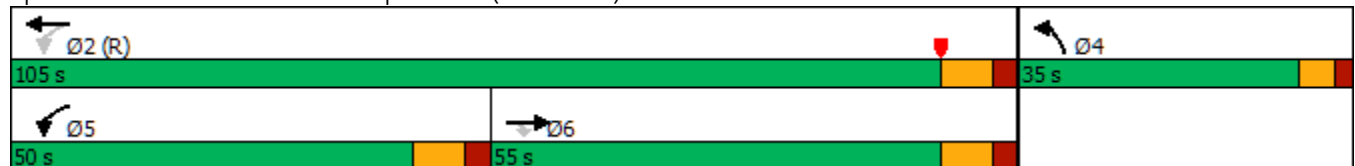


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			
Detector Phase	6	6	5	2	4	
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	7.0	
Minimum Split (s)	23.2	23.2	13.2	23.2	12.8	
Total Split (s)	55.0	55.0	50.0	105.0	35.0	
Total Split (%)	39.3%	39.3%	35.7%	75.0%	25.0%	
Maximum Green (s)	46.8	46.8	41.8	96.8	29.2	
Yellow Time (s)	5.5	5.5	5.5	5.5	3.7	
All-Red Time (s)	2.7	2.7	2.7	2.7	2.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	8.2	8.2	8.2	8.2	5.8	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	5.0	5.0	3.0	5.0	3.0	
Recall Mode	Min	Min	None	C-Min	None	
Act Effect Green (s)	62.9	62.9	96.8	96.8	29.2	
Actuated g/C Ratio	0.45	0.45	0.69	0.69	0.21	
v/c Ratio	0.44	0.71	0.81	0.20	1.61	
Control Delay	20.6	22.3	28.5	7.9	314.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.6	22.3	28.5	7.9	314.3	
LOS	C	C	C	A	F	
Approach Delay	21.3			15.6	314.3	
Approach LOS	C			B	F	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 120 (86%), Referenced to phase 2:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.61
 Intersection Signal Delay: 75.5
 Intersection LOS: E
 Intersection Capacity Utilization 94.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 34: I-75 NB Ramp & US 17 (Duncan Rd.)



HCM 6th Signalized Intersection Summary
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 No Build
 PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	↓
Traffic Volume (veh/h)	914	673	379	635	156	458
Future Volume (veh/h)	914	673	379	635	156	458
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	993	0	412	690	170	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3186		532	3992	197	
Arrive On Green	0.63	0.00	0.10	0.79	0.11	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1757	0
Grp Volume(v), veh/h	993	0	412	690	171	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1768	0
Q Serve(g_s), s	12.7	0.0	10.9	4.7	13.3	0.0
Cycle Q Clear(g_c), s	12.7	0.0	10.9	4.7	13.3	0.0
Prop In Lane		1.00	1.00		0.99	0.00
Lane Grp Cap(c), veh/h	3186		532	3992	198	
V/C Ratio(X)	0.31		0.77	0.17	0.86	
Avail Cap(c_a), veh/h	3186		882	3992	369	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.27	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	8.9	3.6	61.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.4	0.1	10.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	3.6	1.2	6.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	11.3	3.7	71.8	0.0
LnGrp LOS	B		B	A	E	
Approach Vol, veh/h	993	A		1102	171	A
Approach Delay, s/veh	12.0			6.6	71.8	
Approach LOS	B			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.5		21.5	22.3	96.2
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 97		* 29	* 42	* 47
Max Q Clear Time (g_c+I1), s		6.7		15.3	12.9	14.7
Green Ext Time (p_c), s		10.1		0.4	1.2	13.3

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↑↑		↑↑
Traffic Volume (vph)	0	1640	375	175	990	0	0	0	0	115	0	930
Future Volume (vph)	0	1640	375	175	990	0	0	0	0	115	0	930
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		595	225		0	0		0	875		850
Storage Lanes	0		0	1		0	0		0	0		3
Taper Length (ft)	25			75			25			125		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	0.88
Frt		0.972										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3310	0	1703	3406	0	0	0	0	3303	0	2682
Flt Permitted				0.094						0.950		
Satd. Flow (perm)	0	3310	0	168	3406	0	0	0	0	3303	0	2682
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		33										
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1697			1005			1731				1734
Travel Time (s)		25.7			15.2			39.3				39.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	0%	0%	0%	6%	6%	6%
Adj. Flow (vph)	0	1783	408	190	1076	0	0	0	0	125	0	1011
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2191	0	190	1076	0	0	0	0	125	0	1011
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1		1
Detector Template		Thru		Left	Thru					Left		Right
Leading Detector (ft)		100		20	100					20		20
Trailing Detector (ft)		0		0	0					0		0
Detector 1 Position(ft)		0		0	0					0		0
Detector 1 Size(ft)		6		20	6					20		20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		pm+pt	NA					Prot		Prot
Protected Phases		6		5	2					8		8

Lanes, Volumes, Timings
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 PM Peak

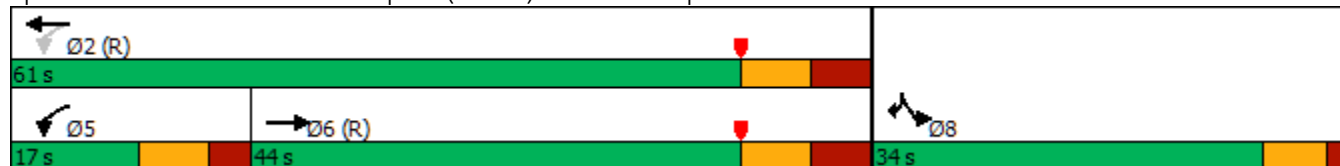


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2								
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		10.0		5.0	10.0					7.0		7.0
Minimum Split (s)		19.4		12.9	19.4					13.5		13.5
Total Split (s)		44.0		17.0	61.0					34.0		34.0
Total Split (%)		46.3%		17.9%	64.2%					35.8%		35.8%
Maximum Green (s)		34.6		9.1	51.6					27.5		27.5
Yellow Time (s)		4.9		4.9	4.9					4.5		4.5
All-Red Time (s)		4.5		3.0	4.5					2.0		2.0
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		9.4		7.9	9.4					6.5		6.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		5.0		3.0	5.0					3.0		3.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		34.7		53.1	51.6					27.5		27.5
Actuated g/C Ratio		0.37		0.56	0.54					0.29		0.29
v/c Ratio		1.78		0.80	0.58					0.13		1.30
Control Delay		379.3		27.3	1.3					25.4		176.2
Queue Delay		0.0		0.0	0.0					0.0		0.0
Total Delay		379.3		27.3	1.3					25.4		176.2
LOS		F		C	A					C		F
Approach Delay		379.3			5.2						159.6	
Approach LOS		F			A						F	

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 90 (95%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.78
 Intersection Signal Delay: 221.9
 Intersection LOS: F
 Intersection Capacity Utilization 98.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp



HCM 6th Signalized Intersection Summary
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 No Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖↖		↖↖
Traffic Volume (veh/h)	0	1640	375	175	990	0	0	0	0	115	0	930
Future Volume (veh/h)	0	1640	375	175	990	0	0	0	0	115	0	930
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	1783	0	190	1076	0				125	0	1011
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	1288		224	1869	0				969	0	782
Arrive On Green	0.00	0.37	0.00	0.06	0.36	0.00				0.29	0.00	0.29
Sat Flow, veh/h	0	3622	0	1725	3532	0				3346	0	2701
Grp Volume(v), veh/h	0	1783	0	190	1076	0				125	0	1011
Grp Sat Flow(s),veh/h/ln	0	1721	0	1725	1721	0				1673	0	1351
Q Serve(g_s), s	0.0	35.6	0.0	6.1	23.9	0.0				2.6	0.0	27.5
Cycle Q Clear(g_c), s	0.0	35.6	0.0	6.1	23.9	0.0				2.6	0.0	27.5
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1288		224	1869	0				969	0	782
V/C Ratio(X)	0.00	1.38		0.85	0.58	0.00				0.13	0.00	1.29
Avail Cap(c_a), veh/h	0	1288		241	1869	0				969	0	782
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.7	0.0	22.9	21.4	0.0				24.9	0.0	33.8
Incr Delay (d2), s/veh	0.0	177.8	0.0	2.6	0.1	0.0				0.1	0.0	141.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	45.2	0.0	2.4	9.8	0.0				1.0	0.0	24.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	207.5	0.0	25.6	21.5	0.0				25.0	0.0	175.0
LnGrp LOS	A	F		C	C	A				C	A	F
Approach Vol, veh/h		1783	A		1266						1136	
Approach Delay, s/veh		207.5			22.1						158.5	
Approach LOS		F			C						F	
Timer - Assigned Phs		2			5	6			8			
Phs Duration (G+Y+Rc), s		61.0			16.0	45.0			34.0			
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4			6.5			
Max Green Setting (Gmax), s		* 52			9.1	* 35			27.5			
Max Q Clear Time (g_c+I1), s		25.9			8.1	37.6			29.5			
Green Ext Time (p_c), s		13.9			0.0	0.0			0.0			

Intersection Summary

HCM 6th Ctrl Delay	138.1
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗			↗	↘	↘		↗			
Traffic Volume (vph)	845	910	0	0	865	195	300	0	220	0	0	0
Future Volume (vph)	845	910	0	0	865	195	300	0	220	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		800	0		775	0		0
Storage Lanes	1		0	0		1	2		3	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1703	3406	0	0	3406	1524	3303	0	2682	0	0	0
Flt Permitted	0.142						0.950					
Satd. Flow (perm)	255	3406	0	0	3406	1524	3303	0	2682	0	0	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)						212						
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1005			2114			1381				245
Travel Time (s)		15.2			32.0			31.4				5.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	0%	0%	0%
Adj. Flow (vph)	918	989	0	0	940	212	326	0	239	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	918	989	0	0	940	212	326	0	239	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			

Lanes, Volumes, Timings
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 PM Peak

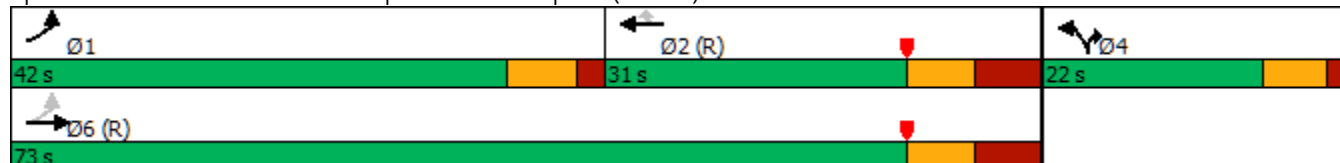


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6						2					
Detector Phase	1	6				2	2	4		4		
Switch Phase												
Minimum Initial (s)	5.0	10.0					10.0	10.0	7.0	7.0		
Minimum Split (s)	11.9	19.7				19.7	19.7	13.5		13.5		
Total Split (s)	42.0	73.0				31.0	31.0	22.0		22.0		
Total Split (%)	44.2%	76.8%				32.6%	32.6%	23.2%		23.2%		
Maximum Green (s)	35.1	63.3				21.3	21.3	15.5		15.5		
Yellow Time (s)	4.9	4.9				4.9	4.9	4.5		4.5		
All-Red Time (s)	2.0	4.8				4.8	4.8	2.0		2.0		
Lost Time Adjust (s)	0.0	0.0				0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.9	9.7				9.7	9.7	6.5		6.5		
Lead/Lag	Lead					Lag		Lag				
Lead-Lag Optimize?	Yes					Yes		Yes				
Vehicle Extension (s)	3.0	5.0				5.0	5.0	3.0		3.0		
Recall Mode	None	C-Max				C-Max	C-Max	None		None		
Act Effct Green (s)	67.8	65.0				21.3	21.3	13.8		13.8		
Actuated g/C Ratio	0.71	0.68				0.22	0.22	0.15		0.15		
v/c Ratio	1.24	0.42				1.23	0.42	0.68		0.61		
Control Delay	121.4	1.8				149.3	7.3	46.0		45.0		
Queue Delay	0.0	0.0				0.0	0.0	0.0		0.0		
Total Delay	121.4	1.8				149.3	7.3	46.0		45.0		
LOS	F	A				F	A	D		D		
Approach Delay	59.4				123.1				45.6			
Approach LOS	E				F				D			

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 44 (46%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay: 77.5
 Intersection LOS: E
 Intersection Capacity Utilization 98.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)



HCM 6th Signalized Intersection Summary
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 No Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘↗		↗↘			
Traffic Volume (veh/h)	845	910	0	0	865	195	300	0	220	0	0	0
Future Volume (veh/h)	845	910	0	0	865	195	300	0	220	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	918	989	0	0	940	0	326	0	239			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	713	2421	0	0	900		421	0	340			
Arrive On Green	0.25	0.47	0.00	0.00	0.26	0.00	0.13	0.00	0.13			
Sat Flow, veh/h	1725	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	918	989	0	0	940	0	326	0	239			
Grp Sat Flow(s),veh/h/ln	1725	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	35.1	17.9	0.0	0.0	24.8	0.0	9.0	0.0	8.1			
Cycle Q Clear(g_c), s	35.1	17.9	0.0	0.0	24.8	0.0	9.0	0.0	8.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	713	2421	0	0	900		421	0	340			
V/C Ratio(X)	1.29	0.41	0.00	0.00	1.04		0.77	0.00	0.70			
Avail Cap(c_a), veh/h	713	2421	0	0	900		546	0	441			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	30.4	12.2	0.0	0.0	35.1	0.0	40.2	0.0	39.8			
Incr Delay (d2), s/veh	130.3	0.0	0.0	0.0	42.3	0.0	5.1	0.0	3.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	42.3	7.1	0.0	0.0	15.0	0.0	3.9	0.0	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	160.7	12.2	0.0	0.0	77.4	0.0	45.3	0.0	43.3			
LnGrp LOS	F	B	A	A	F		D	A	D			
Approach Vol, veh/h		1907			940	A		565				
Approach Delay, s/veh		83.7			77.4			44.5				
Approach LOS		F			E			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	42.0	34.5		18.5		76.5						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	35.1	* 21		15.5		* 63						
Max Q Clear Time (g_c+I1), s	37.1	26.8		11.0		19.9						
Green Ext Time (p_c), s	0.0	0.0		1.0		16.2						

Intersection Summary

HCM 6th Ctrl Delay	75.5
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

2045 No Build
 PM Peak

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	584	238	23	444	0	0	0	0	14	0	488
Future Vol, veh/h	0	584	238	23	444	0	0	0	0	14	0	488
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	635	259	25	483	0	0	0	0	15	0	530

Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	635	0	0	-	-	-	851	-	242
Stage 1	-	-	-	-	-	-	-	-	-	533	-	-
Stage 2	-	-	-	-	-	-	-	-	-	318	-	-
Critical Hdwy	-	-	-	4.14	-	-	-	-	-	6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	-	-	-	3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	944	-	0	-	-	-	299	0	759
Stage 1	0	-	-	-	-	0	-	-	-	553	0	-
Stage 2	0	-	-	-	-	0	-	-	-	710	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	944	-	-	-	-	-	291	0	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	291	0	-
Stage 1	-	-	-	-	-	-	-	-	-	553	0	-
Stage 2	-	-	-	-	-	-	-	-	-	692	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.4	19.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	944	-	291	759
HCM Lane V/C Ratio	-	-	0.026	-	0.052	0.699
HCM Control Delay (s)	-	-	8.9	-	18.1	20
HCM Lane LOS	-	-	A	-	C	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	5.8

HCM 6th TWSC
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

2045 No Build
 PM Peak

Intersection												
Int Delay, s/veh	552											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↗			
Traffic Vol, veh/h	550	48	0	0	95	28	372	0	24	0	0	0
Future Vol, veh/h	550	48	0	0	95	28	372	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Yield	-	-	Yield	-	-	None
Storage Length	605	-	-	-	-	-	0	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	0	0
Mvmt Flow	598	52	0	0	103	30	404	0	26	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	103	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1487	0	~ 153
Stage 1	-	0	~ 234
Stage 2	-	0	964
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1487	-	~ 91
Mov Cap-2 Maneuver	-	-	~ 91
Stage 1	-	-	~ 140
Stage 2	-	-	964

Approach	EB	WB	NB
HCM Control Delay, s	8.3	0	\$ 1544.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	91	1044	1487	-	-	-
HCM Lane V/C Ratio	4.443	0.025	0.402	-	-	-
HCM Control Delay (s)	\$ 1643.6	8.5	9	-	-	-
HCM Lane LOS	F	A	A	-	-	-
HCM 95th %tile Q(veh)	42.7	0.1	2	-	-	-

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

HCM 6th TWSC
43: Harbor View Rd. (CR 776) & I-75 SB Ramp

2045 No Build
PM Peak

Intersection												
Int Delay, s/veh	5.2											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↙		↗					↕		↙	↕	
Traffic Vol, veh/h	86	0	108	0	0	0	0	340	356	203	491	0
Future Vol, veh/h	86	0	108	0	0	0	0	340	356	203	491	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	300	-	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	0	0	0	3	3	3	3	3	3
Mvmt Flow	93	0	117	0	0	0	0	370	387	221	534	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1161	-	267	-	0	0	370	0	0
Stage 1	976	-	-	-	-	-	-	-	-
Stage 2	185	-	-	-	-	-	-	-	-
Critical Hdwy	6.86	-	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	-	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	187	0	728	-	0	-	1178	-	0
Stage 1	324	0	-	-	0	-	-	-	0
Stage 2	825	0	-	-	0	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	152	0	728	-	-	-	1178	-	-
Mov Cap-2 Maneuver	152	0	-	-	-	-	-	-	-
Stage 1	324	0	-	-	-	-	-	-	-
Stage 2	670	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	32.9	0	2.6
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	152	728	1178	-
HCM Lane V/C Ratio	-	-	0.615	0.161	0.187	-
HCM Control Delay (s)	-	-	60.6	10.9	8.8	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	3.3	0.6	0.7	-

HCM 6th TWSC
 46: Harbor View Rd. (CR 776) & I-75 NB Ramp

2045 No Build
 PM Peak

Intersection												
Int Delay, s/veh	42.1											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↘		↗	↘	↗			↗	↘
Traffic Vol, veh/h	0	0	0	333	0	460	125	301	0	0	361	56
Future Vol, veh/h	0	0	0	333	0	460	125	301	0	0	361	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	0	-	260	200	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	362	0	500	136	327	0	0	392	61

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	795	- 164 392	0 - - - 0
Stage 1	599	- - -	- - - - -
Stage 2	196	- - -	- - - - -
Critical Hdwy	6.86	- 6.96 4.16	- - - - -
Critical Hdwy Stg 1	5.86	- - -	- - - - -
Critical Hdwy Stg 2	5.86	- - -	- - - - -
Follow-up Hdwy	3.53	- 3.33 2.23	- - - - -
Pot Cap-1 Maneuver	~ 323	0 849 1156	- 0 0 - -
Stage 1	509	0 - -	- 0 0 - -
Stage 2	815	0 - -	- 0 0 - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	~ 285	0 849 1156	- - - - -
Mov Cap-2 Maneuver	~ 285	0 - -	- - - - -
Stage 1	449	0 - -	- - - - -
Stage 2	815	0 - -	- - - - -

Approach	NW	NE	SW
HCM Control Delay, s	85.5	2.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NETNWLn1NWLn2	SWT	SWR
Capacity (veh/h)	1156	- 285 849	- -	-
HCM Lane V/C Ratio	0.118	- 1.27 0.589	- -	-
HCM Control Delay (s)	8.5	- 182.8 15.1	- -	-
HCM Lane LOS	A	- F C	- -	-
HCM 95th %tile Q(veh)	0.4	- 17.4 3.9	- -	-

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

FREEVAL OUTPUTS 2045 NO BUILD





I-75 Northbound Charlotte County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name												Toledo Blade/ Choctaw		Toledo Blade/ Choctaw						Sumter		Sumter	
Segment Length (ft)	20300	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	4100	1500	3060	2640	1500	1500	1500	3210	1500	1500	35300

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	
Speed Contours (mi/h)	#1 15:00 - 15:15	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	66.8	73.0	65.0	71.4	71.4	71.4	71.4	66.8	72.5	65.0	70.8	70.8
	#2 15:15 - 15:30	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	66.8	73.0	65.0	71.5	71.5	71.5	71.5	66.8	72.5	65.1	70.9	70.9
	#3 15:30 - 15:45	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	66.8	73.0	65.1	71.6	71.6	71.6	71.6	66.8	72.6	65.1	71.1	71.1
	#4 15:45 - 16:00	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	66.7	72.5	64.4	69.9	69.9	69.9	69.9	66.7	71.6	64.4	69.1	69.1
	#5 16:00 - 16:15	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	66.7	72.8	64.8	70.9	70.9	70.9	70.9	66.7	72.2	64.8	70.2	70.2
	#6 16:15 - 16:30	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	66.7	72.6	64.5	70.2	70.2	70.2	70.2	66.7	71.8	64.5	69.4	69.4
	#7 16:30 - 16:45	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	66.7	72.3	64.2	69.3	69.3	69.3	69.3	66.6	71.2	64.2	68.4	68.4
	#8 16:45 - 17:00	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	66.7	72.8	64.7	70.6	70.6	70.6	70.6	66.7	72.0	64.7	69.9	69.9
	#9 17:00 - 17:15	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	66.7	72.5	64.4	69.9	69.9	69.9	69.9	66.7	71.6	64.4	69.1	69.1
	#10 17:15 - 17:30	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	66.7	72.3	64.2	69.4	69.4	69.4	69.4	66.6	71.3	64.2	68.5	68.5
	#11 17:30 - 17:45	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	66.8	72.9	64.9	71.0	71.0	71.0	71.0	66.7	72.3	64.9	70.4	70.4
	#12 17:45 - 18:00	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	66.8	73.1	65.4	72.3	72.3	72.3	72.3	66.8	73.0	65.5	72.0	72.0
	D/C Contours	#1 15:00 - 15:15	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.48	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.62	0.62	0.62
#2 15:15 - 15:30		0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.48	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.61	0.61	0.61	
#3 15:30 - 15:45		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.47	0.58	0.58	0.58	0.58	0.58	0.58	0.52	0.61	0.61	0.61	
#4 15:45 - 16:00		0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.65	0.65	0.65	0.65	0.65	0.65	0.58	0.68	0.68	0.68	
#5 16:00 - 16:15		0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.50	0.62	0.62	0.62	0.62	0.62	0.62	0.55	0.64	0.64	0.64	
#6 16:15 - 16:30		0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.52	0.64	0.64	0.64	0.64	0.64	0.64	0.58	0.67	0.67	0.67	
#7 16:30 - 16:45		0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.54	0.67	0.67	0.67	0.67	0.67	0.67	0.60	0.70	0.70	0.70	
#8 16:45 - 17:00		0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.51	0.63	0.63	0.63	0.63	0.63	0.63	0.56	0.65	0.65	0.65	
#9 17:00 - 17:15		0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.65	0.65	0.65	0.65	0.65	0.65	0.58	0.68	0.68	0.68	
#10 17:15 - 17:30		0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.54	0.67	0.67	0.67	0.67	0.67	0.67	0.60	0.70	0.70	0.70	
#11 17:30 - 17:45		0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.49	0.61	0.61	0.61	0.61	0.61	0.61	0.55	0.64	0.64	0.64	
#12 17:45 - 18:00		0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.44	0.54	0.54	0.54	0.54	0.54	0.54	0.48	0.56	0.56	0.56	
Total Density (pc/mi/ln)		#1 15:00 - 15:15	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	18.8	15.3	21.2	19.3	19.3	19.3	19.3	19.3	20.7	17.0	22.1	20.3
	#2 15:15 - 15:30	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	18.7	15.2	21.1	19.2	19.2	19.2	19.2	19.2	20.6	16.9	21.9	20.1	
	#3 15:30 - 15:45	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	18.6	15.1	20.9	19.0	19.0	19.0	19.0	19.0	20.3	16.7	21.7	19.9	
	#4 15:45 - 16:00	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	20.7	16.9	23.6	21.7	21.7	21.7	21.7	21.7	22.8	18.9	24.5	22.9	
	#5 16:00 - 16:15	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	19.5	15.9	22.1	20.2	20.2	20.2	20.2	20.2	21.5	17.7	23.0	21.2	
	#6 16:15 - 16:30	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	20.4	16.7	23.2	21.3	21.3	21.3	21.3	21.3	22.4	18.6	24.1	22.4	
	#7 16:30 - 16:45	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	21.4	17.5	24.4	22.6	22.6	22.6	22.6	22.6	23.5	19.6	25.3	23.8	
	#8 16:45 - 17:00	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	19.9	16.2	22.6	20.7	20.7	20.7	20.7	20.7	21.9	18.1	23.5	21.7	
	#9 17:00 - 17:15	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	20.7	16.9	23.6	21.7	21.7	21.7	21.7	21.7	22.8	18.9	24.5	22.9	
	#10 17:15 - 17:30	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	21.2	17.4	24.2	22.4	22.4	22.4	22.4	22.4	23.3	19.5	25.2	23.6	
	#11 17:30 - 17:45	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	19.4	15.8	21.9	20.0	20.0	20.0	20.0	20.0	21.3	17.6	22.8	21.0	
	#12 17:45 - 18:00	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	17.1	13.9	19.2	17.4	17.4	17.4	17.4	17.4	18.8	15.4	20.0	18.2	
	LOS Contours	#1 15:00 - 15:15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
#2 15:15 - 15:30		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
#3 15:30 - 15:45		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
#4 15:45 - 16:00		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	C	D	D	
#5 16:00 - 16:15		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
#6 16:15 - 16:30		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	C	D	D	
#7 16:30 - 16:45		C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	C	C	D	D	
#8 16:45 - 17:00		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
#9 17:00 - 17:15		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	C	D	D	
#10 17:15 - 17:30		C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	C				



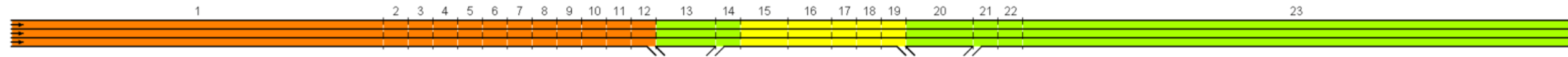
I-75 Southbound Charlotte County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name												Sumter		Sumter					Toledo Blade/ Choctaw		Toledo Blade/ Choctaw		
Segment Length (ft)	22450	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	3630	1500	2870	2640	1500	1500	1500	4050	1500	1500	33000

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	
		Speed Contours (mi/h)	#1 6:15 - 6:30	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	66.4	73.0	66.1	72.9	73.0	73.0	73.0	65.7	73.0	66.5
	#2 6:30 - 6:45	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	66.3	73.0	65.6	72.3	72.3	72.3	72.3	65.6	73.0	66.1	72.5	73.0
	#3 6:45 - 7:00	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	66.3	73.0	65.7	72.5	72.5	72.5	72.5	65.6	73.0	66.2	72.5	73.0
	#4 7:00 - 7:15	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	66.2	72.5	65.2	71.2	71.2	71.2	71.2	65.4	73.0	65.8	72.4	72.4
	#5 7:15 - 7:30	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	66.1	72.3	65.0	70.8	70.8	70.8	70.8	65.4	72.9	65.7	72.2	72.2
	#6 7:30 - 7:45	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	66.0	71.3	64.4	69.0	69.0	69.0	69.0	65.2	72.4	65.2	71.1	71.1
	#7 7:45 - 8:00	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	66.0	71.4	64.5	69.2	69.2	69.2	69.2	65.2	72.5	65.3	71.3	71.3
	#8 8:00 - 8:15	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	66.2	72.6	65.3	71.5	71.5	71.5	71.5	65.5	73.0	65.8	72.5	72.6
	#9 8:15 - 8:30	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	66.1	72.4	65.1	70.9	70.9	70.9	70.9	65.4	73.0	65.7	72.3	72.3
	#10 8:30 - 8:45	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	66.1	72.2	65.0	70.7	70.7	70.7	70.7	65.4	72.9	65.6	72.1	72.1
	#11 8:45 - 9:00	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	66.2	72.5	65.2	71.3	71.3	71.3	71.3	65.5	73.0	65.8	72.5	72.5
	#12 9:00 - 9:15	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	66.2	72.7	65.3	71.6	71.6	71.6	71.6	65.5	73.0	65.9	72.5	72.7
	D/C Contours	#1 6:15 - 6:30	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.41	0.47	0.47	0.47	0.47	0.47	0.47	0.37	0.42	0.42	0.42	0.42
		#2 6:30 - 6:45	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.48	0.55	0.55	0.55	0.55	0.55	0.55	0.43	0.48	0.48	0.48	0.48
		#3 6:45 - 7:00	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.46	0.53	0.53	0.53	0.53	0.53	0.53	0.41	0.47	0.47	0.47	0.47
		#4 7:00 - 7:15	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.53	0.60	0.60	0.60	0.60	0.60	0.60	0.47	0.54	0.54	0.54	0.54
		#5 7:15 - 7:30	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.55	0.62	0.62	0.62	0.62	0.62	0.62	0.49	0.55	0.55	0.55	0.55
		#6 7:30 - 7:45	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.60	0.68	0.68	0.68	0.68	0.68	0.68	0.54	0.61	0.61	0.61	0.61
		#7 7:45 - 8:00	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.59	0.67	0.67	0.67	0.67	0.67	0.67	0.53	0.60	0.60	0.60	0.60
		#8 8:00 - 8:15	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.52	0.59	0.59	0.59	0.59	0.59	0.59	0.46	0.52	0.52	0.52	0.52
		#9 8:15 - 8:30	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.54	0.61	0.61	0.61	0.61	0.61	0.61	0.48	0.54	0.54	0.54	0.54
		#10 8:30 - 8:45	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.55	0.62	0.62	0.62	0.62	0.62	0.62	0.49	0.55	0.55	0.55	0.55
		#11 8:45 - 9:00	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.53	0.60	0.60	0.60	0.60	0.60	0.60	0.47	0.53	0.53	0.53	0.53
		#12 9:00 - 9:15	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.51	0.58	0.58	0.58	0.58	0.58	0.58	0.46	0.52	0.52	0.52	0.52
	Total Density (pc/mi/ln)	#1 6:15 - 6:30	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	13.2	16.6	15.0	15.0	15.0	15.0	15.0	11.7	14.6	14.6	13.3	13.3
		#2 6:30 - 6:45	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	19.9	15.3	19.3	17.5	17.5	17.5	17.5	19.3	13.6	17.0	15.4	15.4
		#3 6:45 - 7:00	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	19.2	14.7	18.6	16.9	16.9	16.9	16.9	18.6	13.1	16.4	14.9	14.9
		#4 7:00 - 7:15	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	22.0	17.0	21.5	19.7	19.7	19.7	19.7	21.4	15.0	18.9	17.2	17.2
		#5 7:15 - 7:30	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	22.6	17.5	22.1	20.3	20.3	20.3	20.3	22.0	15.5	19.5	17.7	17.7
		#6 7:30 - 7:45	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	25.0	19.6	24.6	23.0	23.0	23.0	23.0	24.3	17.2	21.6	19.8	19.8
		#7 7:45 - 8:00	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	24.7	19.3	24.3	22.6	22.6	22.6	22.6	24.0	16.9	21.3	19.5	19.5
		#8 8:00 - 8:15	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	21.5	16.6	21.0	19.2	19.2	19.2	19.2	20.9	14.7	18.5	16.8	16.8
		#9 8:15 - 8:30	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	22.4	17.3	21.9	20.1	20.1	20.1	20.1	21.8	15.3	19.3	17.5	17.5
		#10 8:30 - 8:45	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	22.8	17.7	22.3	20.5	20.5	20.5	20.5	22.2	15.6	19.6	17.9	17.9
		#11 8:45 - 9:00	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	21.8	16.9	21.3	19.5	19.5	19.5	19.5	21.3	14.9	18.8	17.0	17.0
		#12 9:00 - 9:15	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	21.2	16.4	20.7	18.9	18.9	18.9	18.9	20.7	14.5	18.2	16.5	16.5
	LOS Contours	#1 6:15 - 6:30	C	C	C	C	C	C	C	C	C	C	C	B	B	C	C	C	C	C	B	B	B	B	
		#2 6:30 - 6:45	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	C	C	
		#3 6:45 - 7:00	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	C	C	
		#4 7:00 - 7:15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	
		#5 7:15 - 7:30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
		#6 7:30 - 7:45	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	
		#7 7:45 - 8:00	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	
		#8 8:00 - 8:15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	C	C	
		#9 8:15 - 8:30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
		#10 8:30 - 8:45	C	C	C	C	C																		



I-75 Southbound Charlotte County Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40		
General Purpose Segment Name				Kings		Kings						Harbor View		Harbor View						US 17		US 17						N. Jones Loop		N. Jones Loop								Tuckers Grade		Tuckers Grade		
Segment Length (ft)	2640	1500	1500	1500	3580	1500	2640	2640	1920	1500	1500	1500	3900	1500	2640	2640	1520	1500	1500	1500	2070	1500	2640	2640	1920	1500	1500	1500	3800	1500	2640	2640	1440	1500	1500	1500	1500	3560	1500	2640	38760	

Speed Contours (mi/h)	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40
	#1 6:15 - 6:30	73.1	73.1	73.1	66.5	73.0	65.6	72.8	72.8	72.8	72.8	72.8	72.8	67.4	73.0	65.8	71.7	71.7	71.7	71.7	71.7	61.3	72.5	65.4	72.9	72.9	72.9	72.9	72.9	65.3	73.0	66.5	72.9	73.1	73.1	73.1	66.8	73.0	66.3	72.9	73.1
#2 6:30 - 6:45	73.0	73.0	73.0	66.5	73.0	64.9	71.5	71.5	71.5	71.5	71.5	71.5	67.4	72.1	64.9	69.4	69.4	69.4	69.4	69.4	64.3	72.6	64.7	71.9	71.9	71.9	71.9	71.9	65.2	73.0	66.1	72.7	72.7	72.7	72.7	66.8	73.0	65.9	72.8	72.8	
#3 6:45 - 7:00	73.0	73.0	73.0	66.5	73.0	65.1	71.9	71.9	71.9	71.9	71.9	71.9	67.4	72.4	65.1	70.1	70.1	70.1	70.1	70.1	64.4	72.6	64.9	72.2	72.2	72.2	72.2	72.2	65.2	73.0	66.2	72.9	72.9	72.9	72.9	66.8	73.0	66.0	72.9	72.9	
#4 7:00 - 7:15	72.4	72.4	72.4	66.4	73.0	64.2	70.0	70.0	70.0	70.0	70.0	70.0	67.3	70.9	63.9	66.8	66.8	66.8	66.8	66.8	64.1	72.5	64.2	70.6	70.6	70.6	70.6	70.6	65.0	73.0	65.7	72.0	72.0	72.0	72.0	66.7	72.8	65.5	72.1	72.1	
#5 7:15 - 7:30	72.2	72.2	72.2	66.4	73.0	64.0	69.5	69.5	69.5	69.5	69.5	69.5	67.3	70.5	63.6	66.0	66.0	66.0	66.0	66.0	64.0	72.3	64.1	70.1	70.1	70.1	70.1	70.1	64.9	72.9	65.6	71.7	71.7	71.7	71.7	66.7	72.7	65.4	71.8	71.8	
#6 7:30 - 7:45	71.1	71.1	71.1	66.3	72.6	62.8	67.0	67.0	67.0	67.0	67.0	67.0	67.0	68.5	62.1	62.2	62.2	62.2	62.2	62.2	62.2	62.2	71.3	63.3	68.0	68.0	68.0	68.0	64.7	72.4	65.1	70.3	70.3	70.3	70.3	66.6	72.0	64.9	70.5	70.5	
#7 7:45 - 8:00	71.3	71.3	71.3	66.3	72.7	63.0	67.4	67.4	67.4	67.4	67.4	67.4	67.2	68.8	62.3	62.7	62.7	62.7	62.7	62.7	62.7	71.4	63.5	68.3	68.3	68.3	68.3	64.7	72.5	65.1	70.6	70.6	70.6	70.6	66.6	72.1	65.0	70.7	70.7		
#8 8:00 - 8:15	72.6	72.6	72.6	66.4	73.0	64.4	70.4	70.4	70.4	70.4	70.4	70.4	67.3	71.2	64.2	67.5	67.5	67.5	67.5	67.5	64.1	72.6	64.4	70.9	70.9	70.9	70.9	70.9	65.0	73.0	65.8	72.2	72.2	72.2	72.2	66.7	72.9	65.6	72.3	72.3	
#9 8:15 - 8:30	72.3	72.3	72.3	66.4	73.0	64.0	69.7	69.7	69.7	69.7	69.7	69.7	67.3	70.6	63.7	66.3	66.3	66.3	66.3	66.3	64.0	72.4	64.1	70.3	70.3	70.3	70.3	70.3	64.9	73.0	65.6	71.8	71.8	71.8	71.8	66.7	72.8	65.5	71.9	71.9	
#10 8:30 - 8:45	72.1	72.1	72.1	66.4	73.0	63.9	69.3	69.3	69.3	69.3	69.3	69.3	67.3	70.3	63.5	65.7	65.7	65.7	65.7	65.7	64.0	72.2	64.0	70.0	70.0	70.0	70.0	70.0	64.9	72.9	65.6	71.6	71.6	71.6	71.6	66.7	72.7	65.4	71.7	71.7	
#11 8:45 - 9:00	72.5	72.5	72.5	66.4	73.0	64.3	70.1	70.1	70.1	70.1	70.1	70.1	67.3	71.0	64.0	67.0	67.0	67.0	67.0	67.0	64.1	72.5	64.3	70.7	70.7	70.7	70.7	70.7	65.0	73.0	65.8	72.1	72.1	72.1	72.1	66.7	72.9	65.6	72.1	72.1	
#12 9:00 - 9:15	72.7	72.7	72.7	66.5	73.0	64.5	70.6	70.6	70.6	70.6	70.6	70.6	67.3	71.4	64.3	67.8	67.8	67.8	67.8	67.8	64.2	72.6	64.4	71.1	71.1	71.1	71.1	71.1	65.0	73.0	65.9	72.3	72.3	72.3	72.3	66.8	73.0	65.7	72.4	72.4	
D/C Contours	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40
#1 6:15 - 6:30	0.42	0.42	0.42	0.42	0.36	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.48	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.41	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.37	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.39	0.44	0.44	0.44	0.44
#2 6:30 - 6:45	0.48	0.48	0.48	0.48	0.41	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.56	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.48	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.43	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.45	0.51	0.51	0.51	0.51
#3 6:45 - 7:00	0.47	0.47	0.47	0.47	0.40	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.54	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.46	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.41	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.44	0.49	0.49	0.49	0.49
#4 7:00 - 7:15	0.54	0.54	0.54	0.54	0.46	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.62	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.53	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.47	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.50	0.56	0.56	0.56	0.56
#5 7:15 - 7:30	0.55	0.55	0.55	0.55	0.47	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.54	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.49	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.51	0.57	0.57	0.57	0.57
#6 7:30 - 7:45	0.61	0.61	0.61	0.61	0.52	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.70	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.60	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.54	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.57	0.63	0.63	0.63	0.63
#7 7:45 - 8:00	0.60	0.60	0.60	0.60	0.51	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.69	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.59	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.53	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.56	0.63	0.63	0.63	0.63
#8 8:00 - 8:15	0.52	0.52	0.52	0.52	0.45	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.60	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.52	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.46	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.49	0.55	0.55	0.55	0.55
#9 8:15 - 8:30	0.54	0.54	0.54	0.54	0.47	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.63	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.54	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.48	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.51	0.57	0.57	0.57	0.57
#10 8:30 - 8:45	0.55	0.55	0.55	0.55	0.47	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.64	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.55	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.49	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.52	0.58	0.58	0.58	0.58
#11 8:45 - 9:00	0.53	0.53	0.53	0.53	0.45	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.61	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.53	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.47	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.50	0.56	0.56	0.56	0.56
#12 9:00 - 9:15	0.52	0.52	0.52	0.52	0.44	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.59	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.51	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.46	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.48	0.54	0.54	0.54	0.54
Total Density (pc/mi/ln)	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	Seg. 24	Seg. 25	Seg. 26	Seg. 27	Seg. 28	Seg. 29	Seg. 30	Seg. 31	Seg. 32	Seg. 33	Seg. 34	Seg. 35	Seg. 36	Seg. 37	Seg. 38	Seg. 39	Seg. 40
#1 6:15 - 6:30	13.3	13.3	13.3	14.6	11.4	18.0	16.2	16.2	16.2	16.2	16.2	16.2	17.5	15.3	20.4	18.7	18.7	18.7	18.7	18.7	21.9	15.2	17.4	15.6	15.6	15.6	15.6	15.6	17.5	11.8	15.4	14.0	14.0	14.0	14.0	14.0	15.3	12.4	15.3	15.3	15.3
#2 6:30 - 6:45	15.4	15.4	15.4	16.9	13.2	21.0	19.1																																		



I-75 Southbound Charlotte County	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
Segment																							
General Purpose Segment Name												Sumter		Sumter						Toledo Blade/Chocotaw		Toledo Blade/Chocotaw	
Segment Length (ft)	22450	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	3630	1500	2870	2640	1500	1500	1500	4050	1500	1500	33000

	Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
		Speed Contours (mi/h)	#1 15:00 - 15:15	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.2	71.6	64.7	69.7	69.7	69.7	69.7	64.2	73.0	65.7
D/C Contours	#2 15:15 - 15:30	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.2	71.7	64.7	69.8	69.8	69.8	69.8	64.2	73.0	65.7	72.5	72.5
	#3 15:30 - 15:45	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	71.0	64.3	68.7	68.7	68.7	68.7	64.1	72.9	65.5	72.0	72.0
	#4 15:45 - 16:00	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	70.9	64.3	68.6	68.6	68.6	68.6	64.1	72.9	65.5	72.0	72.0
	#5 16:00 - 16:15	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	70.3	64.0	67.6	67.6	67.6	67.6	63.9	72.8	65.3	71.6	71.6
	#6 16:15 - 16:30	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	70.9	64.3	68.6	68.6	68.6	68.6	64.0	72.9	65.5	72.0	72.0
	#7 16:30 - 16:45	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	70.2	63.9	67.4	67.4	67.4	67.4	63.9	72.7	65.3	71.5	71.5
	#8 16:45 - 17:00	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	70.4	64.0	67.7	67.7	67.7	67.7	64.0	72.8	65.4	71.6	71.6
	#9 17:00 - 17:15	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	71.3	64.5	69.2	69.2	69.2	69.2	64.1	73.0	65.6	72.2	72.2
	#10 17:15 - 17:30	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	72.2	65.0	70.8	70.8	70.8	70.8	64.3	73.0	65.9	72.5	72.8
	#11 17:30 - 17:45	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	72.0	64.9	70.4	70.4	70.4	70.4	64.3	73.0	65.9	72.5	72.7
	#12 17:45 - 18:00	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	72.5	65.2	71.2	71.2	71.2	71.2	64.4	73.0	66.0	72.5	72.9
	Total Density (pc/mi/ln)	#1 15:00 - 15:15	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.6	18.9	23.6	21.9	21.9	21.9	21.9	23.8	14.7	18.9	17.1
#2 15:15 - 15:30		28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.6	18.9	23.6	21.9	21.9	21.9	21.9	23.8	14.7	18.8	17.1	17.1
#3 15:30 - 15:45		30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	20.0	24.9	23.3	23.3	23.3	23.3	25.0	15.5	19.9	18.1	18.1
#4 15:45 - 16:00		31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	20.1	25.0	23.5	23.5	23.5	23.5	25.1	15.5	19.9	18.2	18.2
#5 16:00 - 16:15		33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	21.1	26.2	24.8	24.8	24.8	24.8	26.2	16.2	20.8	19.0	19.0
#6 16:15 - 16:30		31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	20.1	25.1	23.5	23.5	23.5	23.5	25.2	15.5	20.0	18.2	18.2
#7 16:30 - 16:45		33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	21.3	26.4	25.0	25.0	25.0	25.0	26.4	16.3	21.0	19.1	19.1
#8 16:45 - 17:00		32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	21.0	26.0	24.6	24.6	24.6	24.6	26.1	16.1	20.7	18.9	18.9
#9 17:00 - 17:15		29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	19.5	24.3	22.7	22.7	22.7	22.7	24.5	15.1	19.4	17.6	17.6
#10 17:15 - 17:30		26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.9	17.7	22.1	20.3	20.3	20.3	20.3	22.4	13.8	17.7	16.1	16.1
#11 17:30 - 17:45		26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	27.5	18.1	22.7	20.9	20.9	20.9	20.9	22.9	14.2	18.1	16.4	16.4
#12 17:45 - 18:00		24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	26.1	17.1	21.5	19.6	19.6	19.6	19.6	21.7	13.4	17.2	15.6	15.6
LOS Contours	#1 15:00 - 15:15	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	C	C	C	C
	#2 15:15 - 15:30	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	C	B	C	C
	#3 15:30 - 15:45	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#4 15:45 - 16:00	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#5 16:00 - 16:15	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#6 16:15 - 16:30	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#7 16:30 - 16:45	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#8 16:45 - 17:00	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#9 17:00 - 17:15	E	E	E	E	E	E	E	E	E	E	E	E	C	C	D	D	D	D	D	C	C	C	C
	#10 17:15 - 17:30	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	B	B	C	C
	#11 17:30 - 17:45	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	C	B	C	C
	#12 17:45 - 18:00	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	B	B	C	C























2045 No-Build - I-75 Southbound (PM PEAK) – Sarasota County

**SYNCHRO WORKSHEETS
2045 BUILD
AM PEAK & PM PEAK**



HCM 6th Signalized Intersection Summary
 3: Sumter Blvd. & I-75 SB Ramp

2045 Build
 AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 							 		 	 	
Traffic Volume (veh/h)	360	0	295	0	0	0	0	906	280	217	401	0
Future Volume (veh/h)	360	0	295	0	0	0	0	906	280	217	401	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	391	0	0				0	985	0	236	436	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	3	3	0
Cap, veh/h	484	0					0	1964		443	2487	0
Arrive On Green	0.14	0.00	0.00				0.00	0.56	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3428	0	1572				0	3711	0	1767	3618	0
Grp Volume(v), veh/h	391	0	0				0	985	0	236	436	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	0	1767	1763	0
Q Serve(g_s), s	9.9	0.0	0.0				0.0	15.5	0.0	5.1	0.0	0.0
Cycle Q Clear(g_c), s	9.9	0.0	0.0				0.0	15.5	0.0	5.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	484	0					0	1964		443	2487	0
V/C Ratio(X)	0.81	0.00					0.00	0.50		0.53	0.18	0.00
Avail Cap(c_a), veh/h	686	0					0	1964		534	2487	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.43	0.43	0.00
Uniform Delay (d), s/veh	37.5	0.0	0.0				0.0	12.2	0.0	8.0	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.0	0.0				0.0	0.9	0.0	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	0.0	0.0				0.0	9.8	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	0.0				0.0	13.2	0.0	8.4	0.1	0.0
LnGrp LOS	D	A					A	B		A	A	A
Approach Vol, veh/h		391						985			672	
Approach Delay, s/veh		42.3						13.2			3.0	
Approach LOS		D						B			A	
Timer - Assigned Phs	1	2		4				6				
Phs Duration (G+Y+Rc), s	13.3	56.9		19.7				70.3				
Change Period (Y+Rc), s	6.0	6.8		7.0				6.8				
Max Green Setting (Gmax), s	12.0	40.2		18.0				58.2				
Max Q Clear Time (g_c+I1), s	7.1	17.5		11.9				2.0				
Green Ext Time (p_c), s	0.3	12.5		0.8				6.5				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: Sumter Blvd. & I-75 NB Ramp

2045 Build
AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↗↘	↗↘			↗↘	
Traffic Volume (veh/h)	0	0	0	146	0	343	743	523	0	0	472	633
Future Volume (veh/h)	0	0	0	146	0	343	743	523	0	0	472	633
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				No
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				159	0	0	808	568	0	0	513	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	0	3	3	3	0	0	3	3
Cap, veh/h				196	0		863	2595	0	0	1492	
Arrive On Green				0.11	0.00	0.00	0.42	1.00	0.00	0.00	0.42	0.00
Sat Flow, veh/h				1767	0	1572	3428	3618	0	0	3711	0
Grp Volume(v), veh/h				159	0	0	808	568	0	0	513	0
Grp Sat Flow(s),veh/h/ln				1767	0	1572	1714	1763	0	0	1763	0
Q Serve(g_s), s				7.9	0.0	0.0	20.3	0.0	0.0	0.0	8.8	0.0
Cycle Q Clear(g_c), s				7.9	0.0	0.0	20.3	0.0	0.0	0.0	8.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				196	0		863	2595	0	0	1492	
V/C Ratio(X)				0.81	0.00		0.94	0.22	0.00	0.00	0.34	
Avail Cap(c_a), veh/h				353	0		872	2595	0	0	1492	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.58	0.58	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				39.1	0.0	0.0	25.4	0.0	0.0	0.0	17.5	0.0
Incr Delay (d2), s/veh				7.9	0.0	0.0	11.6	0.1	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				6.9	0.0	0.0	11.3	0.1	0.0	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.0	0.0	0.0	37.0	0.1	0.0	0.0	18.2	0.0
LnGrp LOS				D	A		D	A	A	A	B	
Approach Vol, veh/h					159			1376			513	
Approach Delay, s/veh					47.0			21.8			18.2	
Approach LOS					D			C			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.0			28.2	44.9		17.0				
Change Period (Y+Rc), s		6.8			5.5	6.8		7.0				
Max Green Setting (Gmax), s		58.2			22.9	29.8		18.0				
Max Q Clear Time (g_c+I1), s		2.0			22.3	10.8		9.9				
Green Ext Time (p_c), s		9.0			0.4	5.7		0.2				

Intersection Summary

HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

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

HCM 6th Signalized Intersection Summary
 58: N. Toledo Blade Blvd./Choctaw Blvd. & I-75 SB Ramp

2045 Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	6	0	885	0	0	0	0	1273	402	24	583	0
Future Volume (veh/h)	6	0	885	0	0	0	0	1273	402	24	583	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			
Adj Sat Flow, veh/h/ln	1841	0	1841				0	1841	1841	1841	1841	0
Adj Flow Rate, veh/h	7	0	0				0	1384	0	26	634	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	4				0	4	4	4	4	0
Cap, veh/h	22	0					0	2898		348	2898	0
Arrive On Green	0.01	0.00	0.00				0.00	0.83	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1753	0	1560				0	3589	1560	385	3589	0
Grp Volume(v), veh/h	7	0	0				0	1384	0	26	634	0
Grp Sat Flow(s),veh/h/ln	1753	0	1560				0	1749	1560	385	1749	0
Q Serve(g_s), s	0.4	0.0	0.0				0.0	11.2	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0				0.0	11.2	0.0	12.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	22	0					0	2898		348	2898	0
V/C Ratio(X)	0.32	0.00					0.00	0.48		0.07	0.22	0.00
Avail Cap(c_a), veh/h	833	0					0	2898		348	2898	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.56	0.56	0.00
Uniform Delay (d), s/veh	49.0	0.0	0.0				0.0	2.4	0.0	0.8	0.0	0.0
Incr Delay (d2), s/veh	8.3	0.0	0.0				0.0	0.6	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	0.0				0.0	4.3	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	0.0	0.0				0.0	3.0	0.0	1.1	0.1	0.0
LnGrp LOS	E	A					A	A		A	A	A
Approach Vol, veh/h		7						1384			660	
Approach Delay, s/veh		57.3						3.0			0.1	
Approach LOS		E						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		92.3		7.7			92.3					
Change Period (Y+Rc), s		* 9.4		6.5			* 9.4					
Max Green Setting (Gmax), s		* 37		47.5			* 37					
Max Q Clear Time (g_c+I1), s		13.2		2.4			14.2					
Green Ext Time (p_c), s		17.4		0.0			8.4					

Intersection Summary

HCM 6th Ctrl Delay	2.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

55: Choctaw Blvd. & I-75 NB Ramp

2045 Build
AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↗	↗	↑		↗	↗
Traffic Volume (veh/h)	0	0	0	355	0	49	1122	157	0	0	252	45
Future Volume (veh/h)	0	0	0	355	0	49	1122	157	0	0	252	45
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1841	1841
Adj Flow Rate, veh/h				386	0	0	1220	171	0	0	274	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				4	0	4	4	4	0	0	4	4
Cap, veh/h				387	0		1349	1248	0	0	654	
Arrive On Green				0.22	0.00	0.00	0.66	1.00	0.00	0.00	0.19	0.00
Sat Flow, veh/h				1753	0	1560	3401	1841	0	0	3589	1560
Grp Volume(v), veh/h				386	0	0	1220	171	0	0	274	0
Grp Sat Flow(s),veh/h/ln				1753	0	1560	1700	1841	0	0	1749	1560
Q Serve(g_s), s				22.0	0.0	0.0	30.2	0.0	0.0	0.0	6.9	0.0
Cycle Q Clear(g_c), s				22.0	0.0	0.0	30.2	0.0	0.0	0.0	6.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				387	0		1349	1248	0	0	654	
V/C Ratio(X)				1.00	0.00		0.90	0.14	0.00	0.00	0.42	
Avail Cap(c_a), veh/h				387	0		1349	1248	0	0	654	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.09	0.09	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				38.9	0.0	0.0	15.3	0.0	0.0	0.0	35.9	0.0
Incr Delay (d2), s/veh				44.7	0.0	0.0	0.9	0.0	0.0	0.0	2.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				20.2	0.0	0.0	8.4	0.0	0.0	0.0	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.6	0.0	0.0	16.2	0.0	0.0	0.0	37.8	0.0
LnGrp LOS				F	A		B	A	A	A	D	
Approach Vol, veh/h					386			1391			274	
Approach Delay, s/veh					83.6			14.2			37.8	
Approach LOS					F			B			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.2			49.1	28.1		28.6				
Change Period (Y+Rc), s		* 9.4			* 9.4	* 9.4		6.5				
Max Green Setting (Gmax), s		* 62			* 35	* 19		22.1				
Max Q Clear Time (g_c+I1), s		2.0			32.2	8.9		24.0				
Green Ext Time (p_c), s		2.2			1.7	1.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 Build
 AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗		↖					↕↕	↖	↖	↕↕	
Traffic Volume (veh/h)	250	0	279	0	0	0	0	1294	850	459	1673	0
Future Volume (veh/h)	250	0	279	0	0	0	0	1294	850	459	1673	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No		No		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	272	0	0				0	1407	0	499	1818	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	306	0					0	1833		514	2798	0
Arrive On Green	0.09	0.00	0.00				0.00	0.53	0.00	0.44	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	272	0	0				0	1407	0	499	1818	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	11.2	0.0	0.0				0.0	45.0	0.0	28.2	0.0	0.0
Cycle Q Clear(g_c), s	11.2	0.0	0.0				0.0	45.0	0.0	28.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	306	0					0	1833		514	2798	0
V/C Ratio(X)	0.89	0.00					0.00	0.77		0.97	0.65	0.00
Avail Cap(c_a), veh/h	306	0					0	1833		570	2798	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	63.0	0.0	0.0				0.0	26.2	0.0	23.8	0.0	0.0
Incr Delay (d2), s/veh	25.7	0.0	0.0				0.0	3.1	0.0	5.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	0.0	0.0				0.0	25.3	0.0	13.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.6	0.0	0.0				0.0	29.3	0.0	29.7	0.1	0.0
LnGrp LOS	F	A					A	C		C	A	A
Approach Vol, veh/h		272						1407			2317	
Approach Delay, s/veh		88.6						29.3			6.5	
Approach LOS		F						C			A	
Timer - Assigned Phs		2		5	6			8				
Phs Duration (G+Y+Rc), s		120.8		38.9	81.9			19.2				
Change Period (Y+Rc), s		7.9		7.9	7.9			6.5				
Max Green Setting (Gmax), s		112.9		35.5	69.5			12.7				
Max Q Clear Time (g_c+1), s		2.0		30.2	47.0			13.2				
Green Ext Time (p_c), s		65.4		0.8	16.4			0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

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

HCM 6th Signalized Intersection Summary
 41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 Build
 AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔		↔	↔	↕			↕	
Traffic Volume (veh/h)	0	0	0	449	0	264	458	1086	0	0	1683	563
Future Volume (veh/h)	0	0	0	449	0	264	458	1086	0	0	1683	563
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				488	0	287	498	1180	0	0	1829	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				422	0	340	412	2679	0	0	2059	
Arrive On Green				0.13	0.00	0.13	0.24	1.00	0.00	0.00	0.59	0.00
Sat Flow, veh/h				3374	0	2723	3374	3561	0	0	3652	0
Grp Volume(v), veh/h				488	0	287	498	1180	0	0	1829	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1687	1735	0	0	1735	0
Q Serve(g_s), s				17.5	0.0	14.4	17.1	0.0	0.0	0.0	63.4	0.0
Cycle Q Clear(g_c), s				17.5	0.0	14.4	17.1	0.0	0.0	0.0	63.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				422	0	340	412	2679	0	0	2059	
V/C Ratio(X)				1.16	0.00	0.84	1.21	0.44	0.00	0.00	0.89	
Avail Cap(c_a), veh/h				422	0	340	412	2679	0	0	2059	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.44	0.44	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				61.3	0.0	59.9	52.9	0.0	0.0	0.0	24.5	0.0
Incr Delay (d2), s/veh				94.3	0.0	17.2	103.9	0.2	0.0	0.0	6.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				20.1	0.0	9.8	17.2	0.2	0.0	0.0	33.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				155.6	0.0	77.1	156.8	0.2	0.0	0.0	30.6	0.0
LnGrp LOS				F	A	E	F	A	A	A	C	
Approach Vol, veh/h					775			1678			1829	
Approach Delay, s/veh					126.5			46.7			30.6	
Approach LOS					F			D			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.0	91.0		24.0		116.0						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	83.1			17.5		108.1						
Max Q Clear Time (g_c+119), s	65.4			19.5		2.0						
Green Ext Time (p_c), s	0.0	15.8		0.0		26.7						

Intersection Summary

HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 43: Harbor View Rd. (CR 776) & I-75 SB Ramp

2045 Build
 AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔		↔					↕↕		↔	↕↕	
Traffic Volume (veh/h)	50	0	177	0	0	0	0	193	332	515	509	0
Future Volume (veh/h)	50	0	177	0	0	0	0	193	332	515	509	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	54	0	0				0	210	0	560	553	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	3	3	0
Cap, veh/h	99	0					0	1840		951	2738	0
Arrive On Green	0.06	0.00	0.00				0.00	0.52	0.00	0.17	0.78	0.00
Sat Flow, veh/h	1767	0	1572				0	3711	0	1767	3618	0
Grp Volume(v), veh/h	54	0	0				0	210	0	560	553	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	0	1767	1763	0
Q Serve(g_s), s	2.8	0.0	0.0				0.0	2.9	0.0	12.6	3.9	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0				0.0	2.9	0.0	12.6	3.9	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	99	0					0	1840		951	2738	0
V/C Ratio(X)	0.55	0.00					0.00	0.11		0.59	0.20	0.00
Avail Cap(c_a), veh/h	400	0					0	1840		1207	2738	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	43.7	0.0	0.0				0.0	11.5	0.0	5.9	2.8	0.0
Incr Delay (d2), s/veh	4.6	0.0	0.0				0.0	0.1	0.0	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	0.0				0.0	2.0	0.0	6.7	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	0.0	0.0				0.0	11.7	0.0	6.3	2.9	0.0
LnGrp LOS	D	A					A	B		A	A	A
Approach Vol, veh/h		54						210			1113	
Approach Delay, s/veh		48.3						11.7			4.7	
Approach LOS		D						B			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		83.2			24.2	59.0		11.8				
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4		6.5				
Max Green Setting (Gmax), s		* 58			30.1	* 20		21.5				
Max Q Clear Time (g_c+I1), s		5.9			14.6	4.9		4.8				
Green Ext Time (p_c), s		8.6			1.7	1.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NER, SER] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 46: Harbor View Rd. (CR 776) & I-75 NB Ramp

2045 Build
 AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↖		↖	↖	↗			↗	↗
Traffic Volume (veh/h)	0	0	0	325	0	132	87	156	0	0	699	88
Future Volume (veh/h)	0	0	0	325	0	132	87	156	0	0	699	88
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				353	0	0	95	170	0	0	760	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	0	3	3	3	0	0	3	3
Cap, veh/h				395	0		402	2137	0	0	1710	
Arrive On Green				0.22	0.00	0.00	0.10	1.00	0.00	0.00	0.49	0.00
Sat Flow, veh/h				1767	0	1572	1767	3618	0	0	3711	0
Grp Volume(v), veh/h				353	0	0	95	170	0	0	760	0
Grp Sat Flow(s),veh/h/ln				1767	0	1572	1767	1763	0	0	1763	0
Q Serve(g_s), s				18.4	0.0	0.0	2.4	0.0	0.0	0.0	13.4	0.0
Cycle Q Clear(g_c), s				18.4	0.0	0.0	2.4	0.0	0.0	0.0	13.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				395	0		402	2137	0	0	1710	
V/C Ratio(X)				0.89	0.00		0.24	0.08	0.00	0.00	0.44	
Avail Cap(c_a), veh/h				567	0		448	2137	0	0	1710	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.93	0.93	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				35.8	0.0	0.0	10.8	0.0	0.0	0.0	16.1	0.0
Incr Delay (d2), s/veh				12.5	0.0	0.0	0.3	0.1	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				14.1	0.0	0.0	1.6	0.0	0.0	0.0	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.3	0.0	0.0	11.1	0.1	0.0	0.0	16.9	0.0
LnGrp LOS				D	A		B	A	A	A	B	
Approach Vol, veh/h					353			265			760	
Approach Delay, s/veh					48.3			4.0			16.9	
Approach LOS					D			A			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	1.5	55.8		27.7		67.3						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s		* 34		30.5		* 48						
Max Q Clear Time (g_c+1/4), s		15.4		20.4		2.0						
Green Ext Time (p_c), s	0.0	8.6		0.8		2.2						

Intersection Summary

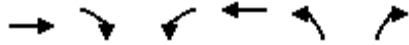
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NWR, SWR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 Build
 AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖↗	↑↑↑	↖↗	↗
Traffic Volume (veh/h)	471	164	507	669	1002	433
Future Volume (veh/h)	471	164	507	669	1002	433
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	512	0	551	727	1089	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	1523		608	2729	1229	
Arrive On Green	0.30	0.00	0.35	1.00	0.36	0.00
Sat Flow, veh/h	5233	1572	3428	5233	3428	1635
Grp Volume(v), veh/h	512	0	551	727	1089	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1714	1689	1714	1635
Q Serve(g_s), s	11.0	0.0	21.4	0.0	41.8	0.0
Cycle Q Clear(g_c), s	11.0	0.0	21.4	0.0	41.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1523		608	2729	1229	
V/C Ratio(X)	0.34		0.91	0.27	0.89	
Avail Cap(c_a), veh/h	1523		820	2729	1472	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.94	0.94	1.00	0.00
Uniform Delay (d), s/veh	38.1	0.0	44.0	0.0	42.2	0.0
Incr Delay (d2), s/veh	0.3	0.0	10.4	0.2	6.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	0.0	12.2	0.1	25.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.4	0.0	54.5	0.2	48.7	0.0
LnGrp LOS	D		D	A	D	
Approach Vol, veh/h	512			1278	1089	
Approach Delay, s/veh	38.4			23.6	48.7	
Approach LOS	D			C	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		83.9		56.1	33.3	50.6
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		65.5		60.1	33.5	23.5
Max Q Clear Time (g_c+I1), s		2.0		43.8	23.4	13.0
Green Ext Time (p_c), s		10.6		6.4	1.4	3.6

Intersection Summary

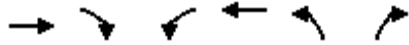
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 Build
 AM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	649	255	386	1002	174	357
Future Volume (veh/h)	649	255	386	1002	174	357
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	705	0	420	1089	189	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3103		644	3938	217	
Arrive On Green	0.61	0.00	0.11	0.78	0.12	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1767	1572
Grp Volume(v), veh/h	705	0	420	1089	189	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	1572
Q Serve(g_s), s	8.8	0.0	11.6	8.5	14.7	0.0
Cycle Q Clear(g_c), s	8.8	0.0	11.6	8.5	14.7	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3103		644	3938	217	
V/C Ratio(X)	0.23		0.65	0.28	0.87	
Avail Cap(c_a), veh/h	3103		1047	3938	432	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	7.5	4.4	60.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.2	10.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	6.7	4.0	11.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	0.0	8.6	4.6	70.7	0.0
LnGrp LOS	B		A	A	E	
Approach Vol, veh/h	705			1509	189	
Approach Delay, s/veh	12.3			5.7	70.7	
Approach LOS	B			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		117.0		23.0	23.1	94.0
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 92		* 34	* 47	* 37
Max Q Clear Time (g_c+I1), s		10.5		16.7	13.6	10.8
Green Ext Time (p_c), s		19.7		0.5	1.2	8.3

Intersection Summary

HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↔	↑↑					↔		↔
Traffic Volume (veh/h)	0	1500	465	150	930	0	0	0	0	130	0	930
Future Volume (veh/h)	0	1500	465	150	930	0	0	0	0	130	0	930
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	1630	0	163	1011	0				141	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	2793		194	2618	0				241	0	
Arrive On Green	0.00	0.56	0.00	0.11	0.76	0.00				0.07	0.00	0.00
Sat Flow, veh/h	0	5270	0	1725	3532	0				3346	0	1535
Grp Volume(v), veh/h	0	1630	0	163	1011	0				141	0	0
Grp Sat Flow(s),veh/h/ln	0	1648	0	1725	1721	0				1673	0	1535
Q Serve(g_s), s	0.0	20.3	0.0	8.8	9.5	0.0				3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	20.3	0.0	8.8	9.5	0.0				3.9	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2793		194	2618	0				241	0	
V/C Ratio(X)	0.00	0.58		0.84	0.39	0.00				0.59	0.00	
Avail Cap(c_a), veh/h	0	2793		220	2618	0				1286	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.49	0.49	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	13.4	0.0	41.3	3.9	0.0				42.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	12.1	0.2	0.0				2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.9	0.0	6.6	3.7	0.0				3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.3	0.0	53.4	4.1	0.0				45.0	0.0	0.0
LnGrp LOS		A		B	A	A				D		A
Approach Vol, veh/h		1630			1174						141	
Approach Delay, s/veh		14.3			10.9						45.0	
Approach LOS		B			B						D	
Timer - Assigned Phs		2			5	6			8			
Phs Duration (G+Y+Rc), s		81.7			18.6	63.1			13.3			
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4			6.5			
Max Green Setting (Gmax), s		* 43			12.1	* 23			36.5			
Max Q Clear Time (g_c+I1), s		11.5			10.8	22.3			5.9			
Green Ext Time (p_c), s		14.4			0.1	0.3			0.5			

Intersection Summary

HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑	↖	↖↗		↖↗			
Traffic Volume (veh/h)	915	715	0	0	820	160	260	0	310	0	0	0
Future Volume (veh/h)	915	715	0	0	820	160	260	0	310	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	995	777	0	0	891	0	283	0	337			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	1040	2365	0	0	1046		476	0	384			
Arrive On Green	0.52	1.00	0.00	0.00	0.30	0.00	0.14	0.00	0.14			
Sat Flow, veh/h	3346	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	995	777	0	0	891	0	283	0	337			
Grp Sat Flow(s),veh/h/ln	1673	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	27.0	0.0	0.0	0.0	23.1	0.0	7.5	0.0	11.6			
Cycle Q Clear(g_c), s	27.0	0.0	0.0	0.0	23.1	0.0	7.5	0.0	11.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	1040	2365	0	0	1046		476	0	384			
V/C Ratio(X)	0.96	0.33	0.00	0.00	0.85		0.60	0.00	0.88			
Avail Cap(c_a), veh/h	1060	2365	0	0	1046		476	0	384			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.2	0.0	0.0	0.0	31.1	0.0	38.2	0.0	39.9			
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.0	8.7	0.0	2.0	0.0	20.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	8.4	0.0	0.0	0.0	15.4	0.0	5.7	0.0	8.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	0.0	0.0	39.8	0.0	40.2	0.0	59.9			
LnGrp LOS	C	A	A	A	D		D	A	E			
Approach Vol, veh/h		1772			891			620				
Approach Delay, s/veh		14.0			39.8			50.9				
Approach LOS		B			D			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	36.4	38.6		20.0		75.0						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	30.1	* 28		13.5		* 65						
Max Q Clear Time (g_c+29.0), s	29.0	25.1		13.6		2.0						
Green Ext Time (p_c), s	0.5	2.2		0.0		12.6						

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

2045 Build
 AM Peak

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	614	398	9	227	0	0	0	0	25	0	410
Future Vol, veh/h	0	614	398	9	227	0	0	0	0	25	0	410
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	667	433	10	247	0	0	0	0	27	0	446

Major/Minor	Major1			Major2			Minor2				
Conflicting Flow All	-	0	0	667	0	0			601	-	124
Stage 1	-	-	-	-	-	-			267	-	-
Stage 2	-	-	-	-	-	-			334	-	-
Critical Hdwy	-	-	-	4.14	-	-			6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-			5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-			3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	919	-	0			432	0	904
Stage 1	0	-	-	-	-	0			754	0	-
Stage 2	0	-	-	-	-	0			697	0	-
Platoon blocked, %	-	-	-	-	-	-			-	-	-
Mov Cap-1 Maneuver	-	-	-	919	-	-			427	0	904
Mov Cap-2 Maneuver	-	-	-	-	-	-			427	0	-
Stage 1	-	-	-	-	-	-			754	0	-
Stage 2	-	-	-	-	-	-			689	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.3	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	919	-	427	904
HCM Lane V/C Ratio	-	-	0.011	-	0.064	0.493
HCM Control Delay (s)	-	-	9	-	14	12.8
HCM Lane LOS	-	-	A	-	B	B
HCM 95th %tile Q(veh)	-	-	0	-	0.2	2.8

HCM 6th Signalized Intersection Summary
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

2045 Build
 AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↘			
Traffic Volume (veh/h)	509	130	0	0	17	9	219	0	36	0	0	0
Future Volume (veh/h)	509	130	0	0	17	9	219	0	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1945	0	1945			
Adj Flow Rate, veh/h	566	144	0	0	19	0	243	0	0			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	973	2340	0	0	1253		288	0				
Arrive On Green	0.23	0.66	0.00	0.00	0.35	0.00	0.16	0.00	0.00			
Sat Flow, veh/h	1781	3647	0	0	3741	0	1853	0	1648			
Grp Volume(v), veh/h	566	144	0	0	19	0	243	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	0	1853	0	1648			
Q Serve(g_s), s	16.1	1.3	0.0	0.0	0.3	0.0	11.1	0.0	0.0			
Cycle Q Clear(g_c), s	16.1	1.3	0.0	0.0	0.3	0.0	11.1	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	973	2340	0	0	1253		288	0				
V/C Ratio(X)	0.58	0.06	0.00	0.00	0.02		0.85	0.00				
Avail Cap(c_a), veh/h	1186	2340	0	0	1253		458	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.1	5.3	0.0	0.0	18.3	0.0	35.7	0.0	0.0			
Incr Delay (d2), s/veh	0.6	0.1	0.0	0.0	0.0	0.0	8.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	9.6	0.8	0.0	0.0	0.2	0.0	9.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	5.3	0.0	0.0	18.4	0.0	43.8	0.0	0.0			
LnGrp LOS	B	A	A	A	B		D	A				
Approach Vol, veh/h		710			19			243				
Approach Delay, s/veh		9.6			18.4			43.8				
Approach LOS		A			B			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.6	40.4		20.0		67.0						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	30.1	* 20		21.5		* 57						
Max Q Clear Time (g_c+I1), s	18.1	2.3		13.1		3.3						
Green Ext Time (p_c), s	1.6	0.1		0.4		1.9						

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 3: Sumter Blvd. & I-75 SB Ramp

2045 Build
 PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	644	0	806	0	0	0	0	701	237	288	544	0
Future Volume (veh/h)	644	0	806	0	0	0	0	701	237	288	544	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	700	0	0				0	762	0	313	591	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	3	3	0
Cap, veh/h	824	0					0	1217		539	2137	0
Arrive On Green	0.24	0.00	0.00				0.00	0.35	0.00	0.26	0.81	0.00
Sat Flow, veh/h	3428	0	1572				0	3711	0	1767	3618	0
Grp Volume(v), veh/h	700	0	0				0	762	0	313	591	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	0	1767	1763	0
Q Serve(g_s), s	17.5	0.0	0.0				0.0	16.3	0.0	8.4	3.8	0.0
Cycle Q Clear(g_c), s	17.5	0.0	0.0				0.0	16.3	0.0	8.4	3.8	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	824	0					0	1217		539	2137	0
V/C Ratio(X)	0.85	0.00					0.00	0.63		0.58	0.28	0.00
Avail Cap(c_a), veh/h	1143	0					0	1217		539	2137	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.69	0.69	0.00
Uniform Delay (d), s/veh	32.6	0.0	0.0				0.0	24.6	0.0	12.5	3.8	0.0
Incr Delay (d2), s/veh	4.5	0.0	0.0				0.0	2.4	0.0	3.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	0.0	0.0				0.0	11.3	0.0	5.7	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	0.0				0.0	27.1	0.0	15.7	4.0	0.0
LnGrp LOS	D	A					A	C		B	A	A
Approach Vol, veh/h		700						762			904	
Approach Delay, s/veh		37.1						27.1			8.1	
Approach LOS		D						C			A	
Timer - Assigned Phs	1	2		4				6				
Phs Duration (G+Y+Rc), s	23.5	37.9		28.6				61.4				
Change Period (Y+Rc), s	6.0	6.8		7.0				6.8				
Max Green Setting (Gmax), s	17.5	22.7		30.0				46.2				
Max Q Clear Time (g_c+I1), s	10.4	18.3		19.5				5.8				
Green Ext Time (p_c), s	0.6	2.8		2.1				8.9				
Intersection Summary												
HCM 6th Ctrl Delay			22.8									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: Sumter Blvd. & I-75 NB Ramp

2045 Build
PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↗↘	↗↘			↗↘	
Traffic Volume (veh/h)	0	0	0	193	0	245	239	1106	0	0	639	366
Future Volume (veh/h)	0	0	0	193	0	245	239	1106	0	0	639	366
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				No
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				210	0	0	260	1202	0	0	695	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	0	3	3	3	0	0	3	3
Cap, veh/h				249	0		345	2487	0	0	1918	
Arrive On Green				0.14	0.00	0.00	0.20	1.00	0.00	0.00	0.54	0.00
Sat Flow, veh/h				1767	0	1572	3428	3618	0	0	3711	0
Grp Volume(v), veh/h				210	0	0	260	1202	0	0	695	0
Grp Sat Flow(s),veh/h/ln				1767	0	1572	1714	1763	0	0	1763	0
Q Serve(g_s), s				10.4	0.0	0.0	6.4	0.0	0.0	0.0	10.1	0.0
Cycle Q Clear(g_c), s				10.4	0.0	0.0	6.4	0.0	0.0	0.0	10.1	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				249	0		345	2487	0	0	1918	
V/C Ratio(X)				0.84	0.00		0.75	0.48	0.00	0.00	0.36	
Avail Cap(c_a), veh/h				393	0		472	2487	0	0	1918	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.24	0.24	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.7	0.0	0.0	34.9	0.0	0.0	0.0	11.7	0.0
Incr Delay (d2), s/veh				9.2	0.0	0.0	2.0	0.2	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				8.8	0.0	0.0	3.8	0.1	0.0	0.0	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.9	0.0	0.0	36.9	0.2	0.0	0.0	12.2	0.0
LnGrp LOS				D	A		D	A	A	A	B	
Approach Vol, veh/h					210			1462			695	
Approach Delay, s/veh					46.9			6.7			12.2	
Approach LOS					D			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		70.3			14.5	55.8		19.7				
Change Period (Y+Rc), s		6.8			5.5	6.8		7.0				
Max Green Setting (Gmax), s		56.2			12.4	38.3		20.0				
Max Q Clear Time (g_c+I1), s		2.0			8.4	12.1		12.4				
Green Ext Time (p_c), s		25.5			0.6	9.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 58: N. Toledo Blade Blvd./Choctaw Blvd. & I-75 SB Ramp

2045 Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗					↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	17	0	1349	0	0	0	0	989	468	32	544	0
Future Volume (veh/h)	17	0	1349	0	0	0	0	989	468	32	544	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			
Adj Sat Flow, veh/h/ln	1841	0	1841				0	1841	1841	1841	1841	0
Adj Flow Rate, veh/h	18	0	0				0	1075	0	35	591	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	4				0	4	4	4	4	0
Cap, veh/h	49	0					0	2781		444	2781	0
Arrive On Green	0.03	0.00	0.00				0.00	0.80	0.00	0.80	0.80	0.00
Sat Flow, veh/h	1753	0	1560				0	3589	1560	517	3589	0
Grp Volume(v), veh/h	18	0	0				0	1075	0	35	591	0
Grp Sat Flow(s),veh/h/ln	1753	0	1560				0	1749	1560	517	1749	0
Q Serve(g_s), s	0.9	0.0	0.0				0.0	8.2	0.0	1.9	3.7	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0				0.0	8.2	0.0	10.1	3.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	49	0					0	2781		444	2781	0
V/C Ratio(X)	0.36	0.00					0.00	0.39		0.08	0.21	0.00
Avail Cap(c_a), veh/h	964	0					0	2781		444	2781	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.64	0.64	0.00
Uniform Delay (d), s/veh	42.9	0.0	0.0				0.0	2.7	0.0	4.2	2.3	0.0
Incr Delay (d2), s/veh	4.4	0.0	0.0				0.0	0.4	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0				0.0	3.4	0.0	0.4	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	0.0				0.0	3.1	0.0	4.4	2.4	0.0
LnGrp LOS	D	A					A	A		A	A	A
Approach Vol, veh/h		18						1075			626	
Approach Delay, s/veh		47.4						3.1			2.5	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		81.0		9.0			81.0					
Change Period (Y+Rc), s		* 9.4		6.5			* 9.4					
Max Green Setting (Gmax), s		* 25		49.5			* 25					
Max Q Clear Time (g_c+I1), s		10.2		2.9			12.1					
Green Ext Time (p_c), s		9.8		0.0			5.5					

Intersection Summary

HCM 6th Ctrl Delay	3.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
55: Choctaw Blvd. & I-75 NB Ramp

2045 Build
PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘		↗	↗↘	↑			↑↑	↗
Traffic Volume (veh/h)	0	0	0	375	0	44	761	245	0	0	201	26
Future Volume (veh/h)	0	0	0	375	0	44	761	245	0	0	201	26
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1841	1841
Adj Flow Rate, veh/h				408	0	0	827	266	0	0	218	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				4	0	4	4	4	0	0	4	4
Cap, veh/h				440	0		888	1053	0	0	723	
Arrive On Green				0.25	0.00	0.00	0.44	0.96	0.00	0.00	0.21	0.00
Sat Flow, veh/h				1753	0	1560	3401	1841	0	0	3589	1560
Grp Volume(v), veh/h				408	0	0	827	266	0	0	218	0
Grp Sat Flow(s),veh/h/ln				1753	0	1560	1700	1841	0	0	1749	1560
Q Serve(g_s), s				20.4	0.0	0.0	20.8	0.8	0.0	0.0	4.7	0.0
Cycle Q Clear(g_c), s				20.4	0.0	0.0	20.8	0.8	0.0	0.0	4.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				440	0		888	1053	0	0	723	
V/C Ratio(X)				0.93	0.00		0.93	0.25	0.00	0.00	0.30	
Avail Cap(c_a), veh/h				458	0		911	1053	0	0	723	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.09	0.09	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				32.9	0.0	0.0	24.6	0.9	0.0	0.0	30.2	0.0
Incr Delay (d2), s/veh				24.5	0.0	0.0	2.0	0.1	0.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				16.9	0.0	0.0	8.0	0.4	0.0	0.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				57.4	0.0	0.0	26.6	0.9	0.0	0.0	31.3	0.0
LnGrp LOS				E	A		C	A	A	A	C	
Approach Vol, veh/h				408			1093				218	
Approach Delay, s/veh				57.4			20.4				31.3	
Approach LOS				E			C				C	
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		60.9		32.9	28.0		29.1					
Change Period (Y+Rc), s		* 9.4		* 9.4	* 9.4		6.5					
Max Green Setting (Gmax), s		* 51		* 24	* 19		23.5					
Max Q Clear Time (g_c+I1), s		2.8		22.8	6.7		22.4					
Green Ext Time (p_c), s		3.5		0.5	1.6		0.2					

Intersection Summary

HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 35: Kings Hwy (CR 769) & I-75 SB Ramp

2045 Build
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔		↔					↑↑	↔	↔	↑↑	
Traffic Volume (veh/h)	390	0	370	0	0	0	0	1404	423	192	1739	0
Future Volume (veh/h)	390	0	370	0	0	0	0	1404	423	192	1739	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No		No		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	424	0	0				0	1526	0	209	1890	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	476	0					0	2304		275	2668	0
Arrive On Green	0.14	0.00	0.00				0.00	0.66	0.00	0.11	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3561	1547	1739	3561	0
Grp Volume(v), veh/h	424	0	0				0	1526	0	209	1890	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1735	1547	1739	1735	0
Q Serve(g_s), s	19.8	0.0	0.0				0.0	42.2	0.0	6.4	0.0	0.0
Cycle Q Clear(g_c), s	19.8	0.0	0.0				0.0	42.2	0.0	6.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	476	0					0	2304		275	2668	0
V/C Ratio(X)	0.89	0.00					0.00	0.66		0.76	0.71	0.00
Avail Cap(c_a), veh/h	580	0					0	2304		430	2668	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.38	0.38	0.00
Uniform Delay (d), s/veh	67.5	0.0	0.0				0.0	16.1	0.0	20.2	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.0	0.0				0.0	1.5	0.0	1.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	0.0				0.0	22.5	0.0	6.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	0.0	0.0				0.0	17.6	0.0	21.9	0.6	0.0
LnGrp LOS	F	A					A	B		C	A	A
Approach Vol, veh/h		424						1526			2099	
Approach Delay, s/veh		81.4						17.6			2.7	
Approach LOS		F						B			A	
Timer - Assigned Phs		2		5	6			8				
Phs Duration (G+Y+Rc), s		130.9		16.8	114.2			29.1				
Change Period (Y+Rc), s		7.9		7.9	7.9			6.5				
Max Green Setting (Gmax), s		118.1		23.1	87.1			27.5				
Max Q Clear Time (g_c+1), s		2.0		8.4	44.2			21.8				
Green Ext Time (p_c), s		72.1		0.5	28.4			0.8				

Intersection Summary

HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 41: Kings Hwy (CR 769) & I-75 NB Ramp

2045 Build
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↔		↔	↔	↕			↕	
Traffic Volume (veh/h)	0	0	0	657	0	302	159	1635	0	0	1274	197
Future Volume (veh/h)	0	0	0	657	0	302	159	1635	0	0	1274	197
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				714	0	328	173	1777	0	0	1385	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				797	0	643	212	2338	0	0	1948	
Arrive On Green				0.24	0.00	0.24	0.13	1.00	0.00	0.00	0.56	0.00
Sat Flow, veh/h				3374	0	2723	3374	3561	0	0	3652	0
Grp Volume(v), veh/h				714	0	328	173	1777	0	0	1385	0
Grp Sat Flow(s),veh/h/ln				1687	0	1362	1687	1735	0	0	1735	0
Q Serve(g_s), s				32.8	0.0	16.7	8.0	0.0	0.0	0.0	46.6	0.0
Cycle Q Clear(g_c), s				32.8	0.0	16.7	8.0	0.0	0.0	0.0	46.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				797	0	643	212	2338	0	0	1948	
V/C Ratio(X)				0.90	0.00	0.51	0.82	0.76	0.00	0.00	0.71	
Avail Cap(c_a), veh/h				854	0	689	238	2338	0	0	1948	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				59.2	0.0	53.1	69.0	0.0	0.0	0.0	25.6	0.0
Incr Delay (d2), s/veh				12.0	0.0	0.9	10.8	1.4	0.0	0.0	2.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				21.8	0.0	9.8	5.9	0.8	0.0	0.0	26.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				71.2	0.0	54.0	79.9	1.4	0.0	0.0	27.8	0.0
LnGrp LOS				E	A	D	E	A	A	A	C	
Approach Vol, veh/h					1042			1950			1385	
Approach Delay, s/veh					65.8			8.3			27.8	
Approach LOS					E			A			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	8.0	97.8		44.3		115.7						
Change Period (Y+Rc), s	7.9	7.9		6.5		7.9						
Max Green Setting (Gmax), s	3	85.9		40.5		105.1						
Max Q Clear Time (g_c+fl), s	3	48.6		34.8		2.0						
Green Ext Time (p_c), s	0.1	23.1		3.0		60.3						

Intersection Summary

HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

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

HCM 6th Signalized Intersection Summary
 43: Harbor View Rd. (CR 776) & I-75 SB Ramp

2045 Build
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	86	0	108	0	0	0	0	340	356	203	491	0
Future Volume (veh/h)	86	0	108	0	0	0	0	340	356	203	491	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No		No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	93	0	0				0	370	0	221	534	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	3	3	0
Cap, veh/h	119	0					0	2246		789	2771	0
Arrive On Green	0.07	0.00	0.00				0.00	0.64	0.00	0.07	0.79	0.00
Sat Flow, veh/h	1767	0	1572				0	3711	0	1767	3618	0
Grp Volume(v), veh/h	93	0	0				0	370	0	221	534	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	0	1767	1763	0
Q Serve(g_s), s	4.9	0.0	0.0				0.0	4.0	0.0	3.7	3.6	0.0
Cycle Q Clear(g_c), s	4.9	0.0	0.0				0.0	4.0	0.0	3.7	3.6	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	119	0					0	2246		789	2771	0
V/C Ratio(X)	0.78	0.00					0.00	0.16		0.28	0.19	0.00
Avail Cap(c_a), veh/h	270	0					0	2246		1065	2771	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	43.6	0.0	0.0				0.0	7.0	0.0	4.4	2.6	0.0
Incr Delay (d2), s/veh	10.4	0.0	0.0				0.0	0.2	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	0.0				0.0	2.6	0.0	2.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	0.0				0.0	7.2	0.0	4.5	2.7	0.0
LnGrp LOS	D	A					A	A		A	A	A
Approach Vol, veh/h		93						370			755	
Approach Delay, s/veh		53.9						7.2			3.2	
Approach LOS		D						A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.1			14.2	69.9		10.9				
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4		4.5				
Max Green Setting (Gmax), s		* 67			21.1	* 38		14.5				
Max Q Clear Time (g_c+1), s		5.6			5.7	6.0		6.9				
Green Ext Time (p_c), s		8.4			0.5	4.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NER, SER] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 46: Harbor View Rd. (CR 776) & I-75 NB Ramp

2045 Build
 PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations				↖		↖	↖	↗			↗	↗
Traffic Volume (veh/h)	0	0	0	333	0	460	125	301	0	0	361	56
Future Volume (veh/h)	0	0	0	333	0	460	125	301	0	0	361	56
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				No
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				362	0	0	136	327	0	0	392	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	0	3	3	3	0	0	3	3
Cap, veh/h				407	0		575	2113	0	0	1648	
Arrive On Green				0.23	0.00	0.00	0.12	1.00	0.00	0.00	0.47	0.00
Sat Flow, veh/h				1767	0	1572	1767	3618	0	0	3711	0
Grp Volume(v), veh/h				362	0	0	136	327	0	0	392	0
Grp Sat Flow(s),veh/h/ln				1767	0	1572	1767	1763	0	0	1763	0
Q Serve(g_s), s				18.8	0.0	0.0	3.7	0.0	0.0	0.0	6.3	0.0
Cycle Q Clear(g_c), s				18.8	0.0	0.0	3.7	0.0	0.0	0.0	6.3	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				407	0		575	2113	0	0	1648	
V/C Ratio(X)				0.89	0.00		0.24	0.15	0.00	0.00	0.24	
Avail Cap(c_a), veh/h				698	0		658	2113	0	0	1648	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.92	0.92	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				35.4	0.0	0.0	10.3	0.0	0.0	0.0	15.2	0.0
Incr Delay (d2), s/veh				7.6	0.0	0.0	0.2	0.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				13.7	0.0	0.0	2.3	0.1	0.0	0.0	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.0	0.0	0.0	10.5	0.1	0.0	0.0	15.5	0.0
LnGrp LOS				D	A		B	A	A	A	B	
Approach Vol, veh/h					362			463			392	
Approach Delay, s/veh					43.0			3.2			15.5	
Approach LOS					D			A			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	2.5	54.1		28.4		66.6						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	10	* 24		37.5		* 41						
Max Q Clear Time (g_c+I), s	10	8.3		20.8		2.0						
Green Ext Time (p_c), s	0.1	3.9		1.0		4.5						

Intersection Summary

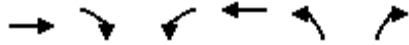
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NWR, SWR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: I-75 SB Ramp & US 17 (Duncan Rd.)

2045 Build
 PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖↗	↑↑↑	↖↗	↗
Traffic Volume (veh/h)	1239	161	328	463	389	348
Future Volume (veh/h)	1239	161	328	463	389	348
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	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	1347	0	357	503	423	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	2857		425	3792	510	
Arrive On Green	0.56	0.00	0.04	0.25	0.15	0.00
Sat Flow, veh/h	5233	1572	3428	5233	3428	1635
Grp Volume(v), veh/h	1347	0	357	503	423	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1714	1689	1714	1635
Q Serve(g_s), s	22.1	0.0	14.5	10.8	16.8	0.0
Cycle Q Clear(g_c), s	22.1	0.0	14.5	10.8	16.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2857		425	3792	510	
V/C Ratio(X)	0.47		0.84	0.13	0.83	
Avail Cap(c_a), veh/h	2857		649	3792	811	
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.97	0.97	1.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	65.8	17.3	57.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	5.9	0.1	5.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.6	0.0	11.2	7.5	12.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.4	0.0	71.7	17.4	63.3	0.0
LnGrp LOS	B		E	B	E	
Approach Vol, veh/h	1347			860	423	
Approach Delay, s/veh	18.4			39.9	63.3	
Approach LOS	B			D	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		113.3		26.7	25.8	87.5
Change Period (Y+Rc), s		8.5		5.9	8.5	8.5
Max Green Setting (Gmax), s		92.5		33.1	26.5	57.5
Max Q Clear Time (g_c+I1), s		12.8		18.8	16.5	24.1
Green Ext Time (p_c), s		6.8		2.0	0.9	19.3

Intersection Summary

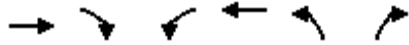
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

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

HCM 6th Signalized Intersection Summary
 34: I-75 NB Ramp & US 17 (Duncan Rd.)

2045 Build
 PM Peak



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	914	673	379	635	156	458
Future Volume (veh/h)	914	673	379	635	156	458
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	993	0	412	690	170	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	3189		532	3995	197	
Arrive On Green	0.63	0.00	0.10	0.79	0.11	0.00
Sat Flow, veh/h	5233	1572	1767	5233	1767	1572
Grp Volume(v), veh/h	993	0	412	690	170	0
Grp Sat Flow(s),veh/h/ln	1689	1572	1767	1689	1767	1572
Q Serve(g_s), s	12.6	0.0	10.9	4.7	13.2	0.0
Cycle Q Clear(g_c), s	12.6	0.0	10.9	4.7	13.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3189		532	3995	197	
V/C Ratio(X)	0.31		0.77	0.17	0.86	
Avail Cap(c_a), veh/h	3189		882	3995	369	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	0.0	8.8	3.6	61.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.4	0.1	10.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.4	0.0	6.4	2.1	10.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	11.3	3.7	71.8	0.0
LnGrp LOS	B		B	A	E	
Approach Vol, veh/h	993			1102	170	
Approach Delay, s/veh	12.0			6.5	71.8	
Approach LOS	B			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.6		21.4	22.3	96.3
Change Period (Y+Rc), s		* 8.2		* 5.8	* 8.2	* 8.2
Max Green Setting (Gmax), s		* 97		* 29	* 42	* 47
Max Q Clear Time (g_c+I1), s		6.7		15.2	12.9	14.6
Green Ext Time (p_c), s		10.1		0.4	1.2	13.3

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 23: N. Jones Loop Rd. (CR 768) & I-75 SB Ramp

2045 Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↔	↑↑					↔		↔
Traffic Volume (veh/h)	0	1640	375	175	990	0	0	0	0	115	0	930
Future Volume (veh/h)	0	1640	375	175	990	0	0	0	0	115	0	930
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1811	1811	0				1811	0	1811
Adj Flow Rate, veh/h	0	1783	0	190	1076	0				125	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	6	6	0				6	0	6
Cap, veh/h	0	2716		223	2621	0				237	0	
Arrive On Green	0.00	0.55	0.00	0.09	0.51	0.00				0.07	0.00	0.00
Sat Flow, veh/h	0	5270	0	1725	3532	0				3346	0	1535
Grp Volume(v), veh/h	0	1783	0	190	1076	0				125	0	0
Grp Sat Flow(s),veh/h/ln	0	1648	0	1725	1721	0				1673	0	1535
Q Serve(g_s), s	0.0	24.2	0.0	10.3	18.4	0.0				3.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	24.2	0.0	10.3	18.4	0.0				3.4	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2716		223	2621	0				237	0	
V/C Ratio(X)	0.00	0.66		0.85	0.41	0.00				0.53	0.00	
Avail Cap(c_a), veh/h	0	2716		238	2621	0				1250	0	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.46	0.46	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	15.1	0.0	42.5	10.0	0.0				42.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	12.4	0.2	0.0				1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	12.7	0.0	7.7	10.3	0.0				2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.3	0.0	54.9	10.3	0.0				44.4	0.0	0.0
LnGrp LOS		A		B	B	A				D		A
Approach Vol, veh/h		1783			1266						125	
Approach Delay, s/veh		16.3			17.0						44.4	
Approach LOS		B			B						D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.8			20.2	61.6		13.2				
Change Period (Y+Rc), s		* 9.4			7.9	* 9.4		6.5				
Max Green Setting (Gmax), s		* 44			13.1	* 23		35.5				
Max Q Clear Time (g_c+I1), s		20.4			12.3	26.2		5.4				
Green Ext Time (p_c), s		13.0			0.0	0.0		0.4				

Intersection Summary

HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 26: I-75 NB Ramp & N. Jones Loop Rd. (CR 768)

2045 Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔	↔↔		↔↔			
Traffic Volume (veh/h)	845	910	0	0	865	195	300	0	220	0	0	0
Future Volume (veh/h)	845	910	0	0	865	195	300	0	220	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1811	1811	0	0	1811	1811	1811	0	1811			
Adj Flow Rate, veh/h	918	989	0	0	940	0	326	0	239			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	6	6	0	0	6	6	6	0	6			
Cap, veh/h	967	2449	0	0	1205		394	0	318			
Arrive On Green	0.58	1.00	0.00	0.00	0.35	0.00	0.12	0.00	0.12			
Sat Flow, veh/h	3346	3532	0	0	3532	1535	3346	0	2701			
Grp Volume(v), veh/h	918	989	0	0	940	0	326	0	239			
Grp Sat Flow(s),veh/h/ln	1673	1721	0	0	1721	1535	1673	0	1351			
Q Serve(g_s), s	24.4	0.0	0.0	0.0	23.2	0.0	9.0	0.0	8.1			
Cycle Q Clear(g_c), s	24.4	0.0	0.0	0.0	23.2	0.0	9.0	0.0	8.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	967	2449	0	0	1205		394	0	318			
V/C Ratio(X)	0.95	0.40	0.00	0.00	0.78		0.83	0.00	0.75			
Avail Cap(c_a), veh/h	1025	2449	0	0	1205		405	0	327			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	19.4	0.0	0.0	0.0	27.6	0.0	41.0	0.0	40.6			
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.0	5.0	0.0	13.1	0.0	9.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	0.0	14.7	0.0	7.8	0.0	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	0.0	0.0	32.6	0.0	54.1	0.0	49.8			
LnGrp LOS	C	A	A	A	C		D	A	D			
Approach Vol, veh/h		1907			940			565				
Approach Delay, s/veh		10.5			32.6			52.2				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	34.4	43.0		17.7		77.3						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	29.1	* 31		11.5		* 67						
Max Q Clear Time (g_c+20.4), s	20.4	25.2		11.0		2.0						
Green Ext Time (p_c), s	1.1	4.2		0.1		18.1						

Intersection Summary

HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 11: I-75 SB Ramp & Tuckers Grade (CR 762)

2045 Build
 PM Peak

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑		↑
Traffic Vol, veh/h	0	584	238	23	444	0	0	0	0	14	0	488
Future Vol, veh/h	0	584	238	23	444	0	0	0	0	14	0	488
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	115	-	-	-	-	-	0	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	0	635	259	25	483	0	0	0	0	15	0	530

Major/Minor	Major1			Major2			Minor2				
Conflicting Flow All	-	0	0	635	0	0			851	-	242
Stage 1	-	-	-	-	-	-			533	-	-
Stage 2	-	-	-	-	-	-			318	-	-
Critical Hdwy	-	-	-	4.14	-	-			6.84	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-			5.84	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.84	-	-
Follow-up Hdwy	-	-	-	2.22	-	-			3.52	-	3.32
Pot Cap-1 Maneuver	0	-	-	944	-	0			299	0	759
Stage 1	0	-	-	-	-	0			553	0	-
Stage 2	0	-	-	-	-	0			710	0	-
Platoon blocked, %	-	-	-	-	-	-			-	-	-
Mov Cap-1 Maneuver	-	-	-	944	-	-			291	0	759
Mov Cap-2 Maneuver	-	-	-	-	-	-			291	0	-
Stage 1	-	-	-	-	-	-			553	0	-
Stage 2	-	-	-	-	-	-			692	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.4	19.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	944	-	291	759
HCM Lane V/C Ratio	-	-	0.026	-	0.052	0.699
HCM Control Delay (s)	-	-	8.9	-	18.1	20
HCM Lane LOS	-	-	A	-	C	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	5.8

HCM 6th Signalized Intersection Summary
 14: I-75 NB Ramp & Tuckers Grade (CR 762)

2045 Build
 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑		↘		↘			
Traffic Volume (veh/h)	550	48	0	0	95	28	372	0	24	0	0	0
Future Volume (veh/h)	550	48	0	0	95	28	372	0	24	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1945	0	1945			
Adj Flow Rate, veh/h	598	52	0	0	103	0	404	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	830	2059	0	0	841		447	0				
Arrive On Green	0.27	0.58	0.00	0.00	0.24	0.00	0.24	0.00	0.00			
Sat Flow, veh/h	1781	3647	0	0	3741	0	1853	0	1648			
Grp Volume(v), veh/h	598	52	0	0	103	0	404	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	0	1853	0	1648			
Q Serve(g_s), s	21.7	0.6	0.0	0.0	2.1	0.0	19.1	0.0	0.0			
Cycle Q Clear(g_c), s	21.7	0.6	0.0	0.0	2.1	0.0	19.1	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	830	2059	0	0	841		447	0				
V/C Ratio(X)	0.72	0.03	0.00	0.00	0.12		0.90	0.00				
Avail Cap(c_a), veh/h	851	2059	0	0	841		544	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	15.5	8.1	0.0	0.0	27.1	0.0	33.2	0.0	0.0			
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.0	0.3	0.0	16.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	13.6	0.4	0.0	0.0	1.6	0.0	15.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	8.1	0.0	0.0	27.4	0.0	49.7	0.0	0.0			
LnGrp LOS	B	A	A	A	C		D	A				
Approach Vol, veh/h		650			103			404				
Approach Delay, s/veh		17.6			27.4			49.7				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.9	31.1		28.3		62.0						
Change Period (Y+Rc), s	6.9	* 9.7		6.5		* 9.7						
Max Green Setting (Gmax), s	25.1	* 20		26.5		* 52						
Max Q Clear Time (g_c+I1), s	23.7	4.1		21.1		2.6						
Green Ext Time (p_c), s	0.4	0.8		0.7		0.6						

Intersection Summary

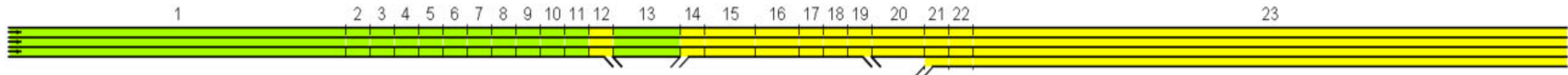
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

FREEVAL OUTPUTS 2045 BUILD





I-75 Northbound Sarasota County																							
Segment	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
General Purpose Segment Name													Toledo Blade/ Choctaw	Toledo Blade/ Choctaw					Sumter		Sumter		
General Purpose Segment Type	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	1	0	0
Segment Length (ft)	20300	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	4100	1500	3060	2640	1500	1500	1500	3210	1500	1500	35900
# of Lanes: Mainline	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Free Flow Speed (mph)	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75

	Analysis Period	Segments																						
		Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23
Speed Contours (mi/h)	#1 6:15 - 6:30	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	66.9	73.1	64.8	71.5	71.5	71.5	71.5	66.8	72.6	66.4	72.5	72.6
	#2 6:30 - 6:45	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	66.9	73.1	64.6	70.9	70.9	70.9	70.9	66.7	72.2	66.2	72.2	72.2
	#3 6:45 - 7:00	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	66.8	72.9	64.1	69.8	69.8	69.8	69.8	66.7	71.6	65.9	71.6	71.6
	#4 7:00 - 7:15	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	66.8	72.9	64.1	69.7	69.7	69.7	69.7	66.7	71.5	65.8	71.5	71.5
	#5 7:15 - 7:30	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	66.8	72.5	63.3	67.9	67.9	67.9	67.9	66.5	70.4	65.3	70.4	70.4
	#6 7:30 - 7:45	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	66.7	72.1	62.8	66.7	66.7	66.7	66.7	66.5	69.5	64.9	69.5	69.5
	#7 7:45 - 8:00	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	66.8	72.7	63.6	68.7	68.7	68.7	68.7	66.6	70.8	65.5	70.9	70.9
	#8 8:00 - 8:15	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	66.7	72.2	62.9	67.0	67.0	67.0	67.0	66.5	69.7	65.0	69.8	69.8
	#9 8:15 - 8:30	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	66.8	72.4	63.1	67.6	67.6	67.6	67.6	66.5	70.1	65.2	70.1	70.1
	#10 8:30 - 8:45	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	66.7	71.7	62.1	65.3	65.3	65.3	65.3	65.3	68.6	64.5	68.6	68.6
	#11 8:45 - 9:00	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	66.7	71.6	62.1	65.2	65.2	65.2	65.2	65.2	68.5	64.4	68.5	68.5
	#12 9:00 - 9:15	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	66.8	72.3	63.0	67.3	67.3	67.3	67.3	66.5	69.9	65.1	70.0	70.0
D/C Contours	#1 6:15 - 6:30	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.44	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.53	0.53	0.53	
	#2 6:30 - 6:45	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.46	0.61	0.61	0.61	0.61	0.61	0.61	0.55	0.55	0.55	0.55	
	#3 6:45 - 7:00	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.49	0.66	0.66	0.66	0.66	0.66	0.66	0.59	0.59	0.59	0.59	
	#4 7:00 - 7:15	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.49	0.66	0.66	0.66	0.66	0.66	0.66	0.59	0.59	0.59	0.59	
	#5 7:15 - 7:30	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.53	0.71	0.71	0.71	0.71	0.71	0.71	0.64	0.64	0.64	0.64	
	#6 7:30 - 7:45	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.56	0.74	0.74	0.74	0.74	0.74	0.74	0.67	0.66	0.66	0.66	
	#7 7:45 - 8:00	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.52	0.69	0.69	0.69	0.69	0.69	0.69	0.62	0.62	0.62	0.62	
	#8 8:00 - 8:15	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.55	0.74	0.74	0.74	0.74	0.74	0.74	0.66	0.66	0.66	0.66	
	#9 8:15 - 8:30	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.54	0.72	0.72	0.72	0.72	0.72	0.72	0.65	0.64	0.64	0.64	
	#10 8:30 - 8:45	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.58	0.77	0.77	0.77	0.77	0.77	0.77	0.69	0.69	0.69	0.69	
	#11 8:45 - 9:00	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.58	0.78	0.78	0.78	0.78	0.78	0.78	0.70	0.70	0.70	0.70	
	#12 9:00 - 9:15	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.55	0.73	0.73	0.73	0.73	0.73	0.73	0.65	0.65	0.65	0.65	
Total Density (pc/mi/ln)	#1 6:15 - 6:30	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	17.1	14.0	21.1	19.1	19.1	19.1	19.1	20.5	16.8	16.4	16.8	16.8	
	#2 6:30 - 6:45	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	17.8	14.6	22.1	20.1	20.1	20.1	20.1	21.4	17.7	19.3	17.7	17.7	
	#3 6:45 - 7:00	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	19.0	15.6	23.8	21.8	21.8	21.8	21.8	22.8	19.0	20.7	19.0	19.0	
	#4 7:00 - 7:15	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	19.1	15.7	23.9	22.0	22.0	22.0	22.0	23.0	19.2	20.8	19.1	19.1	
	#5 7:15 - 7:30	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	20.7	17.1	26.1	24.3	24.3	24.3	24.3	24.8	21.0	22.6	21.0	21.0	
	#6 7:30 - 7:45	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	21.6	17.9	27.5	25.9	25.9	25.9	25.9	26.0	22.2	23.8	22.2	22.2	
	#7 7:45 - 8:00	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	20.1	16.5	25.2	23.4	23.4	23.4	23.4	24.1	20.3	21.9	20.3	20.3	
	#8 8:00 - 8:15	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	21.4	17.7	27.2	25.5	25.5	25.5	25.5	25.7	21.9	23.5	21.9	21.9	
	#9 8:15 - 8:30	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	21.0	17.3	26.6	24.8	24.8	24.8	24.8	25.2	21.4	23.0	21.4	21.4	
	#10 8:30 - 8:45	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	22.5	18.8	29.0	27.5	27.5	27.5	27.5	27.5	23.5	24.9	23.4	23.4	
	#11 8:45 - 9:00	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	22.6	18.9	29.1	27.7	27.7	27.7	27.7	27.7	23.6	25.1	23.6	23.6	
	#12 9:00 - 9:15	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	21.2	17.5	26.9	25.2	25.2	25.2	25.2	25.2	25.5	21.7	23.2	21.6	21.6
LOS Contours	#1 6:15 - 6:30	C	C	C	C	C	C	C	C	C	C	C	B	C	C	C	C	C	C	C	C	C	C	
	#2 6:30 - 6:45	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	#3 6:45 - 7:00	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	#4 7:00 - 7:15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	#5 7:15 - 7:30	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	
	#6 7:30 - 7:45	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	C	C	
	#7 7:45 - 8:00	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	
	#8 8:00 - 8:15	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	
	#9 8:15 - 8:30	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	
	#10 8:30 - 8:45	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	
	#11 8:45 - 9:00	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	
	#12 9:00 - 9:15	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	

2045 Build - I-75 Northbound (AM PEAK) – Sarasota County

YEAR OF FAILURE ANALYSIS



YEAR OF FAILURE ANALYSIS

EXISTING (2019)	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard	20.9	C	20.3	C
I-75 NB and Sumter Boulevard	>300	F	59.3	F
I-75 SB and Toledo Blade Boulevard	20.9	C	15.7	C
I-75 NB and Toledo Blade Boulevard	>300	F	>300	F
I-75 SB and Harbor View Road (CR 776)	105.3	F	29.0	D
I-75 NB and Harbor View Road (CR 776)	19.1	C	19.4	C
I-75 SB and Tuckers Grade (CR 762)	10.4	B	11.2	B
I-75 NB and Tuckers Grade (CR 762)	23.9	C	46.2	E
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	5.4	A	9.4	A
I-75 NB and Kings Highway (CR 769)	25.1	C	19.5	B
I-75 SB and US 17/ Duncan Road	32.9	C	27.0	C
I-75 NB and US 17/ Duncan Road	7.9	A	8.9	A
I-75 SB and North Jones Loop Road (CR 768)	18.7	B	21.1	C
I-75 NB and North Jones Loop Road (CR 768)	15.1	B	17.1	B

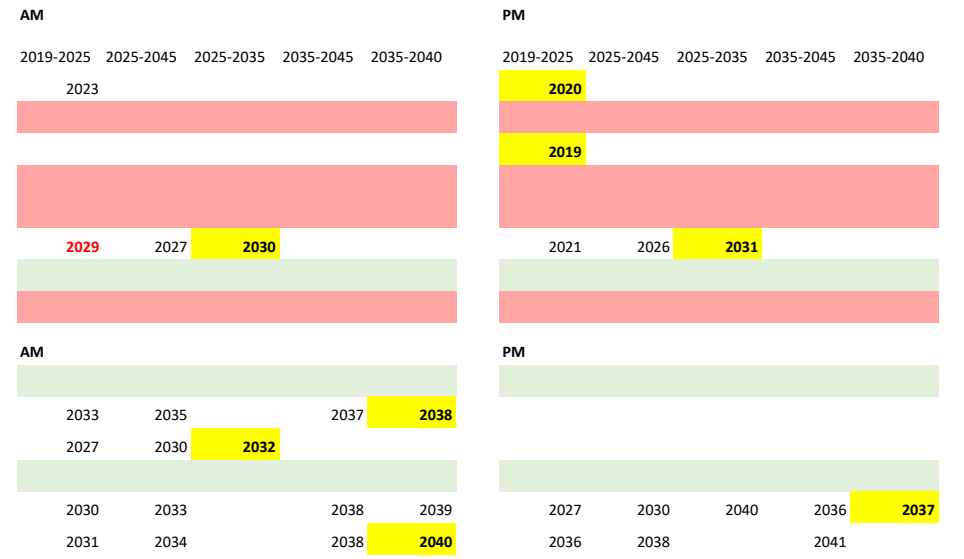
2025 NO BUILD	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard	42.9	E	120.6	F
I-75 NB and Sumter Boulevard	>300	F	218.8	F
I-75 SB and Toledo Blade Boulevard	23.4	C	277.8	F
I-75 NB and Toledo Blade Boulevard	>300	F	>300	F
I-75 SB and Harbor View Road (CR 776)	138.3	F	31.9	D
I-75 NB and Harbor View Road (CR 776)	23.4	C	25.7	D
I-75 SB and Tuckers Grade (CR 762)	11.0	B	12.2	B
I-75 NB and Tuckers Grade (CR 762)	41.7	E	138.2	F
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	6.8	A	10.8	B
I-75 NB and Kings Highway (CR 769)	29.7	C	21.0	C
I-75 SB and US 17/ Duncan Road	38.2	D	28.5	C
I-75 NB and US 17/ Duncan Road	9.0	A	10.0	B
I-75 SB and North Jones Loop Road (CR 768)	21.1	C	24.2	C
I-75 NB and North Jones Loop Road (CR 768)	16.8	B	17.8	B

2035 NO BUILD	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard				
I-75 NB and Sumter Boulevard				
I-75 SB and Toledo Blade Boulevard				
I-75 NB and Toledo Blade Boulevard				
I-75 SB and Harbor View Road (CR 776)	224.4	F	42.4	E
I-75 NB and Harbor View Road (CR 776)	44.6	E	41.5	E
I-75 SB and Tuckers Grade (CR 762)				
I-75 NB and Tuckers Grade (CR 762)				
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	10.3	B	13.5	B
I-75 NB and Kings Highway (CR 769)	46.7	D	23.4	C
I-75 SB and US 17/ Duncan Road	60.7	E	31.7	C
I-75 NB and US 17/ Duncan Road	10.9	B	11.8	B
I-75 SB and North Jones Loop Road (CR 768)	37.4	D	44.2	D
I-75 NB and North Jones Loop Road (CR 768)	29.7	C	26.6	C

2040 NO BUILD	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard				
I-75 NB and Sumter Boulevard				
I-75 SB and Toledo Blade Boulevard				
I-75 NB and Toledo Blade Boulevard				
I-75 SB and Harbor View Road (CR 776)				
I-75 NB and Harbor View Road (CR 776)				
I-75 SB and Tuckers Grade (CR 762)				
I-75 NB and Tuckers Grade (CR 762)				
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	14.4	B		
I-75 NB and Kings Highway (CR 769)	61.3	E		
I-75 SB and US 17/ Duncan Road				
I-75 NB and US 17/ Duncan Road				
I-75 SB and North Jones Loop Road (CR 768)	61.0	E	80.0	F
I-75 NB and North Jones Loop Road (CR 768)	55.9	E	36.8	D

2045 NO BUILD	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard	>300	F	>300	F
I-75 NB and Sumter Boulevard	>300	F	>300	F
I-75 SB and Toledo Blade Boulevard	35.1	E	29.6	D
I-75 NB and Toledo Blade Boulevard/ Choctaw Bouleva	>300	F	>300	F
I-75 SB and Harbor View Road (CR 776)	>300	F	60.6	F
I-75 NB and Harbor View Road (CR 776)	131.3	F	182.8	F
I-75 SB and Tuckers Grade (CR 762)	14.0	B	18.1	C
I-75 NB and Tuckers Grade (CR 762)	>300	F	>300	F
Signalized Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-75 SB and Kings Highway (CR 769)	27.5	C	16.6	B
I-75 NB and Kings Highway (CR 769)	80.9	F	26.2	C
I-75 SB and US 17/ Duncan Road	103.4	F	37.0	D
I-75 NB and US 17/ Duncan Road	12.8	B	13.9	B
I-75 SB and North Jones Loop Road (CR 768)	107.5	F	138.1	F
I-75 NB and North Jones Loop Road (CR 768)	103.4	F	75.5	E

2035 NO BUILD	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Unsignalized Intersection				
I-75 SB and Sumter Boulevard				
I-75 NB and Sumter Boulevard				
I-75 SB and Toledo Blade Boulevard				
I-75 NB and Toledo Blade Boulevard				
I-75 SB and Harbor View Road (CR 776)				
I-75 NB and Harbor View Road (CR 776)				
I-75 SB and Tuckers Grade (CR 762)				
I-75 NB and Tuckers Grade (CR 762)				
Signalized Intersection				
I-75 SB and Kings Highway (CR 769)				
I-75 NB and Kings Highway (CR 769)				
I-75 SB and US 17/ Duncan Road				
I-75 NB and US 17/ Duncan Road				
I-75 SB and North Jones Loop Road (CR 768)				
I-75 NB and North Jones Loop Road (CR 768)				



NOTES:

HARBOR VIEW NB & SB PROJECTED TO MEET SIGNAL WARRANTS IN 2025

TUCKERS GRADE NORTHBOUND EXISTING MINOR ST LEFT LOS E; NOT PROJECTED TO MEET SIGNAL WARRANTS UNTIL ~ 2036

US 17 SB FALLS BELOW TARGET LOS D 2032; EXISTING EB LEFT>300 VPH & EXIST. STORAGE INSUFFICIENT

US 17 NB NOT FAILING; EXISTING STORAGE INSUFFICIENT

NJL NORTHBOUND FALLS BELOW TARGET LOS D 2040; EXISTING EB LEFT>300 VPH

YEAR OF FAILURE ANALYSIS (MAINLINE AND RAMPS)

BASED ON NO BUILD MAINLINE AND RAMP CONFIGURATIONS/GEOMETRY

I-75 NORTHBOUND - SARASOTA COUNTY SEGMENTS - AM PEAK PERIOD

Total Density (pc/mi/ln)

YEAR 2025

Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	SEG 21	
#1 6:15 - 6:30	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	24.6 MAX
#2 6:30 - 6:45	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	11.1	9.2	15.1	13.6	13.6	13.6	13.6	14.8	12.6	19.0	17.2	17.2	24.6 MAX	
#3 6:45 - 7:00	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.8	9.9	16.1	14.5	14.5	14.5	15.7	13.4	20.4	18.5	18.5	22.8 MAX	
#4 7:00 - 7:15	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.9	9.9	16.2	14.5	14.5	14.5	14.5	15.8	13.5	20.5	18.6	18.6	22.8 MAX
#5 7:15 - 7:30	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	12.8	10.7	17.6	15.8	15.8	15.8	15.8	17.1	14.6	22.3	20.4	20.4	22.8 MAX	
#6 7:30 - 7:45	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	13.4	11.2	18.4	16.5	16.5	16.5	16.5	17.9	15.2	23.4	21.5	21.5	22.8 MAX
#7 7:45 - 8:00	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	12.4	10.4	17.0	15.3	15.3	15.3	15.3	16.6	14.2	21.6	19.7	19.7	22.8 MAX	
#8 8:00 - 8:15	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	13.2	11.1	18.2	16.3	16.3	16.3	16.3	17.7	15.1	23.1	21.2	21.2	22.8 MAX	
#9 8:15 - 8:30	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	13.0	10.9	17.8	16.0	16.0	16.0	16.0	16.0	17.3	14.8	22.6	20.7	20.7	22.8 MAX
#10 8:30 - 8:45	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	13.9	11.7	19.2	17.3	17.3	17.3	17.3	18.6	15.9	24.5	22.7	22.7	22.8 MAX	
#11 8:45 - 9:00	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	14.0	11.7	19.3	17.3	17.3	17.3	17.3	18.6	15.9	24.5	22.7	22.7	22.8 MAX	
#12 9:00 - 9:15	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.1	11.0	18.0	16.2	16.2	16.2	16.2	17.5	14.9	22.9	21.0	21.0	22.8 MAX	

YEAR 2032

Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	SEG 21
#1 6:15 - 6:30	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	12.9	10.7	16.7	15.0	15.0	15.0	15.0	16.3	13.7	20.7	18.8	18.8	28.4 MAX
#2 6:30 - 6:45	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	13.4	11.1	17.5	15.7	15.7	15.7	15.7	17.1	14.3	21.7	19.8	19.8	28.4 MAX
#3 6:45 - 7:00	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	14.1	11.9	18.7	16.9	16.9	16.9	16.9	18.2	15.3	23.3	21.4	21.4	27.1 MAX
#4 7:00 - 7:15	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	14.4	11.9	18.8	16.9	16.9	16.9	16.9	18.3	15.4	23.4	21.5	21.5	27.1 MAX
#5 7:15 - 7:30	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.5	12.9	20.5	18.5	18.5	18.5	18.5	19.8	16.7	25.5	23.8	23.8	27.1 MAX
#6 7:30 - 7:45	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	16.2	13.5	21.5	19.4	19.4	19.4	19.4	20.7	17.5	26.9	25.4	25.4	27.1 MAX
#7 7:45 - 8:00	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	15.1	12.5	19.8	17.9	17.9	17.9	17.9	19.2	16.2	24.7	22.9	22.9	27.1 MAX
#8 8:00 - 8:15	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	16.1	13.3	21.2	19.2	19.2	19.2	19.2	20.5	17.3	26.5	25.0	25.0	27.1 MAX
#9 8:15 - 8:30	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.8	13.1	20.8	18.8	18.8	18.8	18.8	20.1	16.9	25.9	24.3	24.3	27.1 MAX
#10 8:30 - 8:45	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	16.9	14.0	22.4	20.4	20.4	20.4	20.4	21.6	18.3	28.2	26.9	26.9	27.1 MAX
#11 8:45 - 9:00	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	17.0	14.0	22.6	20.5	20.5	20.5	20.5	21.7	18.4	28.4	27.1	27.1	27.1 MAX
#12 9:00 - 9:15	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	15.9	13.2	21.0	19.0	19.0	19.0	19.0	20.3	17.1	26.2	24.6	24.6	27.1 MAX

YEAR 2035

Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	SEG 21
#1 6:15 - 6:30	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.8	11.4	17.7	15.9	15.9	15.9	15.9	17.3	14.4	21.7	19.8	19.8	30.1 MAX
#2 6:30 - 6:45	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	14.4	11.9	18.5	16.7	16.7	16.7	16.7	18.1	15.0	22.8	20.9	20.9	30.1 MAX
#3 6:45 - 7:00	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	15.4	12.7	19.8	17.9	17.9	17.9	17.9	19.3	16.1	24.5	22.7	22.7	29.2 MAX
#4 7:00 - 7:15	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.5	12.8	19.9	18.0	18.0	18.0	18.0	19.4	16.2	24.6	22.9	22.9	29.2 MAX
#5 7:15 - 7:30	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	16.7	13.8	21.7	19.7	19.7	19.7	19.7	20.9	17.6	26.9	25.4	25.4	29.2 MAX
#6 7:30 - 7:45	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	17.5	14.4	22.8	20.8	20.8	20.8	20.8	21.9	18.5	28.4	27.2	27.2	29.2 MAX
#7 7:45 - 8:00	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	16.2	13.4	21.0	19.0	19.0	19.0	19.0	20.3	17.1	26.1	24.4	24.4	29.2 MAX
#8 8:00 - 8:15	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	17.3	14.3	22.5	20.5	20.5	20.5	20.5	21.7	18.3	28.0	26.7	26.7	29.2 MAX
#9 8:15 - 8:30	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	16.9	14.0	22.0	20.0	20.0	20.0	20.0	21.2	17.9	27.4	26.0	26.0	29.2 MAX
#10 8:30 - 8:45	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	18.2	15.1	23.9	21.8	21.8	21.8	21.8	22.8	19.4	29.9	28.9	28.9	29.2 MAX
#11 8:45 - 9:00	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	18.3	15.1	24.0	22.0	22.0	22.0	22.0	22.9	19.5	30.1	29.2	29.2	29.2 MAX
#12 9:00 - 9:15	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	17.1	14.2	22.3	20.2	20.2	20.2	20.2	21.4	18.1	27.7	26.3	26.3	29.2 MAX

YEAR 2045

Analysis Period	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Seg. 8	Seg. 9	Seg. 10	Seg. 11	Seg. 12	Seg. 13	Seg. 14	Seg. 15	Seg. 16	Seg. 17	Seg. 18	Seg. 19	Seg. 20	Seg. 21	Seg. 22	Seg. 23	SEG 21
#1 6:15 - 6:30	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	17.1	14.0	21.1	19.1	19.1	19.1	19.1	20.5	16.8	25.6	23.8	23.8	37.9 MAX
#2 6:30 - 6:45	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	17.8	14.6	22.1	20.1	20.1	20.1	20.1	21.4	17.7	27.0	25.3	25.3	37.9 MAX
#3 6:45 - 7:00	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	19.0	15.6	23.8	21.8	21.8	21.8	21.8	22.8	19.0	29.2	27.9	27.9	37.9 MAX
#4 7:00 - 7:15	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	19.1	15.7	23.9	22.0	22.0	22.0	22.0	23.0	19.2	29.4	28.1	28.1	37.9 MAX
#5 7:15 - 7:30	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	20.7	17.1	26.1	24.3	24.3	24.3	24.3	24.8	21.0	32.6	32.0	32.0	37.9 MAX
#6 7:30 - 7:45	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	21.6	17.9	27.5	25.9	25.9	25.9	25.9	26.0	22.2	34.8	34.7	34.7	37.9 MAX
#7 7:45 - 8:00	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	20.1	16.5	25.2	23.4	23.4	23.4	23.4	24.1	20.3	31.3	30.4	30.4	37.9 MAX
#8 8:00 - 8:15	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	21.4	17.7	27.2	25.5	25.5	25.5	25.5	25.7	21.9	34.2	34.0	34.0	37.9 MAX
#9 8:15 - 8:30	1																							

Appendix I

New Interchange Memorandums

To: Joshua A. Jester, E.I.
FDOT, District One Interstate Program
Office

From: Deepika Fields, PE
Stantec

Project/File: I-75 Central Corridor Master Plan

Date: April 11, 2022

Reference: Future 2045 New Interchange Analysis (Raintree Boulevard/ Yorkshire Street)

This memo presents the future 2045 traffic analysis for a proposed new interchange within the city limits of North Port in Sarasota County. Two proposed locations were evaluated. Both of the proposed locations are between the existing interchanges of Kings Highway and Toledo Blade Boulevard. One is at Raintree Boulevard, approximately 2.1 miles north of the Kings Highway interchange and 6.8 miles south of the Toledo Blade Boulevard interchange. The other is at Yorkshire Street, approximately 3.6 miles north of the Kings Highway interchange and 5.4 miles south of the Toledo Blade Boulevard interchange.

Future 2045 traffic volumes for both Build scenarios were developed for the I-75 mainline and the proposed interchange based on the following methodology. The I-75 Southwest Connect District One Regional Planning Model (I-75 SW Connect D1RPM) with future year 2040 used for the I-75 Central Corridor Master Plan (I-75 CCMP) was compared to the recently released D1RPM v2 (future year 2045) model. Although the zonal structure remained the same near the proposed interchange locations, there were some changes in the socioeconomic (SE) data and roadway network characteristics between the two model versions. Therefore, the I-75 SW Connect D1RPM 2040 model was updated to include changes to match the D1RPM v2 model in the vicinity surrounding the proposed interchange. These changes included SE data updates to reflect increases in population, employment and dwelling units as well as roadway network updates to reflect changes in facility type (functional class) and number of lanes for future year No Build and Build scenarios.

Table 1 provides a summary of the daily traffic volumes resulting from the various model runs. Adjustment factors were computed for the updated model No Build AADTs compared to the original CCMP No Build AADTs and for the updated model Build versus No Build scenarios. These adjustment factors were applied to the original I-75 CCMP traffic volumes to estimate 2045 daily Build volumes. The previously determined K (9%) and D (56.3%) factors were then applied to the resulting 2045 daily volumes to produce peak hour estimates along the mainline.

For the proposed interchange ramps, the average of the peak-to-daily ratios for the ramps at both Kings Highway and Toledo Blade Boulevard interchanges were used to estimate the 2045 peak hour ramp volumes at the proposed Raintree Boulevard and Yorkshire Street interchanges since they are both located between the two existing interchanges and are expected to exhibit characteristics similar to both. The model outputs and traffic volume estimation data are provided in Attachment A.

Level of Service (LOS) for the I-75 Central Corridor was evaluated for the freeway mainline and ramp segments using the freeway facilities core methodology of the Highway Capacity Manual, 6th Edition and corresponding software (HCS7).

Reference: I-75 Future 2045 New Interchange Analysis

Table 1: 2045 No Build and Build Model Volumes

Model, Year & Scenario	I-75 Mainline			
	North of Kings Highway		South of Kings Highway	
	AADT (2-Way Total)	Model Growth Rate	AADT (2-Way Total)	Model Growth Rate
I-75 SW Connect D1RPM 2015 Base Year	41,150	-	47,910	-
I-75 SW Connect D1RPM 2040 No Build	55,160	1.4%	58,242	0.9%
I-75 SW Connect D1RPM w/v2 2045 SE data + FT, NL updates 2040 No Build	58,782	1.7%	58,463	0.9%
I-75 SW Connect D1RPM w/v2 2045 SE data + FT, NL updates 2040 Raintree Interchange Build	69,770	2.8%	65,327	1.5%
I-75 SW Connect D1RPM w/v2 2045 SE data + FT, NL updates 2040 Yorkshire Interchange Build	64,351	2.3%	61,734	1.2%
Notes: 1. FT = facility type (functional class), NL = Number of Lanes 2. Model growth rate computed between 2015 base year and future model year				

The following input parameters were used for the 2045 Build operational analysis:

- Peak Hour Factor (PHF): 0.95
- Level terrain
- Free-Flow Speed: 75.4 mph
- Total Trucks: 6.9% (I-75 mainline)
- Speed and Capacity Adjustment factors based on “Mostly Familiar” Driver Population

The future 2045 Build scenario performance measures including speed, density and LOS for the overall freeway facility in both directions are summarized in Table 2. The future year operational analysis worksheets are included in Attachment B.

Reference: I-75 Future 2045 New Interchange Analysis

Table 2: 2045 Build Peak Hour Freeway Facilities Level of Service Analysis

Freeway Facility	AM Peak Hour			PM Peak Hour		
	Speed (mi/hr)	Density (pc/mi/ln)	LOS	Speed (mi/hr)	Density (pc/mi/ln)	LOS
I-75 and Raintree Boulevard Interchange						
Northbound	61.6	31.7	D	68.5	21.0	C
Southbound	68.3	21.3	C	61.2	32.3	D
I-75 and Yorkshire Street Interchange						
Northbound	64.4	28.0	D	69.2	19.7	C
Southbound	69.2	19.6	C	64.3	28.2	D

The results of the Raintree Boulevard interchange Build operational analyses indicate that for design year 2045, the I-75 northbound mainline freeway segments north and south of the ramps are anticipated to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Inversely, the I-75 southbound mainline freeway segments north and south of the ramps are anticipated to operate at LOS C during the AM peak hour and LOS D during the PM peak hour. The entrance and exit ramps in both northbound and southbound directions are anticipated to operate at LOS C or better during both AM and PM peak hours under build conditions in design year 2045. The two exceptions are the northbound exit ramp in the AM peak and southbound exit ramp in the PM peak, which are anticipated to operate at LOS D.

The results of the Yorkshire Street interchange Build operational analyses indicate that for design year 2045, the I-75 northbound mainline freeway segments north and south of the ramps are anticipated to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Inversely, the I-75 southbound mainline freeway segments north and south of the ramps are anticipated to operate at LOS C during the AM peak hour and LOS D during the PM peak hour. The two exceptions are the northbound exit ramp in the AM peak and southbound exit ramp in the PM peak, which are anticipated to operate at LOS D.

Based on a review of the D1RPM daily model volumes, the projected 2045 peak hour traffic volumes and the results of the future 2045 operational analyses, the following observations are noted for the Build scenarios at the two proposed interchange locations north of Kings Highway.

- The D1RPM 2040 Raintree Boulevard Interchange Build model run resulted in daily traffic volumes on I-75 about 19% higher than the 2040 No Build model volumes within the proposed interchange area.
- The D1RPM 2040 Yorkshire Street Interchange Build model run resulted in daily traffic volumes on I-75 about 10% higher than the 2040 No Build model volumes within the proposed interchange area.
- Both Raintree Boulevard and Yorkshire Street Interchange Build model runs resulted in reduced traffic volumes on a majority of the roadway links adjacent to the interchange area compared to the future No Build scenario as shown in Table 3.

Reference: I-75 Future 2045 New Interchange Analysis

Table 3: Percentage of Links with Increase/Decrease in Volume Compared to No Build

Change	Raintree Boulevard Interchange Build	Yorkshire Street Interchange Build
Decrease	54%	52%
Increase	32%	33%
No Change	14%	15%

Note that even though a similar number of links are impacted by volume increases or decreases, the magnitude of the increases or decreases is greater for the Raintree Boulevard Interchange Build scenario as illustrated by the bandwidths in the “Delta Volumes and Percent Change” graphics provided in Attachment A. Table 4 provides disaggregation of the volume change for the links included in this analysis.

Table 4: Cumulative Percent Change in Link Volumes Compared to No Build

Volume Change Range	Interchange Build Alternative			
	Raintree Boulevard		Yorkshire Street	
	# of Links	% of Links	# of Links	% of Links
(10,000) - (5,001)	5	0.2%	-	0.0%
(5,000) - (2,501)	40	1.8%	2	0.1%
(2,500) - (1)	1,180	52.1%	1,173	51.8%
0 - 2,500	991	43.8%	1,058	46.7%
2,501 - 5,000	20	0.9%	26	1.1%
5,001 - 10,000	19	0.8%	7	0.3%
10,001 - 15,000	8	0.4%	-	0.0%
15,001 - 20,000	1	0.0%	-	0.0%
Total # of Links	2,264	100.0%	2,266	100%

- Both interchange Build scenarios are expected to impact the overall ramp volumes at both of the adjacent interchanges while the Raintree Boulevard Build scenario is expected to have a larger reduction as shown in Table 5.

Table 5: Change in Ramp Traffic Volume Compared to No Build

I-75 On & Off Ramps at Adjacent Interchanges	Raintree Boulevard Interchange Build		Yorkshire Street Interchange Build	
	Change in Daily Volume (all ramps)	% Change	Change in Daily Volume (all ramps)	% Change
Kings Highway Interchange	-3,770	-8%	195	0%
Toledo Blade Boulevard Interchange	-1,146	-3%	-1,853	-4%

Reference: I-75 Future 2045 New Interchange Analysis

This memo documented a high-level analysis to determine the feasibility of adding a potential new interchange. Network changes were limited to updating the I-75 SW Connect D1RPM 2040 No Build to reflect what is in the recently released D1RPM v2 2045 model. Base year model calibration and validation were completed prior to running the future year model and model validation statistics were provided as part of the Charlotte County study in the *I-75 Feasibility Study Traffic Forecast Memorandum (March 10, 2021)*.

The preceding analysis using projected 2045 peak hour traffic volume estimates for the proposed interchange shows that mainline and ramp operations at both interchanges are expected to be LOS D or better. The analysis indicated that the Yorkshire Street location is expected to perform slightly better than the Raintree Boulevard location. This is due to the overall ramp demand volumes being approximately 50% lower and the I-75 mainline demand volume being 8% lower in the Yorkshire Street Build scenario compared to the Raintree Boulevard Build scenario.

The interchange location determination should also include consideration of other factors such as interchange spacing, future arterial connections, safety and site conditions within the study area. Based on the FDOT Design Manual criteria for freeway interchange spacing, the Raintree Boulevard Build Scenario would require a design variation to meet the 3-mile spacing criteria for Area Type 3 (Transitioning Urbanized Areas, and Urban Areas Other Than Area Type 1 or 2). Note that neither the No Build nor Build scenario model runs included potential extension of Raintree Boulevard to the northeast to connect to Kings Highway as previously proposed by FDOT. A future extension of Raintree Boulevard would impact traffic volumes and operations along the mainline, ramps and other roadways in the study area network. Additionally, an existing power substation is located adjacent to the north/east side of I-75, approximately 1,700 feet south of Raintree Boulevard.

Based on the preceding evaluation of future 2045 projected peak hour traffic volumes along I-75 and the proposed interchange ramps, and the corresponding traffic operational analysis, both locations presented in the interchange Build scenarios are viable options for a proposed new interchange. Additional traffic analyses which include detailed subarea 2015 model validation, and a complete evaluation of the preceding considerations will be required as part of a future interchange access request for the proposed new interchange.

Sincerely,

Stantec Consulting Services Inc.

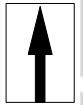
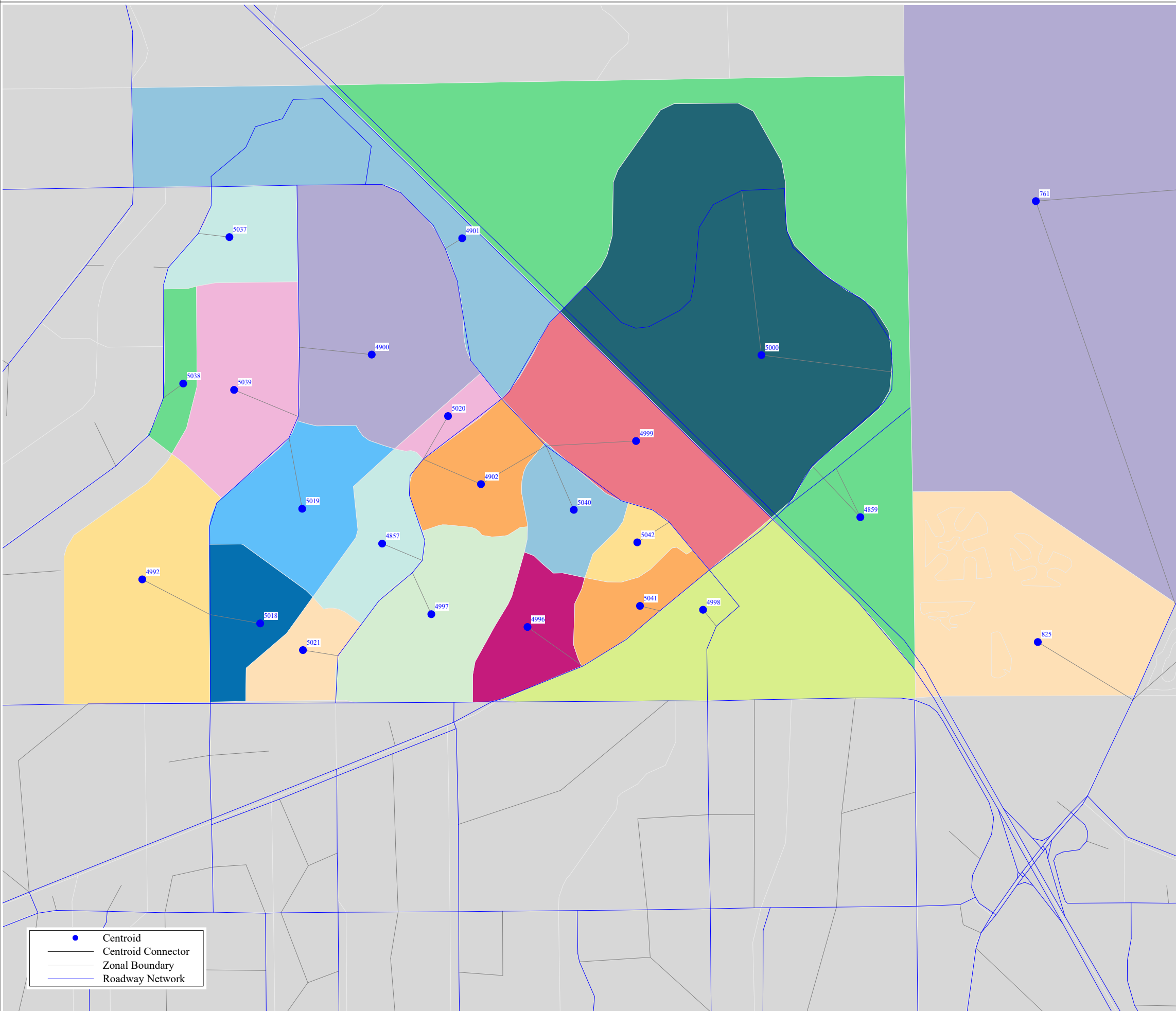
Deepika Fields, PE

Senior Transportation Engineer
Phone: (240) 454 6892
deepika.fields@stantec.com

Attachment: A: D1RPM-Model Outputs and Traffic Volume Estimation Data
B: Operations Analysis Outputs

I-75 Central Corridor Master Plan - Future 2045 New Interchange Analysis
ATTACHMENT A: D1RPM-Model Outputs and Traffic Volume Estimation Data

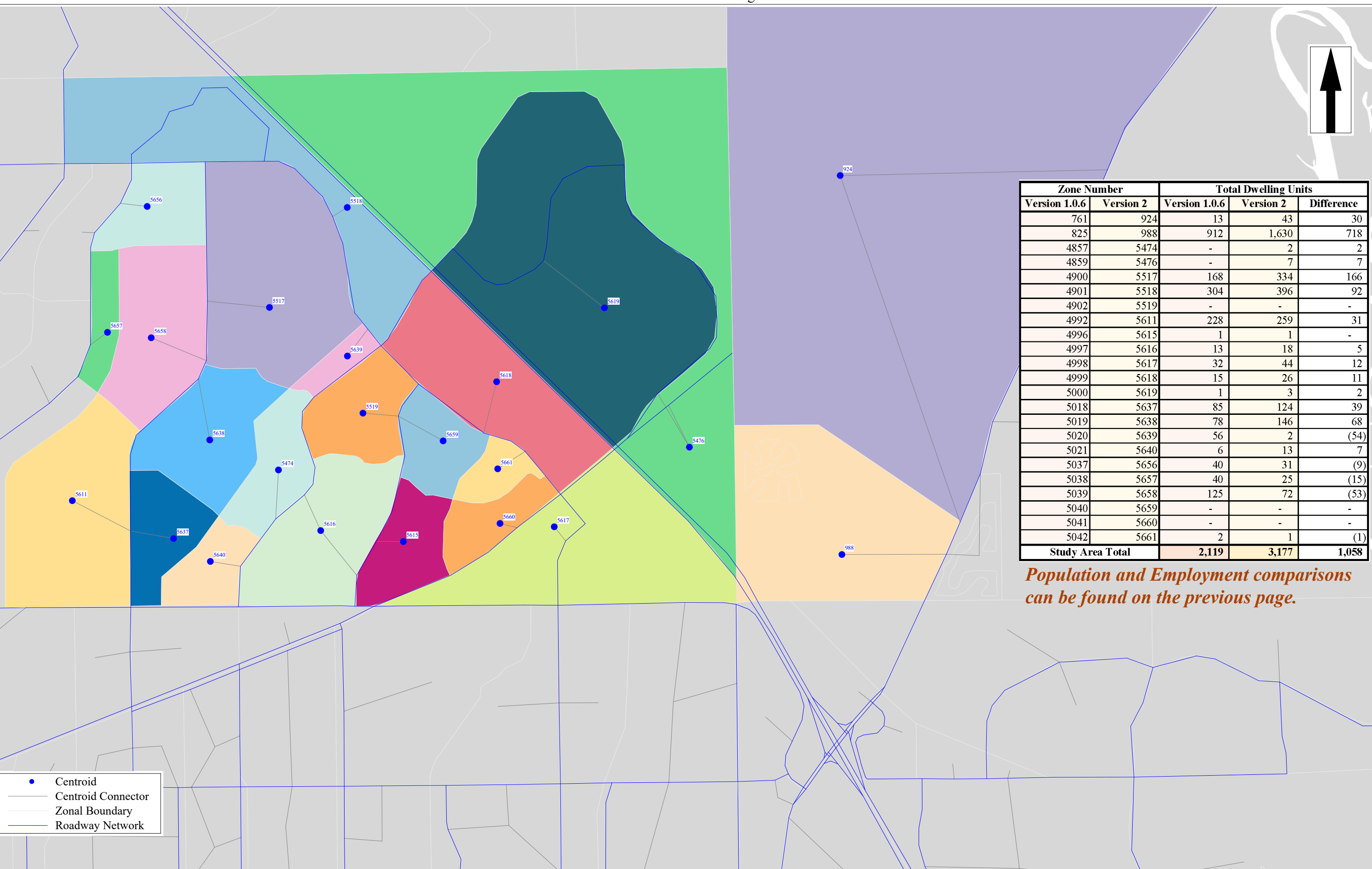
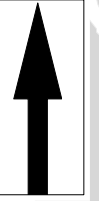
Charlotte County - DIRPM v1.0.6 2040 No-Build Model Zonal Structure
Raintree/Yorkshire Interchange



Zone Number		Total Population		
Version 1.0.6	Version 2	Version 1.0.6	Version 2	Difference
761	924	27	93	66
825	988	1,082	2,708	1,626
4857	5474	-	2	2
4859	5476	-	7	7
4900	5517	365	405	40
4901	5518	690	744	54
4902	5519	-	-	-
4992	5611	518	523	5
4996	5615	3	2	(1)
4997	5616	13	29	16
4998	5617	58	73	15
4999	5618	27	39	12
5000	5619	3	3	-
5018	5637	178	226	48
5019	5638	190	155	(35)
5020	5639	125	2	(123)
5021	5640	11	23	12
5037	5656	82	61	(21)
5038	5657	77	52	(25)
5039	5658	289	152	(137)
5040	5659	-	-	-
5041	5660	-	-	-
5042	5661	4	1	(3)
Study Area Total		3,742	5,300	1,558

Zone Number		Total Employment		
Version 1.0.6	Version 2	Version 1.0.6	Version 2	Difference
761	924	157	141	(16)
825	988	244	219	(25)
4857	5474	-	8	8
4859	5476	-	27	27
4900	5517	24	179	155
4901	5518	6	101	95
4902	5519	-	9	9
4992	5611	6	86	80
4996	5615	-	3	3
4997	5616	-	14	14
4998	5617	7	27	20
4999	5618	-	33	33
5000	5619	-	16	16
5018	5637	19	25	6
5019	5638	1	40	39
5020	5639	-	6	6
5021	5640	-	12	12
5037	5656	7	130	123
5038	5657	1	17	16
5039	5658	9	50	41
5040	5659	-	3	3
5041	5660	-	2	2
5042	5661	-	2	2
Study Area Total		481	1,150	669

Dwelling Units comparisons can be found on the next page.

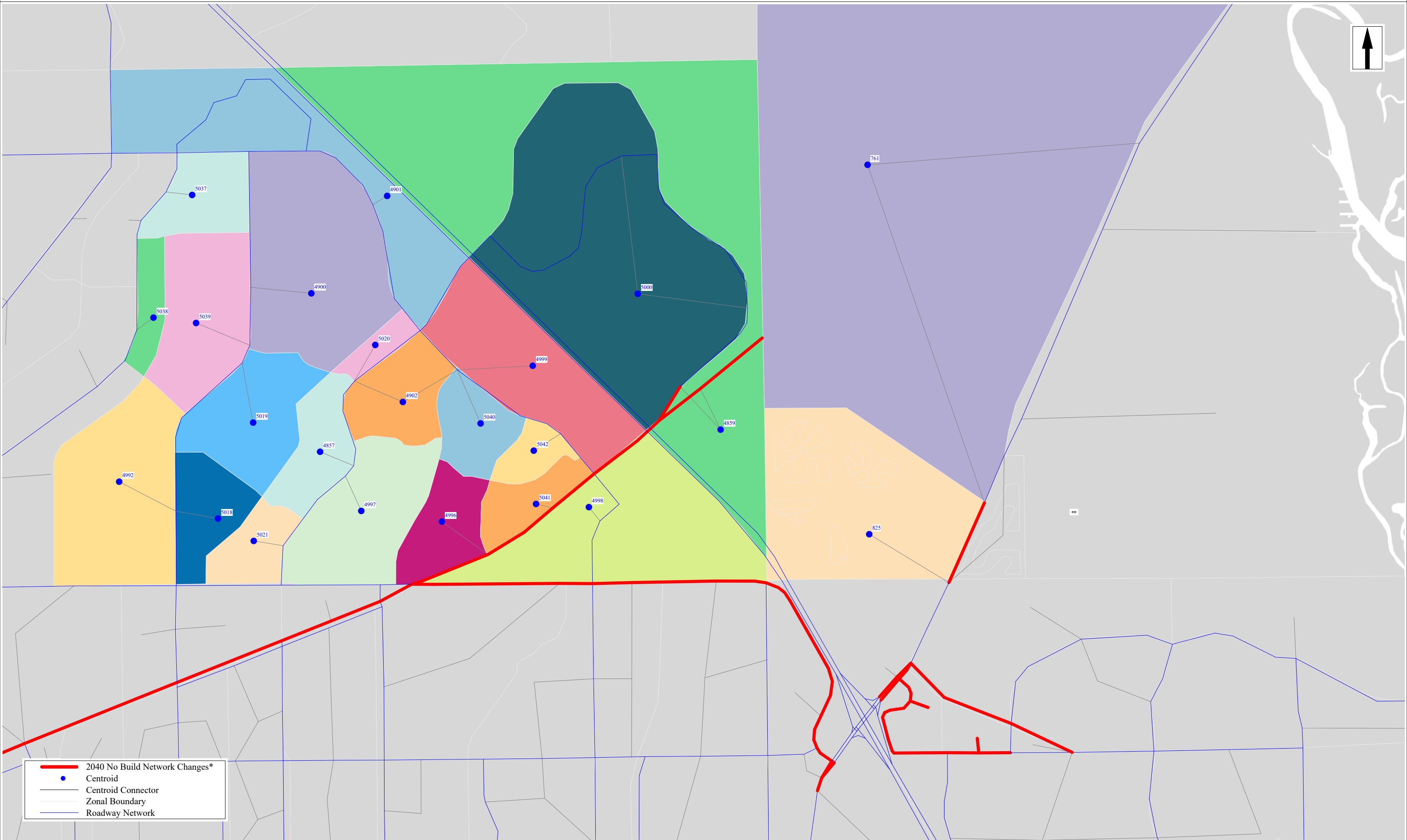
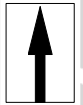


• Centroid
— Centroid Connector
— Zonal Boundary
— Roadway Network

Zone Number		Total Dwelling Units		
Version 1.0.6	Version 2	Version 1.0.6	Version 2	Difference
761	924	13	43	30
825	988	912	1,630	718
4857	5474	-	2	2
4859	5476	-	7	7
4900	5517	168	334	166
4901	5518	304	396	92
4902	5519	-	-	-
4992	5611	228	259	31
4996	5615	1	1	-
4997	5616	13	18	5
4998	5617	32	44	12
4999	5618	15	26	11
5000	5619	1	3	2
5018	5637	85	124	39
5019	5638	78	146	68
5020	5639	56	2	(54)
5021	5640	6	13	7
5037	5656	40	31	(9)
5038	5657	40	25	(15)
5039	5658	125	72	(53)
5040	5659	-	-	-
5041	5660	-	-	-
5042	5661	2	1	(1)
Study Area Total		2,119	3,177	1,058

Population and Employment comparisons can be found on the previous page.

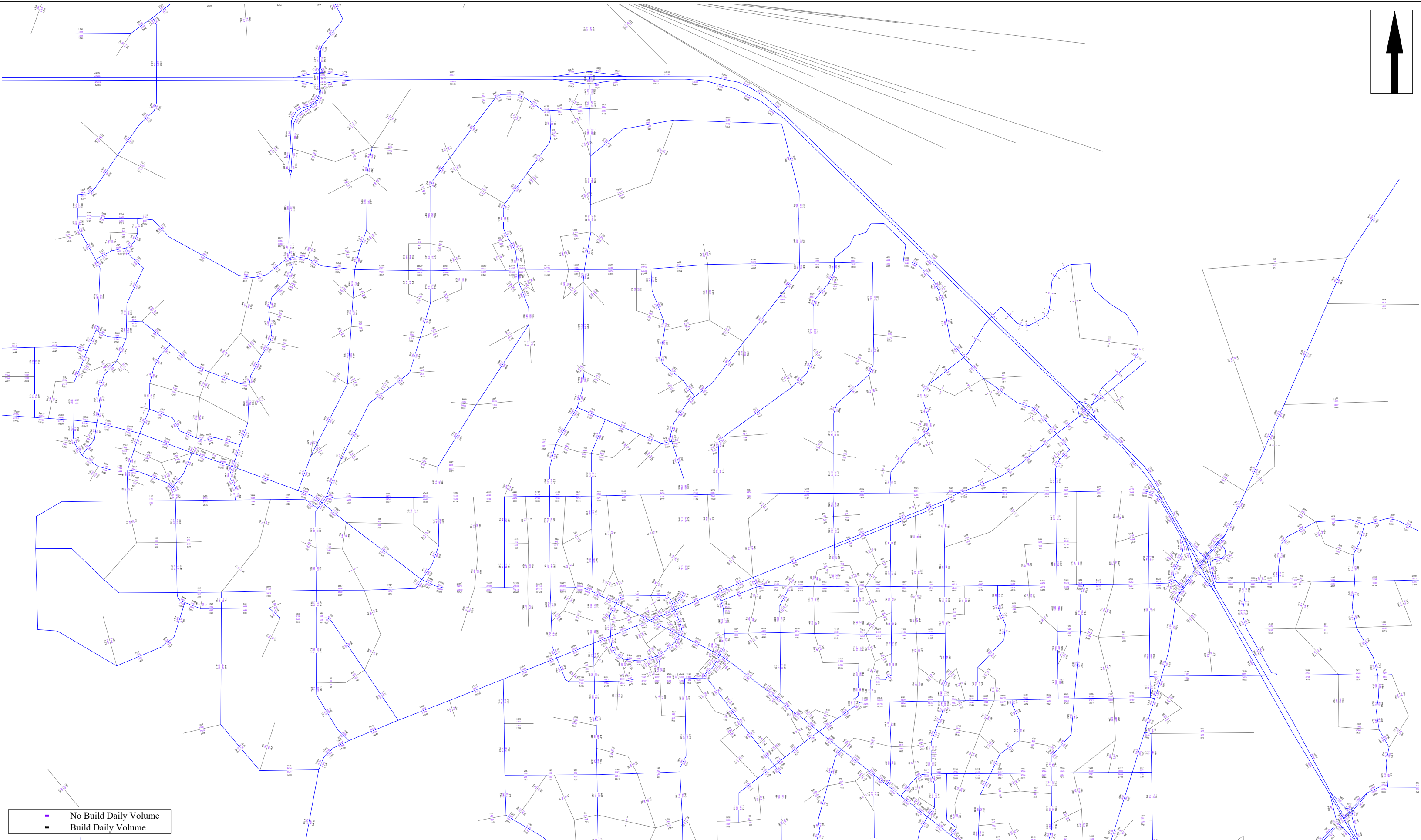
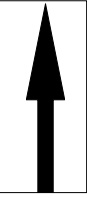
Charlotte County - DIRPM v1.0.6 2040 No-Build Network Changes
Raintree/Yorkshire Interchange



- 2040 No Build Network Changes*
- Centroid
- Centroid Connector
- Zonal Boundary
- Roadway Network

* Locations where the 2040 DIRPM v1.06 roadway number of lanes and/or facility type were modified to reflect the 2045 DIRPM v2 roadway network conditions

Raintree Interchange
Daily Directional Volumes
DIRPM, v1.0.6

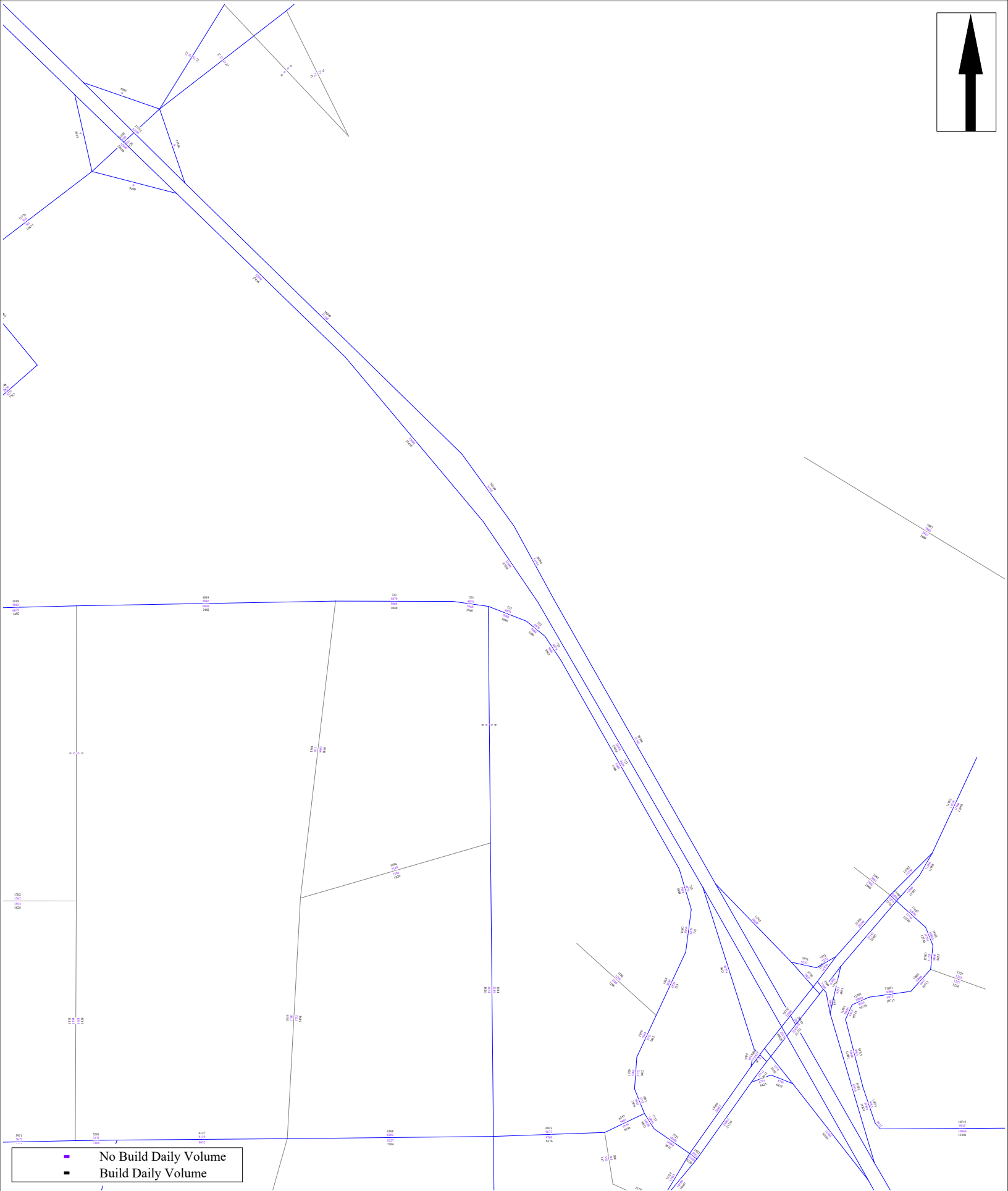
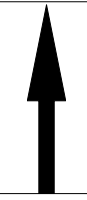


■ No Build Daily Volume
■ Build Daily Volume

Raintree Interchange

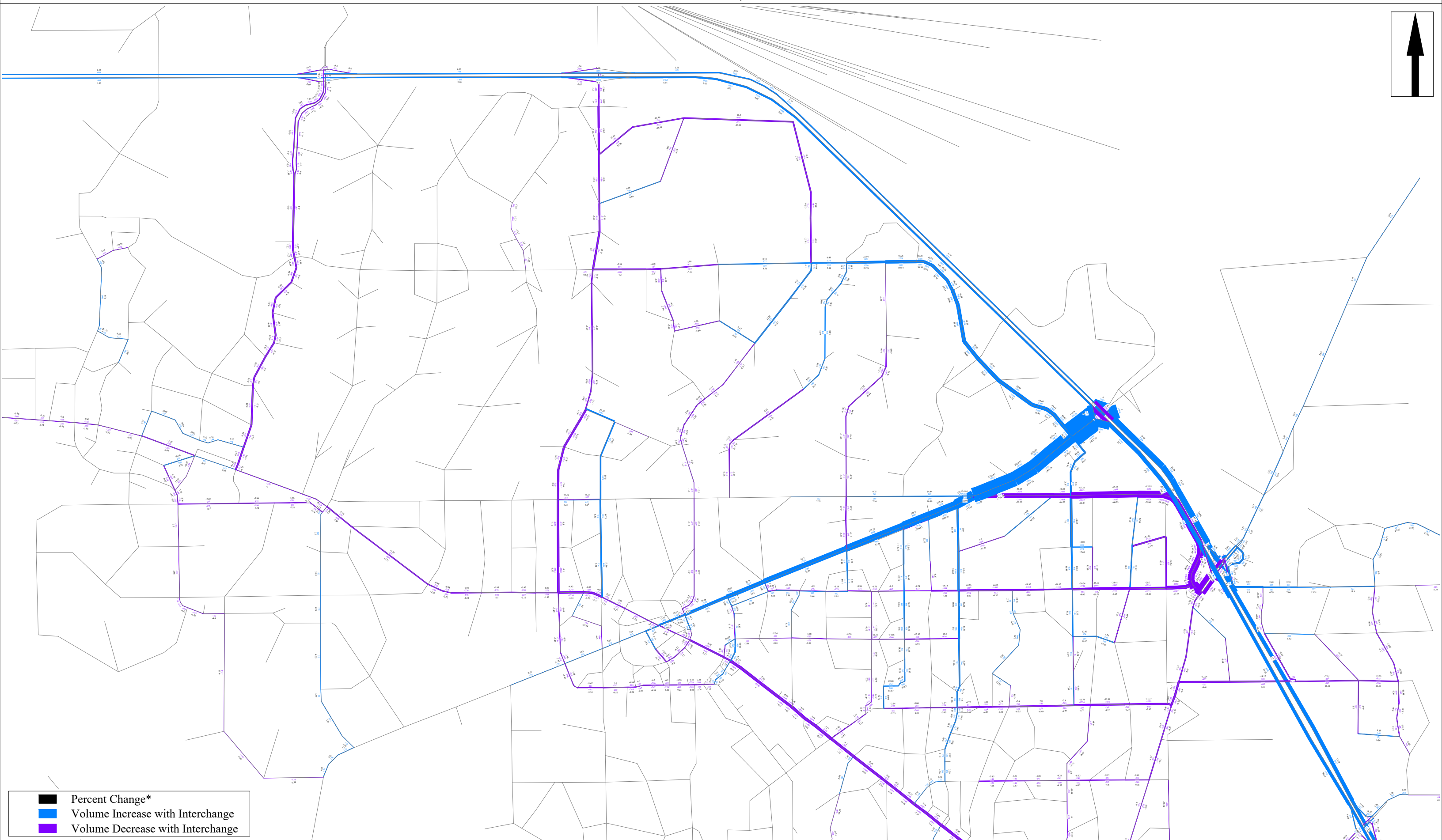
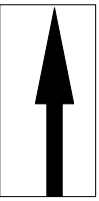
Daily Directional Volumes

D1RPM, v1.0.6



■ No Build Daily Volume
■ Build Daily Volume

Raintree Interchange
Delta Volumes and Percent Change*
2040 DIRPM, v1.0.6



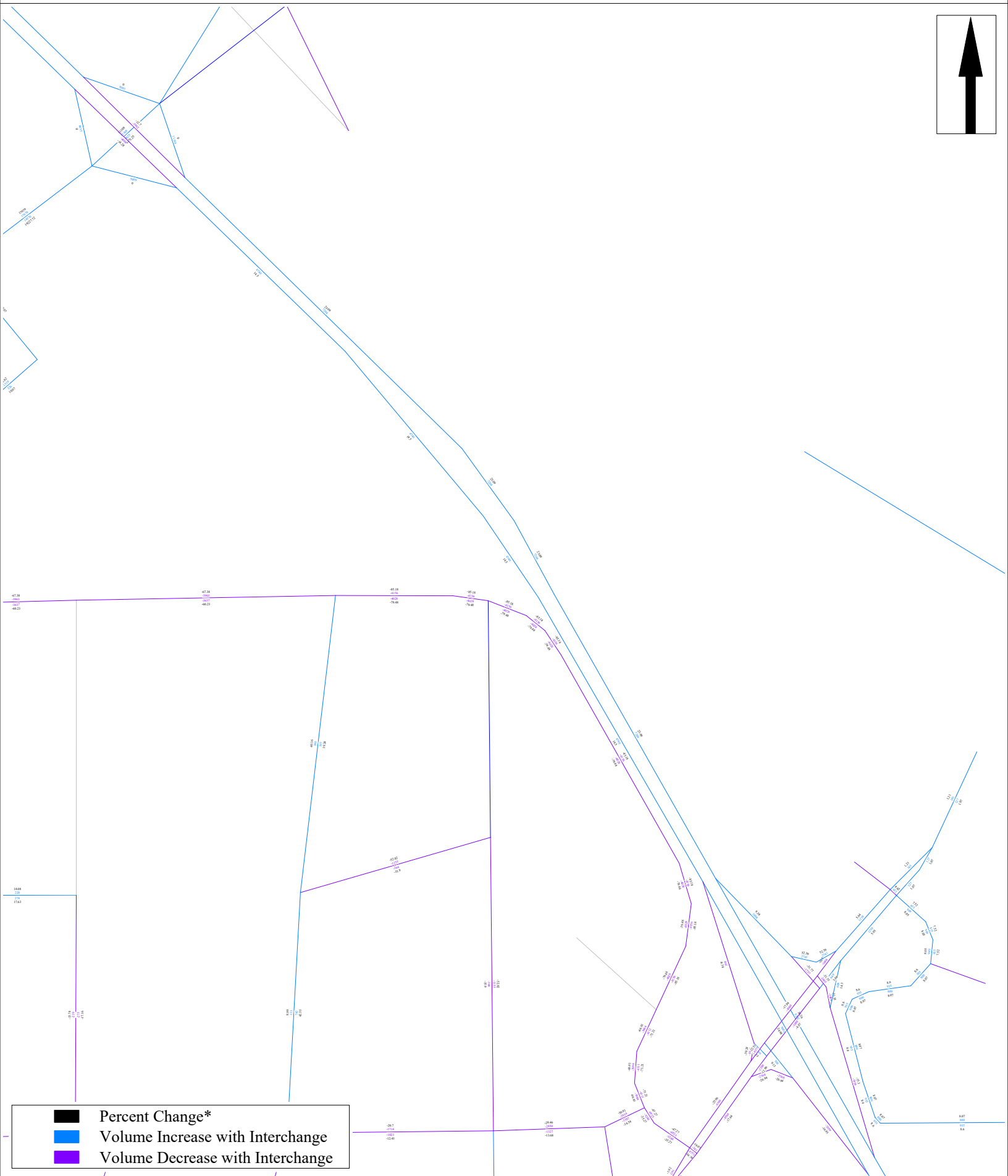
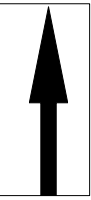
- Percent Change*
- Volume Increase with Interchange
- Volume Decrease with Interchange

* Delta Volumes are calculated at Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

Raintree Interchange

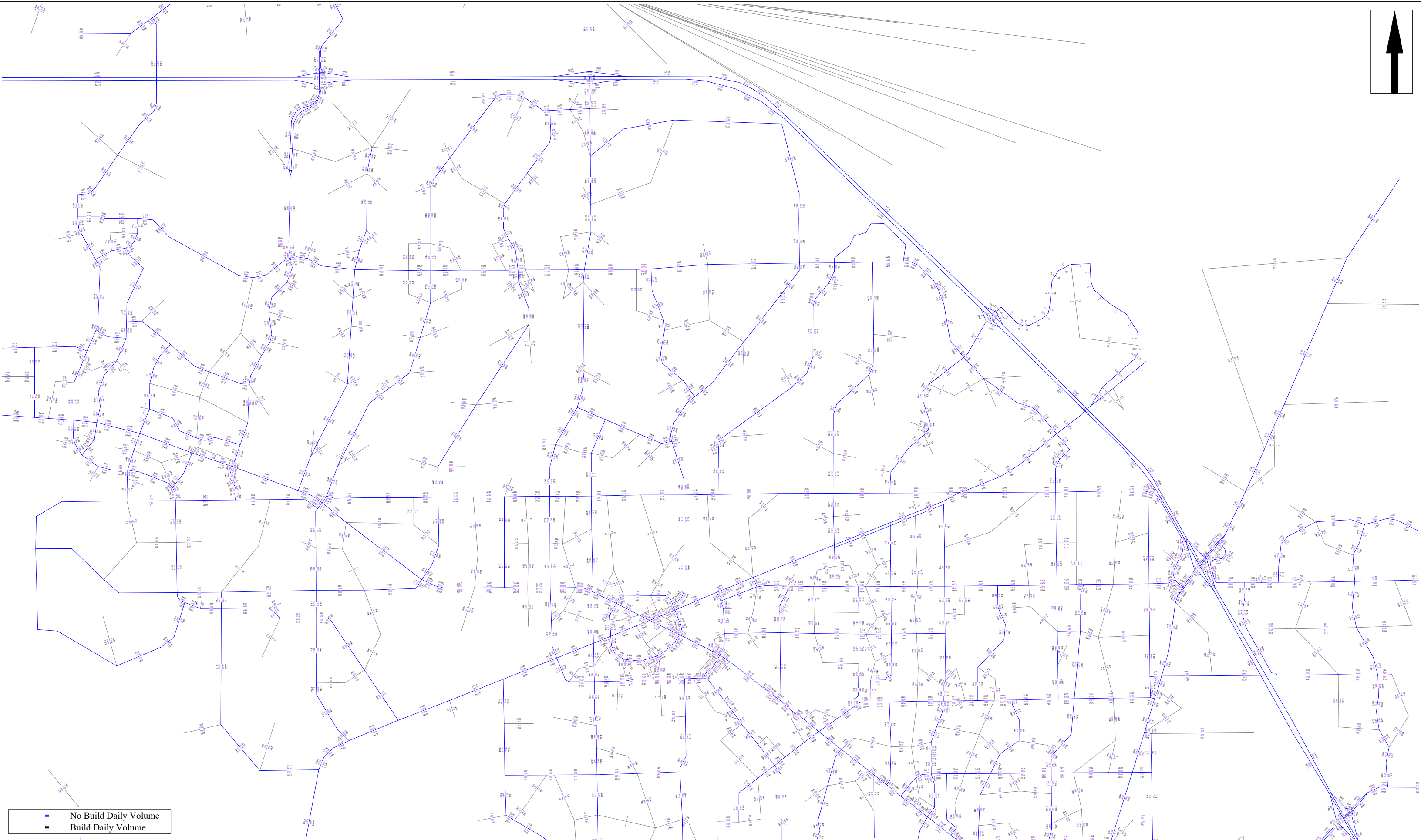
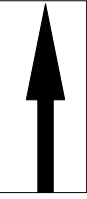
Delta Volumes and Percent Change*

2040 D1RPM, v1.0.6



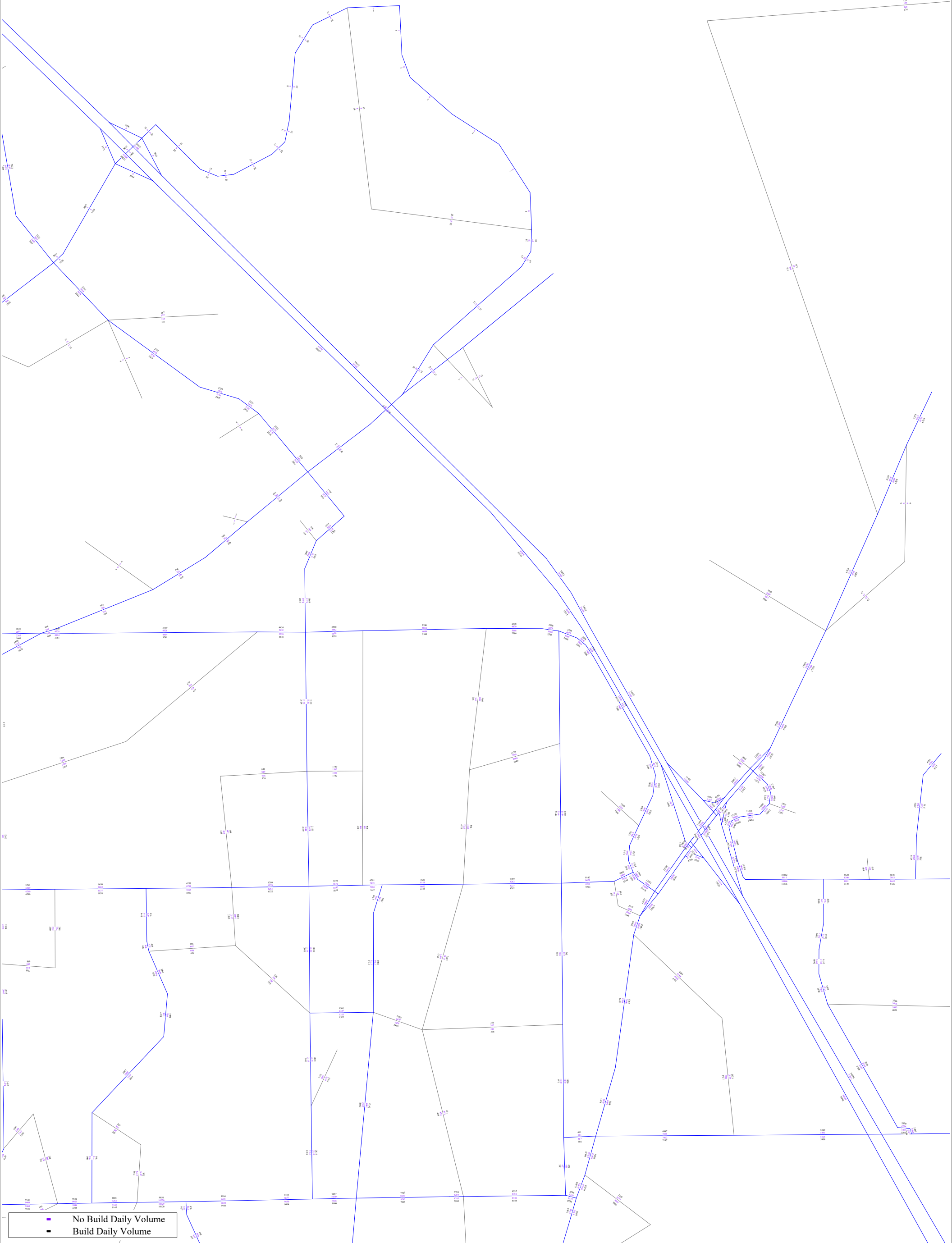
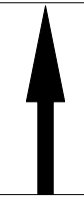
* Delta Volumes are calculated at Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

Yorkshire Interchange
Daily Directional Volumes
DIRPM, v1.0.6



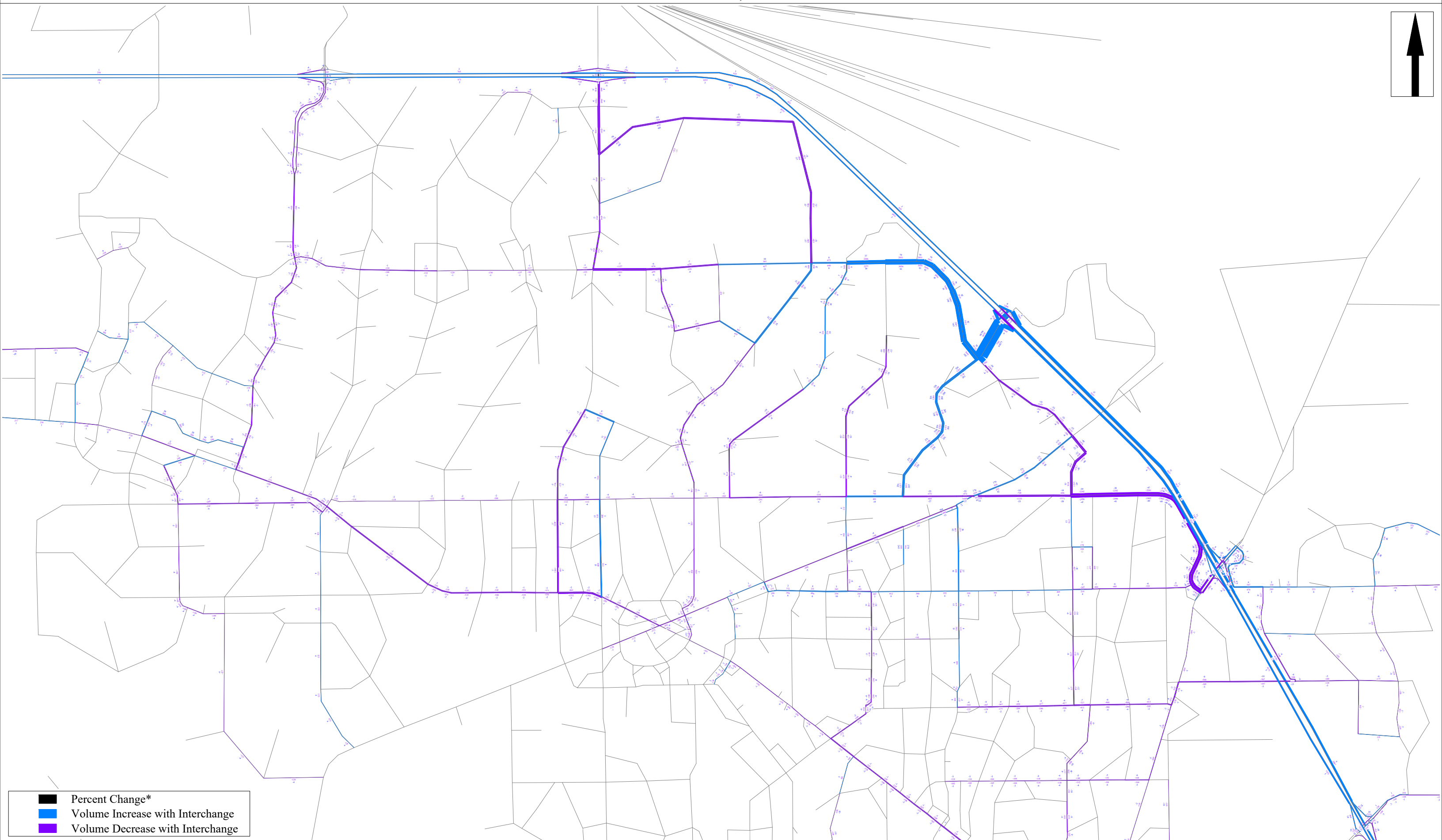
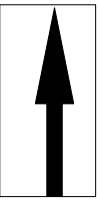
■ No Build Daily Volume
■ Build Daily Volume

Yorkshire Interchange
Daily Directional Volumes
DIRPM, v1.0.6



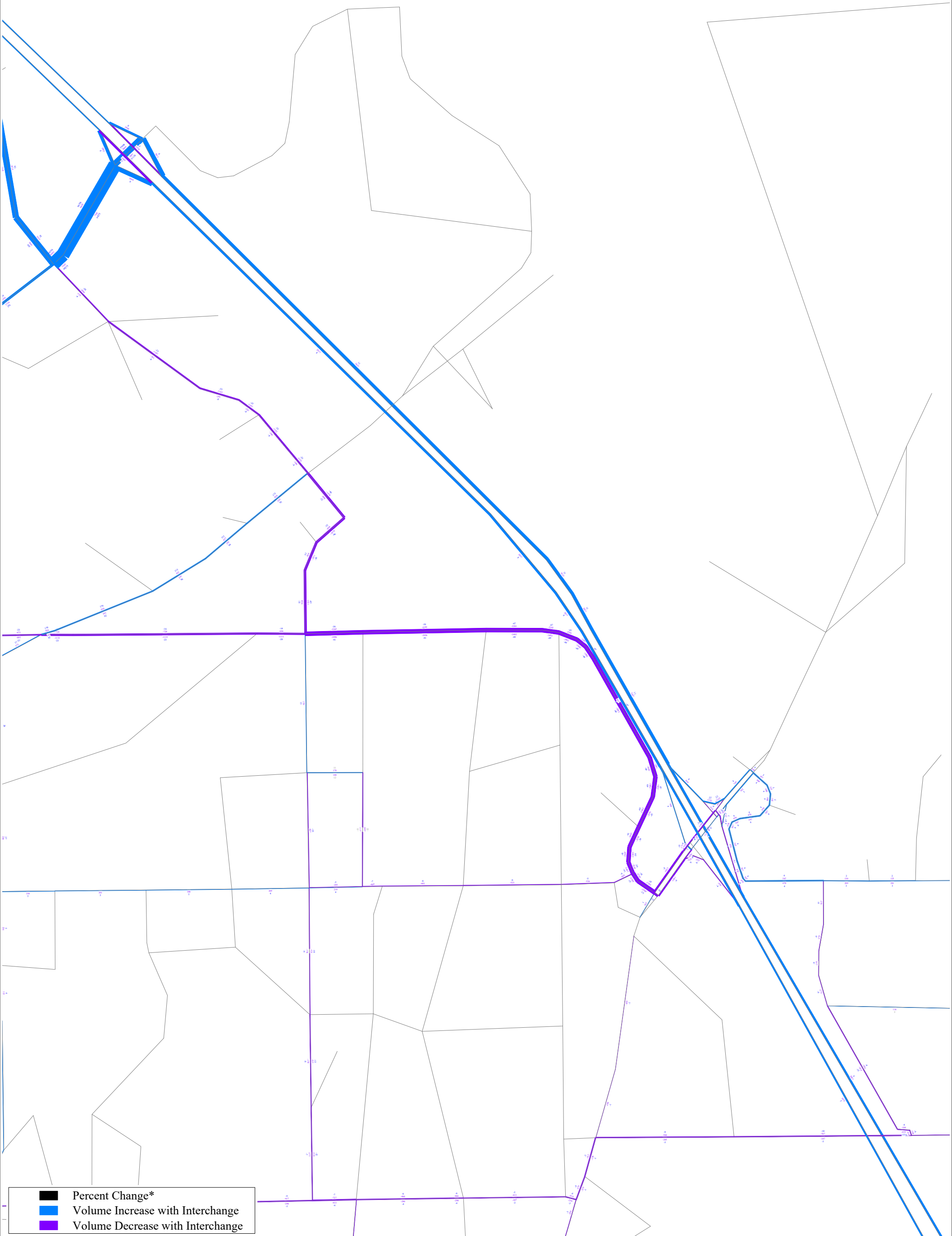
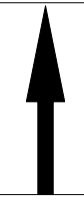
■ No Build Daily Volume
■ Build Daily Volume

Yorkshire Interchange
Delta Volumes and Percent Change*
2040 DIRPM, v1.0.6



* Delta Volumes are calculated at Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

Yorkshire Interchange
Delta Volumes and Percent Change*
2040 DIRPM, v1.0.6



- Percent Change*
- Volume Increase with Interchange
- Volume Decrease with Interchange

* Delta Volumes are calculated at Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

I-75 Central Corridor Master Plan - Future 2045 New Interchange Analysis
ATTACHMENT B: Operations Analysis Outputs

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Raintree Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Raintree	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Northbound North of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	6079	6970	0.87	59.9	33.8	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	6079	719	6970	1839	0.87	0.39	61.7	55.6	32.8	31.8	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5340	6970	0.77	65.1	27.3	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	5910	570	6970	1839	0.85	0.31	62.7	60.2	31.4	26.2	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5926	6970	0.85	61.1	32.3	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.6	31.7	29.6	3.2	D

Facility Overall Results

Space Mean Speed, mi/h	61.6	Density, veh/mi/ln	29.6
Average Travel Time, min	3.2	Density, pc/mi/ln	31.7

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Raintree Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Raintree	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Northbound North of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4728	6970	0.68	68.2	23.1	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4728	849	6970	1839	0.68	0.46	61.1	55.2	25.8	26.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3855	6970	0.55	70.8	18.1	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4133	278	6970	1839	0.59	0.15	66.3	64.4	20.8	16.8	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4141	6970	0.59	70.2	19.7	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	68.5	21.0	19.7	2.8	C

Facility Overall Results

Space Mean Speed, mi/h	68.5	Density, veh/mi/ln	19.7
Average Travel Time, min	2.8	Density, pc/mi/ln	21.0

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Raintree Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Raintree	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Southbound South of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4269	6970	0.61	69.8	20.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4269	415	6970	1839	0.61	0.23	62.4	56.5	22.8	23.7	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3842	6970	0.55	70.8	18.1	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4703	861	6970	1839	0.67	0.47	65.0	63.0	24.1	21.0	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4728	6970	0.68	68.2	23.1	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	68.3	21.3	19.9	2.9	C

Facility Overall Results

Space Mean Speed, mi/h	68.3	Density, veh/mi/ln	19.9
Average Travel Time, min	2.9	Density, pc/mi/ln	21.3

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Raintree Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Raintree	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Southbound South of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	6051	6970	0.87	60.1	33.6	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	6051	616	6970	1839	0.87	0.33	62.0	55.9	32.5	31.5	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5417	6970	0.78	64.6	28.0	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	6060	643	6970	1839	0.87	0.35	62.0	59.4	32.6	27.1	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	6079	6970	0.87	59.9	33.8	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.2	32.3	30.2	3.2	D

Facility Overall Results

Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	30.2
Average Travel Time, min	3.2	Density, pc/mi/ln	32.3

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Yorkshire St.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Yorkshire	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Yorkshire	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Yorkshire	1500	3
5	Basic	Basic	I-75 Northbound North of Yorkshire	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5516	6970	0.79	64.0	28.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	5516	337	6970	1839	0.79	0.18	62.7	56.7	29.3	29.0	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5170	6970	0.74	66.0	26.1	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	5448	278	6970	1839	0.78	0.15	64.2	62.2	28.3	23.2	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5456	6970	0.78	64.4	28.2	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.4	28.0	26.2	3.0	D

Facility Overall Results

Space Mean Speed, mi/h	64.4	Density, veh/mi/ln	26.2
Average Travel Time, min	3.0	Density, pc/mi/ln	28.0

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Yorkshire St.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Raintree	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Northbound North of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		4278		6970		0.61		69.8		20.4		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4278	398	6970	1839	0.61	0.22	62.4	56.5	22.9	23.7	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		3868		6970		0.55		70.8		18.2		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4004	136	6970	1839	0.57	0.07	66.5	64.6	20.1	15.8	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4008	6970	0.58	70.5	19.0	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	69.2	19.7	18.4	2.8	C

Facility Overall Results

Space Mean Speed, mi/h	69.2	Density, veh/mi/ln	18.4
Average Travel Time, min	2.8	Density, pc/mi/ln	19.7

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Yorkshire St.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Yorkshire	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Yorkshire	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Yorkshire	1500	3
5	Basic	Basic	I-75 Southbound South of Yorkshire	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4025	6970	0.58	70.5	19.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4025	234	6970	1839	0.58	0.13	62.8	57.0	21.4	22.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3784	6970	0.54	70.9	17.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	4264	480	6970	1839	0.61	0.26	66.0	64.1	21.5	18.0	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4278	6970	0.61	69.8	20.4	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	69.2	19.6	18.3	2.8	C

Facility Overall Results

Space Mean Speed, mi/h	69.2	Density, veh/mi/ln	18.3
Average Travel Time, min	2.8	Density, pc/mi/ln	19.6

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Sarasota County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Yorkshire St.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Raintree	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Raintree	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Raintree	1500	3
5	Basic	Basic	I-75 Southbound South of Raintree	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5505	6970	0.79	64.0	28.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	5505	349	6970	1839	0.79	0.19	62.6	56.6	29.3	29.0	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5146	6970	0.74	66.2	25.9	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.962	5505	359	6970	1839	0.79	0.20	64.0	61.9	28.7	23.7	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5515	6970	0.79	64.0	28.7	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.3	28.2	26.3	3.0	D

Facility Overall Results

Space Mean Speed, mi/h	64.3	Density, veh/mi/ln	26.3
Average Travel Time, min	3.0	Density, pc/mi/ln	28.2

To: Joshua A. Jester, E.I. From: Deepika Fields, PE
FDOT, District One Interstate Program Office Stantec
Project/File: I-75 Central Corridor Master Plan Date: May 19, 2022

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

This memo presents the feasibility analysis for a proposed new interchange on I-75 located in the vicinity of milepost 3.375 near the Slater Road overpass in Lee County. Approximately 0.9 mile south of I-75, Slater Road intersects with Mellow Drive which becomes Del Prado Boulevard to the west. The proposed interchange on I-75 would be located approximately 3.0 miles north of the SR 78 (Bayshore Road) interchange in Lee County and 11.2 miles south of the Tuckers Grade interchange in Charlotte County. Figure 1 shows the existing and proposed interchanges in the study area.

Future 2045 traffic volumes were developed for the I-75 mainline and the proposed interchange based on the following methodology. The I-75 Southwest Connect District One Regional Planning Model (I-75 SW Connect D1RPM) with future year 2040 used for the I-75 Central Corridor Master Plan (I-75 CCMP) was compared to the recently released D1RPM v2 (future year 2045) model. Based on a review of the zonal data near the proposed interchange location, the overall zonal structure remained the same however, some changes were noted in the socioeconomic (SE) data and roadway network characteristics between the two model versions. Therefore, the I-75 SW Connect D1RPM v1.0.6 2040 model was updated to include changes to match the D1RPM v2 model in the study area surrounding the proposed interchange. These changes included SE data updates to reflect changes in population, employment and dwelling units as well as roadway network updates to reflect changes in facility type (functional class) and number of lanes for the future year No Build and Build scenarios. Model data and network comparisons are provided in Attachment A.

Table 1 provides a summary of the daily traffic volumes resulting from the various model runs. Adjustment factors were computed for the updated model No Build AADTs compared to the original CCMP No Build AADTs and for the updated model Build versus No Build scenarios. These adjustment factors were applied to the original I-75 CCMP traffic volumes to estimate 2045 daily Build volumes. The previously determined K (9%) and D (56.3%) factors were then applied to the resulting 2045 daily volumes to produce peak hour estimates along the mainline.

For the proposed interchange ramps, the average of the peak-to-daily ratios for the ramps at both Tuckers Grade and SR 78 (Bayshore Road) interchanges were used to estimate the 2045 peak hour ramp volumes at the proposed Del Prado Boulevard interchange since it is located between the two existing interchanges and is expected to exhibit characteristics similar to both. The model outputs and traffic volume estimation data are provided in Attachment A.

Level of Service (LOS) for the I-75 Central Corridor was evaluated for the freeway mainline and ramp segments using the freeway facilities core methodology of the Highway Capacity Manual, 6th Edition and corresponding software (HCS7).

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)



Figure 1: Project Location Map

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

Table 1: 2040 D1RPM No Build and Build AADT

Model, Year & Scenario	I-75 Mainline between Tuckers Grade and SR 78 (Bayshore Road)	
	AADT (2-Way Total)	Model Growth Rate
I-75 SW Connect D1RPM 2015 Base Year	52,779	-
I-75 SW Connect D1RPM 2040 No Build	54,106	0.1%
I-75 SW Connect D1RPM w/v2 2045 SE data + FT, NL updates 2040 No Build	51,929	-0.1%
I-75 SW Connect D1RPM w/v2 2045 SE data + FT, NL updates 2040 Del Prado Interchange Build	55,539	0.2%
Notes:	1. FT = facility type (functional class), NL = Number of Lanes 2. Reflects annual, linear growth rate computed between 2015 base year and future 2040 model year 3. FDOT Traffic Online 2019 AADT = 50,000; 2020 AADT = 44,500	

The following input parameters were used for the 2045 Build operational analysis:

- Peak Hour Factor (PHF): 0.95
- Level terrain
- Free-Flow Speed: 75.4 mph
- Total Trucks: 6.9% (I-75 mainline)*
- Speed and Capacity Adjustment factors based on “Mostly Familiar” Driver Population
 *Source: I-75 Central Corridor Master Plan Traffic Analysis (January 2022)

The future 2045 Build scenario performance measures including speed, density and LOS for the overall freeway facility in both directions are summarized in Table 2. The future year operational analysis worksheets are included in Attachment B.

Table 2: 2045 Build Peak Hour Freeway Facilities Level of Service Analysis

Freeway Facility*	AM Peak Hour			PM Peak Hour		
	Speed (mi/hr)	Density (pc/mi/ln)	LOS	Speed (mi/hr)	Density (pc/mi/ln)	LOS
I-75 and Del Prado Boulevard Interchange						
Northbound	70.1	15.5	B	69.1	19.5	C
Southbound	69.3	18.3	C	70.1	14.7	B
*I-75 is a 6-lane freeway with 3 lanes in each direction						

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

The results of the Del Prado Boulevard interchange Build operational analyses indicate that for design year 2045, the I-75 mainline freeway segments north and south of the ramps are anticipated to operate at LOS C or better during the AM and PM peak hours. The entrance and exit ramps in both northbound and southbound directions are also anticipated to operate at LOS C or better during both AM and PM peak hours under build conditions in design year 2045 (see Attachment B).

Based on a review of the D1RPM daily model volumes, the projected 2045 peak hour traffic volumes and the results of the future 2045 operational analyses, the following observations are noted for the Build scenario at proposed interchange location between Tuckers Grade and SR 78 (Bayshore Road).

- The D1RPM 2040 Del Prado Boulevard Interchange Build model run resulted in daily traffic volumes on I-75 about 7% higher than the 2040 No Build model volumes within the proposed interchange area.
- The D1RPM 2040 Del Prado Boulevard Interchange Build model run resulted in reduced traffic volumes on a majority of the roadway links in the study area including the adjacent interchange ramps compared to the future No Build scenario as shown in Table 3.

Table 3: I-75 Study Area 2040 No Build and Build AADT

Location/ Segment	AADT (2-Way Total Volume)*		Percent Change
	No-Build	Build	
I-75 Mainline at Tuckers Grade			
North of Tuckers Grade	58,500	61,000	4%
South of Tuckers Grade	52,500	56,000	7%
I-75 Ramps at Tuckers Grade			
NB On Ramp	8,700	7,400	-15%
SB Off Ramp	7,400	6,600	-11%
SB On Ramp	4,900	4,300	-12%
NB Off Ramp	5,100	4,800	-6%
Tuckers Grade			
West of I-75	25,500	22,500	-12%
East of I-75	2,900	2,900	0%
I-75 Mainline at Del Prado Boulevard			
North of Del Prado Boulevard	52,000	55,500	7%
South of Del Prado Boulevard	52,000	61,000	17%
I-75 Ramps at Del Prado Boulevard**			
NB On Ramp	-	5,900	-
SB Off Ramp	-	4,700	-
SB On Ramp	-	9,000	-
NB Off Ramp	-	7,400	-

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

Table 3: I-75 Study Area 2040 No Build and Build AADT

Location/ Segment	AADT (2-Way Total Volume)*		Percent Change
	No-Build	Build	
Del Prado Boulevard			
South of I-75	-	23,000	-
North of I-75	-	5,900	-
I-75 Mainline at SR 78/ Bayshore Road			
North of SR 78 (Bayshore Road)	52,000	61,000	17%
South of SR 78 (Bayshore Road)	75,000	84,500	13%
I-75 Ramps at SR 78 (Bayshore Road)			
NB On Ramp	3,900	1,800	-54%
SB Off Ramp	5,400	4,700	-13%
SB On Ramp	15,500	14,500	-6%
NB Off Ramp	17,500	16,500	-6%
SR 78 (Bayshore Road)			
West of I-75	47,500	42,500	-11%
East of I-75	36,500	36,000	-1%
US 41 (N. Tamiami Trail)			
North of SR 78 (Bayshore Rd.)	32,500	30,000	-8%
South of SR 78 (Bayshore Rd.)	40,500	39,000	-4%
North of Del Prado Blvd.	61,000	60,000	-2%
South of Del Prado Blvd.	34,500	34,500	0%
North of Tuckers Grade	28,000	26,500	-5%
South of Tuckers Grade	40,500	35,500	-12%
Notes: *MOCFs applied to PSWADT - Charlotte County: 0.88, I-75 0.88; Lee County: 0.90, I-75 0.87 **Proposed Interchange			

Table 4 provides disaggregation of the volume change for the links included in this analysis. Model plots illustrating bandwidths that show increase or decrease in volumes are provided in Attachment A.

Table 4: Cumulative Percent Change in Link Volumes Compared to No Build

Volume Change Range	Del Prado Interchange Build Alternative	
	# of Links	% of Links
(10,000) - (5,001)	-	0%
(5,000) - (2,501)	39	4%
(2,500) - (1)	436	50%

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

Table 4: Cumulative Percent Change in Link Volumes Compared to No Build

Volume Change Range	Del Prado Interchange Build Alternative	
	# of Links	% of Links
0 - 2,500	329	37%
2,501 - 5,000	34	4%
5,001 - 10,000	35	4%
10,001 - 15,000	6	1%
15,001 - 20,000	-	0%
Total # of Links	879	100%

- The Del Prado Boulevard interchange Build scenario is expected to reduce the overall ramp volumes at the adjacent interchanges as shown in Table 5.

Table 5: Change in Ramp Traffic Volume Compared to No Build

I-75 On & Off Ramps at Adjacent Interchanges	Change in Daily Volume (all ramps)	% Change
Tuckers Grade Interchange	-3,000	-11%
SR 78 (Bayshore Road) Interchange	-4,800	-11%

Additional review of 2045 future AADT volumes was conducted to identify segments that may exceed thresholds based on the generalized Annual Average Daily Volumes for Urbanized Areas in the FDOT 2020 Quality/Level of Service (LOS) Handbook as summarized in Table 6.

Table 6: Generalized Annual Average Daily Volumes based on FDOT 2020 Q/LOS Handbook*

Facility	Functional Class	LOS D Threshold	
		State Road	Non-State (-10%)
I-75 Mainline	Interstate (Freeway)	113,600	-
Tuckers Grade West of I-75	Minor Arterial	39,800	35,820
Tuckers Grade East of I-75	Minor Arterial	14,800	13,320
Del Prado Blvd.	Major Collector	17,700	15,930
SR 78 (Bayshore Rd.) West of I-75	Other Principal Arterial	39,800	-
SR 78 (Bayshore Rd.) East of I-75	Minor Arterial	39,800	-
US 41 (N. Tamiami Trail) North of SR 78	Other Principal Arterial	39,800	-
US 41 (N. Tamiami Trail) South of SR 78	Other Principal Arterial	59,900	-

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

Based on the established criteria, the model volumes for the various study segments indicate that the vast majority of the study area will be under the maximum service volumes as summarized in Table 7.

Table 7: Study Area Segments Under LOS D Threshold

Location/ Segment	2045 AADT*		LOS D or Better?	
	No-Build	Build	No-Build	Build
I-75 Mainline at Tuckers Grade				
North of Tuckers Grade	63,000	65,500	Yes	Yes
South of Tuckers Grade	56,500	60,500	Yes	Yes
Tuckers Grade				
West of I-75	27,500	24,000	Yes	Yes
East of I-75	3,100	3,100	Yes	Yes
I-75 Mainline at Del Prado Boulevard				
North of Del Prado Boulevard	56,000	59,500	Yes	Yes
South of Del Prado Boulevard	56,000	66,000	Yes	Yes
Del Prado Boulevard				
South of I-75	-	25,000	Yes	No
North of I-75	-	6,400	Yes	Yes
I-75 Mainline at SR 78/ Bayshore Road				
North of SR 78 (Bayshore Road)	56,000	66,000	Yes	Yes
South of SR 78 (Bayshore Road)	80,500	91,000	Yes	Yes
SR 78/ Bayshore Road				
West of I-75	51,000	46,000	No	No
East of I-75	39,500	38,500	Yes	Yes
US 41 (N. Tamiami Trail)				
North of SR 78 (Bayshore Rd.)	35,000	32,000	Yes	Yes
South of SR 78 (Bayshore Rd.)	43,500	42,000	Yes	Yes
North of Del Prado Blvd.	65,500	64,500	No	No
South of Del Prado Blvd.	37,500	37,000	Yes	Yes
North of Tuckers Grade	30,500	28,500	Yes	Yes
South of Tuckers Grade	43,500	38,000	No	Yes

*2045 AADT was estimated by applying a 1.5% annual growth rate (as determined in the I-75 CCMP) to 2040 model AADT volumes.

Three roadway segments in the study area were identified as falling below LOS D in future year 2045: Del Prado Boulevard south of I-75, SR 78 (Bayshore Road) west of I-75 and US 41 North of Del Prado Boulevard. The segments of US 41 and SR 78 are projected to exceed the service volume of a 4-lane roadway in the 2045 No-Build condition. The SR 78 segment west of the interstate, between Slater Road and I-75 is projected to have 51,000 AADT by 2045 under No-Build conditions. The preceding traffic volume

Reference: Future 2045 New Interchange Analysis (Del Prado Boulevard)

projections indicate a need for widening SR 78 to a 6-lane section east of Slater Road to I-75 under 2045 No-Build. The addition of a new interchange at Del Prado Boulevard is projected to decrease the volume by 10% along this segment to 46,000 AADT (Build). The Lee County Metropolitan Planning Organization's (MPO) 2045 Transportation Plan shows SR 78 to be a 6-lane divided facility between US 41 and Slater Road in the 2045 Cost Feasible Roadway Projects. The 2045 projections indicate a need for improvements along SR 78 west of I-75 *with or without* the proposed interchange.

US 41, north of Del Prado Boulevard, is projected to have 65,500 AADT under No-Build conditions, exceeding the capacity of a 4-lane section. The addition of a new interchange at Del Prado Boulevard is projected to minimally decrease the volume by 2% along this segment to 64,500 AADT (Build). However, the US 41 segment south of Tuckers Grade is projected to decrease by 13% to 38,800 AADT (Build), falling within target LOS D volume range. US 41 is part of the Corridor Vision Plan (CVP) identified in the Charlotte County-Punta Gorda MPO 2045 Long Range Transportation Plan's Cost Feasible Projects. The CVP intends to develop US 41 as a 4-lane divided, Green Spine/ parkway that provides regional mobility between Sarasota and Lee Counties. The 2045 volume projections indicate a need for additional capacity along US 41 with or without the proposed interchange.

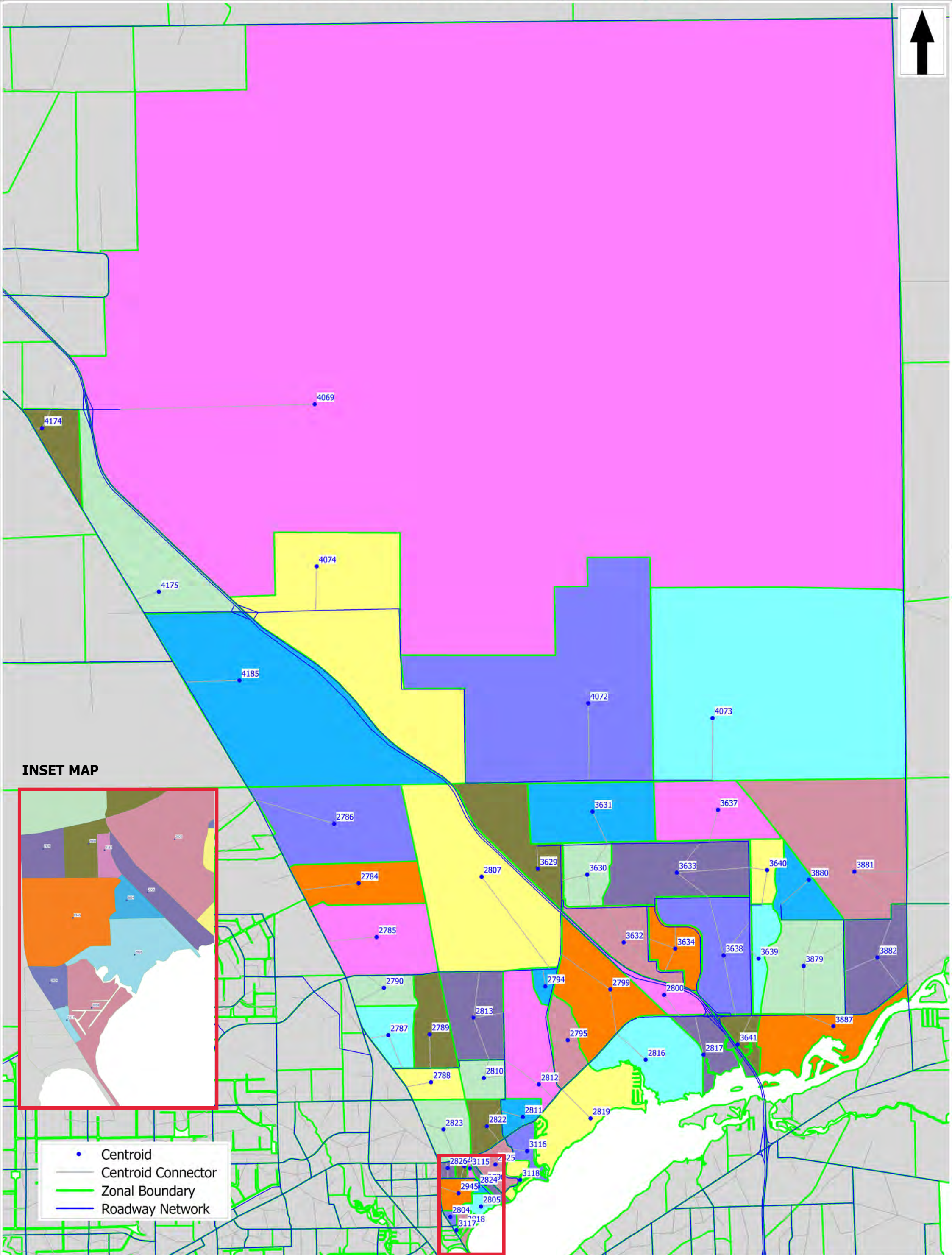
Based on the preceding evaluation, a new interchange at Del Prado Boulevard shows a potential to reduce traffic at existing adjacent interchanges while maintaining target levels of service on the I-75 mainline. The analysis also showed that the supporting roadway network would need improvements in future year 2045 with or without the proposed interchange. Del Prado Boulevard would need to be improved to a 4-lane section between US 41 and I-75 to accommodate traffic volumes resulting from a new interchange. In addition, the key corridors of SR 78 west of I-75, and US 41 north of Del Prado Boulevard are anticipated to exceed capacity with or without the proposed interchange.

This memo documented a high-level analysis to determine the feasibility of adding a potential new interchange. Network changes were limited to updating the I-75 SW Connect D1RPM 2040 No Build to reflect what is in the recently released D1RPM v2 2045 model. Base year model calibration and validation were completed prior to running the future year model and model validation statistics were provided as part of the Charlotte County study in the *I-75 Feasibility Study Traffic Forecast Memorandum (March 10, 2021)*. Additional traffic analyses which include detailed subarea 2015 model validation will be required as part of a future interchange access request for the proposed new interchange.

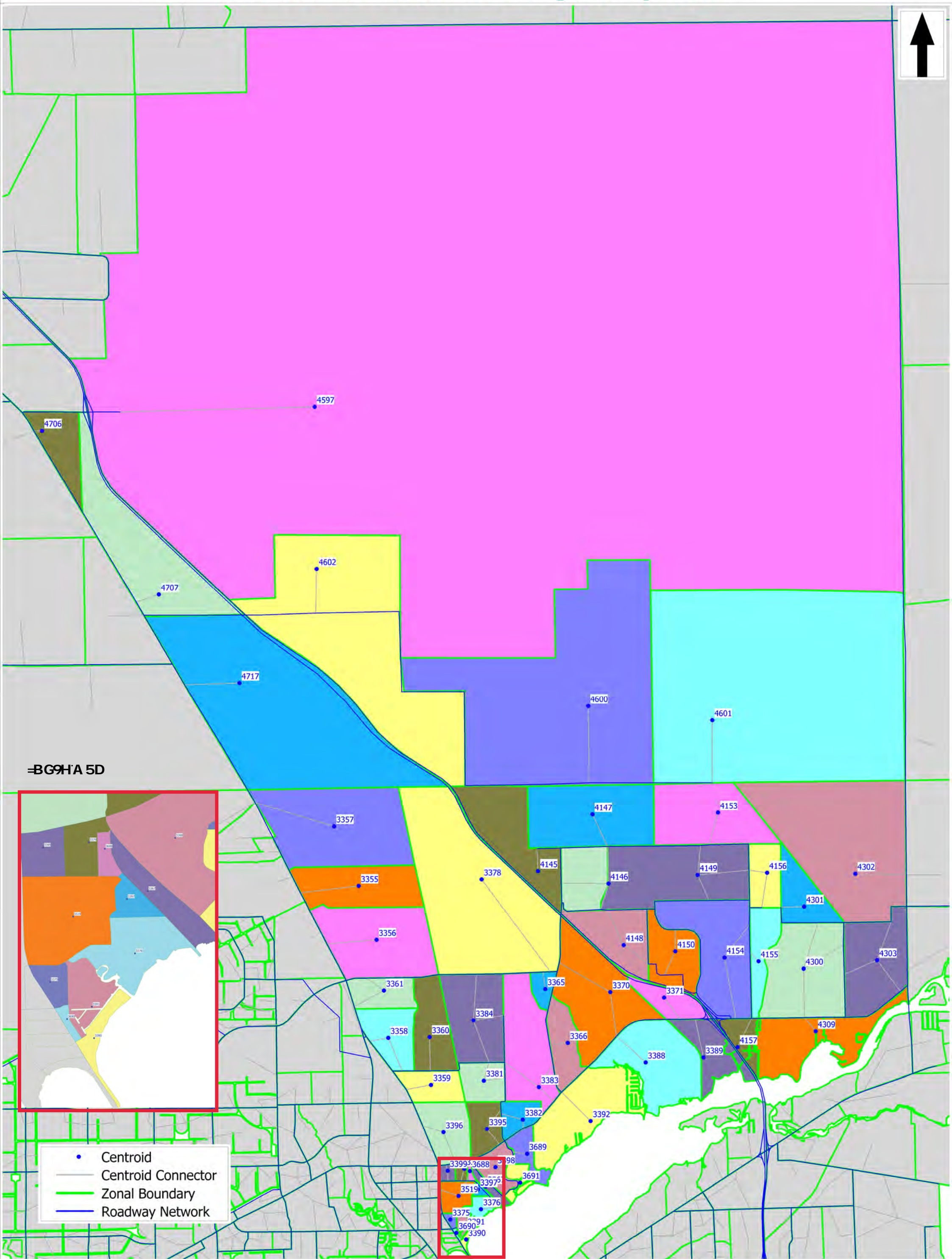
Attachment: A: D1RPM-Model Outputs and Traffic Volume Estimation Data
B: Operations Analysis Outputs

I-75 Central Corridor Master Plan - Future 2045 New Interchange Analysis
ATTACHMENT A: D1RPM-Model Outputs and Traffic Volume Estimation Data

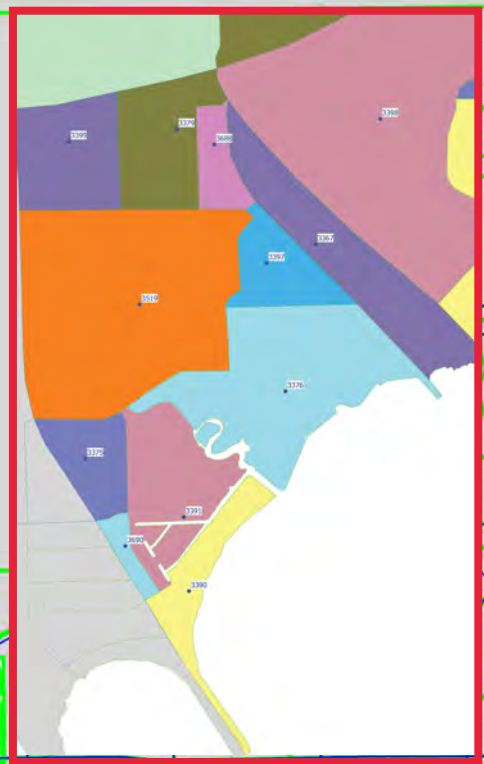
D1RPM v1.0.6 SW Connect 2040 No-Build Model Zonal Structure I-75 at Del Prado Interchange Study Area



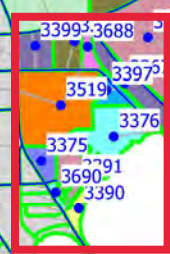
D1RPM v2.0 2045 No-Build Model Zonal Structure I-75 at Del Prado Interchange Study Area



5D HA 91-B



- Centroid
- Centroid Connector
- Zonal Boundary
- Roadway Network

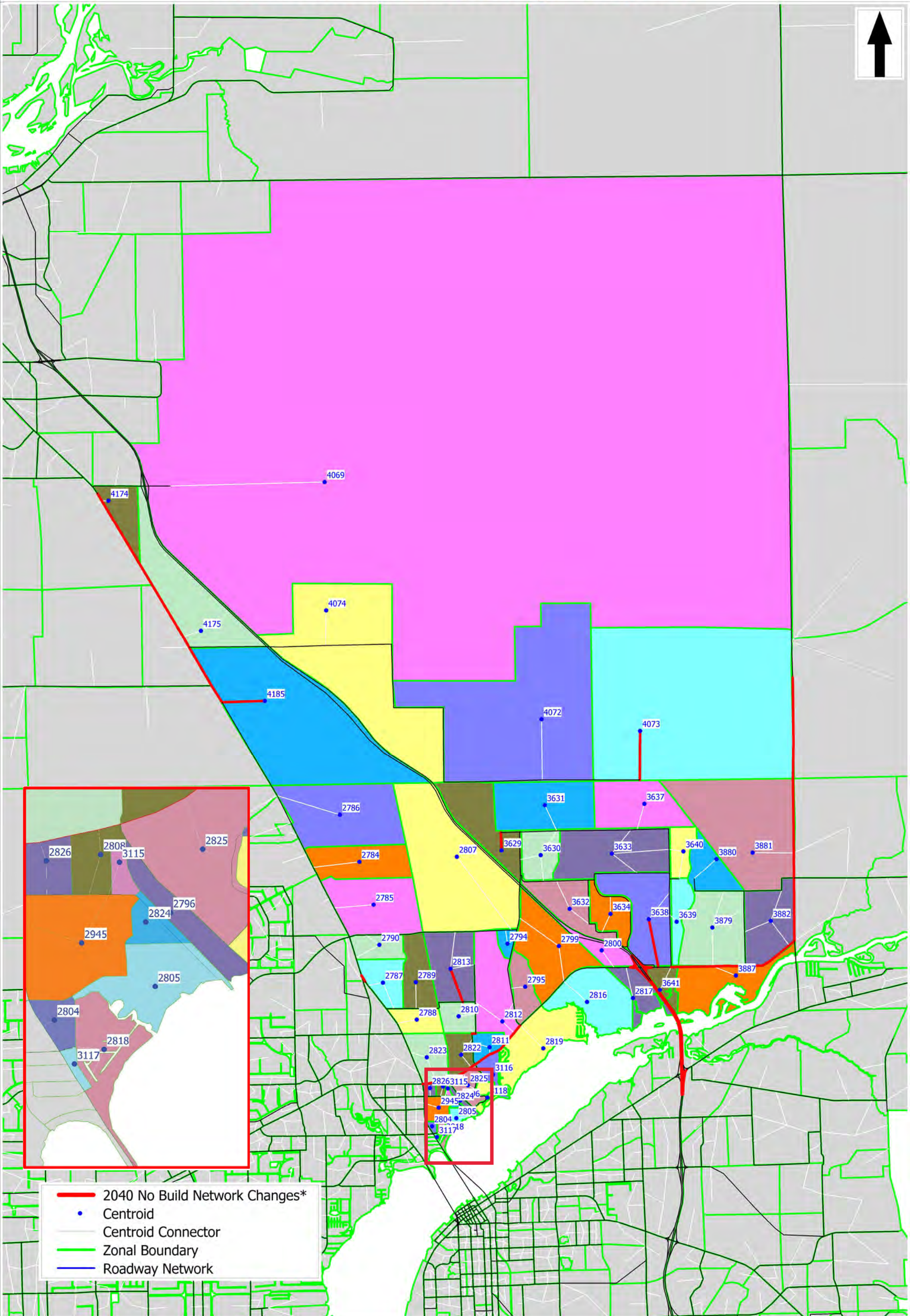


D1RPM 2040/2045 Zonal Data Comparison

Zone Number		Population			Dwelling Units (DU)			Workers/DU			Employment		
Version 1.0.6	Version 2	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference
2784	3355	2,029	1,979	(50)	2,029	1,357	(672)	1.00	0.72	-0.28	313	308	(5)
2785	3356	8,274	1,479	(6,795)	6,528	997	(5,531)	1.00	0.80	-0.20	789	388	(401)
2786	3357	5,579	3,672	(1,907)	3,564	2,180	(1,384)	0.39	0.80	0.41	406	295	(111)
2787	3358	2,946	2,153	(793)	1,836	1,472	(364)	0.73	0.89	0.16	31	221	190
2788	3359	1,159	832	(327)	1,159	571	(588)	1.00	0.66	-0.34	23	198	175
2789	3360	3,382	947	(2,435)	2,096	630	(1,466)	0.57	0.82	0.25	385	526	141
2790	3361	1,201	1,208	7	810	841	31	1.00	0.73	-0.27	62	322	260
2794	3365	53	51	(2)	38	31	(7)	1.33	1.02	-0.31	434	4	(430)
2795	3366	1,304	1,094	(210)	781	751	(30)	0.86	0.82	-0.04	119	136	17
2796	3367	256	139	(117)	133	81	(52)	1.00	1.20	0.20	4	6	2
2799	3370	6,868	542	(6,326)	3,551	358	(3,193)	1.33	1.06	-0.27	967	778	(189)
2800	3371	261	94	(167)	123	57	(66)	1.33	1.25	-0.08	3,053	1,176	(1,877)
2804	3375	85	125	40	85	88	3	1.00	0.86	-0.14	214	261	47
2805	3376	239	363	124	174	173	(1)	1.00	1.06	0.06	22	14	(8)
2807	3378	308	147	(161)	219	90	(129)	1.33	0.96	-0.37	11	22	11
2808	3379	112	93	(19)	88	54	(34)	1.00	1.13	0.13	175	162	(13)
2810	3381	1,174	641	(533)	744	431	(313)	0.72	1.06	0.34	18	55	37
2811	3382	1,336	1,432	96	1,206	984	(222)	0.72	0.64	-0.08	92	112	20
2812	3383	2,603	1,433	(1,170)	1,264	965	(299)	0.87	1.02	0.15	721	580	(141)
2813	3384	2,274	1,594	(680)	1,148	1,085	(63)	0.98	1.10	0.12	52	116	64
2816	3388	893	2,162	1,269	849	1,454	605	0.98	0.95	-0.03	121	99	(22)
2817	3389	851	396	(455)	402	273	(129)	0.98	1.00	0.02	309	436	127
2818	3390	359	130	8	276	77	54	1.00	0.92	0.12	179	4	150
	3391		221			145			0.84			25	
2819	3392	3,318	2,526	(792)	2,019	1,522	(497)	0.88	0.92	0.04	1,673	366	(1,307)
2822	3395	1,417	1,538	121	1,345	1,052	(293)	1.00	0.70	-0.30	21	77	56
2823	3396	2,203	2,406	203	1,897	1,616	(281)	1.00	0.70	-0.30	230	413	183
2824	3397	376	71	(305)	209	43	(166)	1.00	0.98	-0.02	4	4	-
2825	3398	1,148	1,175	27	758	741	(17)	0.77	0.86	0.09	66	72	6
2826	3399	195	141	(54)	113	62	(51)	1.00	1.16	0.16	65	82	17
2945	3519	556	425	(131)	360	263	(97)	1.00	0.94	-0.06	20	123	103
3115	3688	-	-	-	-	-	-	0.00	0.00	0.00	948	369	(579)
3116	3689	1,015	878	(137)	1,015	696	(319)	1.00	0.64	-0.36	204	153	(51)
3117	3690	16	2	(14)	9	1	(8)	1.00	1.00	0.00	63	69	6
3118	3691	622	800	178	606	553	(53)	1.00	0.59	-0.41	7	16	9
3629	4145	110	238	128	45	112	67	1.73	1.05	-0.68	10	5	(5)
3630	4146	234	257	23	135	123	(12)	1.73	1.15	-0.58	31	5	(26)

Zone Number		Population			Dwelling Units (DU)			Workers/DU			Employment		
Version 1.0.6	Version 2	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference	Version 1.0.6	Version 2	Difference
3631	4147	222	291	69	111	136	25	1.73	1.11	-0.62	65	23	(42)
3632	4148	633	179	(454)	298	80	(218)	1.40	1.16	-0.24	52	28	(24)
3633	4149	499	480	(19)	235	213	(22)	1.73	1.18	-0.55	78	70	(8)
3634	4150	1,992	1,340	(652)	865	648	(217)	1.40	1.23	-0.17	29	34	5
3637	4153	285	269	(16)	141	123	(18)	1.73	1.15	-0.58	37	30	(7)
3638	4154	3,413	2,528	(885)	1,723	1,237	(486)	1.40	1.20	-0.20	309	65	(244)
3639	4155	130	149	19	66	65	(1)	1.40	1.02	-0.38	38	43	5
3640	4156	113	203	90	58	93	35	1.58	1.14	-0.44	10	21	11
3641	4157	215	156	(59)	118	68	(50)	0.98	0.99	0.01	26	10	(16)
3879	4300	708	621	(87)	391	293	(98)	1.40	1.01	-0.39	187	152	(35)
3880	4301	112	109	(3)	66	49	(17)	1.68	1.06	-0.62	18	15	(3)
3881	4302	463	524	61	218	239	21	1.94	1.23	-0.71	88	78	(10)
3882	4303	447	498	51	231	217	(14)	1.51	1.12	-0.39	91	616	525
3887	4309	736	1,444	708	736	753	17	1.00	0.76	-0.24	49	34	(15)
4069	4597	621	645	24	320	447	127	1.00	1.16	0.16	67	81	14
4072	4600	122	91	(31)	40	32	(8)	1.00	1.48	0.48	23	18	(5)
4073	4601	345	306	(39)	154	185	31	1.00	1.13	0.13	181	178	(3)
4074	4602	188	61	(127)	99	33	(66)	1.00	0.97	-0.03	472	374	(98)
4174	4706	194	200	6	102	126	24	1.02	0.96	-0.06	72	113	41
4175	4707	72	42	(30)	72	22	(50)	1.00	0.75	-0.25	29	27	(2)
4185	4717	495	8,991	8,496	363	4,742	4,379	0.99	0.88	-0.11	160	453	293
Study Area Total		66,761	52,511	(14,234)	44,021	31,730	(12,183)	NA	NA	NA	13,923	10,461	(3,162)

D1RPM v1.0.6 SW Connect 2040 No-Build Network Changes I-75 at Del Prado Interchange Study Area

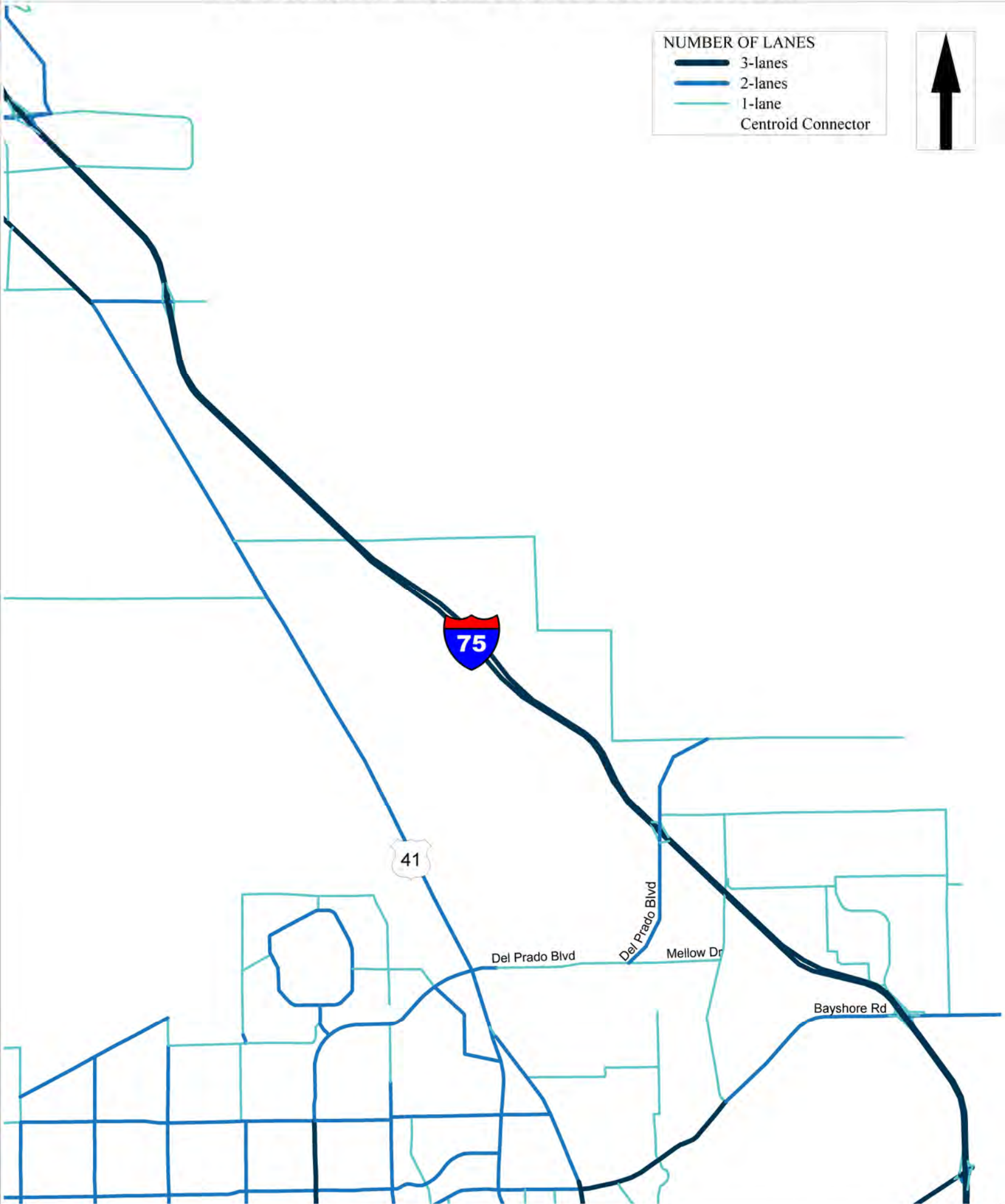
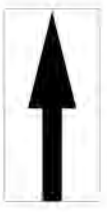


- 2040 No-Build Network Changes*
- Centroid
- Centroid Connector
- Zonal Boundary
- Roadway Network

Del Prado Boulevard Interchange Number of Lanes
2040 D1RPM, v1.0.6 - Updated with 2045 Socioeconomic Data

NUMBER OF LANES

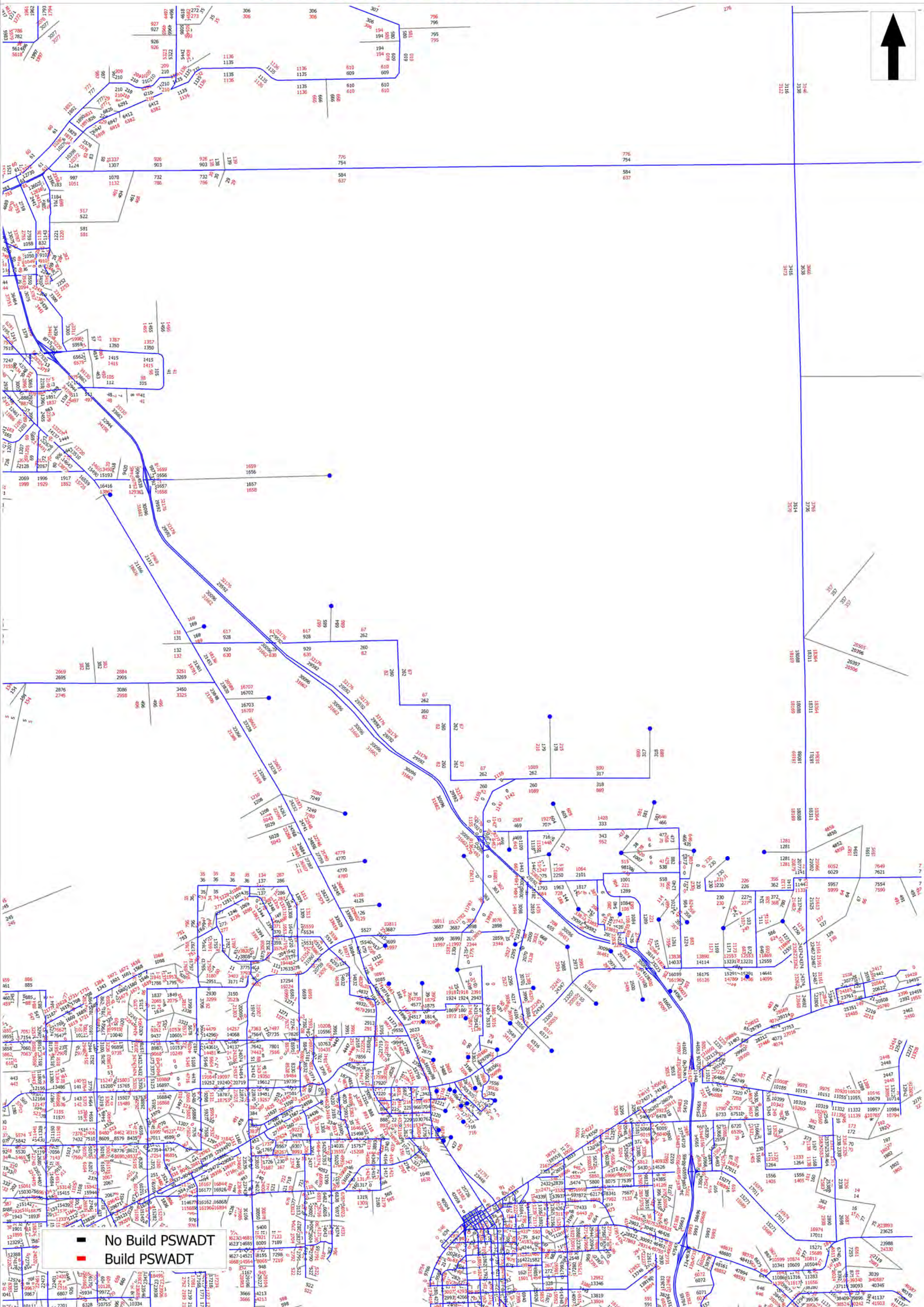
- 3-lanes
- 2-lanes
- 1-lane
- Centroid Connector



I-75 at Del Prado Interchange Study Area

Build 1 - Daily Directional Volumes

D1RPM v1.06 SW Connect 2040 Network

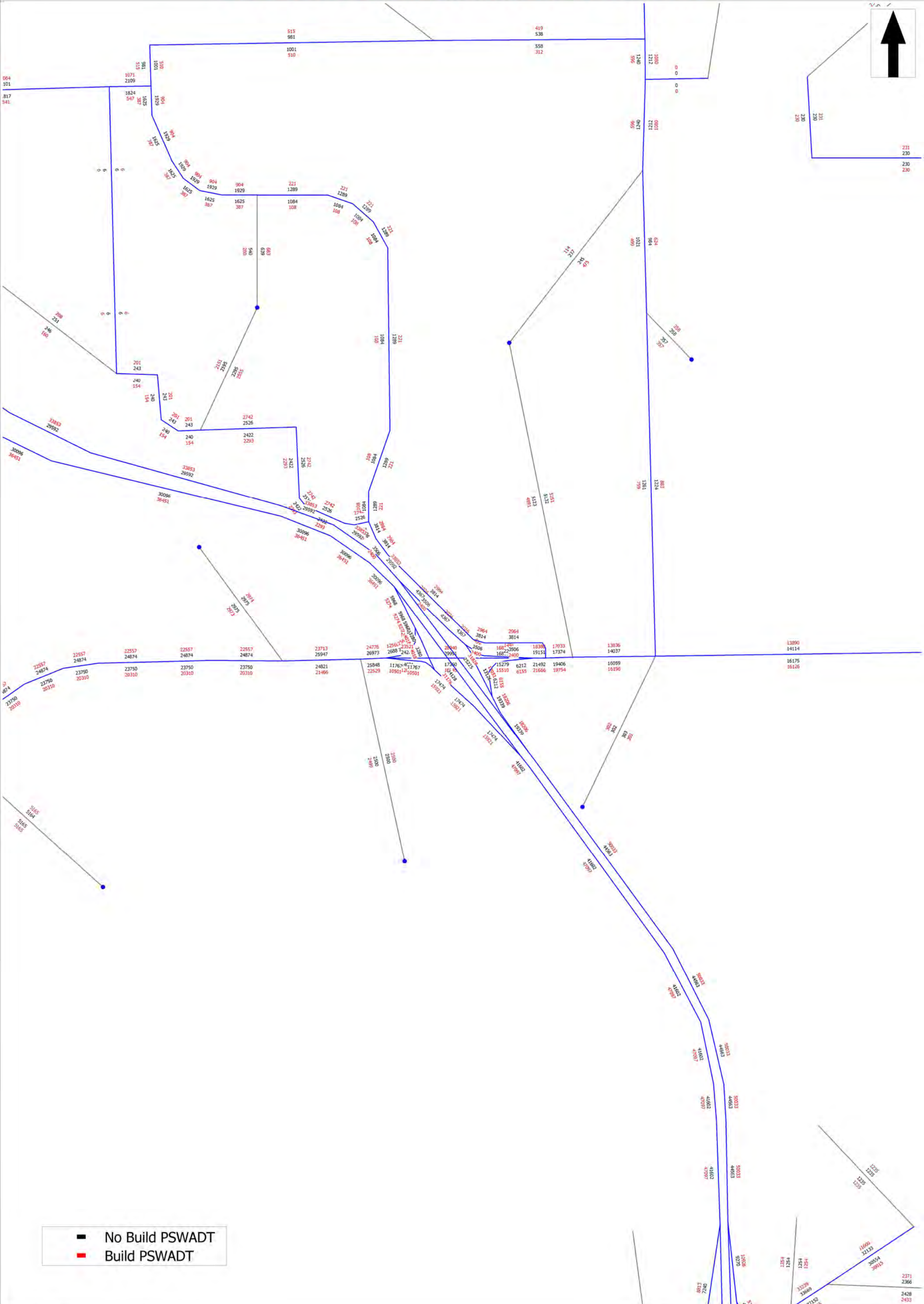


■ No Build PSWADT
■ Build PSWADT

I-75 at Del Prado Interchange Study Area

SR 78 Interchange: Build 1 - Daily Directional Volumes

D1RPM v1.06 SW Connect 2040 Network

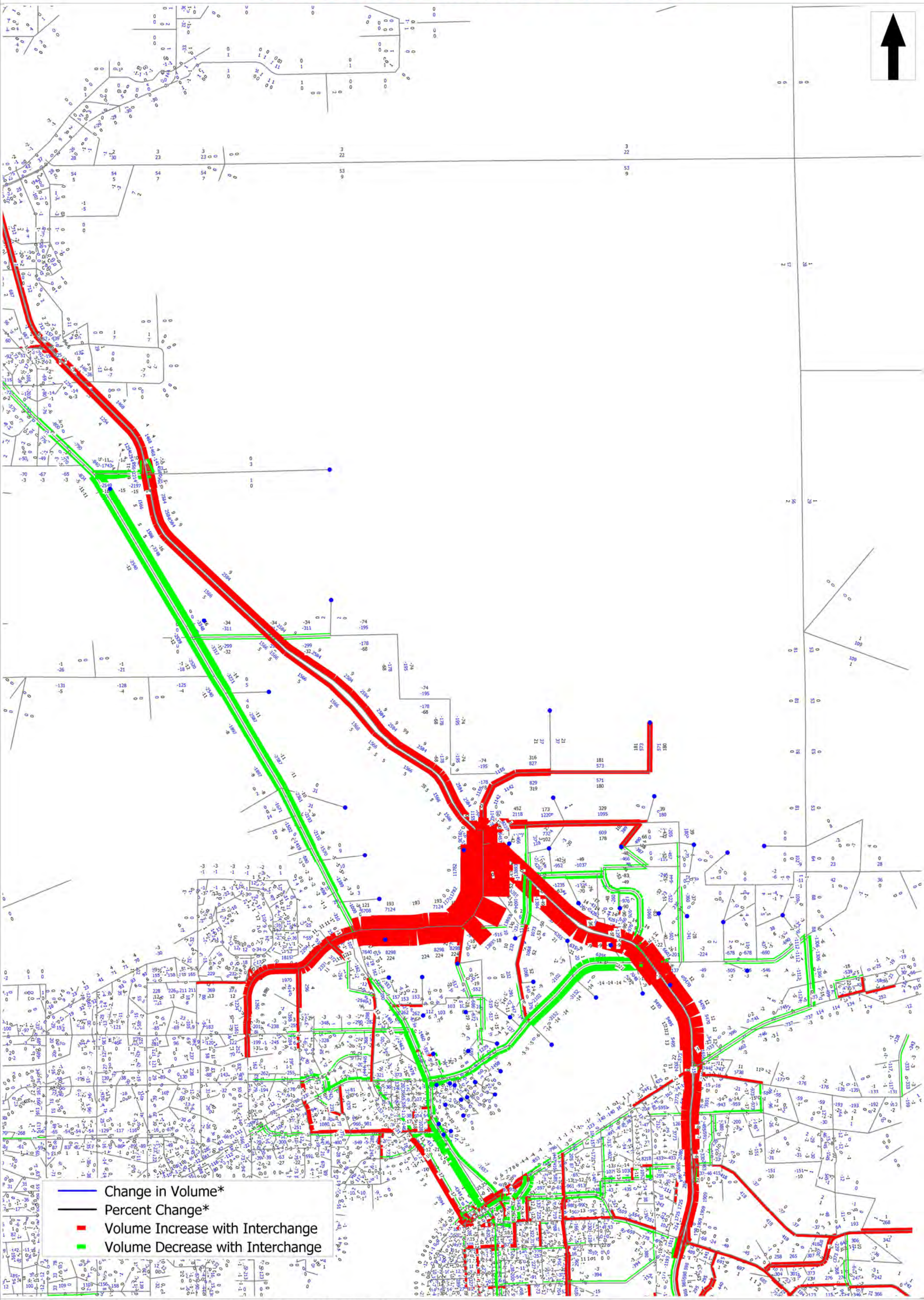


█ No Build PSWADT
█ Build PSWADT

I-75 at Del Prado Interchange Study Area

Build 1 - Change in Volume and Percent Change in Volume

D1RPM v1.06 SW Connect 2040 Network



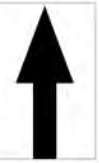
- Change in Volume*
- Percent Change*
- Volume Increase with Interchange
- Volume Decrease with Interchange

* Delta Volumes are calculated as Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

I-75 at Del Prado Interchange Study Area

Del Prado Interchange: Build 1 - Change in Volume and Percent Change in Volume

D1RPM v1.06 SW Connect 2040 Network

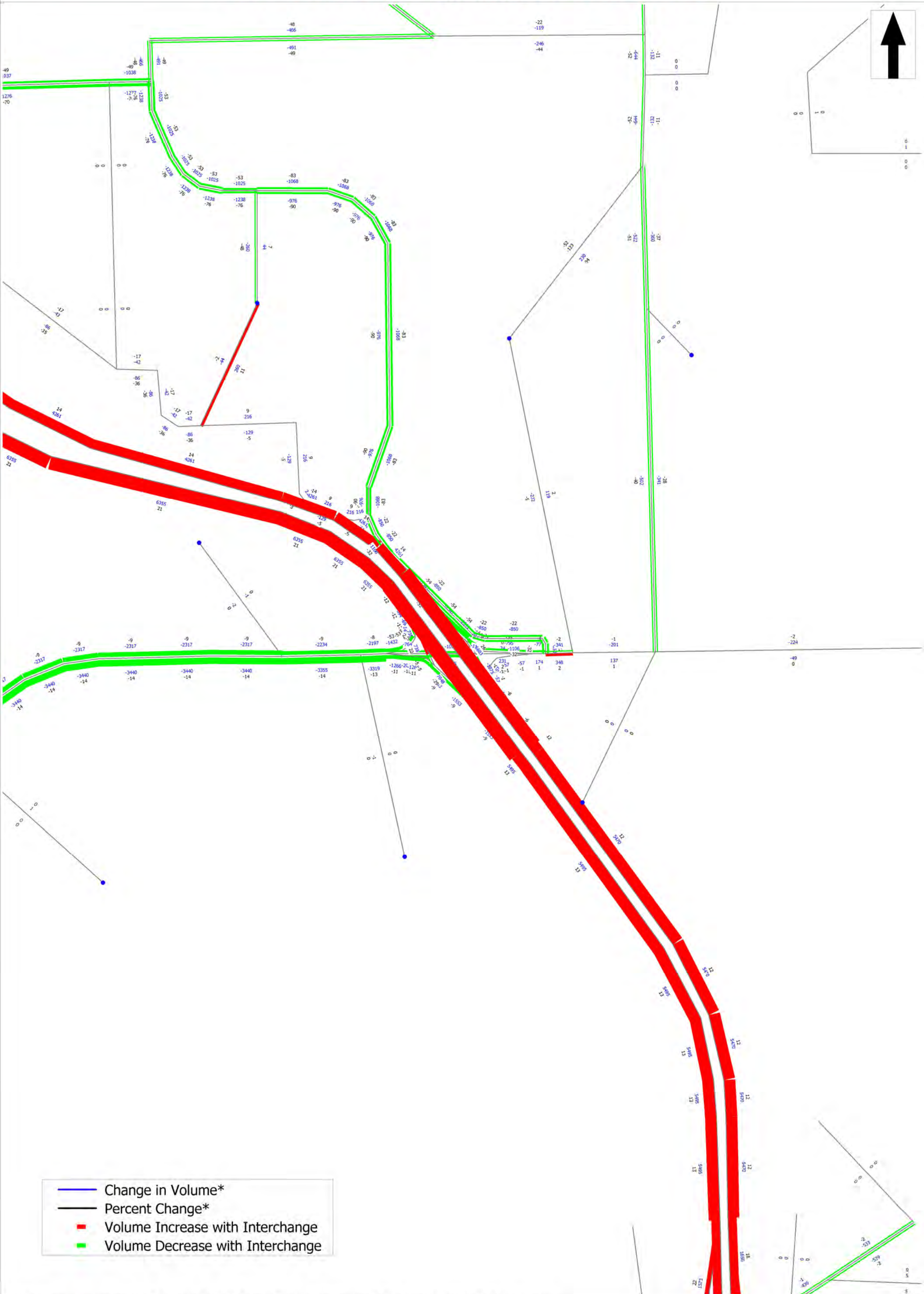


* Delta Volumes are calculated as Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

I-75 at Del Prado Interchange Study Area

SR 78 Interchange: Build 1 - Change in Volume and Percent Change in Volume

D1RPM v1.06 SW Connect 2040 Network



* Delta Volumes are calculated as Build minus No Build. Percent Change is calculated as Delta Volume divided by No Build Volume

Traffic Volume Estimation Data

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
		D1RPM v2/ D1RPMv1.0.6	D1RPM v2/ D1RPMv1.0.6 GR	2040/ 2015 Model Growth Rate	FTO 2019 w/GR applied 2040	FTO 2019 w/GR applied 2045		Ratio 2040 w/GR: Model 2040		Model 2040 w/adjustment for 2045 SE+FT, NL	Model GR applied for 26 years*CCMP factor	Model 2040 w/ GR applied +adjustment for 2045 SE+FT, NL	Model 2040 w/adjustment for 2045 SE+FT, NL*CCMP factor		2045 =75,500*Co lumn C
I-75 Mainline North of Bayshore Rd.															
CCMP 2015 D1RPM	52,779										=COL G*1.4				
FDOT FTO 2019	54,300				71,405	55,720	1.4	1.4	1.29						
CCMP Original 2040NB v1.0.6	54,106			0.1%	55,447		1.32	1.02	71,405		75,477				
2040NB (D1RPM v2 updates)	51,929	0.96	-4.0%	-0.1%	53,565	53,390	72,462	1.03	68,981	49,839	72,321	51,409	67,511	72,461.6	
2040Build (D1RPM v2 updates)	55,539	1.03	7.0%	0.2%	56,685	57,253	77,500	1.02	72,999	59,401	77,554	54,984	80,463	77,499.7	
CCMP 2045	75,500	CCMP Recommended Growth Rate:													
				1.5%		75,477									

Bayshore Rd. Ramps		NB On Ramp			SB Off Ramp			SB On Ramp			NB Off Ramp			AVERAGES NB ON/SB OFF	
D1RPM 2040NB		7,373			7,407			17,844			19,810				
D1RPM 2040Build		7,555			7,684			18,068			20,048				
2045 NB AADT		4,800			5,200			20,000			22,000			5,000	21,000
2045 Build AADT		4,900	0.65		5,500	0.72		20,500	1.13		22,000	1.10		5,200	21,250

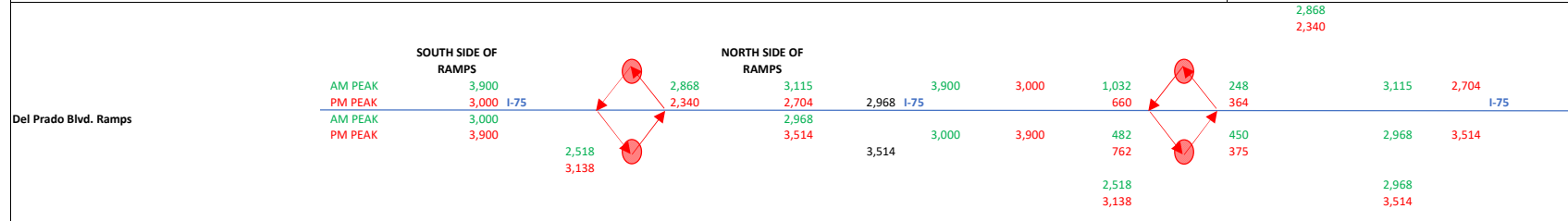
Tuckers Grade Ramps		NB On Ramp			SB Off Ramp			SB On Ramp			NB Off Ramp			NB ON/SB OFF	
CCMP Original 2040NB (D1RPM v1.0.6)		7,482			6,335			5,192			5,480				
2040NB (D1RPM v2 updates)		8,686	1.16		6,966	1.17		4,890	0.94		5,104	0.93		6,986	3,278
2040Build (D1RPM v2 updates)		7,442	0.99		5,968	1.03		4,322	0.83		4,844	0.88		6,088	3,004
CCMP 2045 AADT		6,000	0.81		6,000	0.92		3,500	0.81		3,500	0.72		6,000	3,500

Bayshore Rd. Ramps		AM Peak	PM Peak	Total	AM Peak/Daily	PM Peak/Daily	
NB On Ramp		594	378	972	12%	8%	
SB Off Ramp		302	562	864	6%	11%	
SB On Ramp		2,413	1,538	3,951	12%	8%	
NB Off Ramp		1,547	2,486	4,033	7%	11%	
		4,856	4,964				

Tuckers Grade Ramps		AM Peak	PM Peak	Total	AM Peak/Daily	PM Peak/Daily	Average K of Tuckers Grade & Bayshore Rd	
NB On Ramp		518	578	1,096	9%	10%	11%	9%
SB Off Ramp		435	502	937	7%	8%	7%	10%
SB On Ramp		407	261	668	12%	7%	12%	8%
NB Off Ramp		255	396	651	7%	11%	7%	11%

Del Prado Blvd. Ramps		Average K of Tuckers Grade & Bayshore Rd 2040 BUILD adjusted to		AM Peak	PM Peak
NB On Ramp		5,895	4,288	450	375
SB Off Ramp		4,653	3,795	248	364
SB On Ramp		8,964	8,715	1,032	660
NB Off Ramp		7,404	6,738	482	762

Del Prado Int. 2040NB		2045 AADT		Dir. Dist., D = 56.3%	K = 9%	DDHV	DIR. AADT	DDHV
Del Prado Int. 2040NB		72,500		DIR. AADT				
Del Prado Int. 2040Build		77,000		43,351	33,649	3,902	3,028	43,500
							33,500	3,900
								3,000



	Daily T%	Average of Bayshore+Tucker s Grade	Tpeak = 1/2 Tdaily	Average of Bayshore+Tucker Grade Tpeak	Tpeak used	
Bayshore Rd	all ramps	13.2	13.3	6.6	6.6	
Bayshore Rd	arterial	15.8	10.4	7.9	5.2	Truck % used for all Del Prado Ramps based on average of Bayshore & Tuckers Grade Arterial T%

Tuckers Grade		I-75 ramps S. of	14.1	13.4	7.1	6.7
Tuckers Grade	I-75 ramps N. of	12.6		6.3		
Tuckers Grade	arterial	4.9		2.5		

Facilities Analysis		
Length, L	17,160 ft	3.25 mi
No. Ramps	2	
TRD	=Ramps/Mile	0.62

Sources of Traffic Volume Data:
 I-75 South Corridor Master Plan (Volume Development Documentation) for No Build & Build Design Year (2045)
 I-75 Feasibility Study Traffic Forecast Memorandum (Central Corridor)
 I-75 Central Corridor Master Plan Traffic Summary (CCMP)

I-75 Central Corridor Master Plan - Future 2045 New Interchange Analysis
ATTACHMENT B: Operations Analysis Outputs

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Lee County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Del Prado Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Del Prado Blvd	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Del Prado Blvd	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Del Prado Blvd	1500	3
5	Basic	Basic	I-75 Northbound North of Del Prado Blvd	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3377	6970	0.48	71.4	15.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3377	534	6970	1839	0.48	0.29	61.6	56.1	18.3	19.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	2835	6970	0.41	71.4	13.2	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3333	498	6970	1839	0.48	0.27	66.9	65.0	16.6	13.5	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3341	6970	0.48	71.4	15.6	B

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	70.1	15.5	14.5	2.8	B

Facility Overall Results

Space Mean Speed, mi/h	70.1	Density, veh/mi/ln	14.5
Average Travel Time, min	2.8	Density, pc/mi/ln	15.5

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Lee County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Northbound, New Interchange @Del Prado Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Northbound South of Del Prado	5280	3
2	Diverge	Diverge	I-75 Northbound off ramp to Del Prado	1500	3
3	Basic	Basic	I-75 NB between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Northbound on ramp from Del Prado	1500	3
5	Basic	Basic	I-75 Northbound North of Del Prado	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		4391		6970		0.63		69.5		21.1		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	4391	843	6970	1839	0.63	0.46	61.1	55.3	24.0	25.0	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		3533		6970		0.51		71.3		16.5		B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3948	415	6970	1839	0.57	0.23	66.4	64.5	19.8	16.3	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3955	6970	0.57	70.6	18.7	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	69.1	19.5	18.3	2.8	C

Facility Overall Results

Space Mean Speed, mi/h	69.1	Density, veh/mi/ln	18.3
Average Travel Time, min	2.8	Density, pc/mi/ln	19.5

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Lee County	Time Period Analyzed	AM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Del Prado Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Del Prado	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Del Prado	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Del Prado	1500	3
5	Basic	Basic	I-75 Southbound South of Del Prado	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		3507		6970		0.50		71.3		16.4		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3507	275	6970	1839	0.50	0.15	62.6	56.9	18.7	19.8	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		3228		6970		0.46		71.4		15.1		B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	4370	1142	6970	1839	0.63	0.62	65.3	63.3	22.3	20.1	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4390	6970	0.63	69.5	21.1	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	69.3	18.3	17.1	2.8	C

Facility Overall Results

Space Mean Speed, mi/h	69.3	Density, veh/mi/ln	17.1
Average Travel Time, min	2.8	Density, pc/mi/ln	18.3

HCS7 Freeway Facilities Report

Project Information

Analyst	Stantec	Agency	FDOT
Jurisdiction	Lee County	Time Period Analyzed	PM PEAK
Analysis Year	2045 Build	Date	4/2022
Project Description	I-75 Central Corridor Master Plan - I-75 Southbound, New Interchange @Del Prado Blvd.		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Segment Geometric Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 Southbound North of Del Prado	5280	3
2	Diverge	Diverge	I-75 Southbound off ramp to Del Prado	1500	3
3	Basic	Basic	I-75 Southbound between off ramp and on ramp	3600	3
4	Merge	Merge	I-75 Southbound on ramp from Del Prado	1500	3
5	Basic	Basic	I-75 Southbound South of Del Prado	5280	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		3044		6970		0.44		71.4		14.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3044	403	6970	1839	0.44	0.22	61.9	56.5	16.4	17.6	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.935		2634		6970		0.38		71.4		12.3		B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.935	0.951	3365	731	6970	1839	0.48	0.40	66.7	64.8	16.8	14.2	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	3377	6970	0.48	71.4	15.8	B

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	70.1	14.7	13.8	2.8	B

Facility Overall Results

Space Mean Speed, mi/h	70.1	Density, veh/mi/ln	13.8
Average Travel Time, min	2.8	Density, pc/mi/ln	14.7



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