TRAFFIC TECHNICAL MEMORANDUM



I-75 (SR 93) PD&E Study

From North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties)

FAP No.: 0751-120I WPI No.: 411014-1 June 2007



TRAFFIC TECHNICAL MEMORANDUM

I-75 (SR 93) Project Development and Environment (PD&E) Study

I-75 from North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties)

FAP No.: 0751-120I

WPI No.: 411014-1

This proposed action consists of capacity and safety improvements to

I-75 (SR 93), a four-lane divided limited access freeway, from North of SR 52

(Pasco County) to South of CR 476B (Sumter County)

Prepared for:
FLORIDA DEPARTMENT OF TRANSPORTATION
District Seven

Prepared by: H.W. LOCHNER, INC.

TABLE OF CONTENTS

1		RODUCTION	
	1.1	Purpose	1
	1.2	Description of Project	3
	1.3	Methodology	4
2	EXI 2.1	STING CONDITIONSRoadway and Intersection Characteristics	
	2.2	Collection of Traffic Data	7
	2.3	Traffic Parameters	. 10
	2.4	Existing Year (2005) Intersection Traffic Volumes	. 12
	2.5	Existing Year (2005) Freeway Segment and Ramp Merge / Diverge LOS	. 13
	2.6	Existing Year (2005) Intersection LOS Analysis Summary	. 13
	2.7	Safety Considerations	. 20
3	FU7 3.1	TURE CONDITIONSPlanned Improvements	
	3.2	Interim Year and Design Year Traffic Projections	. 27
	3.3	Design Year (2030) No-Build Intersection LOS Analysis	. 31
	3.4	Design Year (2030) No-Build Freeway Segment LOS	. 35
	3.5	Design Year (2030) No-Build Ramp Merge/Diverge LOS	. 35
	3.6	Build Freeway Segment and Ramp Merge / Diverge LOS	. 37
	3.7	Build Intersections LOS Analysis	. 48
	3.8	Determination of Storage Lengths	. 69
4	SUN	MMARY AND CONCLUSIONS	. 71

LIST OF TABLES

Table 1 Comparison of Site Specific Data with State and National Data	11
Table 2 Traffic Characteristics for the I-75 PD&E Study Area	11
Table 3 Crash History Overview – I-75	21
Table 4 Crash History – Cross Roads	23
Table 5 Crash Types – I-75	24
Table 6 Crash Types – Cross Roads	25
Table 7 Level of Service Results for Ramp Termini	68
Table 8 Recommended Alternative (2030) Storage Lengths)	

LIST OF FIGURES

Figure 1 Location Map	2
Figure 2 Traffic Count Locations	8
Figure 3 Annual Average Daily Traffic (AADT)	14
Figure 4 Existing Year (2005) AADT & Peak Hour DDHV	15
Figure 5 Existing Year (2005) Intersection Peak Hour DHV	
Figure 6 Existing Year (2005) Lane Configuration	17
Figure 7 Existing Year (2005) Freeway Segment / Ramp LOS	18
Figure 8 Existing Year (2005) Intersection Peak Hour LOS	19
Figure 9 Opening Year (2010) AADT & Peak Hour DDHV	28
Figure 10 Interim Year (2010) AADT & Peak Hour DDHV	
Figure 11 Design Year (2030) AADT & Peak Hour DDHV	30
Figure 12 No-Build Design Year (2030) Intersection Peak Hour DDHV	32
Figure 13 Design Year (2030) No-Build Lanes	33
Figure 14 Design Year (2030) No-Build Intersection Peak Hour LOS	34
Figure 15 Design Year (2030) No-Build Freeway / Ramp Peak Hour LOS	36
Figure 16a Opening Year (2010) Build Freeway LOS	39
Figure 16b Interim Year (2020) Build Freeway LOS	
Figure 16c Design Year (2030) Build Freeway LOS	41
Figure 17a 2010 Build LOS CR 41 Ramp Junctions	42
Figure 17b 2020 Build LOS CR 41 Ramp Junctions	43
Figure 17c 2030 Build LOS CR 41 Ramp Junctions	44
Figure 18a 2010 Build LOS SR 50 Ramp Junctions	45
Figure 18b 2020 Build LOS SR 50 Ramp Junctions	46
Figure 18c 2030 Build LOS SR 50 Ramp Junctions	47
Figure 19a 2010 Volumes CR 41 Intersection	
Figure 19b 2020 Volumes CR 41 Intersection	50
Figure 19c 2030 Volumes CR 41 Intersection	51
Figure 20 Build Lane Configurations CR 41 Intersection	52
Figure 21 Build LOS CR 41 Intersection	
Figure 22a-1 2010 Volumes SR 50 Intersection	58
Figure 22a-2 2010 Volumes SR 50 Intersection	59
Figure 22b-1 2020 Volumes SR 50 Intersection	60
Figure 22b-2 2020 Volumes SR 50 Intersection	61
Figure 22c-1 2030 Volumes SR 50 Intersection	62
Figure 22c-2 2030 Volumes SR 50 Intersection	63
Figure 23a Build Lanes SR 50 Intersection	
Figure 23b Build Lanes SR 50 Intersection	65
Figure 24a Build LOS SR 50 Intersection	66
Figure 24b Build LOS SR 50 Intersection	67
Figure 25 Recommended Build Lanes	
Figure 26 Design Year (2030) Recommended Build LOS	74

LIST OF APPENDICES

APPENDIX A: Mainline AADT Traffic Count Summaries

APPENDIX B: Cross Street AADT Traffic Count Summaries and Cross Street Intersection

Turning Movement Counts

APPENDIX C: Traffic Related Correspondence

APPENDIX D: Existing Year (2005) Intersection LOS Analysis

APPENDIX E: Existing Year (2005) Freeway Segment and Ramp LOS

APPENDIX F: Opening Year (2010) No-Build Intersection LOS

APPENDIX G: Interim Year (2020) No-Build Intersection LOS

APPENIDIX H: Design Year (2030) No-Build Intersection LOS

APPENDIX I: Opening year (2010) No-Build Freeway Segment and Ramp LOS

APPENDIX J: Interim Year (2020) No-Build Freeway Segment and Ramp LOS

APPENIX K: Design Year (2030) No-Build Freeway Segment and Ramp LOS

APPENDIX L: Opening Year (2010) Build Intersection LOS

APPENDIX M: Interim Year (2020) Build Intersection LOS

APPENDIX N: Design Year (2030) Build Intersection LOS

APPENDIX O: Opening Year (2010) Build Freeway Segment and Ramp LOS

APPENDIX P: Interim Year (2020) Build Freeway Segment and Ramp LOS

APPENDIX Q: Design Year (2030) Build Freeway Segment and Ramp LOS

APPENDIX R: Air Quality and Noise Traffic

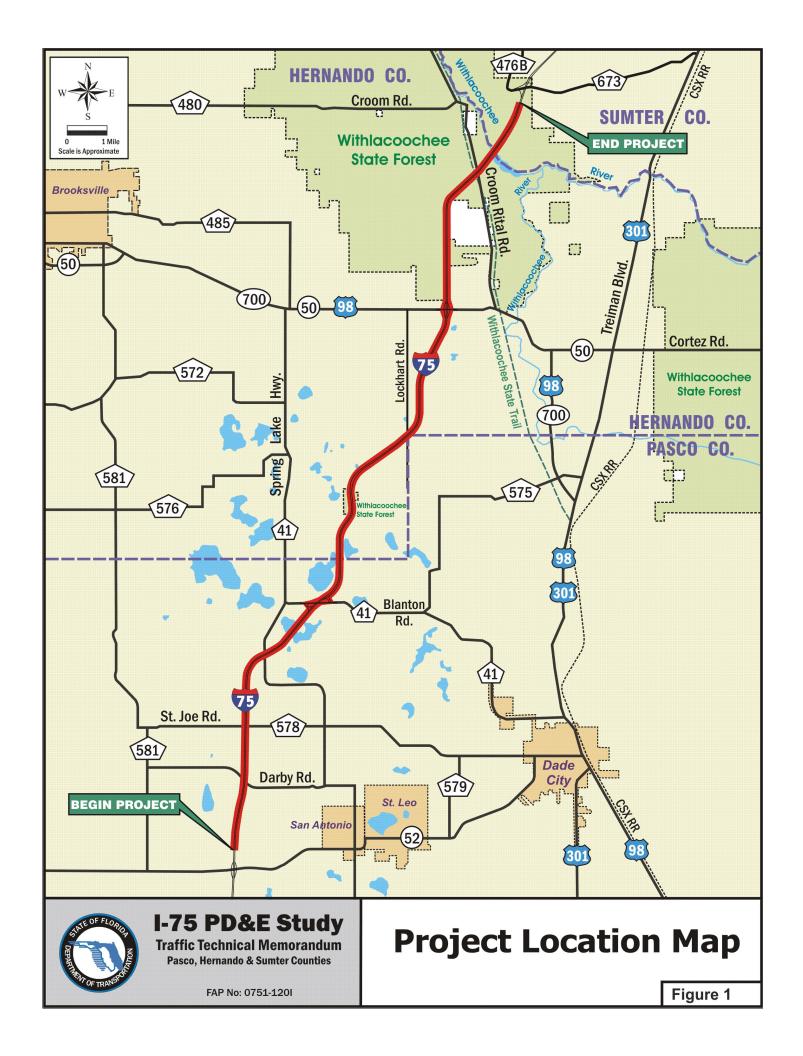
1 INTRODUCTION

The Florida Department of Transportation (FDOT) has conducted a Project Development and Environment (PD&E) study to evaluate capacity improvements along a portion of Interstate 75 (I-75) -State Road (SR) 93. The limits of the study extend from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida, a distance of approximately 20.8 miles. The design year for the improvements is Year 2030. Figure 1 illustrates the location and limits of this project.

1.1 Purpose

The objective of this PD&E study is to document the engineering and environmental analyses that were performed for this project so that the FDOT and the Federal Highway Administration (FHWA) can reach a decision on the type, location, and conceptual design of the necessary improvements of I-75 to accommodate future *traffic* demand in a safe and efficient manner. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives. Information related to the engineering and environmental characteristics, which are essential for the alternatives analysis, was collected. Design criteria were established and preliminary alternatives were developed. The comparison of alternatives was based on a variety of parameters utilizing a matrix format. This process identified the alternative that would have minimal impacts, while providing the necessary improvements.

The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), in order for this project to qualify for federal-aid funding of subsequent development phases (design, right-of-way acquisition, and construction). This Traffic Technical Memorandum (TTM) is one in a series of reports prepared as part of this PD&E Study. This report documents the existing (2005), opening (2010), interim (2020) and design year (2030) traffic conditions; the development of traffic parameters for the estimation of annual average daily traffic (AADT) and design hour volumes (DHV); and capacity and Level of Service (LOS) analyses of the design alternatives for this project.



1.2 Description of Project

I-75 is an interstate, limited access freeway. It is included in the State Highway System (SHS), designated as SR 93, the Florida Intrastate Highway System (FIHS), the Strategic Intermodal System (SIS), and the Federal Aid Interstate System. I-75 also serves as a major evacuation route throughout the state. Within the study limits, I-75 is a four-lane, divided, limited access, rural highway that generally occupies 300 feet of right of way.

The study area includes two interchanges and two rest areas (one in each direction). Specifically, a partial cloverleaf interchange is currently provided at Blanton Road (CR 41) approximately 6.3 miles north of SR 52 in Pasco County and a diamond interchange is present at Cortez Road (SR 50/US 98), approximately 9.3 miles north of CR 41 in Hernando County. The rest areas are located approximately 4.9 miles north of SR 50, in Sumter County.

From north of SR 50 to the northern terminus of the project, the Withlacoochee State Forest abuts the entire western border of I-75 and most of its eastern border. At the Hernando/Sumter County line, approximately 1.5 miles from the northern project terminus, I-75 crosses the Withlacoochee River. In addition, a number of potential and approved Developments of Regional Impact and smaller developments are located along both sides of the study area. Most of them are located in Hernando County, south of SR 50.

The study area for this project extends from just north of SR 52 in Pasco County to just south of CR 476B in Sumter County, Florida; a distance of approximately 20.8 miles. The study area encompasses the following Sections, Townships, and Ranges:

• Pasco County:

- Sections 5 and 8 of Township 25 S, Range 20 E
- Sections 2, 3, 9, 10, 16, 17, 20, 21, 28, 29, 32, 33 of Township 24 S, Range 20 E

• Hernando County:

- Sections 13, 23, 24, 26, 35 of Township 23 S, Range 20 E
- Sections 5, 6, 7, 18 of Township 23 S, Range 21 E
- Sections 16, 17, 19, 20, 29, 30, 31, 32 of Township 22 S, Range 21 E

• Sumter County:

- Sections 4, 9, 16 of Township 22 S, Range 21 E.

To facilitate development and evaluation of the improvement alternatives, the project was divided into three segments:

- Segment 1: from north of SR 52 (southern project terminus) to the Pasco/ Hernando county line; 7.8 miles
- Segment 2: from the Pasco/Hernando county line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B (northern project terminus); 6.0 miles.

1.3 Methodology

This TTM was prepared consistent with the appropriate transportation planning procedures and guidelines. The Pasco County Metropolitan Planning Organization (MPO) and Hernando County MPO both have included the widening of I-75 to a six-lane, divided facility in the Cost Affordable Plans of their Long Range Transportation Plans (LRTP). This improvement would increase overall system capacity, improve safety and reduce the growing congestion problem on I-75. I-75 in this area is increasingly being used as a commuter route to Tampa. In addition, the FDOT has designated I-75 within the limits of this project as a "transitioning" (from rural to urban) area. Therefore, according to FIHS standards, all of its components (mainline, ramps, merge/diverge areas) should provide adequate capacity to operate at level of service (LOS) "C" or better.

The development of this TTM is consistent with the procedures of the FDOT Project Traffic Forecasting Handbook. The Tampa Bay Regional Planning Model, Version 5.1 was used to develop design year (2030) traffic volumes (20 years post assumed opening year of 2010). For the purposes of this study, I-75 was assumed to be four-lanes divided in the No-Build alternative. The traffic analysis conducted for this TTM included:

- collecting traffic volume information, previous traffic studies, roadway characteristics and other necessary data,
- conducting existing traffic analysis including freeway segment, ramp merge / diverge analysis, and intersection capacity analysis,

- development of design and interim year traffic (furnished by FDOT),
- conducting design year traffic analysis, and
- evaluating build and no-build conditions.

A series of improvement alternatives are provided in this report to correct locations where future conditions will not meet the LOS standard of "C". Improvements are evaluated in this report for their effectiveness in handling traffic demands and should not be considered final recommendations from the PD&E study. Recommended improvements from the overall PD&E study will need take into consideration other factors such as cost, constructability, right of way impacts, and future plans.

2 EXISTING CONDITIONS

2.1 Roadway and Intersection Characteristics

FDOT has designated I-75 as SR 93 – Section 14 140 000 in Pasco County, SR 93 – Section 08 150 000 in Hernando County, and SR 93 – Section 18 130 000 in Sumter County. I-75 is part of the Florida Strategic Intermodal System (SIS), which is FDOT's network of significant transportation facilities providing statewide movement of people and goods and providing links to major intermodal facilities, such as ports and terminals. The SIS's minimum standards for LOS and design are derived from the Florida Intrastate Highway System's (FIHS) parameters. Since the study area is in a transitioning (from rural to urban) area type, the LOS standard for I-75 in the study area is LOS C.

Within the study limits, I-75 is a four-lane, divided, limited access, interstate highway in a primarily rural setting. The roadway has 12-foot lanes, 10-foot outside paved shoulders, 4-foot inside paved shoulders, an open-drainage section and generally a standard 64-foot wide median. The median width is wider than standard through certain curve sections along the study area. The speed limit is posted at 70 miles per hour. Rest areas are located on both sides of the mainline in Sumter County. The exit from I-75 and entrance onto I-75 at the northbound rest area is approximately 1,700 feet and 3,200 feet north of the Withlacoochee River Bridge, respectively. The exit from I-75 and entrance onto I-75 at the southbound rest area is approximately 3,700 feet and 2,500 feet north of the Withlacoochee River Bridge, respectively.

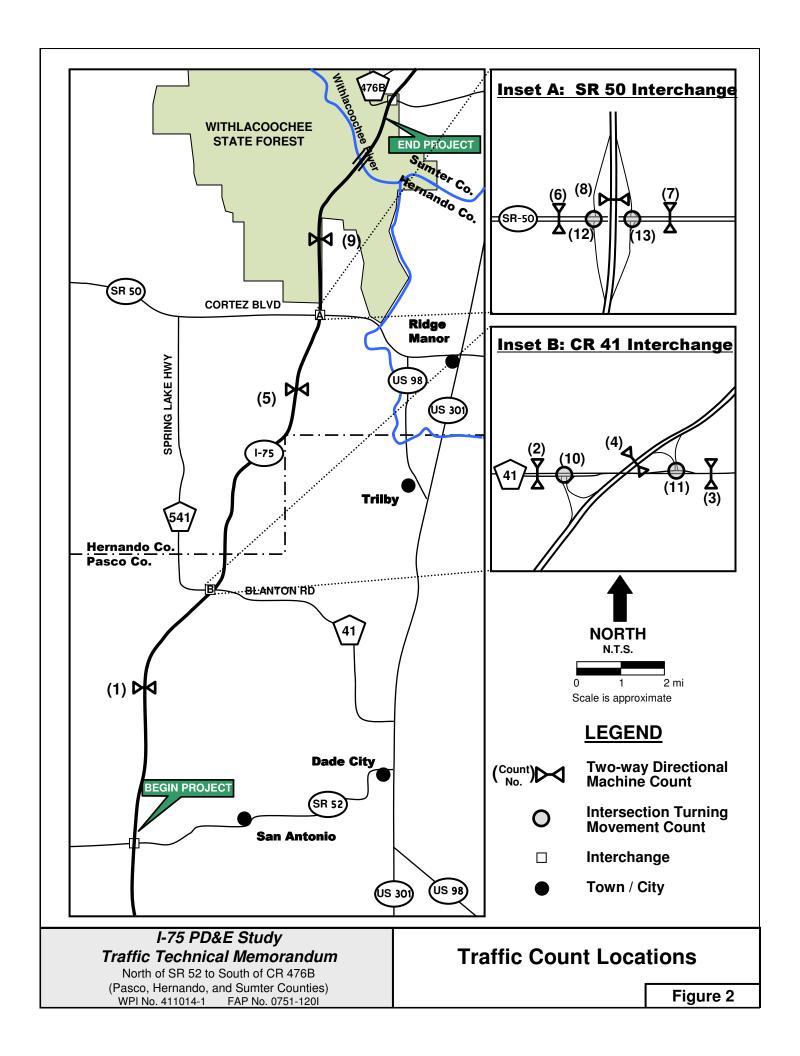
I-75 within the study area has two interchanges at CR 41 (Blanton Road – Exit 293) in Pasco County and at SR 50 (Cortez Boulevard – Exit 301) in Hernando County. The CR 41 interchange is a two quadrant cloverleaf interchange with short off-ramp lengths that cause low speeds on the off-ramps and could affect traffic operations on the mainline during heavy traffic periods. SR 50 is a standard diamond interchange with off-ramps in the southeast quadrants and northwest quadrants and on-ramps in the southwest and northeast quadrants of the interchange. CR 41 is a two-lane undivided arterial that connects I-75 to Dade City and Spring Hill. SR 50 is a four-lane divided arterial that connects I-75 to Brooksville and Ridge Manor. The LOS

standard for the ramp terminals at CR 41 is LOS D. The LOS standard for the ramp terminals at SR 50 the standard is LOS C. The ramp terminals at the CR 41 interchange currently are unsignalized, with one-way stop control on both off-ramp terminals. The ramp terminals at SR 50 are signalized.

2.2 Collection of Traffic Data

Field traffic counts collected for this project include 72-hour machine counts and 6-hour (6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.) manual turning movement counts, which were conducted generally from Monday afternoon to Friday morning during the week of March 14, 2005. Machine counts included the count of trucks and intersection turning movement counts included the count of pedestrians and bicycles. The 72-hour machine counts were conducted at nine (9) locations and the turning movement counts were collected at the four (4) ramp terminal locations, as shown on Figure 2, and listed below. Summaries of the mainline count data and ramp terminal/cross street turning movement counts are provided in Appendices A and B, respectively.

- Three-day (72-hour) mainline / side street machine volume count locations:
 - (1) I-75 between SR 52 and CR 41 interchanges
 - (2) CR 41 (Blanton Road) west of I-75 Interchange
 - (3) CR 41 (Blanton Road) east of I-75 Interchange
 - (4) I-75 between southbound off-ramp and northbound off-ramp at CR 41 Interchange
 - (5) I-75 between CR 41 and SR 50
 - (6) SR 50 (Cortez Boulevard) west of I-75 Interchange and immediately east of LaRose Road
 - (7) SR 50 (Cortez Boulevard) east of I-75 Interchange and immediately west of Windermere Road
 - (8) I-75 between southbound off-ramp and northbound off-ramp at SR 50 Interchange
 - (9) I-75 between SR 50 and Withlacoochee River Bridge (Hernando Sumter County Line)



- Intersection turning movement count locations:
 - (10) CR 41 (Blanton Road) at I-75 southbound on-ramp and off-ramp
 - (11) CR 41 (Blanton Road) at I-75 northbound on-ramp and off-ramp
 - (12) SR 50 (Cortez Boulevard) at I-75 southbound on-ramp and off-ramp
 - (13) SR 50 (Cortez Boulevard) at I-75 northbound on-ramp and off-ramp

A review of the 72-hour machine traffic counts indicates that they are incomplete. According to the count consultant, the count tubes became detached from the roadway surface numerous times during the counting period. This was caused by rain on the roadway that loosened the tape and nails attaching the tube to the roadway surface. This situation was discussed with FDOT project management to determine if new counts should be conducted. It was concluded that the data was sufficient for the purposes of this project with some manual adjustments and FDOT gave approval to use this data.

Additional traffic data collected for use in this study includes:

- Year 2005 and 2025 Tampa Bay Regional Planning Model Data
- Year 2003 FDOT Florida Traffic Information CD (FTI CD)
- Year 2005 FDOT Florida Traffic Information CD (FTI CD)
- Year 2005 FDOT Florida Traffic Information (FTI DVD)
- Design year (2030) traffic projections from the Traffic Technical Memorandum conducted by District 5 for a segment of I-75 north of the study corridor.

Based on a review of the collected traffic counts, traffic patterns on I-75 in the study area are representative of rural conditions that do not follow typical commuter travel patterns. In the northbound direction, the peak hour, peak direction for traffic is generally between 10:00 a.m. and 1:00 p.m. in the northbound direction. A second peak hour occurs in the northbound direction around 3:30 p.m. to 4:30 p.m., which is generally 10% less than the prior peak hour volume. Southbound traffic is less than northbound traffic and its peak hour lies between 8:30 a.m. and 11:30 a.m. Since traffic was collected in March 2005, these traffic numbers may be skewed, as this is a heavy period for seasonal residents to drive north to their summer residences.

Peak hour traffic on CR 41 and SR 50 follow more typical commuting times with the morning peak direction occurring towards the I-75 from 6:30 a.m. to 7:30 a.m. and the afternoon peak direction occurring away from the I-75 from 3:30 p.m. to 4:30 p.m.

2.3 Traffic Parameters

The existing year (2005) AADT for mainline and ramp locations was estimated by multiplying the collected machine counts by the appropriate axle factor (AF) and seasonal factor (SF) provided by the FTI CD. AADTs derived were consistent with the FDOT provided volumes shown in Appendix C. Design Hour Volumes (DHV) for mainline and ramp locations were determined by applying the appropriate "K" and "D" factor to each AADT.

The design year (2030) AADT values were provided by FDOT (See Appendix C). FDOT developed the project traffic through the use of the Tampa Bay Regional Planning Model (TBRPM) version 5.1 model traffic (smoothed) and the I-75 District 5 PD&E Study. Mainline directional design hour volumes (DDHV) were determined by multiplying the appropriate K_{30} and D_{30} factors to the AADT.

FDOT District 7 Planning staff provided K_{30} and D_{30} factors for mainline I-75. These factors were: K_{30} of 9.40 and D_{30} of 56.35. The K_{30} factor provided by the FDOT is at or near the statewide observed minimum values for both rural and urban freeways, as seen in Table 1. This value is extremely low compared to the national K-factor range for rural freeways, yet within the national K-factor range for urban freeways, which implies that this area is transitioning from rural to urban. The provided D_{30} factor falls within both the statewide and national D-factor ranges for both rural and urban areas, as seen in Table 1.

A review of historical data available over the last three years was performed, as shown in Table 2. It was found that the FDOT provided factors are consistent with historical data, as the K_{30} factor ranges from 8.76 to 9.52 and the D_{30} factor ranges from 53.67 to 57.42 over the three year period. Therefore, the traffic factors (K_{30} of 9.40 and D_{30} of 56.35) used for mainline I-75 were considered reasonable.

Table 1
Comparison of Site Specific Data with State and National Data

Facility Type	K-Factor Ranges	FDOT Site Data*		State Data**		National Data**	
		K ₃₀	D ₃₀	K ₃₀	D ₃₀	K ₃₀	D ₃₀
Rural Freeway	Observed Minimum	8.76	52.76	9.60	52.30	15.00	54.00
Hurari reeway	Observed Maximum	8.76	52.76	14.60	57.30	20.00	62.00
Lirban Fraguey	Observed Minimum	-	-	9.40	50.40	7.00	52.00
Urban Freeway	Observed Maximum	-	-	10.00	61.20	10.00	57.00

^{*} Source: Florida Traffic Information CD, 2003

Table 2
Traffic Characteristics for the I-75 PD&E Study Area

Count Station	Location	Year	FTI CD AADT	K ₃₀	D ₃₀	T ₂₄
		2001	43,500	8.94	55.00	27.69
0093	I-75 (SR 93) - North of SR 52	2002	39,500	8.99	56.15	25.36
		2003	41,500	8.76	53.67	25.36
		2001	35,500	8.94	55.00	22.03
0094	I-75 (SR 93) - North of CR 41	2002	33,500	8.99	56.15	33.01
		2003	35,500	8.76	53.67	33.01
	I-75 (SR 93) - North of SR 50	2001	37,000	9.52	57.42	32.20
0037		2002	38,500	8.99	56.15	26.95
		2003	42,000	8.76	53.67	26.95
	SR 50 - West of I-75	2001	16,200	9.62	56.39	19.94
0046		2002	18,800	9.58	56.69	15.49
		2003	18,000	9.59	56.45	15.49
		2001	16,200	9.62	56.39	21.29
0018	SR 50 – East of I-75	2002	18,100	9.58	56.69	18.96
	id Tuffe Life and CD 2001 2002 and	2003	15,600	9.59	56.45	18.96

Source: Florida Traffic Information CD; 2001, 2002, and 2003 Versions

^{**} Source: FDOT Project Traffic Forecasting Handbook, 2002

At the beginning of this study (April 2005), FDOT provided traffic factors K_{30} of 8.79 and D_{30} of 53.67 for mainline I-75. These factors were later revised in June 2005 based on internal FDOT review to K_{30} of 10.75 and D_{30} of 56.35. Although the K_{30} factor lies closer to the range recommended in the FDOT Project Traffic Forecasting Handbook (See Table 1) it is much higher than what has been observed in historical counts performed by FDOT (See Table 2). Lochner recommended that a K_{30} factor of 9.40 should be used since this lies on the lower end of FDOT recommendations for urban freeways and is consistent with historical observations on I-75. Also, the K_{30} factor of 9.40 compares more favorably to the factors used in similar type studies on I-75 conducted by FDOT north and south of this study area and is more similar to the K_{30} derived from the traffic counts conducted for this study. FDOT agreed to use this factor in June 2006. All correspondence regarding this issue is included in Appendix C.

DHVs for the crossroads were developed based on the K and D factors on SR 50 provided on the FDOT Traffic CD (2005). These factors were K_{30} =9.61 and D_{30} =54.5. These factors are slightly different than mainline I-75 but are more representative of the nature of the crossroad traffic. Factors for CR 41 were not available; therefore, the factors for SR 50 were used as the patterns are believed to be similar on these two east-west facilities.

For this study, FDOT set the 24-hour Truck (T24) factor for the mainline I-75 segments as 27.0%. The Design Hour T-factor for mainline I-75 was set to 13.5% (See Appendix C). This is consistent with Table 2 which shows that in 2003, the T24-factor ranged from 25.36 to 33.01 for the count stations covered in this study.

Figure 3 shows the AADT from the 2003 FTI CD and presents the AADT derived from the 2005 counts by application of the appropriate seasonal and axle factors.

2.4 Existing Year (2005) Intersection Traffic Volumes

Design hour turning movement volumes were determined by the initial use of the TURNS-5 software, which uses existing and design year AADTs, existing turning movement count data, and K_{30} and D_{30} factors to determine existing 2005 peak hour, turning movement volumes. The

initial TURNS-5 output was then adjusted to provide balanced flows. This information is illustrated in the following figures:

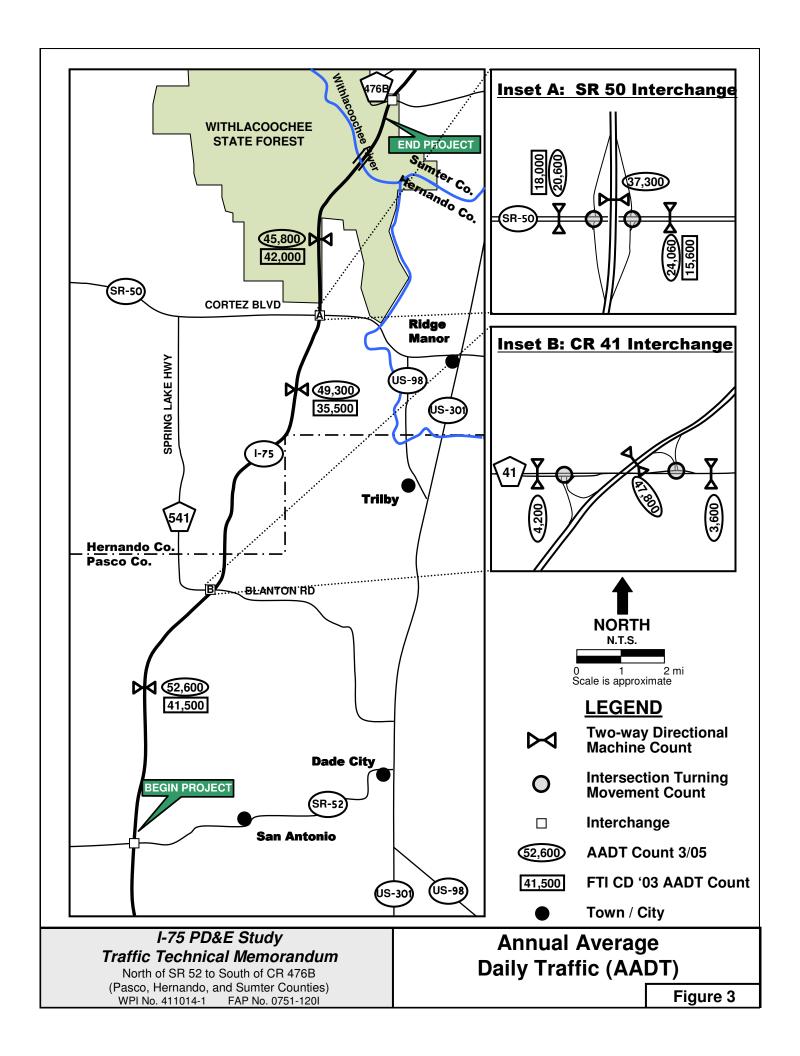
- Figure 4 shows the year 2005 intersection AADTs and directional design hour volumes.
- Figure 5 shows the year 2005 DHV turning movements.
- Figure 6 shows the year 2005 lane configuration.

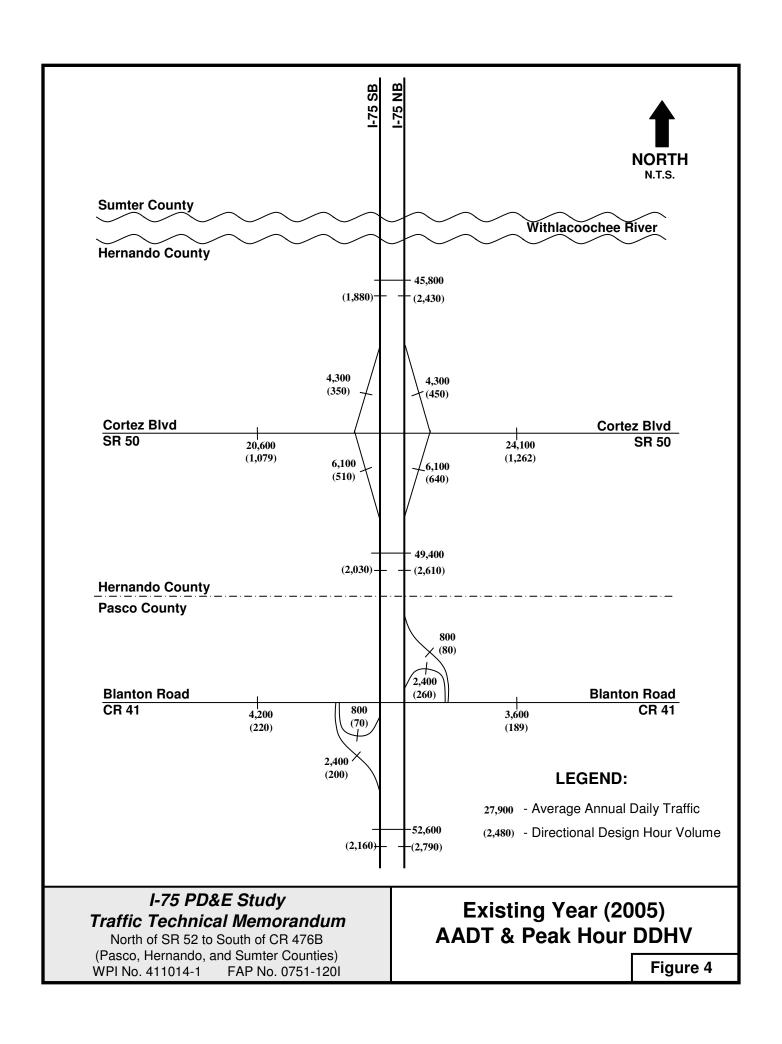
2.5 Existing Year (2005) Freeway Segment and Ramp Merge / Diverge LOS

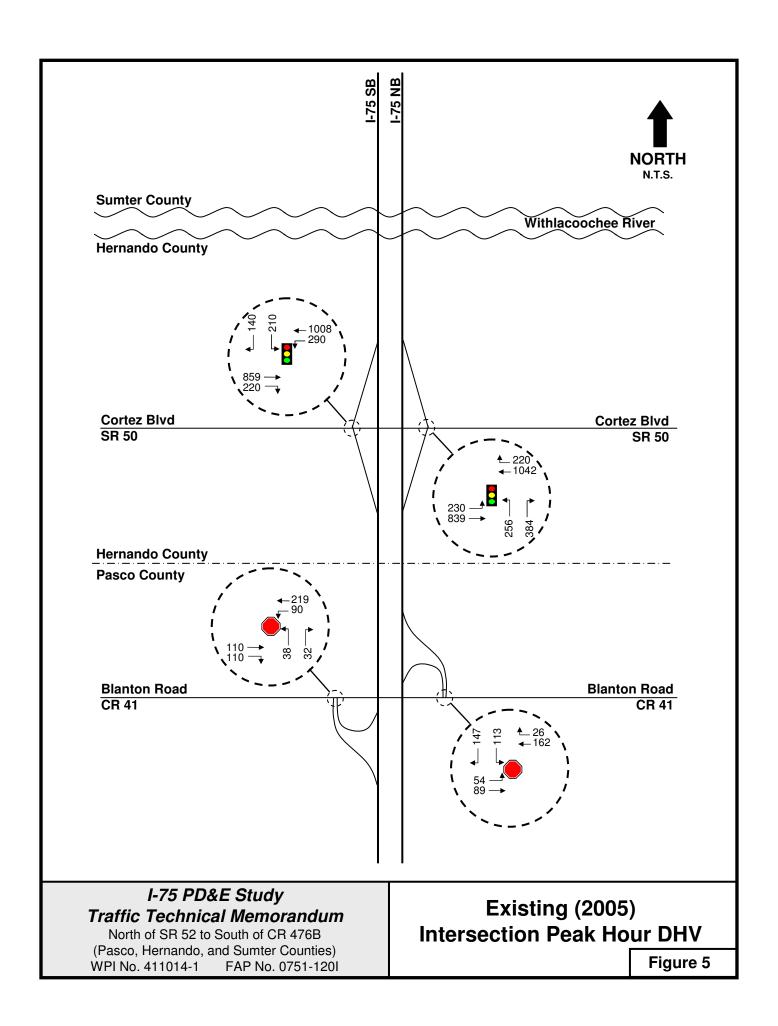
The existing year (2005) freeway segment and ramp merge / diverge LOS analysis for I-75 was conducted using the estimated existing year (2005) design hour volumes, previously shown on Figure 4. The LOS analysis was conducted using the Highway Capacity Software Version 5.2 (HCS Plus). This LOS analysis indicates that I-75 currently operates at LOS C northbound and LOS B southbound through the study area. The merge and diverge analysis indicates that the LOS for various merge and diverge sections of I-75 associated with the two interchanges within the study area varies from LOS C to LOS D, as shown on Figure 7. Since each interchange is spaced over five miles apart, there are no weaving sections within the study area, nor will there be in the design year.

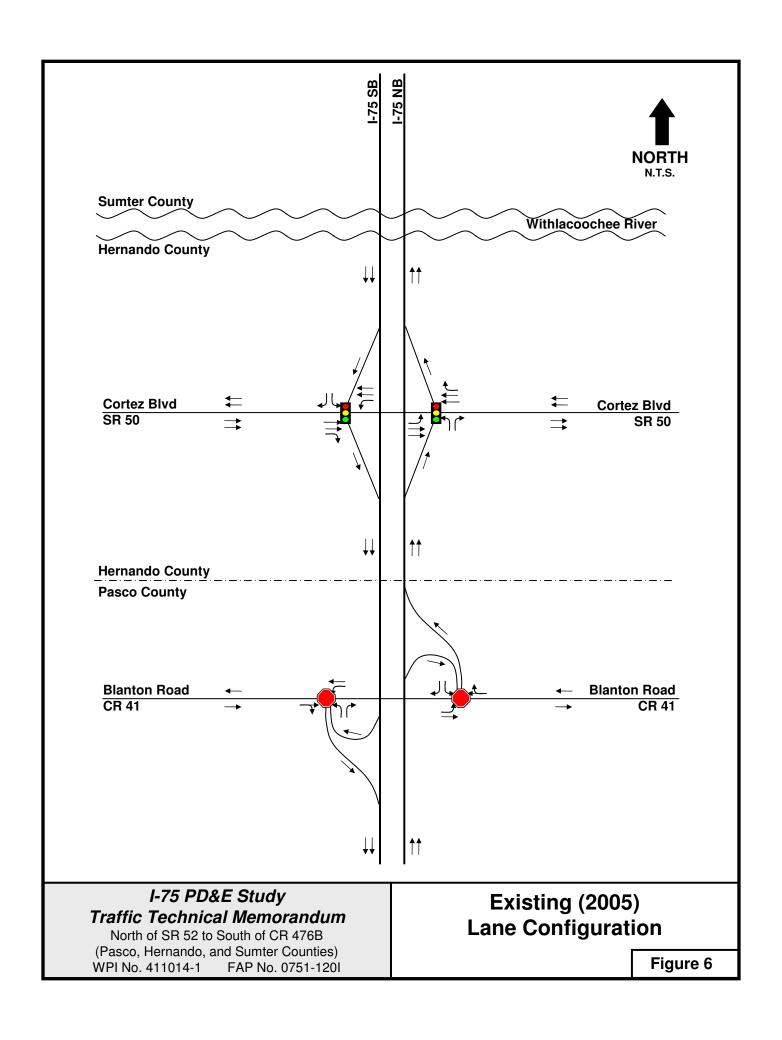
2.6 Existing Year (2005) Intersection LOS Analysis Summary

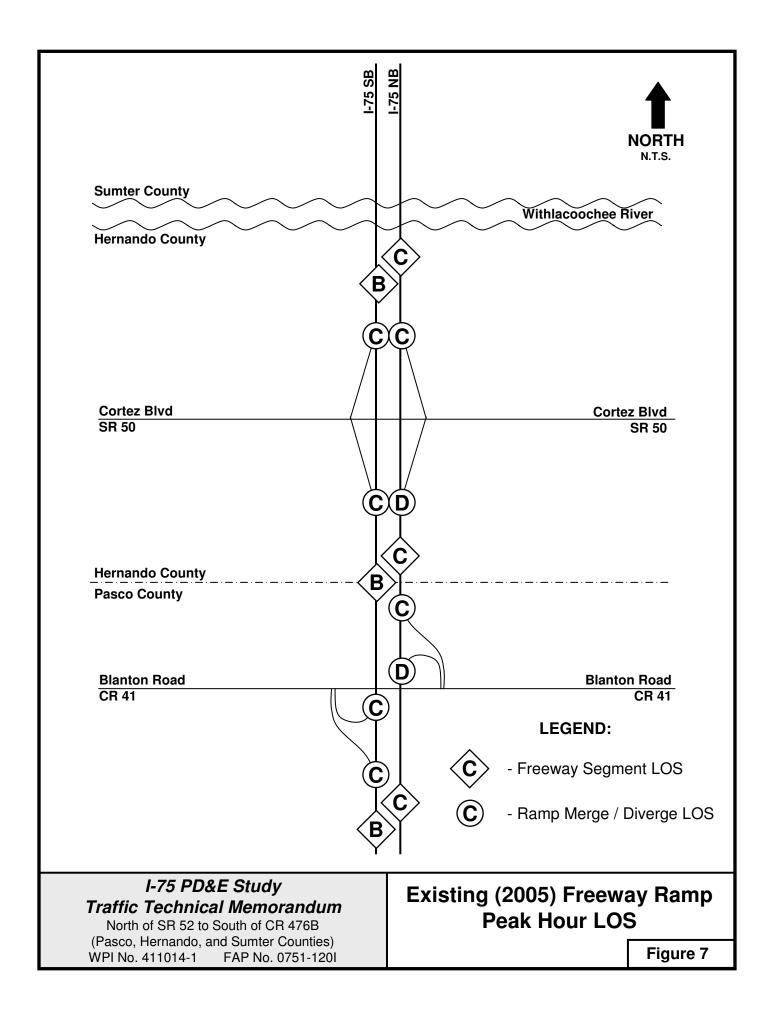
According to the Pasco County Comprehensive Plan, the existing and future (2020) LOS standard for CR 41 is LOS D. The Hernando County Comprehensive Plan sets the LOS standard for SR 50 as LOS C. Since I-75 is an SIS facility and the study area is designated as a transitioning area, a standard of LOS C is required. (ref: Florida's Quality / Level of Service Handbook, LOS Standards, Table 6-1) The unsignalized intersections at the CR 41 interchange currently both operate at LOS B. The signalized intersections at SR 50 both operate at LOS B also, as shown on Figure 8. These intersections in the existing analysis meet the LOS standard.

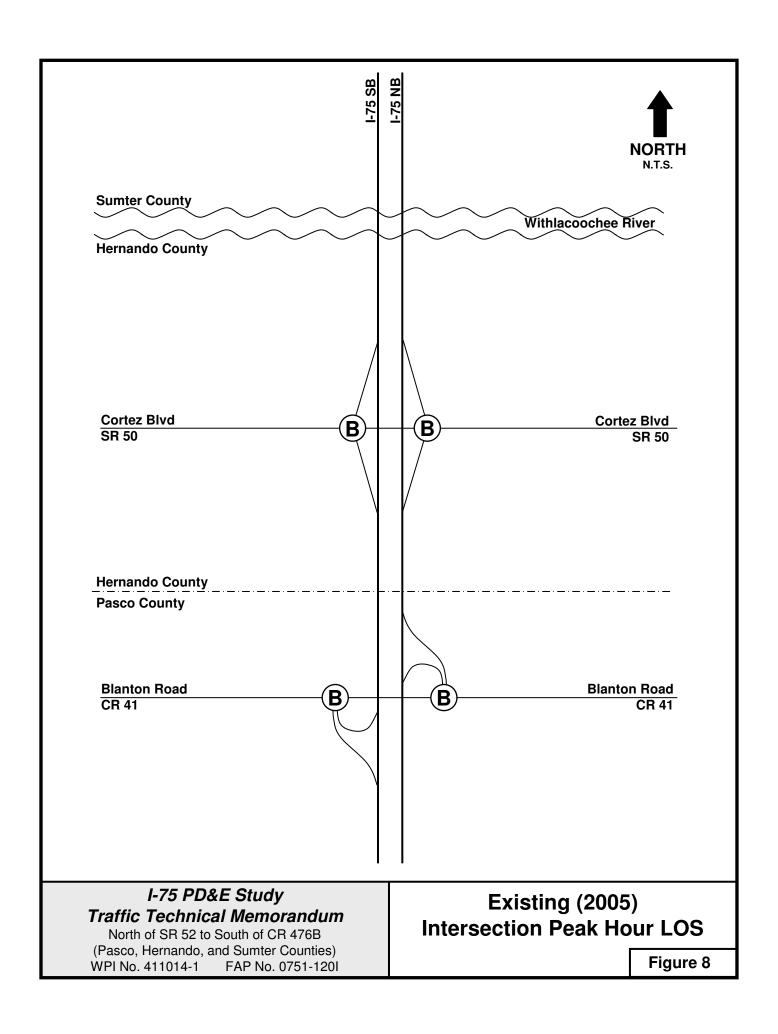












2.7 Safety Considerations

Crash data for I-75 and SR 50 was collected for the five most recent years (1999 to 2003) from the FDOT. For CR 41, crash data from the Pasco County Traffic Operations Division was collected. Crash data was collected for 500 feet west of the western ramp terminal and 500 feet east of the eastern ramp terminal, a total distance of approximately 3,100 feet. Data collected from these sources include number and type of crashes, crash locations, number of fatalities and injuries and estimates of property damage and economic losses. It should be noted that only crashes which involve injuries, fatalities, or major property damage are included in the FDOT crash database.

As indicated in Table 3, the crash records for I-75 indicate that over the five years studied, 219 crashes occurred in Pasco County (average of 5.21 per year per mile), 332 crashes occurred in Hernando County (5.83 per year per mile), and 57 crashes occurred in Sumter County (11.4 per year per mile). There were 214 injuries and 3 fatalities in Pasco County, 384 injuries and 12 fatalities in Hernando County, and 44 injuries and 1 fatality in Sumter County. The average crash rate (crashes per million VMT) was slightly higher over the five-year period in Sumter County (0.56) than in Pasco County (0.35) or in Hernando County (0.40). The average crash rates are higher than the statewide average crash rate of 0.31 for rural interstates.

Economic losses were determined for every study area segment that was analyzed for safety considerations. According to figures from the FDOT Safety Office – Data Processing and Maintenance Manuals, June 2003, Property Damage Only crashes have an economic loss of \$2,000 each, an average of \$108,000 per injury, and \$2,600,000 for each fatality. Therefore using the historical crash statistics from Table 3, total economic losses due to crashes occurring from 1999 to 2003 on the study area sections of I-75 in Pasco County was calculated to be \$31,092,000; in Hernando County \$65,726,000; and in Sumter County \$7,394,000.

Crash History:

Table 3 presents an overview of the crash history of the study segment of I-75.

Table 3
Crash History Overview – I-75

	1999	2000	2001	2002	2003	Total	Average
		<u>l-75 Pa</u>	sco Coun	t <u>y</u>			
Fatalities	0	0	1	1	1	3	0.6
Injuries	44	39	44	49	38	214	42.8
Property Damage Only	17	9	26	17	21	90	18
Total	43	31	53	47	45	219	43.8
AADT	40500	35500	43500	39500	41500	200500	40100
Distance	8.44	8.44	8.44	8.44	8.44	-	-
Crash Rate	0.34	0.28	0.40	0.39	0.35	1.76	0.35
		I-75 Herr	nando Cou	<u>inty</u>			
Fatalities	1	0	2	5	4	12	2.4
Injuries	113	70	63	65	73	384	76.8
Property Damage Only	34	17	21	32	23	127	25.4
Total	98	51	55	67	61	332	66.4
AADT	40500	35500	43500	39500	41500	200500	40100
Distance	11.48	11.48	11.48	11.48	11.48	-	-
Crash Rate	0.58	0.34	0.30	0.40	0.35	1.98	0.40
		<u>I-75 Su</u>	mter Coun	<u>ty</u>			
Fatalities	0	0	0	0	1	1	0.2
Injuries	11	7	4	11	11	44	8.8
Property Damage Only	3	2	7	3	6	21	4.2
Total	9	8	11	12	17	57	11.4
AADT	35500	29500	37000	38500	42000	182500	36500
Distance	1.50	1.50	1.50	1.50	1.50	-	-
Crash Rate	0.46	0.50	0.54	0.57	0.74	2.81	0.56
		<u>Total</u>	Study Area	<u>a</u>			
Fatalities	1	0	3	6	6	16	3.2
Injuries	168	116	111	125	122	642	128.4
Property Damage Only	54	28	54	52	50	238	47.6
Total	150	90	119	126	123	608	121.6
AADT	38333	33500	41333	39167	41667	194500	38900
Distance	21.42	21.42	21.42	21.42	21.42	-	-
Crash Rate	0.49	0.34	0.37	0.41	0.38	1.99	0.40

Source: FDOT 1999-2003 FDOT District VII CAR (Crash Analysis Report) System

Table 4 provides similar crash information for the cross roads, CR 41 and SR 50. Over the five years studied, 110 crashes occurred along SR 50 in the vicinity of the I-75 interchange in Hernando County (from 500' west of the interchange to 500' east of the interchange) and 5 crashes occurred along CR 41 in the vicinity of the I-75 interchange in Pasco County. There were 148 injuries and no fatalities along this section of SR 50 and 4 injuries and no fatalities along this section of CR 41. The average crash rate on SR 50 in the immediate area of the interchange with I-75 was 3.74/MEV (Million Entering Vehicles) compared to a statewide average of 0.642 crashes/MEV for suburban four-lane, two-way divided roadways. For the CR 41 interchange, the crash rate was 0.74 crashes/MEV compared to a statewide average of 0.242 crashes/MEV for rural two-lane, two-way undivided roadways.

Two notes of caution are provided in presenting these crash rates. First, the length of the SR 50 segment analyzed is 0.28 miles. This length is greater than the typical 0.1 mile maximum length used for spot analysis (based on Million Entering Vehicles or MEV), yet analysis as a segment (Million Vehicle Miles Travel or MVMT), which typically is a mile or greater, would have yielded a disproportionately high rate due to the short length involved. Second, in some cases, crash data for CR 41 appeared to duplicate some crashes showing in the I-75 data. Reconciliation of this was beyond the scope of this study; however, the data presented is believed to be an accurate interpretation of the information available and appears reasonable. Total economic losses due to crashes occurring from 1999 to 2003 at the SR 50 interchange was \$16,052,000 and at the CR 41 interchange was \$438,000.

Table 4
Crash History – Cross Roads

	1999	2000	2001	2002	2003	Total	Average				
SR 50 Hernando County											
Fatalities	0	0	0	0	0	0	0				
Injuries	19	29	53	20	27	148	29.6				
Property Damage Only	5	3	5	14	7	34	6.8				
Total	13	17	31	28	21	110	22				
AADT	15,600	15,900	16,200	16,800	16,000	80,500	16,100				
Distance	0.28	0.28	0.28	0.28	0.28	-	-				
Crash Rate (per MEV)	2.28	2.93	5.24	4.57	3.60	-	3.74				
		<u>CR 41 P</u>	asco Cour	<u>nty</u>							
Fatalities	0	0	0	0	0	0	0.0				
Injuries	0	0	0	0	4	4	0.8				
Property Damage Only	0	0	2	1	0	3	0.6				
Total	0	0	2	1	2	5	1.0				
AADT	3,600	3,650	3,700	3,750	3,800	18,500	3,700				
Distance	0.59	0.59	0.59	0.59	0.59	-	-				
Crash Rate (per MEV)	0.00	0.00	1.48	0.73	1.44	-	0.74				

Source: FDOT 1999-2003 FDOT District VII CAR (Crash Analysis Report) System and Pasco County Transportation Office

Crash Types:

Table 5 indicates the highest frequency crashes along I-75 in the study area are rear end, sideswipe, and overturned. The "Other" category represents 33 other less significant crash types. These crash statistics reflect that as I-75 becomes more congested, speed differential between drivers and driver inattention will become the greatest contributors to crashes. Also, many crashes are caused by moving vehicles colliding with stopped vehicles, which is due to traffic exceeding the roadway's capacity or other unplanned incidents that cause traffic to slow or stop. Capacity improvements along I-75 will likely help prevent at least some of these crashes.

Table 6 shows that rear end crashes are by far the most frequent crash type along SR 50 near the I-75 interchange followed by angle and left turn crashes. Angle crashes are the most frequent crash type along CR 41 in the study area. These types of crashes are common at rural intersections and closer inspection is required to determine exact causes.

Table 5 Crash Types – I-75

Type (data code)	1999	2000	2001	2002	2003	Total	Percent	Average
,			Pasco	County				
Rear End (1)	7	9	4	12	8	40	18.3%	8
Head On (2)	0	1	1	2	2	6	2.7%	1.2
Angle (3)	1	2	3	2	7	15	6.8%	3
Left Turn (4)	1	1	0	0	0	2	0.9%	0.4
Right Turn (5)	0	0	0	0	0	0	0.0%	0
Sideswipe (6)	6	3	6	4	5	24	11.0%	4.8
Hit Guardrail (18)	4	0	7	0	0	11	5.0%	2.2
Overturned (31)	12	9	10	10	4	45	20.5%	9
Other	12	6	22	17	19	76	34.7%	15.2
Totals	43	31	53	47	45	219		43.8
			Hernan	do County				
Rear End (1)	20	10	11	14	6	61	18.4%	12.2
Head On (2)	0	0	0	1	0	1	0.3%	0.2
Angle (3)	4	7	2	1	5	19	5.7%	3.8
Left Turn (4)	0	0	0	0	0	0	0.0%	0
Right Turn (5)	0	0	0	0	0	0	0.0%	0
Sideswipe (6)	16	6	7	6	5	40	12.0%	8
Hit Guardrail (18)	8	4	4	5	11	32	9.6%	6.4
Overturned (31)	20	11	9	11	6	57	17.2%	11.4
Other	30	13	22	29	28	122	36.7%	24.4
Totals	98	51	55	67	61	332		66.4
	<u> </u>	<u> </u>	Sumte	r County			l .	l .
Rear End (1)	2	1	1	4	2	10	17.5%	2.0
Head On (2)	0	0	0	0	0	0	0.0%	0.0
Angle (3)	0	1	0	0	0	1	1.8%	0.2
Left Turn (4)	0	0	0	0	0	0	0.0%	0
Right Turn (5)	0	0	0	0	0	0	0.0%	0
Sideswipe (6)	1	1	1	0	1	4	7.0%	0.8
Hit Guardrail (18)	0	1	0	1	1	3	5.3%	0.6
Overturned (31)	2	1	2	3	3	11	19.3%	2.2
Other	4	3	7	4	10	28	49.1%	5.6
Totals	9	8	11	12	17	57		11.4
			Total I-75	Study Are	<u>ea</u>			
Rear End (1)	29	20	16	30	16	111	18.3%	22.2
Head On (2)	0	1	1	3	2	7	1.2%	1.4
Angle (3)	5	10	5	3	12	35	5.8%	7
Left Turn (4)	1	1	0	0	0	2	0.3%	0.4
Right Turn (5)	0	0	0	0	0	0	0.0%	0
Sideswipe (6)	23	10	14	10	11	68	11.2%	13.6
Hit Guardrail (18)	12	5	11	6	12	46	7.6%	9.2
Overturned (31)	34	21	21	24	13	113	18.6%	22.6
Other	46	22	51	50	57	226	37.2%	45.2
Totals	150	90	119	126	123	608		121.6

Source: FDOT 1999-2003 FDOT District VII CAR (Crash Analysis Report) System

Table 6
Crash Types – Cross Roads

Type (data code)	1999	2000	2001	2002	2003	Total	Average
		SR 50 -	Hernando	County			
Rear End (1)	5	6	15	9	11	46	9.2
Head On (2)	0	0	0	1	0	1	0.2
Angle (3)	3	5	5	3	3	19	3.8
Left Turn (4)	2	4	5	5	3	19	3.8
Right Turn (5)	0	1	0	0	0	1	0.2
Sideswipe (6)	1	0	1	2	1	5	1.0
Hit Guardr'l (18)	0	0	0	0	0	0	0
Overturned (31)	0	0	0	0	0	0	0
Other	2	1	5	8	3	19	3.8
Total	13	17	31	28	21	110	22.0
		<u>CR 41</u>	- Pasco C	<u>ounty</u>			
Rear End (1)	0	0	1	0	0	1	0.2
Head On (2)	0	0	0	0	1	1	0.2
Angle (3)	0	0	0	1	1	2	0.4
Left Turn (4)	0	0	0	0	0	0	0.0
Right Turn (5)	0	0	0	0	0	0	0.0
Sideswipe (6)	0	0	0	0	0	0	0.0
Hit Guardr'l (18)	0	0	0	0	0	0	0.0
Overturned (31)	0	0	0	0	0	0	0.0
Other	0	0	1	0	0	0	0.2
Total	0	0	2	1	2	5	1.0

Source: FDOT 1999-2003 FDOT District VII CAR (Crash Analysis Report) System and Pasco County Transportation Office

3 FUTURE CONDITIONS

The future year traffic conditions were developed and analyzed for the I-75 PD&E study area. Using design year traffic projections provided by FDOT (see Appendix "C" for F. Bitar to M. Clasgens memo, 4/18/05), operational conditions for each alternative including the no-build alternative were analyzed. A summary of this information and analyses is presented below.

3.1 Planned Improvements

The current Cost Affordable Long Range Transportation Plan (LRTP), as developed by the Pasco County MPO, Hernando County MPO and the FDOT, was used as the future year base transportation network. This network included the various transportation improvements that could be implemented by the various jurisdictions and agencies over the next twenty years. These improvements are documented in the *Long Range Transportation Plans* (LRTP) produced by the Pasco County and Hernando County MPOs. The Hernando County LRTP includes widening SR 50 to six-lanes with frontage lanes from Lockhart Road to Kettering Road. This improvement was not considered in this study, however, because Hernando County did not have plans in place for frontage lanes on SR 50 between Kettering Road and Lockhart Road at the time of report preparation. There are no future improvements for CR 41 in the study area included in the Pasco County LRTP.

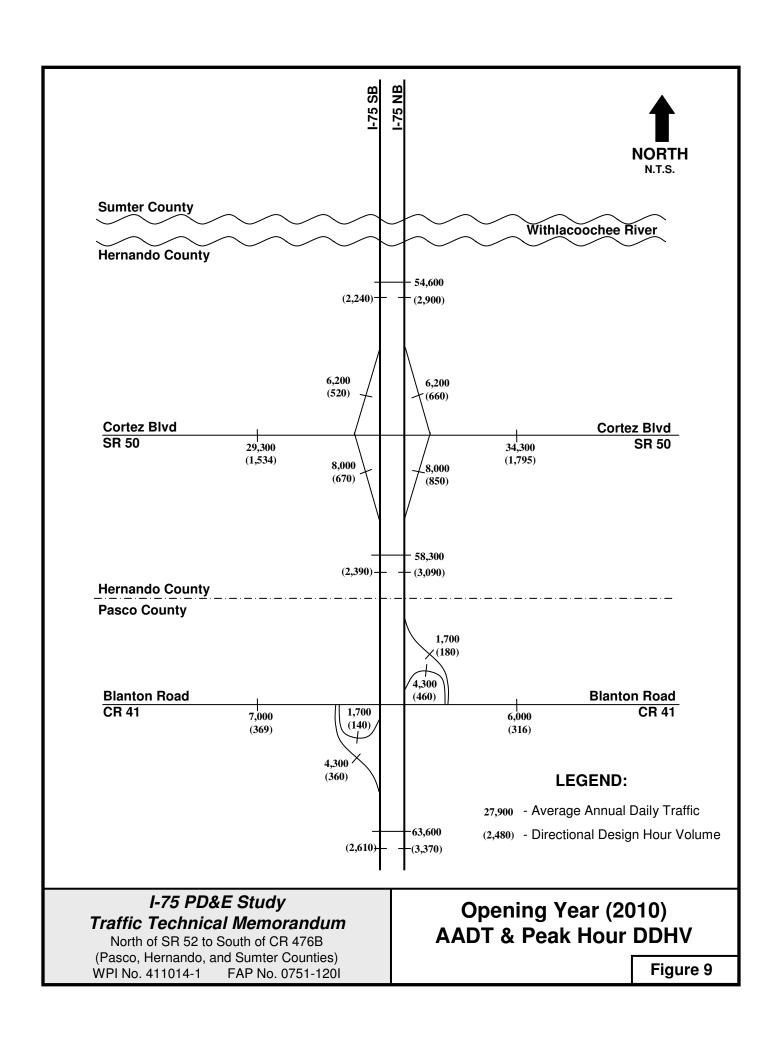
Despite both the Pasco and Hernando County Cost Affordable LRTPs listing I-75 as a 6-lane facility, the No-Build Analysis of this study assumed I-75 to be a four-lane, divided freeway. For the Build Analysis scenario, I-75 is analyzed with both six lane and eight lane cross sections, as both the Pasco and Hernando LRTPs include the widening of I-75 to six-lanes throughout the study area. Additional projects in the study limits that have been discussed by Hernando County officials are a new interchange on I-75 near Lockhart Road and a roadway connection between CR 41 to County Line Road in Masaryktown. Since both of these projects are not included in the current Hernando County LRTP, they were not considered in this study.

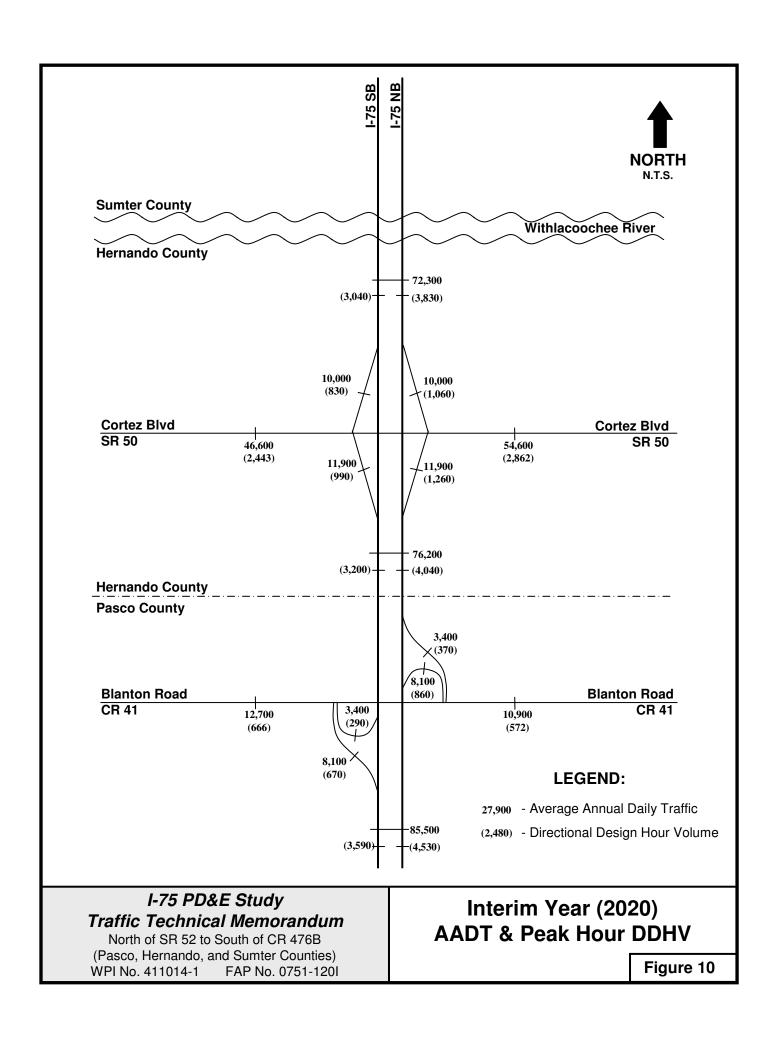
3.2 Interim Year and Design Year Traffic Projections

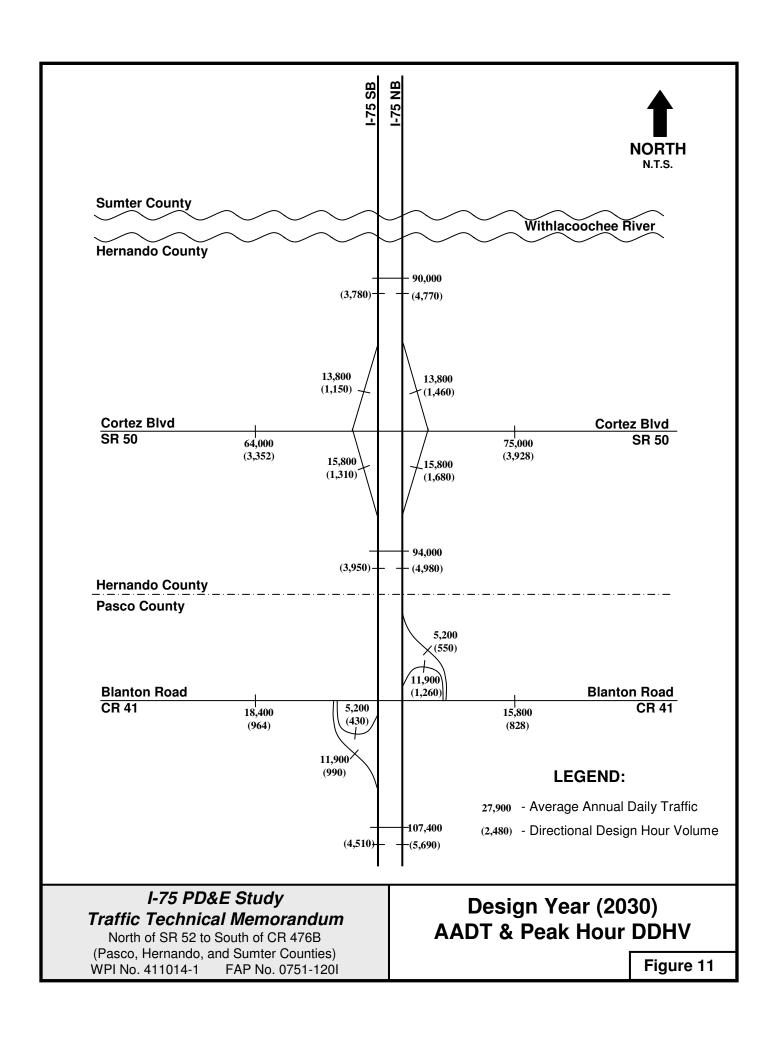
The year 2030 was selected as the design year for traffic analysis, since improvements are to operate at acceptable levels of service twenty (20) years from the assumed opening year of 2010. the FDOT provided the design year and interim year AADT volumes to be used in this study.

As previously stated, DHVs for mainline I-75 were developed from the AADTs using the I-75 K_{30} and D_{30} factors discussed earlier in the report. DHVs for the crossroads were based on the K_{30} and D_{30} factors of SR 50, which were provided on the 2005 FDOT Traffic Information CD. These factors were K_{30} =9.61 and D_{30} =54.5. These factors are slightly different than mainline I-75, but are more representative of the nature of the crossroad traffic. Factors for CR 41 were not available; therefore, the factors for SR 50 were used as the patterns are believed to be similar on these two east-west facilities.

Figures 9, 10, and 11 present the opening year (2010), interim year (2020), and design year (2030) AADTs and DHVs, respectively.





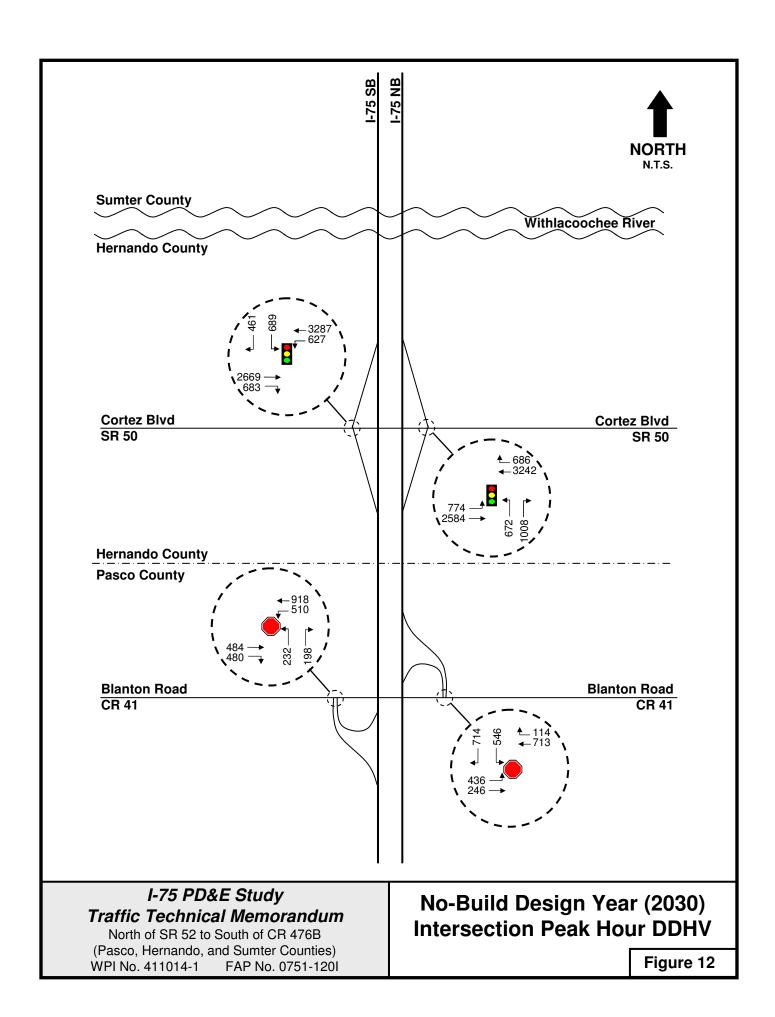


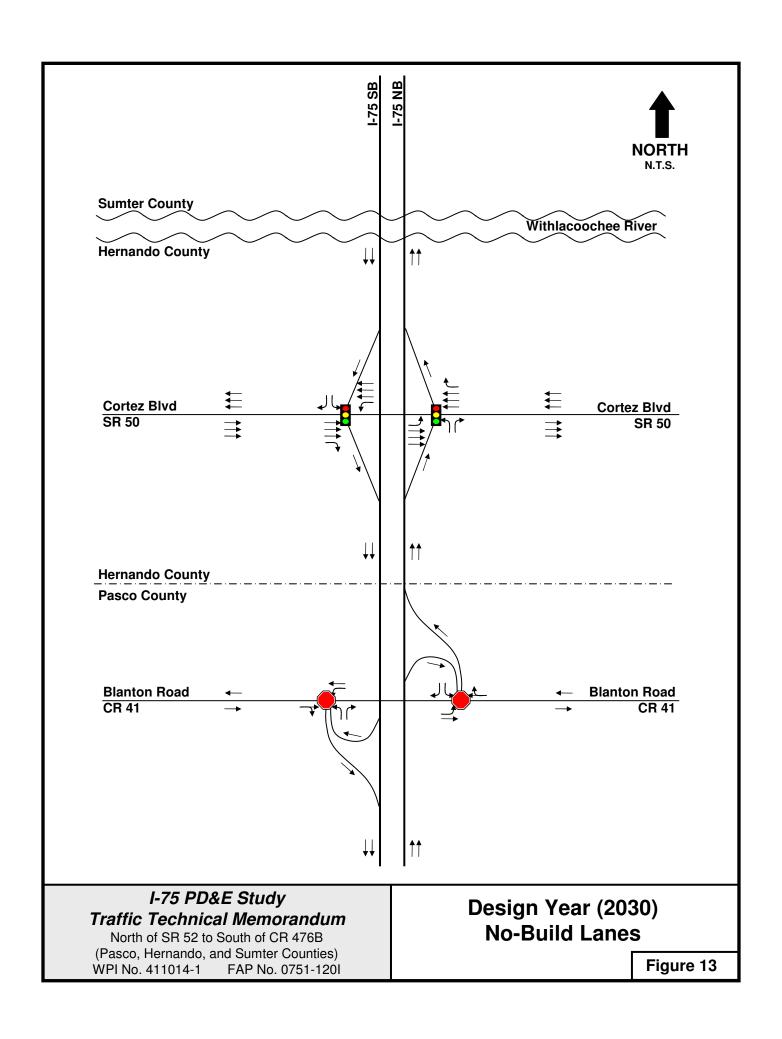
3.3 Design Year (2030) No-Build Intersection LOS Analysis

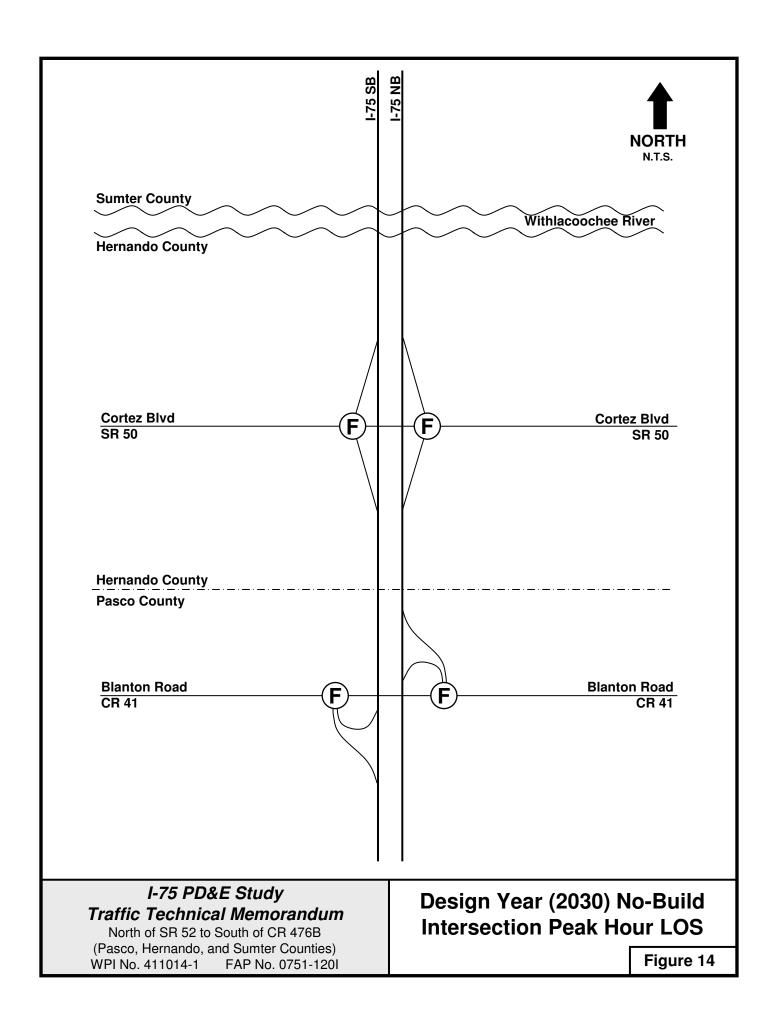
Design hourly volumes (DHV) for I-75, SR 50, CR 41 and all freeway ramps were developed from provided AADTs, K-factors and D-factors. The resulting DHVs are provided in Figure 11. These design hourly volumes were then use to determine the intersection design hourly volumes, through the use of the TURNS-5 software and subsequent rebalancing. Figure 12 provides the design year (2030) intersection design hour volumes, while Figure 13 shows the design year (2030) lane configuration and the type of traffic control (signalized or unsignalized) for the No-Build Alternative. These existing conditions were analyzed using Highway Capacity Software (HCS Plus). The results of these analyses indicate that all ramp terminal intersections with cross streets are expected to operate at LOS F under the No-Build conditions in the 2030 design year. These level of service results are shown on Figure 14.

For the ramp terminal / cross-street intersection analysis, the LOS standard for the cross streets was determined from the Comprehensive Plans of each county. At CR 41, the standard is LOS D and for the ramp terminals at SR 50 the standard is LOS C. A full signal warrant analysis should be performed at CR 41 during the design phase of this project. Since the unsignalized intersections at CR 41 are expected to operate at LOS F in the 2030 design year under the No-Build conditions, the CR 41 intersections were considered to be signalized in the Build case.

The signalized intersections at the northbound and southbound off-ramp / on-ramp terminals at SR 50 are projected to operate at LOS F with the planned widening of SR 50 to a six-lane facility. Ramp terminal or more extensive improvements will be necessary to improve the LOS at these locations.





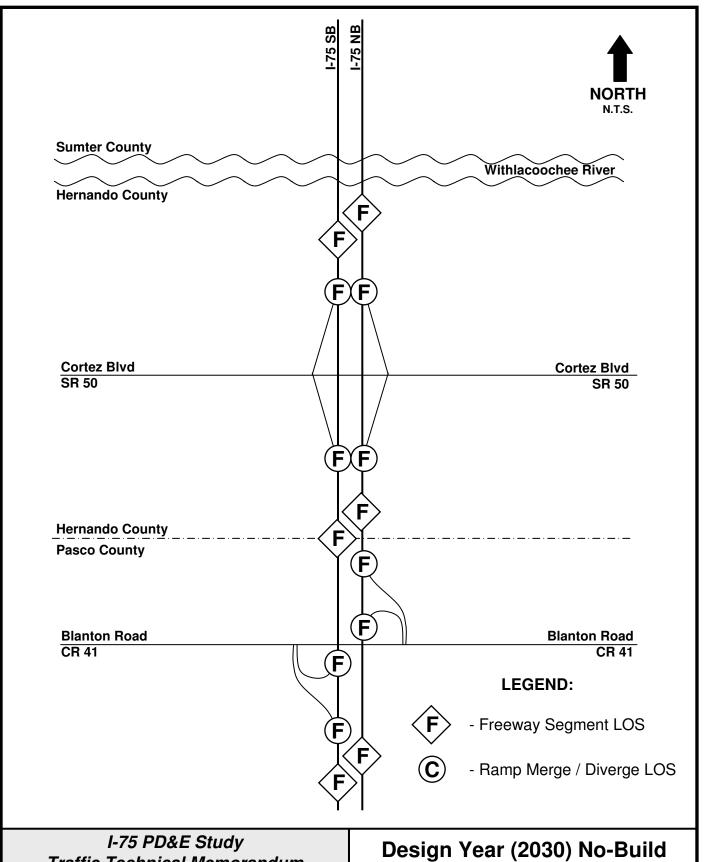


3.4 Design Year (2030) No-Build Freeway Segment LOS

The LOS analysis was conducted using HCS Plus. This analysis indicates that with a four lane cross section, traffic along I-75 will operate at LOS F for all three segments studied. These results are shown on Figure 15. Similar to the existing year analysis, the design year LOS standard for I-75 was set at LOS C. Therefore, traffic operations will not meet the LOS standard under design year (2030) conditions; widening of I-75 will be required to adequately handle future traffic demands.

3.5 Design Year (2030) No-Build Ramp Merge/Diverge LOS

The design year (2030) ramp merge / diverge LOS analysis for I-75 was conducted using the estimated design year (2030) design hour volumes shown in Figure 11. Based on this analysis, all ramp merge and diverge sections will operate at LOS F and thus will not meet the LOS standard under No-Build conditions. These results are shown with the freeway segment LOS results on Figure 15. These poor results are largely due to insufficient capacity on the mainline, particularly with respect to volumes in the right lane, more so than being a result of poorly functioning ramp merge or diverge sections.



Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I Freeway / Ramp Peak Hour LOS

Figure 15

3.6 Build Freeway Segment and Ramp Merge / Diverge LOS

For the Build alternatives considered, analyses were done for the Opening Year (2010), Interim Year (2020) and Design Year (2030). These analyses are presented in this section for the I-75 mainline and ramp junctions. The following section presents the ramp termini analyses.

Since capacity of the mainline is the key factor in having I-75 meet LOS standards, two widening alternatives (6-lane and 8-lane) were analyzed in this TTM. As shown in Figures 16a and 16b, a 6-lane cross-section on I-75 will meet the LOS standard of C until 2020. By 2030, a 6-lane section will not suffice as shown in Figure 16c. This figure indicates that the northbound lanes will operate at LOS D or LOS E with a 6-lane section, and no worse than LOS C with an 8-lane section.

With the 8-lane widening alternative, the I-75 NB off-ramp to SR 50 and the I-75 SB off-ramp to SR 50, will remain operating at substandard LOS. Various alternatives, including the implementation of auxiliary lanes, deceleration / acceleration lanes, widening of the ramps, were tried to improve these conditions to the LOS standard. The list below shows the minimum improvement required to have all I-75 ramp diverge sections to meet or better the LOS standard of C.

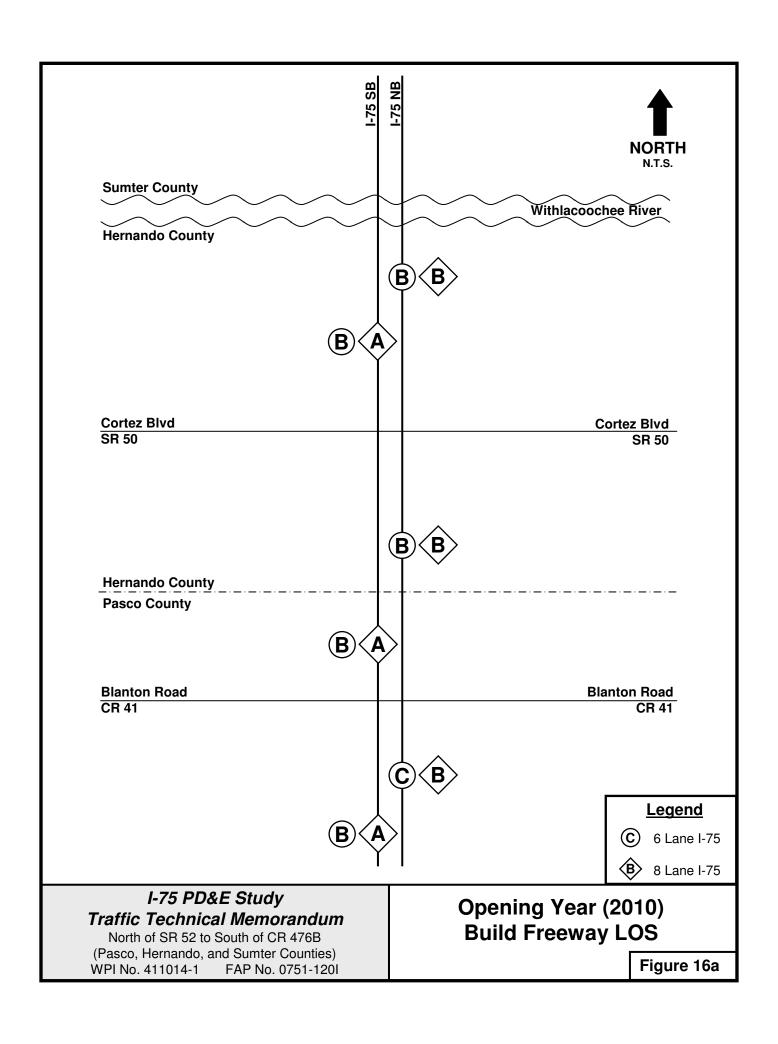
- <u>I-75 northbound off-ramp to SR 50</u> Widen the off-ramp to two lanes. Add a minimum 500 foot long right-side auxiliary lane that will become a drop lane into the northbound off-ramp. The right-most mainline of northbound I-75 will become a decision lane for northbound I-75 and the northbound off-ramp to SR 50.
- <u>I-75</u> southbound off-ramp to SR 50 Add a minimum 500 foot deceleration lane in advance of the gore area for this off-ramp.

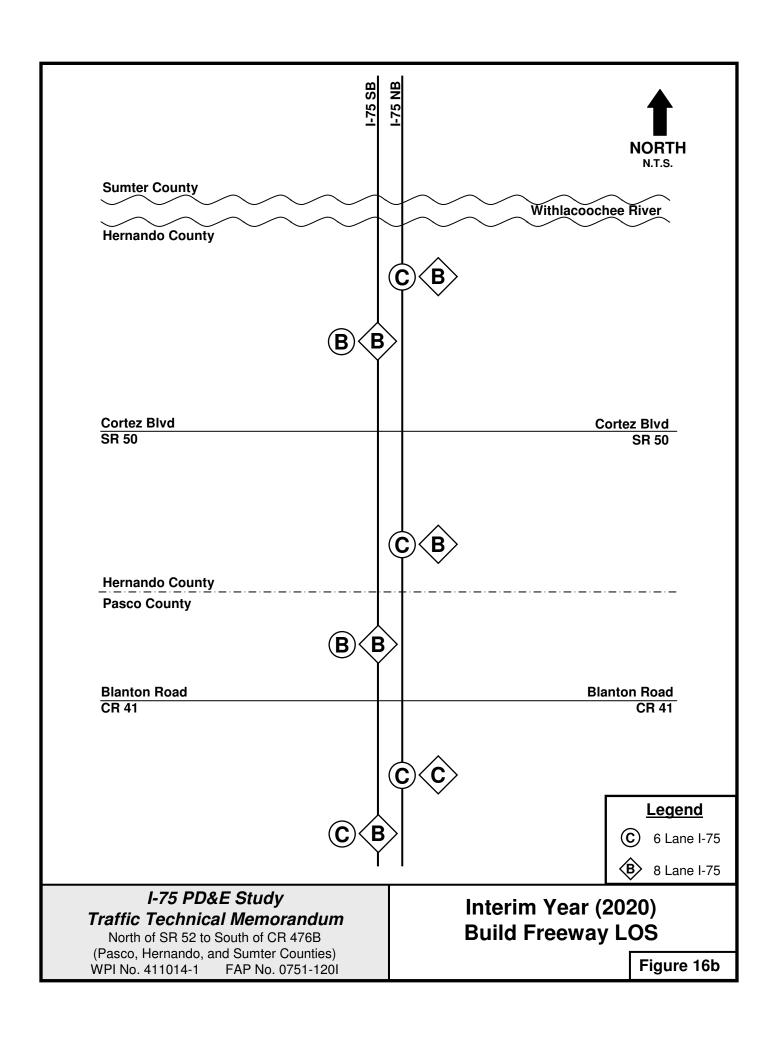
With these improvements all freeway segment and ramp merge and diverge segments will operate at or better than the standard of LOS C for the design year of 2030.

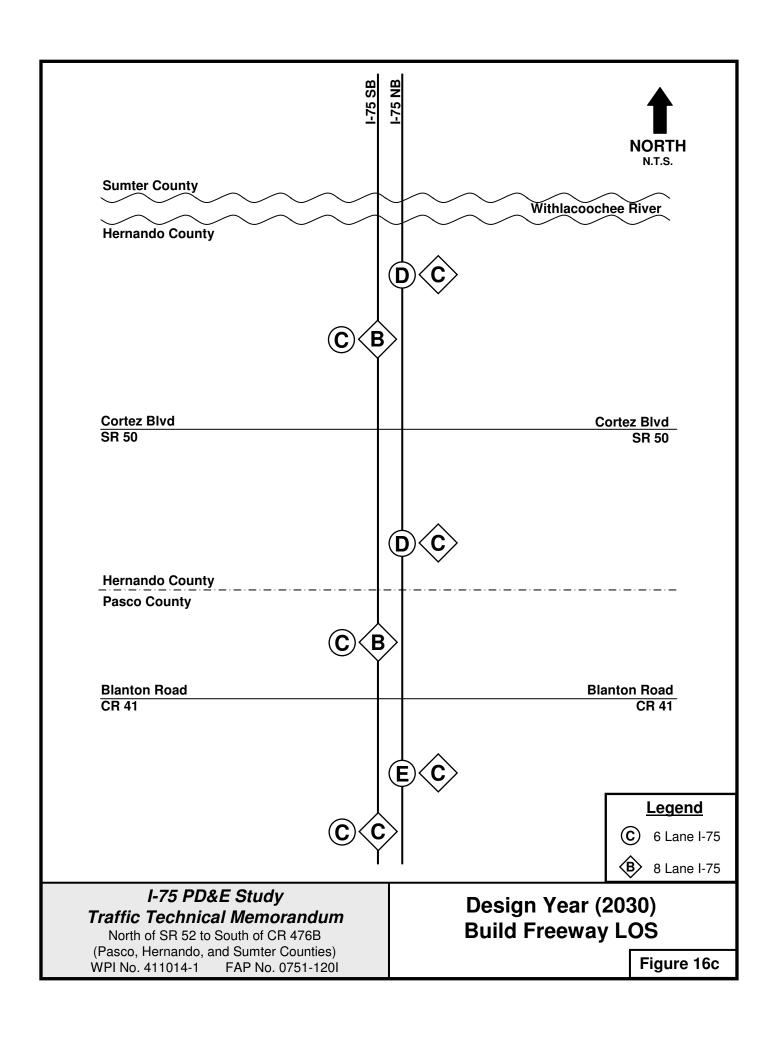
The ramp junctions have also been examined. As shown in Figures 17a, 17b and 17c, a 6-lane section of I-75 will result in LOS D conditions at the northbound exit ramp of the CR 41

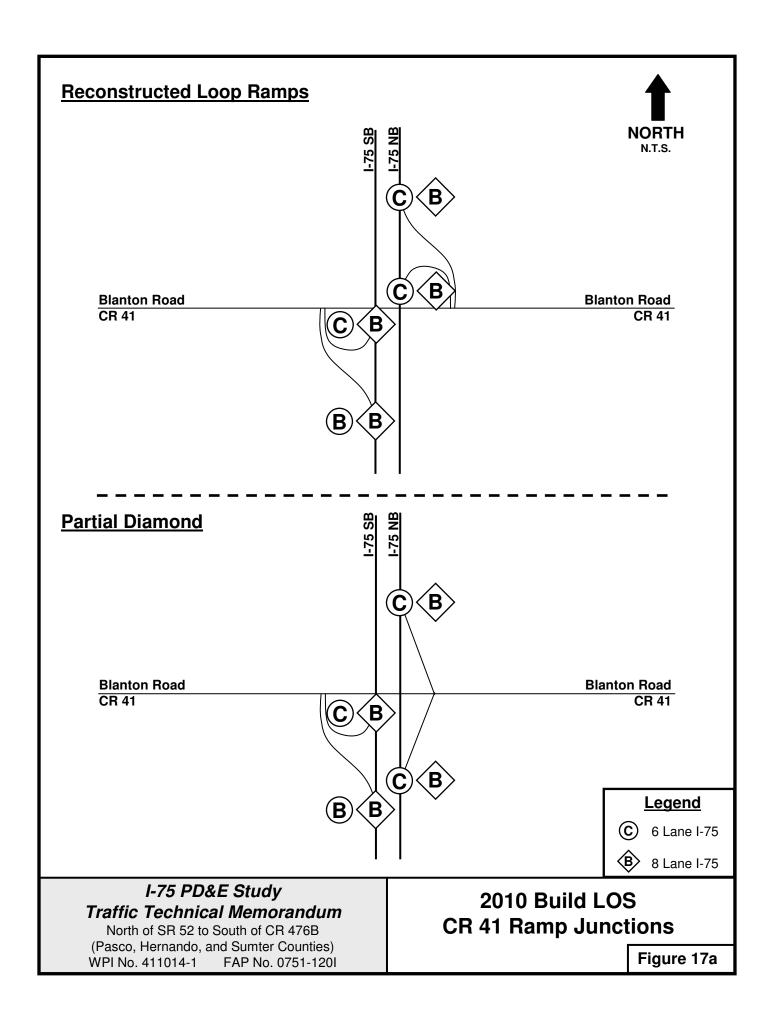
interchange by Year 2020. As shown in Figure 17c, an 8-lane section will result in conditions no worse than LOS C for all CR 41 ramp junctions by 2030.

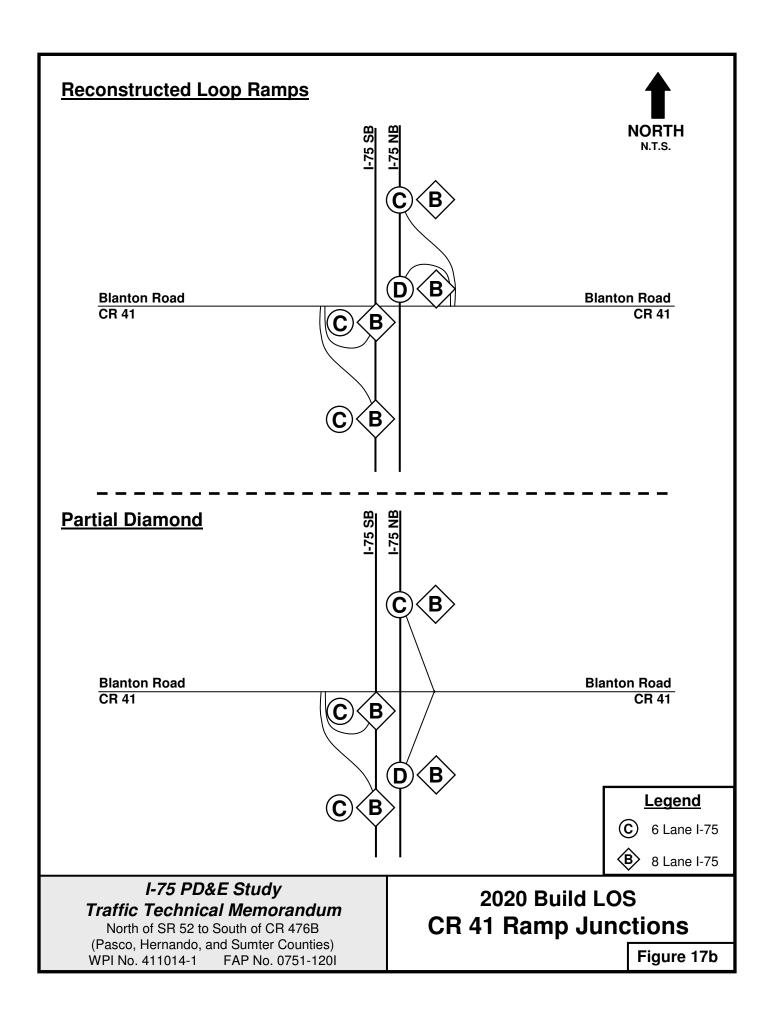
Assuming that I-75 is widened to 6-lanes, ramp junctions at the SR 50 interchange will produce acceptable levels of service through Year 2020, as shown in Figures 18a and 18b. Figure 18c indicates that an I-75 6-lane section will result in LOS D for the southbound ramp junctions as well as the northbound on-ramp junction by Year 2030. An 8-lane section on I-75 will produce LOS C or better conditions for Year 20 for these junctions. The northbound off-ramp must be upgraded to a 2-lane off-ramp by Year 2020 to meet acceptable levels of service for either a 6-lane or an 8-lane I-75, as shown in Figure 18c.

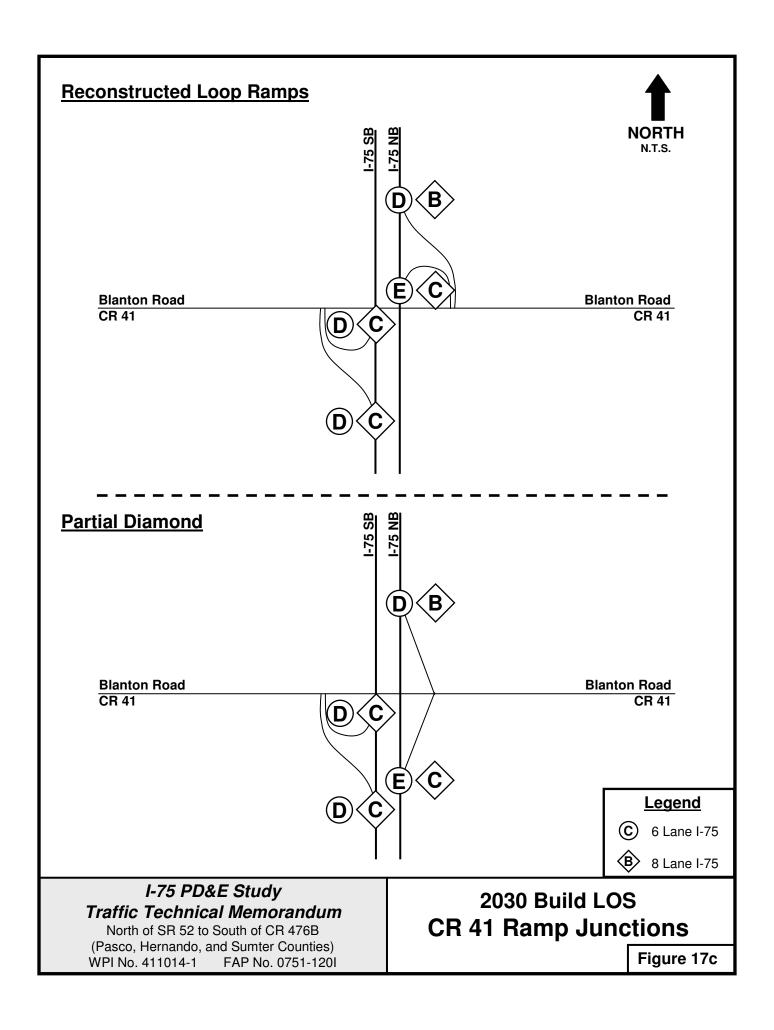




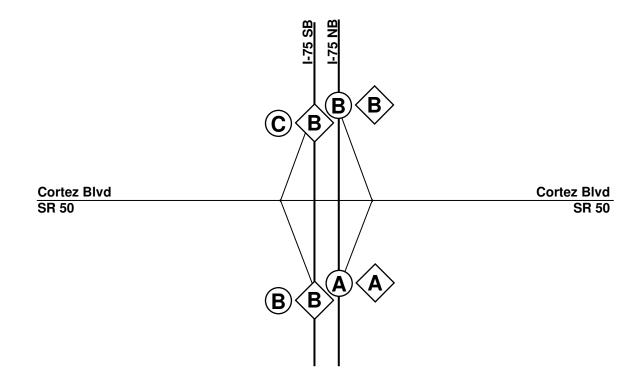












Legend

- **c**) 6 Lane I-75
- **B** 8 Lane I-75

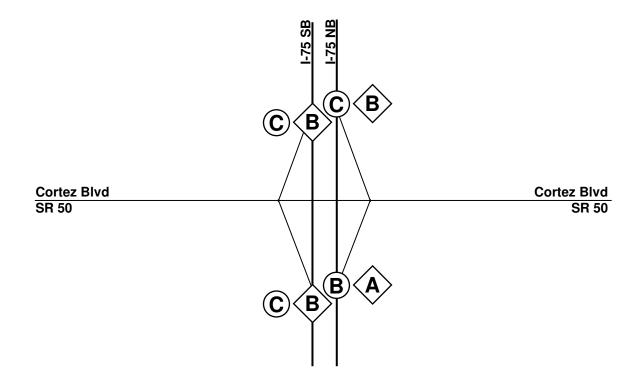
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2010 Build LOS SR 50 Ramp Junctions

Figure 18a





Legend

- **c** 6 Lane I-75
- **B** 8 Lane I-75

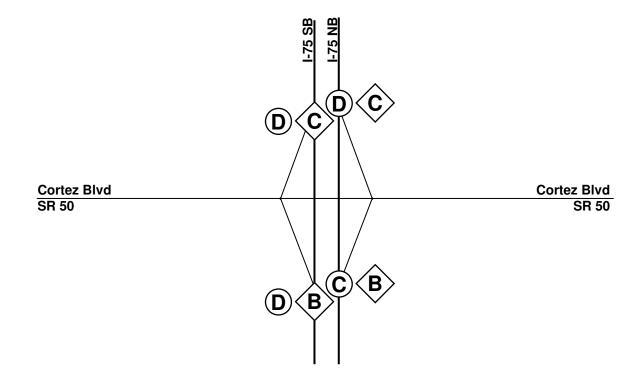
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2020 Build LOS SR 50 Ramp Junctions

Figure 18b





Legend

- **c**) 6 Lane I-75
- **B** 8 Lane I-75

I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2030 Build LOS SR 50 Ramp Junctions

Figure 18c

3.7 Build Intersections LOS Analysis

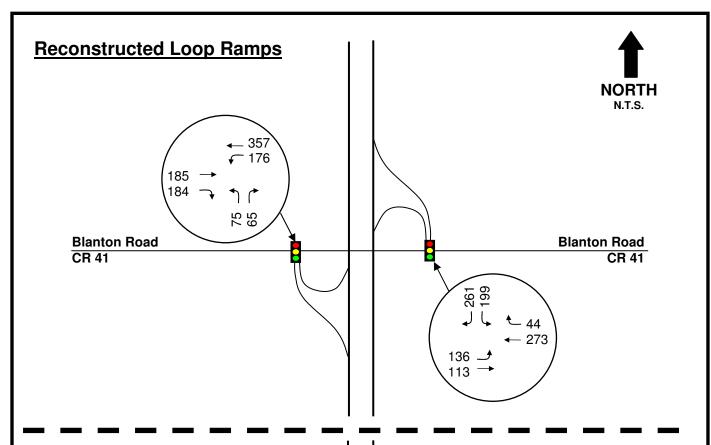
CR 41

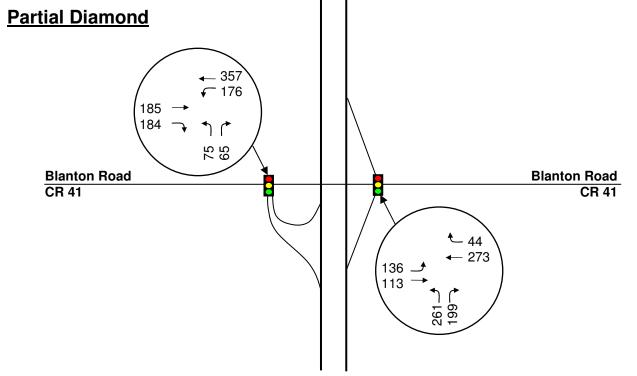
Since operations at interchange ramps can have a direct influence on mainline traffic, ensuring that conditions meet LOS standards is very important. To improve the substandard conditions at ramp terminals on CR 41 and SR 50, a number of improvement alternatives were analyzed. One of the main issues at the CR 41 (Blanton Road) interchange is that the present unsignalized traffic control at both ramp terminals will not adequately handle the much higher turning movements under design year conditions. For purposes of this analysis, both ramp termini are assumed to be signalized in the opening year.

Presently, the northbound off ramp to CR 41 is approximately 620 feet long from the gore point to the stop bar at the ramp terminal. Future volumes will likely produce queues that exceed the storage capacity of the current ramp design. Also, the future widening of I-75 will further shorten this off-ramp length and thus reduce the storage capacity even more. To address storage deficiencies that will exist on the northbound off-ramp to CR 41, this ramp must either be reconstructed to provide more queue storage or be replaced by a northbound off-ramp that is located in the southeast quadrant of the interchange, thus creating a partial diamond interchange at CR 41. These two alternatives were examined in the build scenarios of this study.

Unlike the northbound off-ramp, the southbound off-ramp at CR 41 is expected to meet or exceed the design year storage demands with its current configuration. The southbound off-ramp is longer than the northbound off-ramp (approximately 780 feet long). Also, the traffic volumes on this ramp are substantially less than those of the northbound ramp. For these reasons, the southbound off-ramp at CR 41 is long enough to meet design year traffic demands and thus can be retained; however mainline widening will necessitate the reconstruction of this ramp, retaining the current cloverleaf concept.

Opening, Interim and Design Year volumes are shown on Figures 19a, 19b and 19c respectively while lane configurations for the two Build alternatives are shown in Figure 20. Figure 21 shows the Levels of Service for the three years analyzed for both Build alternatives.



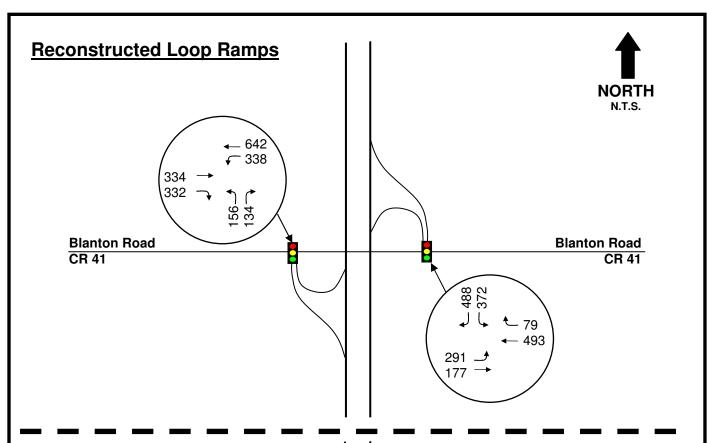


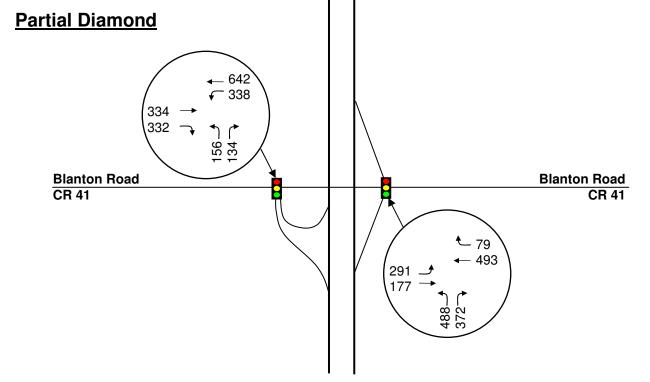
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2010 Volumes CR 41 Intersection

Figure 19a



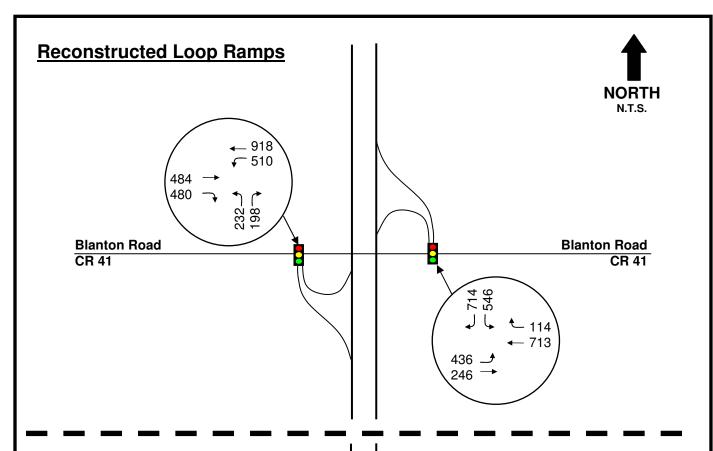


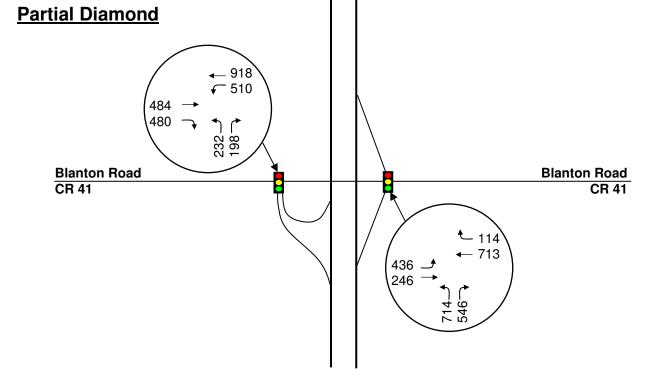
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2020 Volumes CR 41 Intersection

Figure 19b



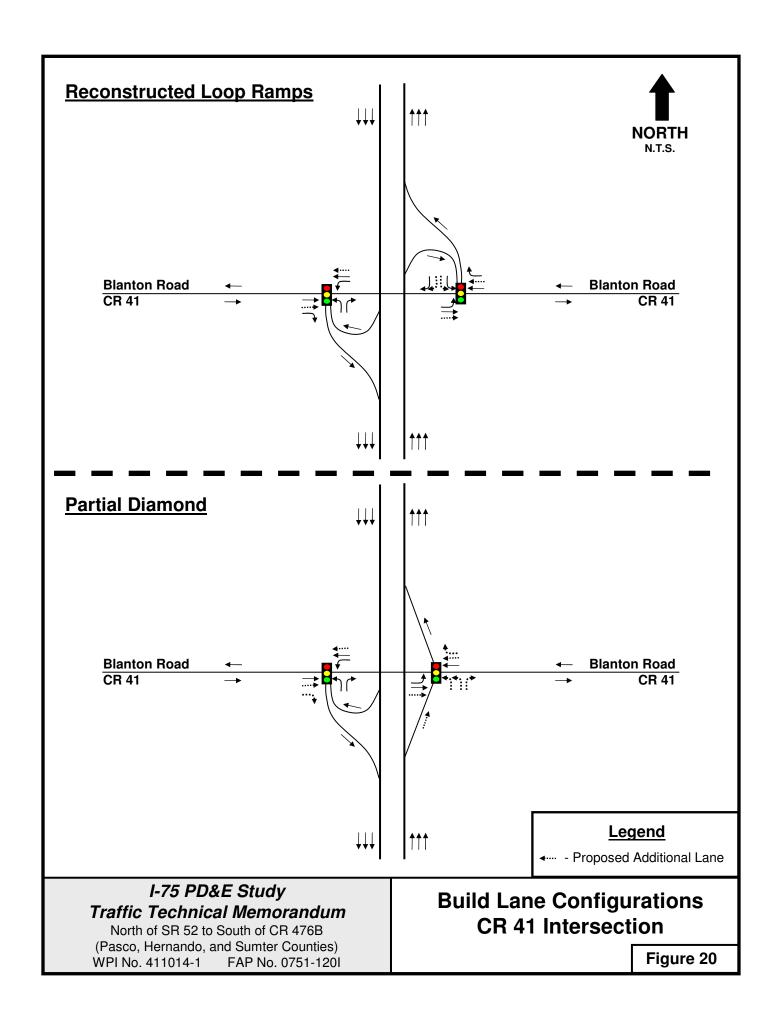


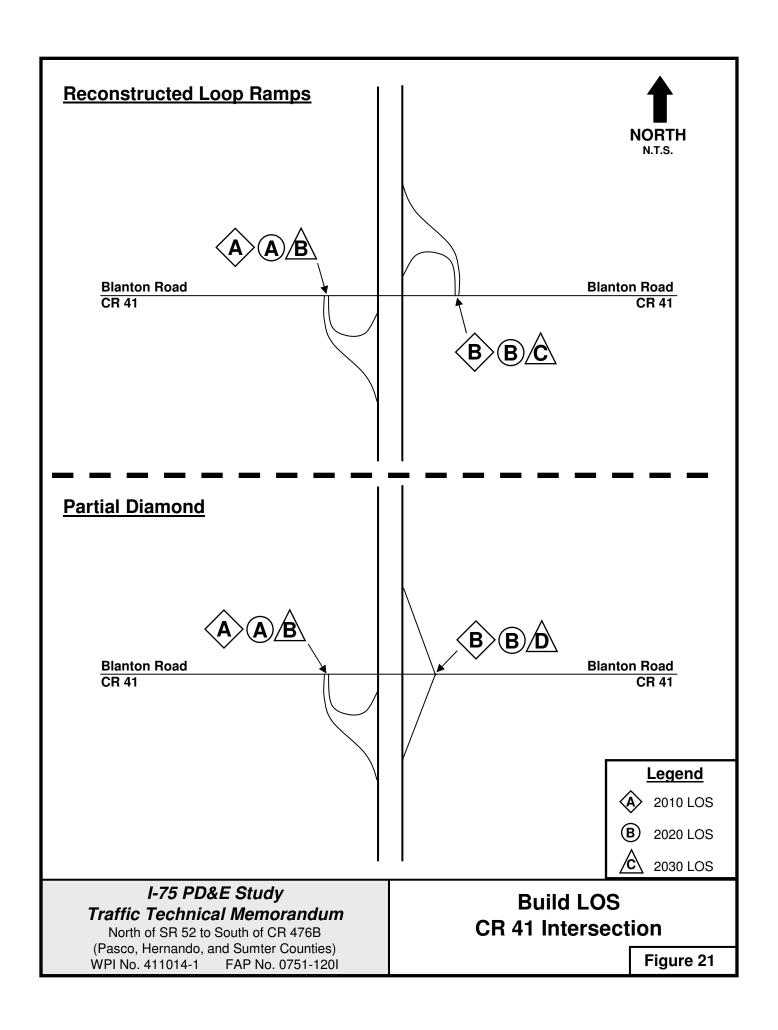
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2030 Volumes CR 41 Intersection

Figure 19c





SR 50

The ramp terminals, in their existing condition, will both operate at LOS F under design year traffic demands. To improve operating conditions, a total of five alternatives were developed and evaluated; however not all alternatives were found to provide acceptable operations. Although the focus of operations is on mainline I-75, it was strongly desired to also provide acceptable operations on SR 50, an SIS route, within the interchange area. Early on, it was decided that this study would not encompass a complete evaluation for SR 50 outside of the interchange area, as it would be outside the scope of this project. In addition, there are a large number of unknowns regarding future development. Numerous discussions occurred between the study consultant, FDOT District staff, County officials and developers representatives to gain a better understanding of future conditions.

The five alternatives evaluated to improve interchange operations include:

- Implementation of lane improvements to the existing diamond interchange,
- Conversion of the existing diamond interchange to a single point urban interchange,
- Addition of a loop ramp to serve westbound to southbound traffic,
- A westbound-to-southbound flyover ramp and
- A northbound-to-westbound flyover ramp.

Based on the initial demand volumes, approach and turning movement volumes were generated for each of the alternatives. These volumes are shown on Figures 22a-1 through 22c-2. Lane configurations associated with these alternatives are shown on Figures 23a and 23b.

Figure 24a indicates that neither lane improvements nor the single point urban interchange will improve conditions enough to meet the standard of LOS C for the design year. The westbound to southbound loop ramp alternative, will produce better results at the two ramp terminal intersections; however the western intersection will operate at LOS D, while the eastern intersection will operate at LOS E, as seen in Figure 24a. Both results are below the LOS standard of C set for SR 50. This alternative consists of the following improvements to the interchange:

- A westbound to southbound loop ramp located in the northwest quadrant of the interchange,
- A right-most channelized westbound lane that feeds this loop ramp and that begins at some point east of the northbound ramp intersection (this allows westbound traffic to proceed and not conflict with northbound to westbound traffic turning left from the I-75 off-ramp),
- The addition of an eastbound left turn lane for the eastern intersection, resulting in dual eastbound left turn lanes,
- The addition of southbound left turn and right turn lanes, resulting in dual southbound right and left turn lanes,
- The addition of two northbound left turn lanes, resulting in three northbound left turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the
 northbound right turn lane to be a free flowing movement. This is the preferred treatment
 and assumes the relocation of the signal at Bronson Boulevard. If this signal cannot be
 relocated, the ramp terminal should be modified to a dual right-turn operation under
 signal control; however, this introduces ramp storage issues which would not exist under
 the preferred treatment.

The westbound to southbound flyover alternative will produce results at the two ramp terminal intersections that are similar to the results of the westbound to southbound loop ramp alternative. This alternative also results in western and eastern intersections which will operate at LOS D and LOS E, respectively, as seen in Figure 24b. Again, both intersections will operate at levels below the LOS standard of SR 50. The westbound to southbound flyover alternative consists of the following improvements to the interchange:

- A westbound to southbound flyover that begins in the northwest quadrant of the interchange,
- The addition of an eastbound left turn lane at the eastern intersection, resulting in dual eastbound left turn lanes,
- The addition of a southbound right turn lane, resulting in two southbound right turn lanes,

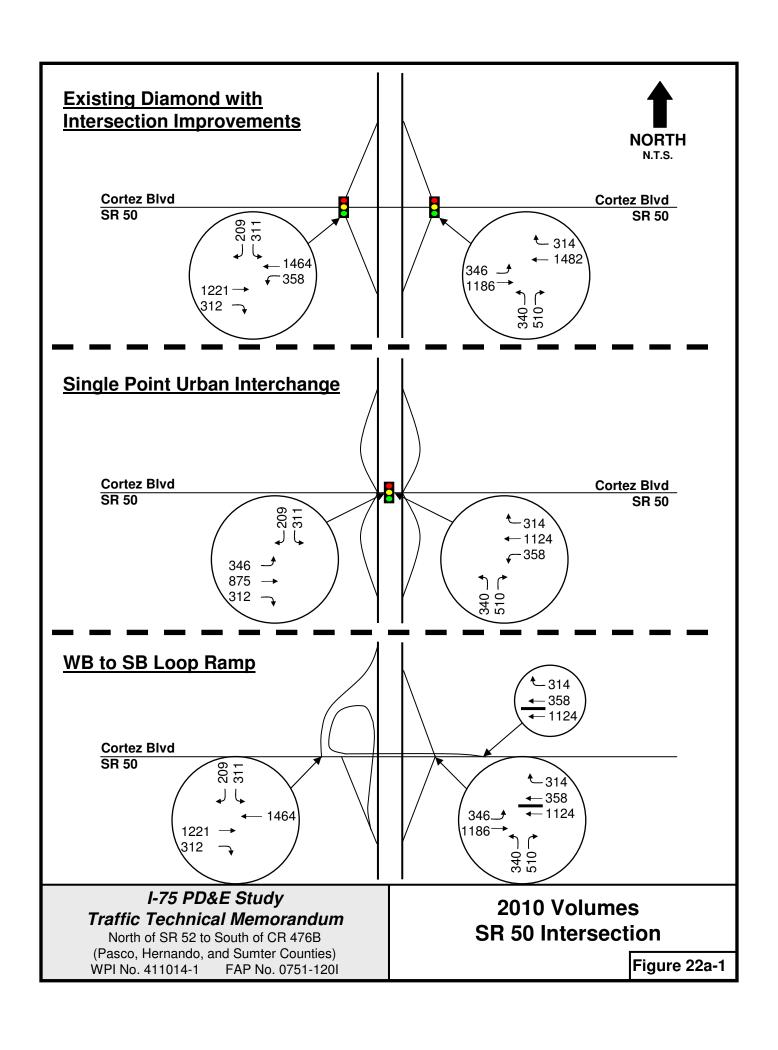
- The addition of two left turn lanes for both the northbound and southbound left turn movements, resulting in three left turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the northbound right turn lane to be allowed a free flowing movement.

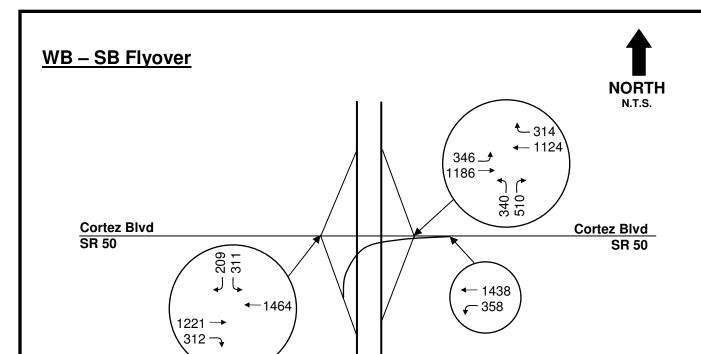
The northbound to westbound flyover alternative will produce results at the two ramp terminal intersections that are equal to or better than all other alternatives. In the design year, the western intersection will operate at LOS D, while the eastern intersection will operate at LOS C, as seen in Figure 24b. Although the eastern intersection will meet the standards set for SR 50, the western intersection will operate below the LOS standard of C. The northbound to westbound flyover alternative consists of the following improvements to the interchange:

- A northbound to westbound flyover that begins in the southeast quadrant of the interchange, originating from the northbound off-ramp,
- The addition of an eastbound left turn lane at the eastern intersection, resulting in dual eastbound left turn lanes,
- The addition of a southbound right turn lane, resulting in two southbound right turn lanes,
- The addition of two left turn lanes for southbound left turn movements, resulting in three left turn lanes, and
- Widening SR 50 east of I-75 to some point east of the interchange to allow the northbound right turn lane to be allowed a free flowing movement.

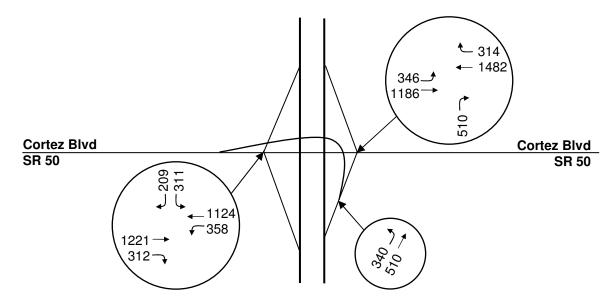
Although these improvements do not allow the SR 50 interchange to operate at LOS C, the interchange improvements necessary to allow the interchange to operate at the LOS C standard requires a fully directional interchange with flyovers for every left turn movement. An improvement of this magnitude was not considered feasible, especially considering that other nearby intersections will likely operate at worse than LOS C and will act to meter traffic approaching the interchange. Thus, it is recommended that the appropriate improvements be implemented and a waiver of the LOS standard for the ramp termini be granted, as this situation is similar to that of a constrained roadway.

The recommended improvements at the ramp terminals of the CR 41 and SR 50 interchanges are shown on Figure 25 and their resulting LOS is shown on Figure 26.
shown on Figure 25 and then resulting 1005 is shown on Figure 20.





NB - WB Flyover

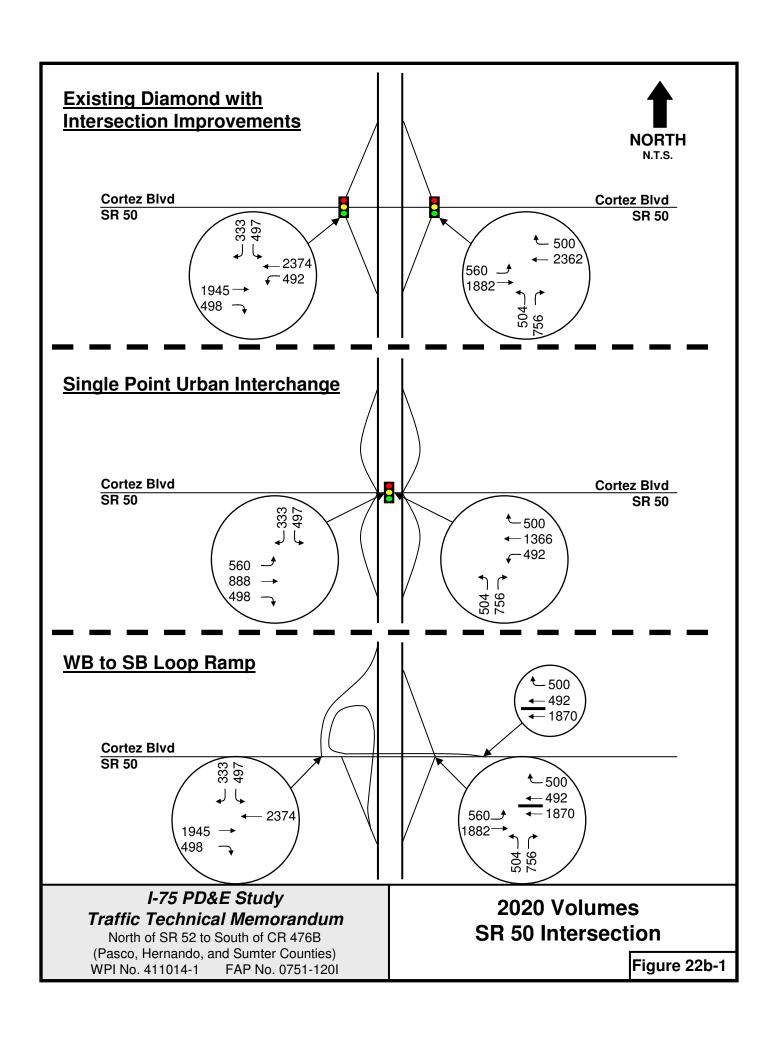


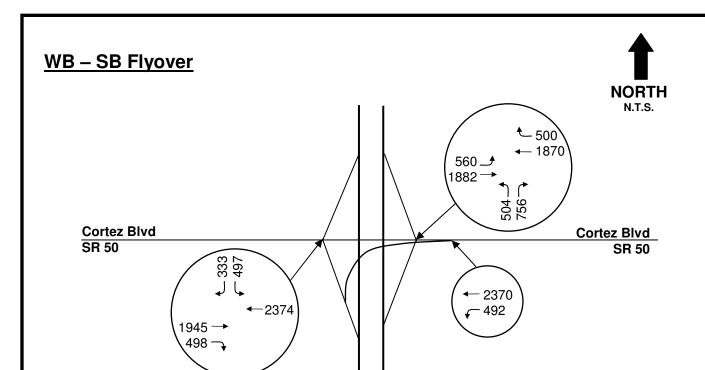
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

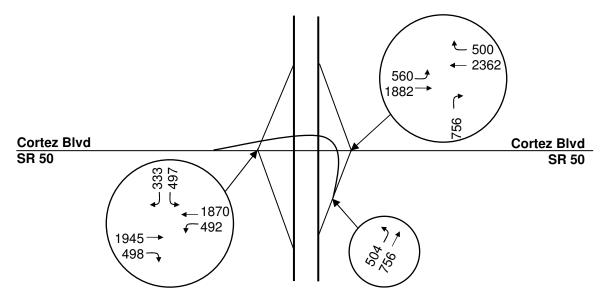
2010 Volumes SR 50 Intersection

Figure 22a-2





NB – WB Flyover

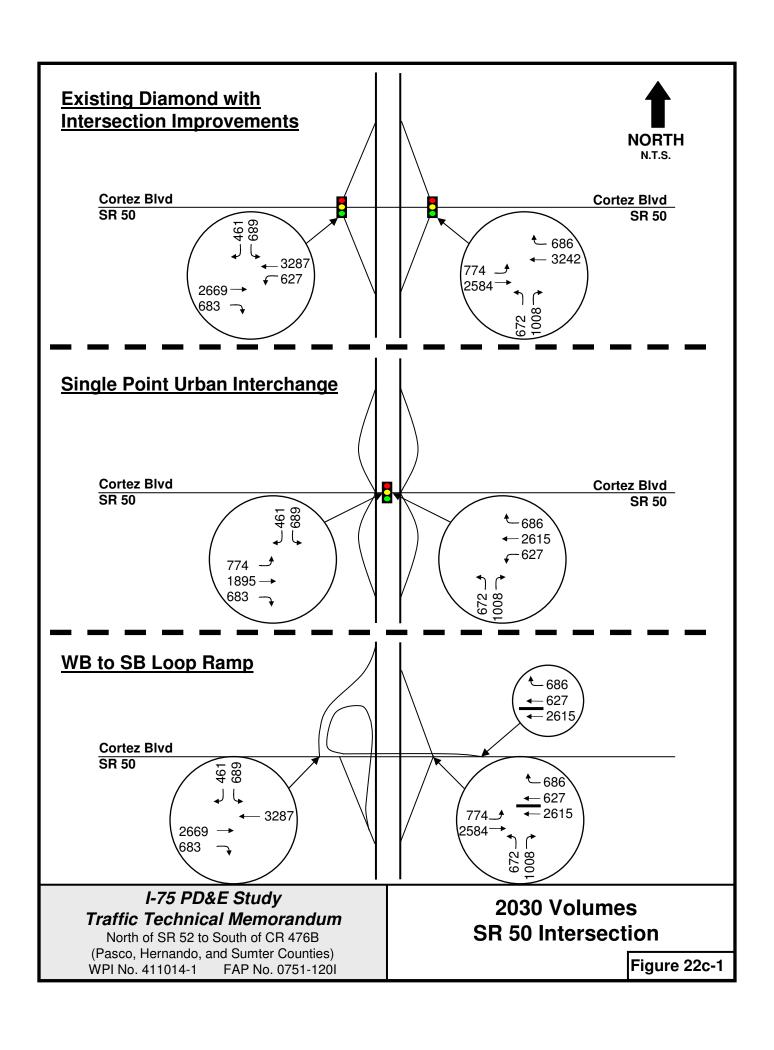


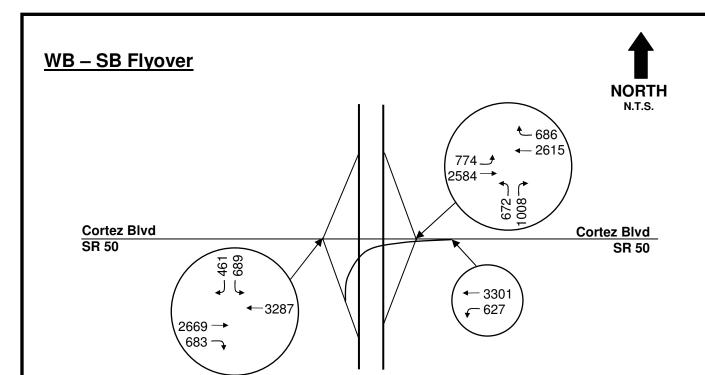
I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

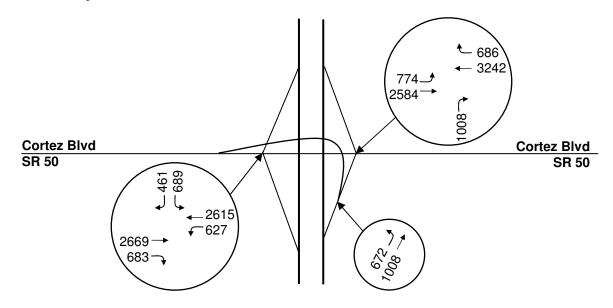
2020 Volumes SR 50 Intersection

Figure 22b-2





NB - WB Flyover

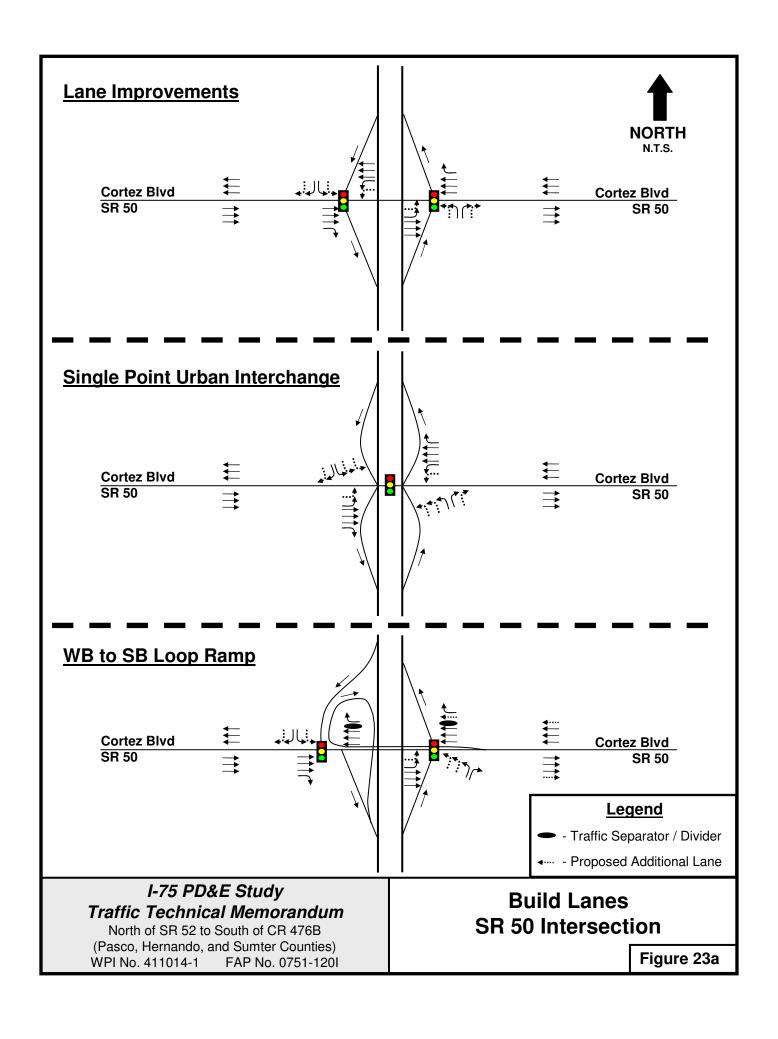


I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

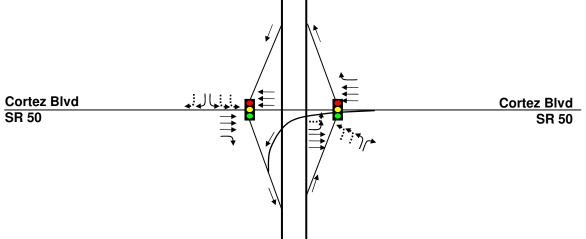
2030 Volumes SR 50 Intersection

Figure 22c-2

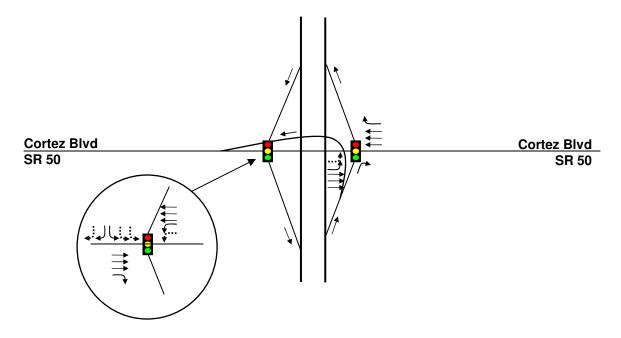


WB – SB Flyover





NB – WB Flyover

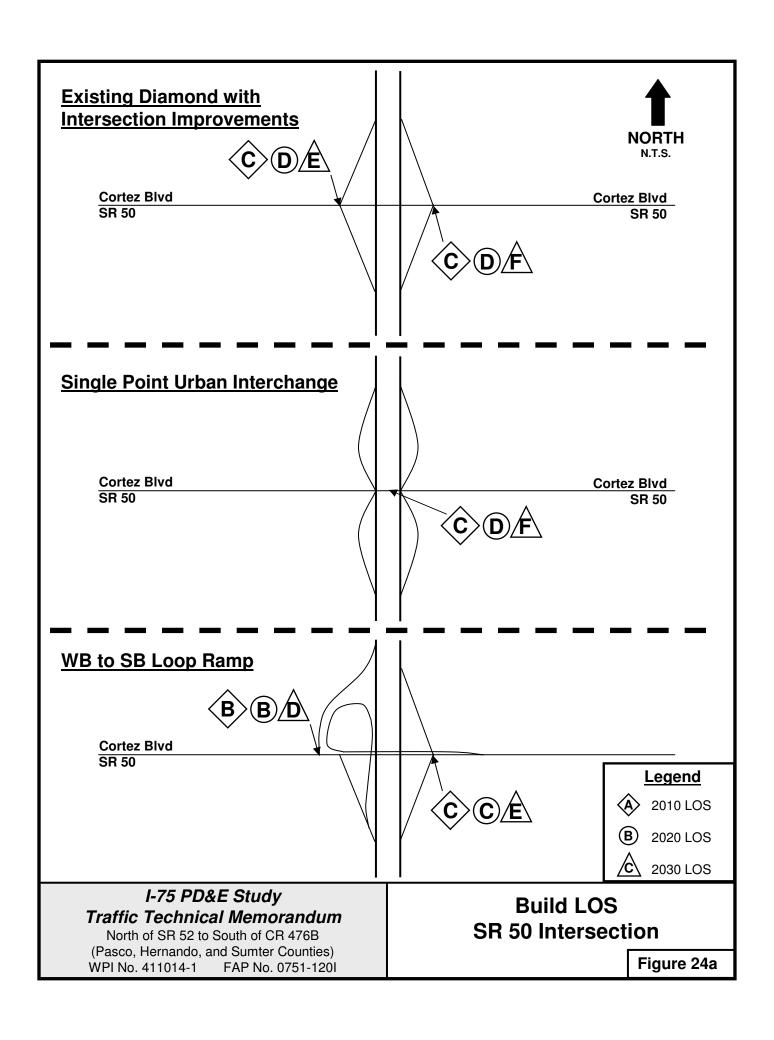


I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

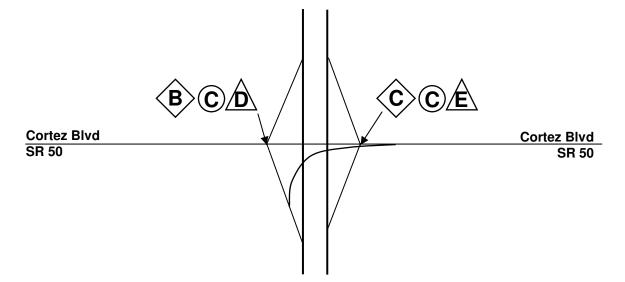
Build Lanes SR 50 Intersection

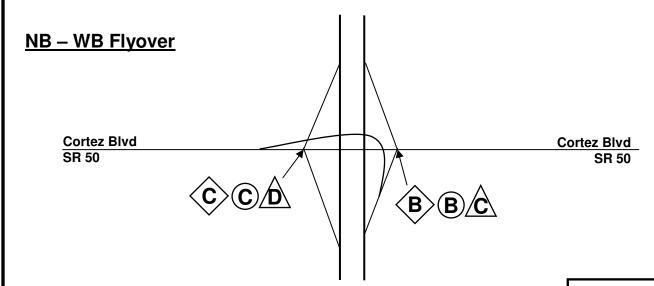
Figure 23b





WB - SB Flyover





Legend 2010 LOS





I-75 PD&E Study Traffic Technical Memorandum

North of SR 52 to South of CR 476B (Pasco, Hernando, and Sumter Counties) WPI No. 411014-1 FAP No. 0751-120I

2030 Build LOS SR 50 Intersection

Figure 24b

TRAFFIC TECHNICAL MEMORANDUM I – 75 (SR 93) PD&E STUDY; PASCO, HERNANDO, AND SUMTER COUNTIES

Table 7 below summarizes the intersection Level of Service results of the preceding graphics.

Table 7
Level of Service Results for Ramp Termini

No-Build Alternatives

	20	10	20	20	2030		
Location	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	
I-75 NB Ramps/CR 41	26.8	D	943.5	F	11077.0	F	
I-75 SB Ramps/CR 41	23.8	С	964.1	F	22094.0	F	
I-75 NB Ramps/SR 50	42.5	D	128.4	F	271.5	F	
I-75 SB Ramps/SR 50	29.9	C	79.7	Е	156.7	F	

Build Alternatives

	20	10	20	20	20	30
Location	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
I-75 NB Ramps/CR 41						
NB Partial Clover (WBT=2, SBLT=2)	11.3	В	13.6	В	24.2	С
NB Partial Clover (WBT=2, SBLT=1)	18.3	В	24.3	С	57.2	Е
NB Partial Clover (WBT=1, SBRT=FF)	28.8	C	43.7	D	135.8	F
NB Diamond	13.5	В	16.2	В	39.4	D
I-75 SB Ramps/CR 41						
SB Partial Clover	6.5	Α	8.7	Α	14.1	В
I-75 NB Ramps/SR 50			1			
Lane Improvements	27.1	С	51.2	D	143.7	F
SPUI	34.7	С	46.2	D	104.8	F
WB to SB Loop Ramp (WB Thru)	19.6	В	27.1	С	67.2	Е
WB to SB Loop Ramp (WB-SB Only)	20.7	С	28.7	С	70.7	E
WB to SB Fly-Over	22.7	С	32.2	С	77.6	Е
NB to WB Fly-Over	10.1	В	13.2	В	27.7	С
I-75 SB Ramps/SR 50						
Lane Improvements	26.6	С	38.3	D	79.9	Е
Loop Ramp	13.8	В	17.5	В	36.8	D
WB to SB Fly-Over	17.6	В	22.3	С	51.2	D
NB to WB Fly-Over	25.8	С	28.2	С	36.0	D

3.8 Determination of Storage Lengths

The required storage lengths for turn lanes recommended at the ramp terminals at CR 41 and SR 50 were estimated using the red-time formula, found in 7.4.7 Intersection Design – Lane Configuration of the FDOT Plans Preparation Manual. Since it is possible that through-lane queuing can sometimes block access to right and left turn lanes, turn lane queuing requirements were also reviewed against anticipated queues in the through lanes. Table 8 compares the calculated queue lengths from the red time formula to the existing storage lane length. Shaded cells indicate design queues that will exceed the existing storage length and thus in designing these intersections, improvements to these lanes is required.

Table 8
Recommended Alternative (2030) Storage Lengths

Intersection	Control	Turn Lane	Number of	Existing	Queue Length
			Lanes	Storage	
		Northbound Left	3	500'	207'
		Northbound Right	2	500'	840'
SR 50 @ I-75 NB Ramps	Signal	Eastbound Left	2	300'	645'
SK 50 @ 1-75 ND Kamps	Signai	Eastbound Thru	3	300'	1436'
		Westbound Thru	3		1802'
		Westbound Right	1		1144'
		Southbound Left	3	400'	383'
		Southbound Right	2	400'	385'
SR 50 @ I-75 SB Ramps	Signal	Eastbound Thru	3		1483'
3K 30 @ 1-73 3B Kamps	Signai	Eastbound Right	1		1139'
		Westbound Left	2	300'	520'
		Westbound Thru	3	300'	1453'
		Northbound Left	2		595'
		Northbound Right	1		910'
CR 41 @ I-75 NB Ramps	Signal	Eastbound Left	1	250'	727'
CK 41 @ 1-75 ND Kamps	Signai	Eastbound Thru	1	1,900'	405'
		Westbound Thru	2		595'
		Westbound Right	1	200'	190'
		Northbound Left	1	575'	387'
		Northbound Right	1	575'	330'
CR 41 @ I-75 SB Ramps	mps Signal	Eastbound Thru	2		404'
CR 41 @ 1-13 3D Ramps		Eastbound Right	1	375'	800'
		Westbound Left	1	250'	850'
		Westbound Thru	2	1,900'	765'

4 SUMMARY AND CONCLUSIONS

Existing (2005) and design year (2030) traffic analyses were conducted as part of the I-75 PD&E Study to document the existing levels of service in the corridor as well as the anticipated future levels of service in the corridor. Results of the existing condition LOS analyses indicate that the existing I-75 study area and interchanges at CR 41 and SR 50 operate at or better than the LOS standard for SIS facilities in transitioning areas, with the exception of the northbound I-75 off-ramp to SR 50, which operates at LOS D.

Design year (2030) traffic forecasts were developed by FDOT personnel using the TBRPM Version 5.1. The No-Build roadway network was based on the design year (2025) Cost Affordable plans of the Hernando County and Pasco County LRTPs, which includes the widening of SR 50 to six lanes within the study area.

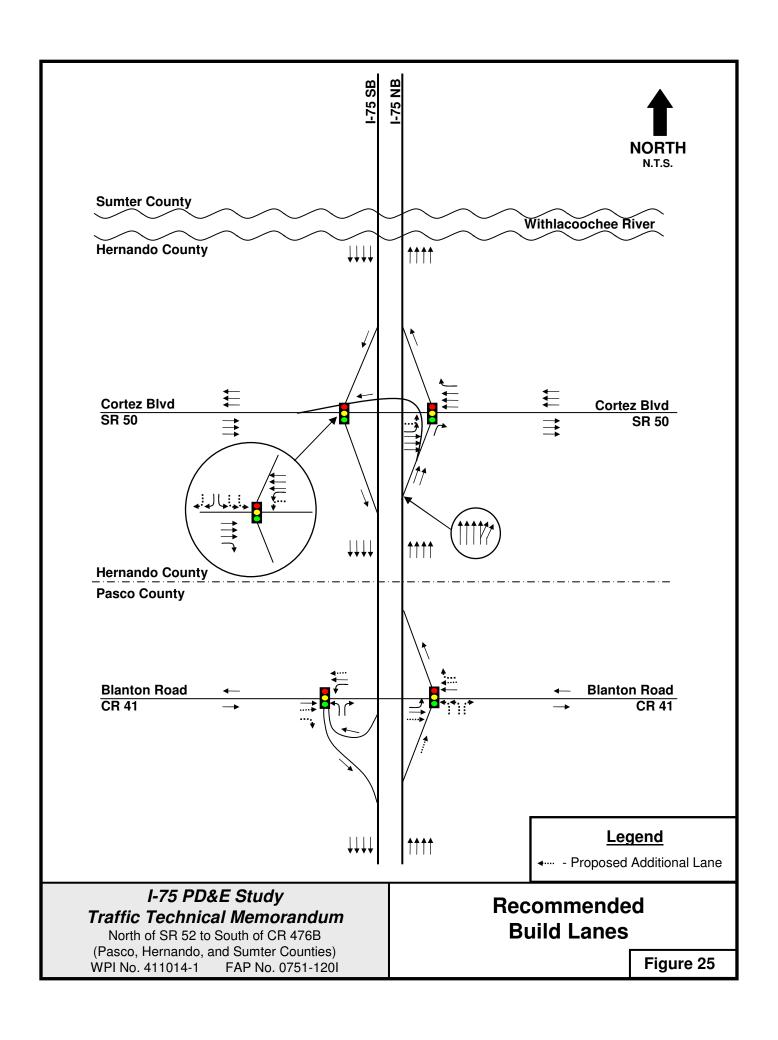
The design year (2030) - build alternative key improvements are the widening of I-75 to eight-lanes throughout the study area, addition of auxiliary lanes, and ramp improvements. With these improvements, the results of the Build alternative analyses indicate that all segments of I-75 will operate at or better than the LOS standard of C, which is required for SIS roadways in transitioning areas.

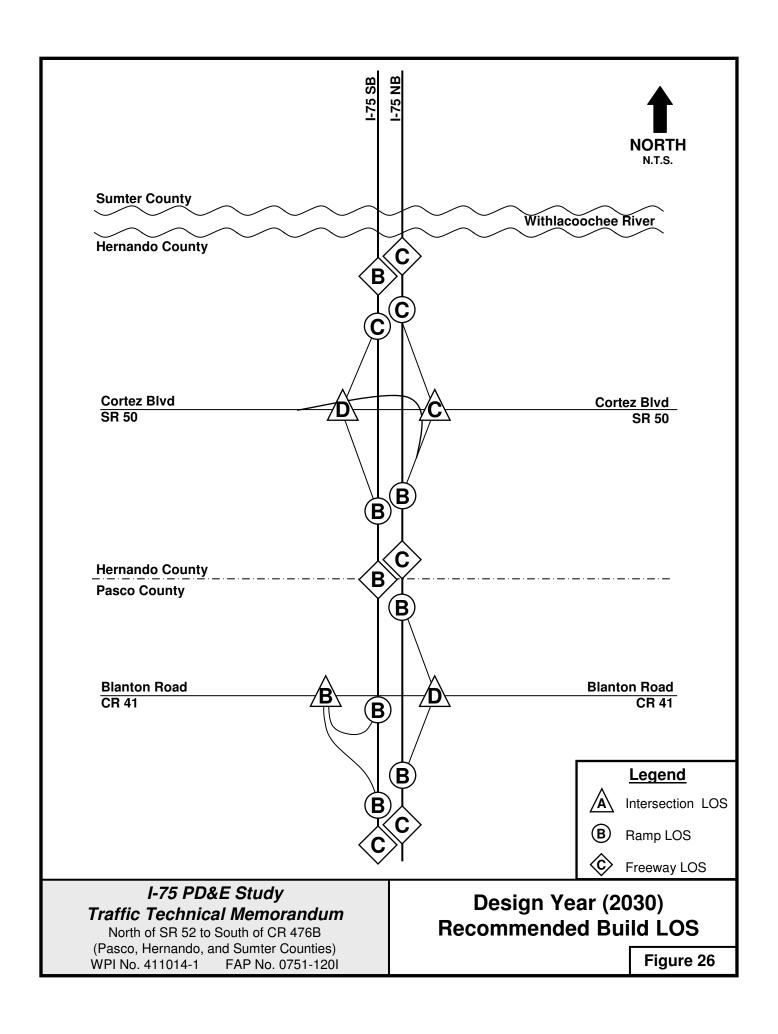
Ramp terminals at the CR 41 and SR 50 interchanges will also require improvement. At the CR 41 interchange, it is recommended that the northbound loop off-ramp presently located in the northeast quadrant be replaced with a slip ramp in the southeast quadrant. In addition, both ramp terminal intersections with CR 41 will require signalization. At the SR 50 interchange, it is recommended a flyover ramp serving northbound I-75 to westbound SR 50 traffic be constructed. In addition, widening SR 50 east of the interchange to allow the northbound right turn movement to be free flowing and other lane improvements such as multiple turn lanes on the northbound and southbound off-ramps and on-ramps will be necessary. With these improvements, the results of the Build alternative analyses indicate that the ramp terminals at both interchanges will operate at or better than the LOS standard of D, which is the standard set

TRAFFIC TECHNICAL MEMORANDUM I – 75 (SR 93) PD&E STUDY; PASCO, HERNANDO, AND SUMTER COUNTIES

by both Pasco and Hernando counties for their respective roadways; but not the LOS standard of C required since SR 50 west of I-75 is an SIS facility.

Figure 25 shows the recommended Build lane configurations with the resulting Levels of Service shown on Fig. 26.





APPENDIX 'A'

MAINLINE AADT TRAFFIC COUNT SUMMARIES



			Count L	ocation	1 - I-75 b	etween S	SR 52 ar	rd CR 41				
		N	orthbour	ıd	······································		Sc	outhbour	nd			
:	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri		
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	NB	SB
12:00 AM			398%		多种服			£505#		£540%		
1:00 AM			3610						建和9 理性			
2:00 AM			第320周		EXTROL			HADDLE	V404;			
3:00 AM			美部 核		第883月			200日本	g 52.3%	58B		
4:00 AM			2403		ADDOM			经796 整	87BC)			
5:00 AM			## # ###		FEBRUARY				#120 #			
6:00 AM			21/189					家田 中特	東新聞			
7:00 AM			班500		新聞日 意			禁护处理	772	344385E		
8:00 AM			有实现		MARKET STATE			STAGE IN		E1620;		
9:00 AM			\$146.25					EXPERIE		312.903		
10:00 AM		2339						新教學				
11:00 AM		28.50 A.C	E'TI	#102	\$290 \$		PAISS	\$110E		E1943		
12:00 PM		2000		1.50 to 1870.	EDAM		MATE	教師には教	1.7-1	E E E E E E E E E E	-19.61%	-3.08%
1:00 PM		128		AND 1			30 W/2 R			Mara		
2:00 PM			C. Lary day					医 FRE				
3:00 PM	The second second	N. P.			2837	#4689	W. C.		2.1344	24.40		
4:00 PM		150				學5825				<u></u>	-	
5:00 PM						新西			15.7	8		
6:00 PM		la Substanta.				B. 145-42					-	
7:00 PM	The second second			iseculia.			Sept. Andread		740.00	<u> </u>		
8:00 PM	***			300%	<u> </u>	20.05		2.2		<u> </u>	-	
9:00 PM	77775			11170				HALLES	Tara car	21	1	
10:00 PM				1714		# 6584		726100		€	-0.74%	-1.31%
11:00 PM	<u> </u>	€ 7556}	<u> </u>	43510 2	4	E DUN	B 3 4 4 7	DIANGLE		<u> </u>] 0.1-130	-1.5170
Sum	11427	22579	9 27823	20620	27945	10182	20526	3005-	4 2590	9 21818	3	
Northbou												
1. Tuesda							٨	AADT				
2. Thursd	ay (3/17)	- 11:00	AM to Fri	day (3/1	8) - 11:00	MA (AADT	= 3452	0 0.9	5 32794	
Southbou		40.00	0 k 6 km 1 <i>81</i> -		. (2)465	10.00 **		AADT=	= 3259	ı6 0.9	5 30966	
1. Tuesda											-	
2. Wedne							IVi	AADT:				
3. Thursd	ay (3/17)) - 10:00	AM to Fr	lday (3/1	8) - 10:0	U AM		AADT:	= 2750	ιο υ .9	J 20131	



			Co	unt Loca	tion 4 -	-75 @ C	R 41 bri	dge				
		N	orthbou	nd			Se	outhbou	nd	 		
	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri		
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	NB	SB
12:00 AM			13063	¥1387/2			±405#	18401E	7507£i	學5545		
1:00 AM			Ø383%	297			#383#	B-3502	# 3 516	3439 6		
2:00 AM			基的2 案	203					其30年最			
3:00 AM			204 Fig.	/11323E			3468	集502等	2140CQ	数539章		
4:00 AM			¥46.25	#£403°			*736 4	22594第	¥605¥	A COLUMN		
5:00 AM			(A)(1)(A)	96689%			3 IL 151	LIOSOV.	11126	製加料		
6:00 AM			# WES	M/M2			212	34286a	能控BF算	建却 78%		
7:00 AM			SHOW.	# [#39]					312416			
8:00 AM			数理 數	2559				E14064				
9:00 AM			20 E	#1635f			SIZE	3.154 (8)		新台区		
10:00 AM			24 522	2006			eroey.	对的联	NAME OF STREET	和東和2		
11:00 AM		15.00	- Care 11:22	######				Jv.	THE PARTY	新能化		
12:00 PM		20 TO		21.16						X 1100F		-9.27%
1:00 PM		2030		21874		建				1972		
2:00 PM				23755		Page Of A Labor	\$100 C		建			
3:00 PM		1.00							FEET 188		1	
4:00 PM			A SHARE		Ļ	M15625			HITSOL		-	
5:00 PM						S4540		4 (2 margin personal)			-	
6:00 PM					ļ	H2949			超速 多		_	
7:00 PM						THE ACT	100100	100			4	
8:00 PM				}	<u> </u>	2022		17.00			4	
9:00 PM			THE PARTY]	ļ				100 TE		-	
10:00 PM 11:00 PM	المجدد والمتناسب فستبط							The second secon	#4658		-8.35%	-12.07%
11,00 FW	3000	Marinos.	127	1		E - AUC A	日子してき		· laterioris	<u> </u>	1 -0.33 %	- (2.0) /0
Sum	21451	19843	30928	17539		17586	26232	26047	26818	1692	1	
Northbour		* * .00	. K. ż. a		40 (# 0)	44.00.45		* * ****	04000	, ,,	50555	
1 Tuesda									= 31089			
2. Wedne	sday (3/1	11:1 - נסו	OF MA UC	inursda	y (3/17) -	- 11:00 A	M	AAD1:	= 29168	3 0.9	o 27710	
Southbou	nd											
1. Tuesda		- 12:00 A	AM to We	dnesday	(3/16) -	12:00 AM	Л	AADT=	2623	2 0.9	5 24920	
2. Wedne				-				AADT=	2604	7 0.9	5 24745	
		-			8) - 12:0			AADT=	2681	8 0.9	5 25477	



1:00 PM 2015 2016 302 301 302				Count L	ocation	5 - I-75 b	etween	CR 41 aı	nd SR 50				
Time			N	orthbou	nd	-C		S	outhbou	nd			
12:00 AM		Mon	Tues	Wed	Thurs	Fri	Mon				Fri		
1:00 AM	Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	NB	SB
2:00 AM	12:00 AM			F 309	E415 2	3300A			149A	G25102	52546±		
3:00 AM	1:00 AM			\$386£	(1909);	X333 2			45.5 AL	E40%			
3:00 AM	2:00 AM			3016	142A1				#395N	2387/	是5.443		
5:00 AM	3:00 AM			学32月 鈴	¥357#	#368 7							
6:00 AM 7:00 AM 8:00 AM 9:00 AM 11:00 AM 11:00 AM 11:00 AM 11:00 AM 11:00 AM 11:00 AM 12:05	4:00 AM			表明20	\$4574G				\$1605¥	12/12/12	280A		
7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 12:00 PM 12:00 PM 12:00 PM 13:00 AM 13:00	5:00 AM			建印度	建160第				31988A	第105元	21188		
8:00 AM				建加速 相	(8) (5) (1)	34408			212982	#1425	SELEN		
9:00 AM	7:00 AM			新班	经外面	3188 02			12114GH	4)2/3	建 双键		
10:00 AM					EEU2	1217			(#1280#	(4)354	100		
11:00 AM						SEE SUR.			1376				
12:00 PM	\$			Water		es in the			2153B		3000 00		
1:00 PM 2195 22 32 32 32 32 32 32 32 32 32 32 32 32				SET II	100			美1489的	ESTATE OF	STABLE	25 7555		
2:00 PM 3:05						2042		约572 为				-21.06%	-12.33%
3:00 PM						\$15 25 #					205		
4:00 PM					PROS		EEX X	自由的	69.18	2004			
5:00 PM					44.			\$15572	Heat.	250			
6:00 PM								Q.,	n den geriffent atteije in e	WIT W			
7:00 PM													
8:00 PM	£	Land Street Control			7								
9:00 PM 3.8 90.3 92.4 92.4 92.4 10:00 PM 4050 92.3 92.4 92.4 11:00 PM 4050 92.5 92.4 92.4 11:00 PM 4050 92.5 92.4 92.4 92.4 92.4 92.4 92.4 92.4 92.4													
10:00 PM	8:00 PM			Annual of Desiration			ļ						
11:00 PM 503 53 53 53 53 53 53 53 53 53 53 53 53 53							ļ						
Sum 15104 18748 30302 31974 21495 0 15699 25127 24457 17384 Northbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT = 29971 0.95 28472 2. Wednesday (3/16) - 11:00 AM to Thursday (3/17) - 11:00 AM AADT = 30405 0.95 28885 2. Thursday (3/17) - 11:00 AM to Friday (3/18) - 11:00 AM AADT = 34826 0.95 33085 Southbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT = 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT = 25721 0.95 24435	10:00 PM											0.000	(150 H (26)
Northbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM 2. Wednesday (3/16) - 11:00 AM to Thursday (3/17) - 11:00 AM 2. Thursday (3/17) - 11:00 AM to Friday (3/18) - 11:00 AM 3. Thursday (3/17) - 11:00 AM to Wednesday (3/16) - 11:00 AM 3. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM 3. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM 3. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM 3. ADT = 25730 0.95 24444 3. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM 3. ADT = 25721 0.95 24435	[11:00 PM]	S-MOR	報のお意	Stoop 5	LEDIUS,	<u> </u>	<u> </u>	@.536.F	(\$605g)	1080	1	-2.93%	#L)IV/0!
1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM	Sum	15104	18748	30302	31974	21495		15699	25127	24457	17384		
1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM	Morthhour	nd.											
2. Wednesday (3/16) - 11:00 AM to Thursday (3/17) - 11:00 AM AADT = 30405 0.95 28885 2. Thursday (3/17) - 11:00 AM to Friday (3/18) - 11:00 AM AADT = 34826 0.95 33085 Southbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT = 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT = 25721 0.95 24435			11.00 4	-14/ at \$4	dennada	/2/46)	44.00 **		ለ ለ ጦም =	. 00074	0.00	20.420	
2. Thursday (3/17) - 11:00 AM to Friday (3/18) - 11:00 AM AADT = 34826 0.95 33085 Southbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT = 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT = 25721 0.95 24435													
Southbound 1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT= 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT= 25721 0.95 24435								IVI					
1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT= 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT= 25721 0.95 24435	z. murbuc	ay (arir)	- 11.007	TIVI LO ESS	uay (3/18	a) - 11.00	1 AM		AAD1 =	- 34025	0.95	23U85	
1. Tuesday (3/15) - 11:00 AM to Wednesday (3/16) - 11:00 AM AADT= 25730 0.95 24444 2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT= 25721 0.95 24435	Southbou	nd											
2. Wednesday (3/16) - 9:00 AM to Thursday (3/17) - 9:00 AM AADT= 25721 0.95 24435			- 11:00 A	M to We	dnesdav	(3/16) -	11:00 At	vi.	AADT=	25730	0.95	24444	
	2. Wednes	sday (3/1	6) - 9:00	AM to T	hursdav	(3/17) - 9	9:00 AM						
									AADT=				



		· · · · · · · · · · · · · · · · · · ·	Co	unt Loca	ation 8 -	I-75 at SI	R 50 bric	ge				
			orthbour	nd			Sc	uthbour	id			
	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri		
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	NB	SB
12:00 AM			F20146		#376€		¥267	#397¢		#2501H		
1:00 AM			*295 9		×293±		#225 #	1.316.5		244		
2:00 AM			**************************************		華284张		Wayayi	物300素		¥469%		
3:00 AM			对266条		4,790%		#4Z48	建47 7家		488/2		
4:00 AM			14,000		£ 476±		#144#	#5ZI		£698		
5:00 AM			23818				数国Q	#375p	***************************************	(#18 4)		
6:00 AM			A 104 A		\$7030g		邮股	AE 8904		差808年		
7:00 AM			2018		21074		4050	100430		F-1004		
MA 00:8					#19b9K			STREET.	,	\$ 140 33		
9:00 AM			#154.8		Reput.			MATERIAL SERVICE		21303		
10:00 AM			SE MARKE	計1893 条	2243		Marie L	3126	E010474	£215823		
11:00 AM			新游 赛	建 取40	**************************************		A CHAP		914345			
12:00 PM		21702	FINESE	100	3772419		ECHIP	海10種	FIRST OF	C1625	-20.41%	-2.34%
1:00 PM		545 FE					(121E)	2.3	200			
2:00 PM	24.20%	到500		15,10 %		: 14/3	SIZE.		#14##			
3:00 PM	S 18 12 (0.64	24505		\$1392 1			EPCH			
	學多時			## OF P		ETTS.			11222			
	SE COME					\$1242	## 2X		STEEL ST			
6:00 PM			and the same						MATERIAL			
7:00 PM				AND DESCRIPTION OF THE PERSON		MATERIAL SECTION SECTI	1728		500			
8:00 PM	343	2500 P	27.7	14.00		Street.	SALES OF		4800			
					<u> </u>	(2) SEC. (1)	de FOOTE		WESTER			
10:00 PM						\$520a	(255,16)		654			
11:00 PM	£5323	478	# \$200	#496g	1	\$4564	E494		编BH36		-7.81%	-51.44%
Sum	10792	13175	24036	18026	15792	9485	21351	10547	14854	12500		
Northbour	nd											
1. Wednes	 sday (3/1	6) - 12:0	0 AM to T	hursday	(3/17) -	12:00 AN	Λ	AADT =	24036	0.95	22834	
2. Thursda								AADT =			25337	
C	1											
Southbour		10.00 1			45.14.55						00#==	
1. Tuesday								AADT=	2135		20283	
Thursda	iy (3/17)	- 10:00 A	AM to Fric	iay (3/18	i) - 10:00	MA		AADT=	22626	5 0.95	21495	



		Count	Location	9 - 1-75	oetweer	SR 50 ;	and With	lacooche	e River	1			
			orthbou				S	outhbou	nd				
	Mon	Tues	Wed	Thurs	Fn	Mon	Tues	Wed	Thurs	Fri			
Time	(3/14)	(3/15)		(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)		NB	SB
12:00 AM		ļ	#418 5,	¥#15€			1443 b	经475世		8.592 _%			
1:00 AM		ļ <u>.</u>		293			1413美	3474		2506年			
2:00 AM			A13495	#351章				深437世		2564			
3:00 AM				第353学				546		\$632¥			
4:00 AM			建物	2530			参792%	THE!		490 %			
5:00 AM			\$300a	803年				#1096a		STOOT			
6:00 AM		<u> </u>		449				61270×		2311182			
7:00 AM			型(3)5家	81A56%				71377		5,14,18			
8:00 AM				\$1625°			1250	£1629£		1647/			
9:00 AM				数1983				#1655		31862			
10:00 AM				# JOS #	~			1626		a 1966			
11:00 AM				多:在: 注				\$ 174°F	1428				
12:00 PM			美色表型					\$1699 \$				#DIV/O	-5.79%
1:00 PM		2011	STATE OF			· · · · · · · · · · · · · · · · · · ·	14521K		H1574				-J, r J /6
2:00 PM	2017					*1797			#167 <i>(</i>)				
3:00 PM			THE REAL PROPERTY.			£17.18X	X15700		10496				
4:00 PM						\$1680£			54.75 K				
5:00 PM						5161A	2180E		3.740E				
6:00 PM							atti 586		14004				
7:00 PM						****	DOBS		4172				
8:00 PM						学203 00	PEN US		CHARLE				
9:00 PM				[2 J. 10	TEXT SIL		EDIDE:				
10:00 PM						* 665a*	7236		() BC3				
11:00 PM	6004	# 7#U				2 .529点	(C.544.*)		+,,92⊕			-13.15%	1.18%
Sum	14711	14851	30981	14051	0	11811	26446	14633	17496	18737			
Northbound													
1. Tuesday	(3/15) -	1:00 PM	to Wedn	esday (3/	16) - 1:0	00 PM		AADT =	31112	0.95	29556		
2. Wedneso	day (3/16	5) - 1:00	PM to Th	ursday (3	/17) - 1:	00 PM		AADT =			27332		
Sauthhava	d												
Southbound	_	4 T. OO . * *											
1. Tuesday	(3/15) ~	12:00 AN	vito Wed	nesday (3/16) - 1	2:00 AM		AADT=	26446	-	25124		
Thursday	(3/17) -	TI:UU A	M to Frid	ay (3/18)	- 11:00	AM		AADT=	29754	0.95	28266		

APPENDIX 'B'

CROSS STREET AADT TRAFFIC COUNT SUMMARIES & CROSS STREET INTERSECTION TURNING MOVEMENT COUNTS

		(Count Lo	cation 2	- CR 41	West o	f 1-75 Inte	erchange	2	
		E	astboun	d			W	estbour	ıd	
	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)
12:00 AM		# 8 K	32.0 SE				建划26 接	Ø 1095	225	
1:00 AM		2154%	44.46	G 2 3			会計3 學	政制建		
2:00 AM		程201条	200	128 08						
3:00 AM		製加業					##17 ##		SET	
4:00 AM		4.2		春秋春 草			60 B-3		经(0)	
5:00 AM		差別繼	過少學				2320章		是2数	
6:00 AM		F101		325			经的禁			
7:00 AM			無政府				SERVICE SERVIC		體的影	
MA 00:8		是刘琏								
9:00 AM		1916	44.0							
10:00 AM				营业5 。			美加韓			
11:00 AM										
12:00 PM							差便機			
1:00 PM				學第6章				经	指20年 美国第	
2:00 PM			建排炭					難域		
3:00 PM		THE RESERVE								
4:00 PM									E 2.65	
5:00 PM						<u> </u>	224			
6:00 PM						<u> </u>			447	<u> </u>
7:00 PM							美和權			
8:00 PM					At					
9:00 PM				250		 	* 57.5	2/4/2		
10:00 PM						<u> </u>	# (O D)	SE (VE)	<i>(4.6.)</i>	
11:00 PM		1918	数针形式	*3.64		<u> </u>	開幕23 型	医 谷11岁	65.40 %	1

Sum	0	2575	2586	2414	0	0	2508	2554	2377	0

Eastbound	R	law S	SF	ACF	
1. Tuesday (3/15)	AADT =	2575	0.95	0.89	2177
2. Wednesday (3/16)	AADT =	2586	0.95	0.89	2186
3. Thursday (3/17)	AADT =	2414	0.95	0.89	2041
Average					2135
Westbound					
1. Tuesday (3/15)	AADT=	2508	0.95	0.89	2121
2. Wednesday (3/16)	AADT=	2554	0.95	0.89	2159
3. Thursday (3/17)	AADT=	2377	0.95	0.89	2010
Average					2097
Total					4231

			Count Lo	ocation 3	3 - CR 41	East of	I-75 Inte	rchange	<u>1</u>	
	<u> </u>	E	astboun	d			W	estbour	ıd	······································
	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)
12:00 AM		310 2	建 [2]	34 4			/2.9/5	8 4	2 14	
1:00 AM		異接	37.118 5	101	***************************************		2.4 Table	1×02.	1.85	
2:00 AM				24 USE			172 124	2.19 .14		
3:00 AM		# 9#E		48.3			1.500		31. 25	
4:00 AM		020					172 8 2	(1)	5 2 W	
5:00 AM		提 43章		#32			39003			
6:00 AM		1980		SEC 10			2255	6449	7.198	
7:00 AM		25.0	新大路	建建		·	對100萬	6 16 2 (1915 <i>G</i>	
8:00 AM		100						2,200		
9:00 AM				ELLE.			285至			
10:00 AM		建制料		2510fg:					98 4	
11:00 AM			美田俊	28 29311				是一个7万元	曲针及	
12:00 PM		建设基					對對		建 沙醇	
1:00 PM				经加速				7.00		
2:00 PM		WENT		量的基础						
3:00 PM		#160 E					野 田		138	
4:00 PM							FEB 19			
5:00 PM										
6:00 PM									提供	
7:00 PM							对印制	数解		
8:00 PM			Aut s			<u> </u>	200		100	1
9:00 PM		對化數			,					
10:00 PM							E ZA	7 20	17.40	
11:00 PM			224	美人居 证		1	EXIA P	語道理學	2.72	

0 2156 2172 2003

Sum

Eastbound 1. Tuesday (3/15) 2. Wednesday (3/16) 3. Thursday (3/17) Average	AADT = AADT = AADT =	Raw S 2156 2172 2003	F A 0.95 0.95 0.95	0.89 0.89 0.89 0.89	1823 1836 1694 1784
Westbound 1. Tuesday (3/15) 2. Wednesday (3/16) 3. Thursday (3/17) Average	AADT= AADT= AADT=	2216 2168 2100	0.95 0.95 0.95	0.89 0.89 0.89	1874 1833 1776 1827
Total					3612

0 0 2216 2168 2100 0

			Count Lo	ocation 6	- SR 50	West o	f I-75 Inte	rchange		
			astboun					estbour		
	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)
12:00 AM		***	72 BR 4	省458 号			#109E		\$31348	118
1:00 AM		200		¥ 58			##B#		3705	94
2:00 AM		5380					£ 355 ±		海田	122
3:00 AM		121		s124			#185±1		E HOS	
4:00 AM		344	美化化	2008	****		9458H		經的理	E PA
5:00 AM				2454°			200		213	
6:00 AM		E LIE		# F2 ##			45.9A		200	4,500
7:00 AM		藍叫梅		禁山多			15724 s		海面	200
8:00 AM		跨级服	72.46	T8578			7200		751	5 674
9:00 AM			4721				THIS		2. Z.E.	ig Es
10:00 AM				24 82			SCASHE.		40.5	100
11:00 AM		39. E. A.	230 3	200 0			58498		多 女皇	Ejid5
12:00 PM				建筑			#758 #	280kg	E 2794	\$ 1777 P
1:00 PM							3700	804 集		
2:00 PM						9137	\$ \$7.48S	1004	医	
3:00 PM						独96种		80 DEFE	BOUT TO	
4:00 PM				**************************************		240			W. 197	
5:00 PM				建		是田田町				
6:00 PM				建筑	···	整纹键		10 P		
7:00 PM							<u> </u>			
8:00 PM			200	34.05		2.020		第22 型	es de la	
9:00 PM				7476			1	数域	PACE.	
10:00 PM						對的為	1	4 28 %	1000	
11:00 PM		#102E	#108F	2418年		120 0		多技術		[

Sum 0 12718 12337 12308 0 5499 7360 6973 11823 5817

Eastbound		Raw	SF	ACF	
1. Tuesday (3/15)	AADT =	12718	0.93	0.91	10763
2. Wednesday (3/16)	AADT =	12337	0.93	0.91	10441
3. Thursday (3/17)	AADT =	12308	0.93	0.91	10416
Average					10540
Westbound 1. Tues (3/15) - 12:00AM to 12:00PM & Wed (3/16) - 12:00PM to 3. Thursday (3/17) Average	12:00 AADT= AADT=	12033 11823			10184 10006 10095
Total					20635

			Count Lo	ocation 7	- SR 50	East of	1-75 Inte	rchange	!	
			astboun					estbour	_	
	Mon	Tues	Wed	Thurs	Fri	Mon	ues	Wed	Thurs	Fri
Time	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)	(3/14)	(3/15)	(3/16)	(3/17)	(3/18)
12:00 AM		1500E	# 130E	¥ 109±			海106堂	# 3003 #	2489	······································
1:00 AM		3.10	SHE	94/			7 9453	n. 902	128 B 76%	
2:00 AM		建和维	器似鹤	#109			建91 建	1025	一型以0 差	······
3:00 AM		建取權		F139	****		建01 建	100	1410 Te	
4:00 AM		455		230 E			SEIBO E			
5:00 AM			44.25	E415			414	A 1743	能和影	
6:00 AM				6645			家区建			
7:00 AM		2 UO 65		106	***************************************			390		
8:00 AM				12 D 7 T 1			25 (42)	THE STATE OF	E886	
9:00 AM		10 m		多路線				100.500	製的級	
10:00 AM		全球体队 。	1000000	観り住宅			* 8 84 \$		PEROFE.	
11:00 AM		美田麗		905			1921		Ser.	
12:00 PM							1925		KINE.	
1:00 PM							200	海中东	B BbG	
2:00 PM				TO SE			800			
3:00 PM				多田美				many of the contra	M8525	
4:00 PM							400 3			
5:00 PM			20.25							
6:00 PM			90:00	70.4			#14			
7:00 PM										
8:00 PM										
9:00 PM		# 10 PM		335 42			200 2013			
10:00 PM		建筑器	44	200			3205 6	124	概率集	
11:00 PM		建16%	215 6	216 .5			有维护			

Sum 0 14648 14392 14419 0 0 14086 13914 13	13831	- (1
--	-------	------

Eastbound		Raw	SF	ACF	
1. Tuesday (3/15)	AADT =	14648	0.95	0.89	12385
2. Wednesday (3/16)	AADT =	14392	0.95	0.89	12168
3. Thursday (3/17)	AADT =	14419	0.95	0.89	12191
Average					12248
Westbound				•	
1. Tuesday (3/15)	=TOAA	14086	0.95	0.89	11910
2. Wednesday (3/16)	AADT=	13914	0.95	0.89	11764
3. Thursday (3/17)	AADT=	13831	0.95	0.89	11694
Average					11789
Total					24038

BAYSIDE ENGINEERING INC.

	PEDESTRIAN MOVEMENT SUMMAR	RY
Section: Milepost: Time Periods: 6:00 4:00 -	Intersecting Road: CR 41 - 9:00 AM	mps City Jessa mine County. Pasco Completed By: Date:
CR 41 Total Total Total	Time Total Total Time Total Time Total Total Total Total Total	Total Time

BAYSIDE ENGINEERING INC. BICYCLE MOVEMENT SUMMARY Section. State Road: 58 I-75 Ramps City: Jessamine Milepost: Intersecting Road: CR 4/1 County: Pasco Milepost: Time Total CR 41 CR 41 Total Time Total Total Time Total Total Total Total Time NORTH

t 'Standard FormstMSI bixetorm xls. Peos Print -am

Counted by Ron Board # 1320 Weather cool / rainy File Name : SB I-75 Ramps @ CR 41 Site Code : 00000000

Start Date : 03/1 5/2005

Page No 1

Groups Printed- Passenger Vehicles

						CR		-U- Fd55t			F RAM			CR 4	**************************************		
		South	าดบทส	İ		Westh			36	Northb		r		Eastbo		!	
				App				App. ;				Арр.					
Start Time	Left	Thru	Right	Total	Leñ ·	Thru	Right	Total	Left	Thru	Right	Total	Len	ग्रुक्तः ।	Right	App. Total	int Total
Factor ,	101	107	10		10.	ָם ד	101		וְבַּיִּ	101	10		1.0 1	10	1.0		
06:00	0	0	ō	0	41	13	0	54	Ū	0	0	O j	0	18	69	87	141
06.15	0	0	0	0	32	25	0	57	1	0	1	2	0	13	77	90	149
06:30	0	0	0	0	40	22	0	62	0	0	2	2	0	23	56	79	143
06:45	0	0	0	0	26	13	٥	39	1	D	3	4	0	18	42	60	103
Total	0	Ū	Ū	0	139	73	0	212	2	U	6	В	0	72	244	316	536
07:00	0	0	0	0	18	16	0	34 :	1	0	0	1;	0	18	36	54	89
07:15	0	ø	0	0	34	21	0	55	6	O	2	8	0	29	40	69	132
07:30	0	0	0	0	24	29	٥	53	1	٥	3	4	0	35	33	68	125
07:45	0	0	0	0	20	25	C	45	1	O	2	3	0	23	46	69	117
Total	0	0	Ū	0	96	91	Ū	187	9	<u>U</u>	7	16	Ū	105	155	260	463
08:00	0	0	0	0	16	25	0	41 !	2	0	2	4 [0	25	31	56 (101
08:15	ð	0	0	0	17	22	0	39	1	0	5	6	0	17	25	42	87
08:30	0	0	0	0	8	20	0	28 :	1	0	2	3	0	23	26	49	80
08:45	0	0	0	0	20	22	0	42	0	٥	1.	1	0	19	36	55	98
Total	0	Ū		0	61	89		150	4	0	10	14	Ū	84	118	202	
16:00 16:15 16:30 16:45	0 0 0 0	0 0 0 0	0 0 0 0	0 0	13 6 9	49 60 70 75	0 0 0	62 66 79 94	2 0 2 3	0 0 0	5 5 5 7	7 5 7 10	0 0	16 38 22 33	11 16 18 15	27 54 40 48	152
i otai	U	U	U	0	47	254	0	301	7	U	22	29 !	O	109	60	169	499
17 00	0	0	0	0 :	15	78	0	93	1	0	3	4 !	O	25	10	35	132
17:15	0	0	0	0.	8	72	0	80	3	0	0	3	0	25	3	34	117
17:30	O	0	٥	0	12	62	0	74	3	٥	5	8 (0	23	7	30	112
17:45	0	0	0	0 1	5	63	0	68	2	0	2	4	O	18	9	27	99
Total	0	Ū	Ū	0	40	275	Ū	315	9	Ū	10	19	U	91	35	126	460
18:00	0	0	0	0	10	56	0	66 ;	1	0	5	6;	0	21	4	25	97
18:15	0	0	0	0	13	49	Ü	62	2	0	3	5	0	16	13	29	96
18:30	0	0	0	0	10	53	0	63	1	0	2	3 !	0	12	12	24	90
18:45	0	0	0	0 :	6	54	0	60	2	Ð	3	5 :	0	15	10	25	90
Tolai	0	Ū	0	ָּט	39	212	0	251	6	Ū	13	19	0	64	39	103	373
Grand Total Approh % Total %	0.0 0.0	0.0 0.0	0 0.0 0.0	0.0	422 29.8 15.6	994 70.2 36.9	0.0 0.0	1416 52.5	37 35.2 1.4	0 0.0 0.0	68 64.8 2.5	105 [0.0 0.0 0.0	525 44.6 19.5	651 55.4 24.1	1176 43.6	į
												;					

						CR		:	SB		FFRAK	1P		CR			
		South	pound	!		West	ound	:		North	bound	1		Eastt	ound	,	
Start Time	Left	Thru	Right	App. Total	Left	Thru :	Right !	App.	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int Total
Peak Hour From Ub		Pesk	of 1		***************************************		·····										
Intersection	06:00			1				:									
Volume	0	0	0	0	139	73	0	212	2	0	6	8	0	72	244	316	536
Percent	0.0	0.0	0.0		65.6	34.4	0.0	;	25.0	0.0	75.0		0.0	22.8	77.2		1
Valume	٥	0	0	0	139	73	0	212	2	0	6	8	0	72	244	316	536
Volume	0	0	0	0	32	25	0	57	1	0	1	2	0	13	77	90	149
Peak Factor				į				1									0.899
High Int.	5 45:00	•		:	06:30				06:45				06:15				ļ
Volume	0	0	0	0 i	40	22	0	62	1	٥	3	4	0	13	77	90	1
Peak Factor								0.855				0.500				0.878	:

File Name: SB 1~75 Ramps @ CR 41 Site Code: 000000000

Start Date : 03/1 5/2005 Page No : 2

		South	bound			CR West	41 Dound		58		FF FAN bound	AP :		CR Eastb	41 ound		
Start Time	Left	Thru	Right	App.	Left i	Thru	Right	App. (Total), eq.	Thru	Right	App. / Total	Leh !	Thru	Right	App. Total	Int Total
Peak Hour From 16		5 - Feak	of :				***************************************								<u> </u>	(Ola)	<u> </u>
Intersection	16.15			í				1				1					ii
Volume	0	0	0	0	49	283	0	332	6	0	20	26	٥	118	59	177	535
Percent	0.0	0.0	0.0	1	14.8	85.2	0.0		23.1	0.0	76.9		0.0	66.7	33.3	177	233
Volume	0	0	0	٥	49	283	0	332	6	0	20	26	0	118	59	177	535
Volume	0	0	0	0	19	75	٥	94	3	0	7	10	0	33	15	48	152
Peak Factor								-	_	~			•			40	
High Int.				Į	16:45				16:45				16:15				0.880
Volume	0	0	0	0	19	75	0	94	3	٥	7	10		38	16	54	; ! !
Peak Factor								0.883	_	_		0.650				0.819	! !

Counted by : Ron Board # : 1320 Weather : cool / rainy File Name : SB 1-75 Ramps @ CR 41 Site Code : 00000000

Start Date : 03/1 5/2005

Page No . 1

Groups Printed-Trucks & Buses

ŀ			Southi	hound			CR Westt			28	1-75 Oi Northb	F RAM	P		CR Eastb			
	Start Time	Left	Thru	Right	App	Left			App. T				App.	1			App :	
<u> </u>	Factor	יים ו	1.0	rigin į	Total	Len I	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	lot, Total
<u></u>	05.00	- 0 -	- 0 -	- 0:	oi-	- 0	701	10 i		1.6	10.1 0	1.0	- 0	0	1.0 1	10		
	06:15	Ō	ō	0	o l	0	3	0	3	0	0	1	1	0	0	i	1	1
	06:30	0	O	Ō	ō	1	1	ō	2	0	ō	ò	o	0	o	ò	0 1	5
	06:45	0	ō	ā	0	1	Ö	Ö	1	0	Ö	٥	٥	û	0	ő	0	2
	Total	0	- 0	Ū	ŭ	<u>.</u>	4	Ö	6	- 0		1	1	0	- 0	2	2	
				-	- 1	_	,	Ü	١	ū	J	'	' {	J	J		2	9
	07:15	0	0	0	0 !	1	1	0	2	0	0	0	0	0	2	0	2	4
	07:30	0	۵	0	0	٥	1	٥	1	0	٥	0	٥	Û	2	0	2	3
	07:45	0	0	0	0 '	1	2	0	3	1	0	0	1	0	2	O	2	6
	ctal	Ū	0	0	ָּדָּט ָּ	2	4	Ū	6 :	1	0	0	1	Ö	ā	0	6	13
	08:00	0	0	0	0 !	0	0	ō	0	0	Ö	0	0	0	2	1	3	3
	08:15	0	0	0	0	0	1	0	1	1	0	2	3	0	1	0	1	5
	08:30	0	0	0	0	0	2	0	2	0	0	0	0	0	1	1	2	
	08:45	0	0	0	0	3	3	0	6	1	0	0	1	0	0	1	1	
	Total	0	Ū	0	U	3	6	0	9	2	Ö	7	4 .	ŭ	4	3	7	
	16:00	0	٥	0	0 :	o	0	0	0 !	0	0	O	0 :	0	1	1	2	: n
	16:15	0	0	0	0	O	2	ō	2	ō	õ	1	1	Õ	3	1	4	
	16:30	0	0	û	0	1	2	O	3	Ō	0	2	2	0	Ō	Ó	0	5
	16:45	0	G	0	0 -	1	2	0	3	0	0	0	٥	0	3	1	4	
	lotal	U	U	0	Ű.	2	6	0	8	0	0	3	3	٥	7	3	10	
	17:00	0	0	0	0 ;	1	2	0	3 :	٥	0	0	0;	٥	3	0	3	6
	17:15	٥	0	0	٥	1	1	Ō	2 :	ō	ō	0	0;	0	0	2	2	
	17:30	Ō	0	0	0	0	1	0	1 1	0	0	0	0 :	0	0	0	ō	
	17:45	0	0	0	0	٥	0	0	0	0	0	1	1	0	0	0	ō	
	Total	0	0	Û	0	2	4	0	6	σ	Ū	1	1 !	Ū	3	7	5	12
	18:00	0	0	0	0 (1	1	0	2 }	1	0	0	1 .	0	0	0	0	; 3
	18:15	0	0	0	0	٥	1	ō	1	Ġ	0	0	0	0	2	4	6	
	18:45	0	0	0	0 ·	0	1	0	1	1	0	٥	1 [0	0		0	
	Total	Ū	0	Ū	0	1	3	Ü	4 :	2	Đ	Ü	2 }	0	2	4	6	
	nd Total	0	0	0	0 1	12	27	0	39 (5	0	7	12	0	22	14	36	87
A	pprch %	0.0	0.0	0.0	1	30.8	69.2	0.0		41.7	0.0	58.3		0.0	61.1	38.9		1
	Total %	0.0	0.0	0.0	0.0	13.8	31.0	0.0	44.8	5.7	0.0	8.0	138	0.0	25.3		41.4	

!	€ } ,	South	bound	**************************************			(41 bound		SE		FF RAI	T PN	, <u>, ,</u>	CR East	41 cound		
Stan Time	Left	Thru	- 1	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Len	Thru	Right	App. Total	Int Total
Peak Hour From US		- Peak	all								· · · · · · · · · · · · · · · · · · ·	**************	·····	······································	****************	****	
Intersection	00:80							:				i					
Volume	0	0	0	0	3	6	٥	9 [2	0	2	4	0	4	3	7	20
Percent	0.0	0.0	0.0	1	33.3	66.7	0.0	į	50.0	0.0	50.0		0.0	57.1	42.9	į	
Volume	0	0	0	0	3	6	0	9	2	0	2	4 !	0	4	3	7	20
Valume	0	0	0	0	3	3	0	6	1	0	0	1 :	0	0	1	1	В
Peak Factor											-	1	-	-		• 1	0.625
High Int.	5:45:00				08:45			1	08:15				08:00				0.0
Volume	0	0	0	0	3	3	O	6	1	0	2	3!	0	2	1	3	
Peak Factor								0.375				0.333				0.583	

File Name : SB I-75 Ramps @ CR 41 Site Code : 0000 0000

Start Date : 03/15/2005 Page No : 2

		South	bound			CR West			28		FF RAM bound	P .		CR Eastb	41 ound		
Stan Time	Left	Thru	•	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru 1	Right	App. ; Total	Int. Total
Peak Hour From 15		5 - Peak 1	of 1			***************************************				<u>-</u>				······	····		
Intersection	16:15			į								:					l
Volume	0	0	0	0	3	8	0	11	0	0	3	3	0	9	2	11	25
Percent	0.0	0.0	0.0		27.3	72.7	0.0		0.0	0.0	100. 0	į	0.0	81.8	18.2		
Volume	0	0	0	0	3	8	0	11	٥	0	3	3	0	9	2	11	25
Volume	0	0	0	0	1	2	0	3	0	0	0	٥	0	3	1	4	7
Peak Factor				i					1			i				·	E 0.893
High Int.				i	16:30				16:30				16:15				0.000
Volume	0	0	0	0	1	2	0	3	0	0	2	2	0	3	1	4	
Peak Factor								0.917				0.375				0 688	

Counted by : Ron Board # : 1320 Weather cool / rainy

File Name : SB I-75 Ramps @ CR 41 Site Code : 00000000 Start Date : 03/15/2005 Page No : 1

Groune	Drinted.	U-Turns
CHOUDS	Printed-	U-Hims

	,							s Printed									
	1	Cauth	bound	-		CR			SB		FF RAM	P		CR			
	; }			Арр. г		West	oound			North	oound			Eastb	ound		
Slart Time	Left	ומתן	Right	Total	Left !	Thru	Right	App. Total	Left	Thru	Right	App. Total	Leff į	Thru	Right	App Total	Int. Total
Factor	101	101	10		1.0 !	101	1.0 7	<u> </u>	1.6	1.0 1	1.0		107	10	1.0		
															-		
16:30	0	0	0	Δ.			_		_	_				~	_		
10.30	U	U	U	ا ٥	1	0	0	1 [0	a	0	0	O	0	0	0 (1
Total	o		——————————————————————————————————————	75													
1 (161	U	U	0	0	1	Ū	0	1	Ü	Ū	0	0	Ü	0	U	0	1
Grand Total	0	0	٥	0 ;	1	0	0	1 !	0	0	Ô	0	0	0	0	0	1
Apprch %	0.0	0.0	0.0		100.	0.0		į				1				Ť	•
Appletive	U.U	0.0	U.U		0	0.0	0.0	į	0.0	0.0	0.0	i	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	100.	0.0	0.0	400.0		0.0	0.0		0.0	0.0			
10(2) 70	U.U	0.0	0.0	0.0	0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	<u></u>																
4		Carrella	bound				41		SE		FF RAN	P			(41		
				AEE.		West	bound		·	Nonh	ponuq			East	ound		
Start Time		TIVU		Total	Len	Thru	Right	App.; Total	Len	Taru	Right (App Total	Left	Thru	Right	Ape. Total	Int Total
Peak Hour From 06 Intersection		- Peak	eri				<u>.</u>								· . · · · · · · · · · · · · · · · · · ·		
Volume	00.00	0	0	a	0				•				_	_	_		}
Percent	0.0	٥٥	0.0	0	0 0.0	0.0	0	0 [0	0	0		0	0	0	. 0
Volume	0.0	0	0.0	0	0.0	0.0	0.0 0		0.0	0.0	0.0		0.0	0.0	0.0	_	
Volume	۵	n	0	0	0	n O	n n	0	0	0	0 0	0.	0 0	0	0	0	0
Peak Factor	•		Ü	U	·	U	u	บ	U	U	υ	U ,	U	U	U	0	;
High Int.	5:45:00	ļ.			5:45:00	١		1	5:45:00	7			5:45:0	n			0.000
Volume					5.40,00	,			3,43.00	,		*	3,43.0	J			
Peak Factor																	1
												:					•
Peak Hour Fro	m 16:00	to 18:	45 - Pea	k 1 of 1													
Intersection	16:00							;	;								
Volume	0	٥	0	0	1	0	0	1	0	0	0	0	0	0	ũ	0	1
Percent	0.0	0.0	0.0		100.	0.0	0.0		Λ.α	0.0	0.0	İ	0.0	0.0	0.0	_	
				·	0	U.U	0.0		0.0	0.0	0.0		0.0	0.0	0.0		:
Volume	0	0	0	O	1	0	0	1	Ð	0	0	0	0	0	0	0	1
Volume	0	0	0	0	1	0	0	1	0	0	0	0	۵	Ō	0	0	1
Peak Factor									!								0.250
High Int.					16:30												į
Volume	٥	0	0	0	1	0	0	1]								!
Peak Factor								0.250	 								1
									*								•

Counted by : Ron Board # : 1320 Weather : cool / rainy File Name : SB I-75 Ramps @ CR 41

Site Code : 00000000 Start Date : 03/1 5/2005

Page No . 1

Groups Printed- Passenger Vehicles - Trucks & Buses - U-Turns

		·				CR		venicies			FF RAM			CR	<u>a1 </u>		
		South	bound	1		Westb		[CU	North		'		Eastbo			
Start Time	Į eri	Thru	Right	App.	Left	Thru	Right	Арр.	Left	Thru	Right (Арр.	Left	Thru	Right	App.	Int. Total
Factor	1.0	10	10	Total	יים - יים ד	101	- 1	Total		1/10	1	Total	1.0 L	1.0.1	1.0	Total :	fur rotal
05:00	<u></u>	- 0		0	-41	-13	7,0 T	54	1,0	0	1.0	יו ט	0	18	- 70 -	88	142
06:15	ō	ō	ő	o	32	28	Ö	60	1	0	2	3	Ô	13	78	91	154
06:30	ō	ō	0	ol	41	23	0	64	ò	0	2	2	0	23	56	79	145
06:45	0	ō	ō	اه	27	13	ā	40	1	0	3	4	0	18	42	60	104
iotal	Ū	0	Ü	0 [141	77	- Ū	218	2	0		9	Ū	72	246	318	545
07:00	0	٥	0	0	18	16	0	34 [1	0	0	1	0	18	36	54	89
07:15	0	0	0	οj	35	22	0	57	6	0	2	8	0	31	40	71	136
07:30	0	0	0	οĺ	24	30	O	54	1	0	3	4	0	37	33	70	128
07:45	0	0	0	0 !	21	27	0	48	2	0	2	4	0	25	46	71	123
Total	Ū	Ū	0	Ü	98	95	0	193	10	Ū	7	17	0	111	155	266	475
08:00	0	0	0	0	16	25	٥	41 ;	2	0	2	4]	0	27	32	59	104
08:15	0	O	0	0	17	23	0	40	2	0	7	9	0	18	25	43	92
08:30	0	0	Û	Οį	8	22	0	30	1	0	2	3	0	24	27	51	84
08:45	0	0	0	Οĺ	23	25	0	48	1	٥	1	2	0	19	37	56	
Total	g	ū	Ü	0 (64	95	Ū	159	- 6	Ū	12	18 .	Ū	88	121	209	386
16:00 16:15 16:30 16:45	0 0 0	0 0 0	0 0 0	0 0 0	13 6 11	49 62 72	0 0	62 68 83	2 0 2	0	5 6 7	7 6 9 5	0	17 41 22	12 17 18	29 58 40	98 132 132
Total	0	0	<u> </u>	0 : 0 :	20 50	77	0	97	3	0	7	10 !	0	36	16	52	159
(Qlai	U	U	U	U,	30	260	0	310	1	U	25	32	0	115	63	179	521
17.00	0	0	0	0 ;	16	80	0	96 (1	0	3	4 (0	28	10	38	138
17:15	0	Q	0	0	9	73	0	82	3	0	0	3	0	25	11	36	121
17:30	0	0	0	D i	12	63	O	75	3	0	5	8 -	0	23	7	30	
17:45	0	0	0	0	5	63	0	68 !	2	0	3	5 (0	18	9	27	
Total	0	0	Ö	0:	42	279	0	321	<u>ā</u>	Ū	T	20	U	94	37	131	472
18:00	0	0	0	0 !	11	57	0	68	2	0	5	7 :	Ó	21	4	25	100
18:15	0	0	0	0	13	50	0	63	2	0	3	5	0	18	17	35	
18:30	0	0	0	0	10	53	0	63	1	0	2	3 !	0	12	12	24	
18:45	0	0	0	0	6	55	0	61	. 3	. 0	3	6 :	0	15	10	25	92
Total	Ū	0	U	0	40	215	0	255	8	0	13	21	Ü	66	43	109	
Grand Total Apprch %	0 0.0	0.0	0 0.0	0	435 29.9	1021 70.1	0.0	1456	42 35.9	0 0.0	75 64.1	117	0 0.0	547 45.1	665 54.9	1212	2785
Total %	0.0	0.0	0.0	0.0	15.6	36.7	0.0	52.3		0.0	2.7	4.2	0.0	19.6	23.9	43.5	

*		South	bound			CR West	41 cound		SB		FF RAN bound	AP		CR Eastb	41 bound		
Start Time	Left	Thru	- ,	App. ; Total !	Left	Thru !	Right	App. Total	Left	Thru	Right :	App. Total	Left	Thru	Right	App. Yotal	Int. Total
Peak Hour From 05		- Реак	Cf 1						***	-				······································	.,		
Intersection	06:00			į				;								:	
Volume	0	0	0	0	141	77	0	218	2	0	7	9	0	72	246	318	545
Percent	0.0	0.0	0.0	1	64.7	35.3	0.0	;	22.2	0.0	77.8		0.0	22.6	77.4		
Volume	0	0	0	0 1	141	77	0	218	2	0	7	9	0	72	246	318	545
Volume	0	0	0	0.0	32	28	0	60 :	1	Ō	2	3	0	13	78	91	154
Peak Factor				† 1				ļ									0.885
High Int.	5:45:00			į	06:30			1	06:45				06:15				
Volume	0	0	0	ol	41	23	0	64	1	0	3	4	0	13	78	91	
Peak Factor				1				0.852				0.563	!			0.874	

File Name : SB I-75 Ramps @ CR 41 Site Code : 000O0000 Start Date : 03/1 5/2005

Page No 2

							41 bound		SB		FF RAK bound	MP		CR East	41 counci		
Start Time		1	- :	App Total	[eft	Thru	Right	App. , Total	Left	Thru	Right	App. (Total !	Len	Thru	Right	App Total	im Total
Peak Hour From 16		5 - Paak	1011					·····									· · · · · · · · · · · · · · · · · · ·
Intersection	16:15			1				i				ı					
Volume	0	0	0	0	53	291	0	344	6	0	23	29	0	127	61	188	561
Percent	0.0	0.0	0.0]	15.4	84.6	0.0		20.7	0.0	79.3	[0.0	67.6	32.4		
Volume	0	0	0	0	53	291	0	344	6	0	23	29	0	127	61	188	561
Volume	0	0	0	0	20	77	0	97	3	0	7	10	0	36	16	52	159
Peak Factor																	0.882
High Int.					16:45				16:45				16:15				
Volume	0	0	0	0	20	77	٥	97	3	0	7	10	. 0	41	17	58	1
Peak Factor								0.887				0 725				0.810	

BAYSIDE ENGINEERING INC.

		PEDESTRI.	AN MOVEM	ENT SUM	IMARY		
Section: Milepost: Time Periods:	6:00 - 9:0 4:00 - 7:00	State Fintersecting Find PM Date Count	Road: NB~ Road: CK a By: Ryan Date: 3-/	I-75 41 5-05	Ramps (City <u>Je</u> County: <u>Pe</u> ted By: Date:	essamine asco
<i>CR 41</i> Time	Total A Total	Total			Total	C /	7 Time

BAYSIDE ENGINEERING INC. **BICYCLE MOVEMENT SUMMARY** State Road: NB I-75 Ramp5 City: Jessamine Intersecting Road: CR 41 County: Pasco Section: Milepost: Milepost: Time Periods: 6:00 - 9:00 Am 4:00 - 7:00 PM Data By: Ryan Completed By: Count Date: 3-15-05 Date: Total CR 41 CR 41 Total Time Total Total Time NO Bikes Total Total Total **Total** Time NORTH

Counted by : Ryan
Board # : 1321
Weather : coot / rainy

File Name : NB 1-75 Ramps @ CR 41

Site Code : 00000000 Start Date : 03/1 5/2005

Page No 1

Groups Printed- Passenger Vehicles

	NB	T-75 O	FF FLAM	P		CR	41					:	***	CR	41		
		South	bound	1		West	oound	ì		Northb	ound			Eastbo	nnd	1	
Stan Time	Left	Thru	Right	App. : Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Totai	Int Total
06:00	- 1 <u>3</u> i	Ū	5	7	101	10 i 53	1.0	53	1.0.1	1.01	1.01	0	10;	10:	1.0	181	713
06:15	4	ő	3	7	0	52	1	53	0	0	0	0	Ô	15	Ö	15	78 75
06:30	10	ō	5	15	0	54	4	58	0	0	0	0	2	22	o o	24	73 97
06:45	2	ō	4	6	0	34	2	36	0	0	0	0	2	19	Ö	21	63
Total	18	Ū	17	35		193		200			0	0		73	_ _	78	313
				;								- 1				, • ,	• • • •
07:00	5	0	6	11 ;	0	29	3	32	0	0	0	0	0	19	0	19	62
07:15	7	0	6	13	0	42	3	45	0	0	0	0	1	35	0	36	94
07:30	16	0	13	29	0	40	4	44	0	٥	0	٥١	4	37	0	41	114
07:45	5	0	11	16	0	34	1	35	0	0	0	0	5	19	0	24	75
Total	33	Ü	36	69	Ū	145	71	156	Ū	0	0	σį	10	110	Ū	120	345
08:00	4	0	13	17.	٥	26	5	31	0	0	0	0 ;	2	26	O	28	76
08:15	8	0	11	19	٥	26	7	33	0	0	0	0	3	14	0	17	69
08:30	8	0	6	14 i	0	24	2	26	0	0	0	οi	4	23	0	27	67
08:45	10	0	15	25	0	25	3	28	0	0	٥	0 !	5	14	0	19	72
Total	30	0	45	75 -	0	101	17	118	0	0	0	0 1	14	77	Ü	91	
16:00 16:15 16:30 16:45	22 18 27 25	0 0 0	34 42 43 49	56 60 i 70 i 74 i	0 0 0	23 29 35 43	1 6 5	24 35 40 47	0 0 0	0 0 0	0 0 0	0	3 2 3	18 41 25 39	0 0 0	21 43 28	:
Total	92	<u>o</u>	168	260 (130	15	146 :	0	<u>0</u>	<u>0</u>		<u>_</u>	123	0	40 132	161 538
		•		200 ;	•	.50	10	140	Ü	U	0		-	125	Ç	132	330
17:00	31	0	46	77 !	0	45	6	51:	0	Đ	0	0 :	3	23	0	26	154
17:15	19	O	44	63	0	36	4	43	0	. 0	0	0	0	28	O	28	134
17:30	28	0	29	57	0	38	5	43	0	0	0	0	6	23	0	29	129
17:45	26	0	42	68 :	0	23	3	26 .	٥	0	0	0	0	18	0	18	
Total	104	Ū	161	265	0	145	18	163	0	0	Ū	Οį	9	92	0	101	529
18:00	28	0	41	69	0	27	6	33 (Q	0	٥	0 1	2	25	0	27	129
18:15	16	0	31	47	0	30	4	34	0	0	0	0 !	1	18	0	19	100
18:30	29	0	41	70	0	21	1	22	0	0	0	0	2	12	0	14	
18:45	19	0	40	59	0	18	5	23 -	0	0	٥	0	2	15	0	17	
Total	92	0	153	245	Ū	96	16	112	U	0	Ū	U	7	70	0	77	434
Grand Total Apprch %	369 38.9	0 0.0	580 61.1	949	0 0.0	810 90.5	85 9.5	895	0.0	0.0	. 0	0	54 9.0	545 91.0	0 0.0	599	2443
Total %	15.1	0.0	23.7	38.8	0.0	33.2	3.5	36.6	0.0	0.0	0.0	0.0	2.2	22.3	0.0	24.5	1

•	NE		FF RAI bound	MP ;		CR West		i		Northb	oound			CR East	41 ound	·	
Start Time	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Lah	Thru	Right !	App Total	Int, Total
Feak Hour From US		S-Pagk	CF 1								······································		~ -				
Intersection	07:15			!				1				1				;	
Volume	32	0	43	75	0	142	13	155	0	0	0	0	12	117	0	129	359
Percent	42.7	0.0	57.3	i	0.0	91.6	8.4		0.0	0.0	0.0	ĺ	9.3	90.7	0.0		
Volume	32	0	43	75	0	142	13	155 :	0	0	0	0	12	117	0	129	359
Volume	16	0	13	29	0	40	4	44	O	0	0	0	4	37	0	41	114
Peak Factor				: i				;				f					0.787
High Int.	07:30				07:15			;	5:45:00)		,	07:30				
Volume	16	0	13	29	0	42	3	45	0	0	0	0 i	4	37	0	41	
Peak Factor				0.647				0.861								0.787	

File Name : NB I-75 Ramps @ CR 41 Site Code : 000 00000 Start Date : 03/1 5/2005 Page No : 2

	N		FF RAI	MP :		CF	₹41	,						CR	41		
		South	bound			West	ponuq	1		North	bound	;		East	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	Atip. Total	Left	Thru	Rignt	App. Total	Left	โทกษ	Right	App. Total	int Total
Peak How From 15	00 to 18.4	5 - Feak	of 1			······································										7,010	
Intersection	16:15			1				:				ł					t
Volume	101	0	180	281	0	152	21	173	0	0	0	اه	9	128	0	137	591
Percent	35.9	0.0	64.1	į	0.0	87.9	12.1		0.0	0.0	0.0		6.6	93.4	0.0	,	501
Volume	101	0	180	281	0	152	21	173	0	0	0	0	9	128	0	137	591
Volume	25	0	49	74	0	43	4	47	0	0	٥	0	1	39	٥	40	161
Peak Factor								1				1				-	0.918
Hìgh Int.	17:00			}	17:00								16:15				0.510
Volume	31	0	46	77	0	45	6	51	0	0	0	o	2	41	0	43	
Peak Factor				0912				0.848							_	0.797	1

Counted by : Ryan
Board # 1321
Weather cool / rainy

File Name: NB I-75 Ramps@CR 41

Site Code : 000 00000 Start Date : 03/1 5/2005

Page No : 1

Groups Printed- Trucks & Buses

	,j		CR						Ţ	41			IP	NB 1-75 OFF RAMP Southbound					
		ound	Eastb			ound	North			ound	West		<u> </u>	bound					
int Tot	App Total	Right	Thru	l.eft	App Total	Right	Thru	i, eñ	Λορ ; Total (Right	מאנן	Left	App. Total	Right 1.0	Thru	Len	Stan Time		
	n	1.0	1.01	70	- 0 +	101	10	1.0	11	107	1.0	1.0 ;	- 0	0	0	- 0	06:00		
	0	ă	1	0	0	0	0	٥	1	Ó	1	0	4	3	0	1	06:15		
	1	0	Ö	۵	0	0	0	0	2	ນ 1	1	Ö	0	٥	Ö	ó	06:30		
	0	ä	0	0	0 1	0	0	0	1	ů	1	0	1	0	0	1	06:45		
······································	0	_		-		_	_	_	- 1		3		5	3		.	Total		
1	1	0	,	0	0	Ü	Ū	Ū	5	2	J	Ų	۱ د	3	J	-	1 0121		
	1	0	0	1	0	0	0	0	4	1	3	٥	اِ ٥	0	0	0	07 00		
	1	Q	1	0	0	0	0	0	1	0	1	0	0	0	0	0	07:15		
	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	07:30		
	2	0	1	1	0 1	0	0	٥	3	0	3	0	2	0	0	2	07:45		
1	6	0	4	2	0	Ū	0	Ū	9 [1	В	0	2	0	Ū	2	Total		
,	2	0	2	٥	0 !	0	0	0	0 1	٥	0	0	0+	0	0	0	08:00		
	3	ã	2	1	0	0	0	0	2	1	1	0	2	1	0	1	08:15		
i	1	Õ	1	ò	١٥	G	0	۵	2	Ó	2	0	2	0	0	2	08:30		
i	ò	ŏ	0	ō	0	Ö	0	0	51	3	2	ō	3	3	0	0	08:45		
2	6	- 0	5	- 1	0 :	<u> </u>		<u> </u>	9:	4	5		7	4	0	Ξ-	Total		
			_								_	~	Δ:	0	0	a	16.00		
	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	16:00 16:15		
į.	4	0	2	2	0	0	0	0	0 !	0	0	0	1	1 1	0	0	16:30		
	2	0	0	2	0	0	0	0	2 !	0	2	0	1:	2	0	0	16:30		
	3	0	3	0	0	0	0	0	2 .	1	1	0	2:	<u>2</u>		0	Total		
	10	O	5	5	0	Ū	Ū	O	5 (2	3	U	4;	4	U	Ū	i Otal		
	3	O	3	0	0	0	0	0	4	0	4	0	0 ;	0	0	0	17:00		
	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	17:15		
:	0	0	0	0	0 [0	0	0	1 j	i	0	0	1	1	0	0	17:30		
	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0		17:45		
1	4	0	4	Ü	U	Ū	0	Ū	7	2	5	Ü	2	1	U	1	Total		
	0	0	0	0	0	0	0	0	1	0	1	0	1 !	1	0	0	18:00		
	2	0	1	1	0	0	0	0	2 1	1	1	0	0	0	0	0	18:15		
į	0	O	0		0	0	0	0	2 ;	1	1	0	0 !	0	0	O	18:45		
İ	2	O	1	1	0	Ū	0	ŋ	5	2	3	0	1 .	T	U	0	Tolal		
1 9	29	0	20	9	0 1	0	0	0	40 ;	13	27	0	21 :	13	0	8	and Total		
		0.0	69.0	31.0		0.0	0.0	0.0		32.5	67.5	0.0	i	61.9	0.0	38.1	Apprch %		
	32.2	0.0	22.2		0.0	0.0	0.0	0.0	44 4	14.4	30.0	0.0	23.3	14.4	0.0	8.9	Total %		

	NE		OFF RAI			-	(41 bound			North	bound	ļ	······································	CR Eastb	41 ound	:	
Start Time	itaj	Thru	Right	App. Total	Left	Thru	Rignt	App. ; Total	Left	Thru:	Right	App. Total	Lett	Thru	Right	App in	. Total
Peak Hour From US	00 to 08,4:	- Paak	161			····			i								
Intersection	00:80			1				1				1				•	
Volume	3	0	4	7	0	5	4	ا و	0	0	0	0	1	5	О	6 .	22
Percent	42.9	0.0	57.1	•	0.0	55.6	44.4		0.0	0.0	0.0	1	16.7	83.3	0.0		
Volume	3	0	4	7 :	0	5	4	9 :	0	0	0	0	1	5	0	6	22
Volume	0	0	3	3 !	0	2	3	5 1	0	0	0	0	0	0	0	۵	8
Peak Factor				;												- 10	688
High Int.	08:45			10	9:45			1 5	5:45:00)			08:15				-
Volume	0	0	3	3 (0	2	3	5	0	0	O	0	1	2	Ö	3	
Peak Factor				0.583 [†]				0.450								0.500	

File Name: NB 1-75 Ramps @ CR 41 Site Code: 00000000 Start Date: 03/15/2005 Page No: 2

Start Time	N	OFF RAI	MP	,		(41 bound			North	bound			! !				
	Lest	האנו	Rign	App. Total	Left	Thru	Right	App. ; Total	Left	Thru	Right	App. Total	Left	Thru	Right	App.	Irt. Total
Peak Hour From 16		5 - Peak	1017							<u>-</u>			····	·			
Intersection	16:15		¥-					1				H					
Volume	0	0	4	4	0	7	1	8	0	0	0	0	4	8	0	12	24
Percent	0.0	0.0	100. 0		0.0	87.5	12.5		0.0	0.0	0.0		33.3	66.7	0.0		- /
Volume	0	0	4	4 !	0	7	1	8	D	0	0	٥	4	8	0	12	24
Volume	٥	0	0	0	0	4	0	4	0	0	0	0	0	3	Ö	3	7
Peak Factor				į											•	•	0.857
High Int.	16:45			1	17:00			i					16:15				0.037
Volume	0	0	2	2	0	4	0	4	0	0	0	٥	2	2	0	4	
Peak Factor				0.500				0 500					į			0.750	

Counted by Ryan
Board # 1321
Weather cool / rainy

File Name: NB I-75 Ramps @ CR 41

Site Code : 000 0 0000 Start Date : 03/1 5/2005

Page No : 1

Groups Printed- U-Turns

	ВИ		FF RAM	P [····	CR		rinteg-	O-100	13							
		South	bound			West	ound			North	oound	-		Eastb	ound		
Start Time Factor	Left	Thru 1.0	Right i	App Total	Left 1.0	נימל טיל	Right 10	App Total	Left 1.0	Thru 101	Right 1.0	App. Total	Left 1.0	ומנ ומנ	Right 1.U	App. Total	int Total
08:45	0	0	0	0	0	0	0	0 }	0	0	0	0 {	1	0	۵	1 {	1
Total	<u> </u>	Ō	Ū	ō	0	- 0	Ū	- U	0	Ü	Ū	0	İ	0	ō	1	1
17:45	0	0	٥	0 ;	0	0	0	0	0	0	0	0	1	0	٥	1	i 1
Total	Ū	Ū	0	0	Ū	0	9	0	0	0	0	0	1	0	0	1	
Grand Total	0	0	٥	0 !	0	0	٥	0 1	0	0	0	0+	2	0	0	2	2
Apprch %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	00		100. 0	0.0	0.0		- Tolling
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100. 0	0.0	0.0	100.0	
	NB		OFF RAN	NP ;			₹41 bound	1	·	Noak	ıbound				R 41		n -
Start Time	Left	ומסטו		App Total	Left -	Thru	Right	App !	ten!	Thru		App. Total	Left	Thru		App.	Int Total
Peak Hour From 06		- Peak	1011 1	(Glass I				Total !	·		·	1 CIBI			: :	Total	
Intersection Volume	00:80 0	0	0	0	٥	0	0	0	0	0	0	0	: 1 100.	0	0	1	1
Percent	0.0	0.0	0.0		0.0	0.0	0.0	-	0.0	0.0	0.0		100.	0.0	0.0		; †
Volume Volume	0 0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	. 1	1
Peak Factor High Int.	5:45:00		Û	u	5:45:00		0	0	0 5:45.0	0	0	0	08:45	U	0	1	0.250
Volume Peak Factor	0	0	0	0	0	O	٥	0	0	0	0	0	1	0	0	0.250	
Peak Hour Fro) to 18:	:45 - Pea	ık 1 of 1				÷					į				į
Volume	0	0	0	0	0	0	0	0	0	0	0	0	F	٥	0	1	1
Percent	0.0	0.0	0.0		0.0	0.0	0.0	COMPANIE -	0.0	0.0	0.0		100. 0	0.0	0.0		
Volume Volume Peak Factor	0	0	0	0	0	0	0	0	0	0		0	1	0	_		1 0.250
High Int. Volume Peak Factor	0	0	0	0	· 0	0	0	0	0	0	0	0	17:45 1	C	0	0.250	1 1 1 1

Counted by : Ryan
Board # : 1321
Weather : cool / rainy

File Name: NB 1-75 Ramps @ CR 41

Site Code : 00000000 Start Date : 03/15/2005

Page No : 1

Groups Printed- Passenger Vehicles - Trucks & Buses - U-Turns

	NE		FF RAN	MP									CR				
·		···········	bound	Apa						North		App.			ound		
Start Time	Left	יייון	Right	Total	Left	Thru	Rìght	App. Total	Left	Thru	Right	App.	Left	Thru	Right	App. Total	int Total
Factor ;	1.0	10:	1.01		10	1.0 }	1.0 1		1.0	1.0	1,0		101	101	1.0		
06:00	2	0	5	7	Ö	53	Ì	54	0	0	0	0	1	17	0	18	79
06:15	5	0	6	11	0	53	1	54	0	0	0	0	0	16	Ö	16	81
06:30	10	0	5	15	0	55	5	60	0	0	0	0	2	22	0	24	99
06:45	3	0	4	7	0	35	2	37	0	0	0	0	2	19	0	21	65
Total	20	0	20	40	U	196	9	205	đ	Ū	Ü	0	5	74	Ū	79	324
07:00	5	0	Ĝ	11	0	32	4	36	0	0	0	0	1	19	0	20	67
07:15	7	Ū	6	13	O	43	3	46	0	0	0	0	1	36	0	37	96
07:30	16	0	13	29	0	41	4	45	0	0	0	0	4	39	0	43	117
07:45	7	0	11	18	0	37	1	38	0	0	0	0 !	6	20	0	26	82
Total	35	Ū	35	71 :	Ū	153	12	165	D	0	Ū	O T	12	114	0	126	362
08:00	4	0	13	17 }	0	26	5	31 :	0	0	0	0	2	28	a	30	78
08:15	9	0	12	21	0	27	8	35	0	0	0	0	4	16	0	20	
08:30	10	0	6	16	0	26	2	28	0	0	0	0 !	4	24	0	28	72
08:45	10	0	18	28 ⁱ	0	27	6	33	0	0	0	0	6	14	٥	20	
Total	33	0	49	82 :	Ū	106	21	127 ;	U	0	0	υ¦	Ь	82	Ü	98	307
16:00	22	û	34	56 (O	23	2	25 ;	0	0	0	0 1	4	18	0	22	103
16:15	18	ō	43	61	0	29	6	35	0	0	0	0	4	43	٥	47	
16:30	27	ā	44	71	Õ	37	5	42	0	0	0	ō i	5	25	0	30	
16:45	25	0	51	76	Õ	44	5	49	0	0	0	o i	1	42	0	43	168
Total	92	0	172	264	Ö	133	18	151	<u>0</u>	Ű	- 0	<u>o</u>	14	128	Ū	142	
17:00	31	0	46	77 :	0	49	6	55 !	0	0	0	0.1	3	26	0	29	161
17:15	19	0	44	63 !	0	40	5	45	Õ	Ō	ō	0	0	28	ō	28	136
17:30	28	0	30	58 !	0	38	6	44	Ō	0	0	0	6	23	Ö	29	
17:45	27	0	42	69 [O	23	3	26 [0	0	0	0	1	19	0	20	
Total	105	Ū	162	267	0	150	20	170	ਹ	0	Ū	0	10	96	U	106	3
18:00	28	0	42	70	0	28	6	34 †	0	0	0	0	2	25	0	27	131
18:15	16	O	31	47	0	31	5	36	0	0	0	0	2	19	0	21	
18:30	29	0	41	70	0	21	1	22	0	0	0	0	2	12	0	14	3
18:45	19	0	40	59 ;	0	19	6	25	0	0	0	0	2	15	۵	17	101
Totai	92	Ū	154	246 :	Ū	99	18	117	Ū	0	O	0 :	8	71	Ū	79	442
Grand Total	377	0	593	970	0	837	98	935	0	0	0	0 ;	65	565	0	630	2535
Apprch %	38.9	0.0	61.1	-	0.0	89.5	10.5	-	0.0	0.0	0.0	1	10.3	89.7	0.0		
Total %	14.9	0.0	23.4	38.3	0.0	33.0	3.9	36.9	0.0	0.0	0.0	0.0	2.6	22.3	0.0	24.9	•

	NB 1-75 OFF RAME Southbound			MP :	CR 41 Westbound					Northbound					CR 41 Eastbound			
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Apc.	Left :	Thru	Right	App Total In	t Total	
Peak Hour From US	00 to 05 45	Peak	1011				<u>_</u>				<u>-</u>		-					
Intersection	07:15			;					i			1						
Volume	34	0	43	77	0	147	13	160	0	0	0	0	13	123	0	136	373	
Percent	44.2	0.0	55.8	1	0.0	91.9	8.1		0.0	0.0	0.0		9.6	90.4	0.0			
Volume	34	0	43	77	0	147	13	160	0	0	۵	٥	13	123	0	136	373	
Volume	16	0	13	29 '	0	41	4	45	0	0	0	0 1	4	39	0	43	117	
Peak Factor				1												in	797	
High Int.	07:30			1	07:15				5:45:00				07:30				-	
Volume	16	0	13	29	0	43	3	46	0	0	0	0	4	39	0	43		
Peak Factor				0.664				0.870								0.791		

File Name: NB 1-75 Ramps @ CR 41 Site Code: 000000000 Start Date: 03/1 5/2005 Page No: 2

	NE)FF RAI				t 41 bound	:		Northi	oound			CR East	41 bound	!	
Stan Time	Left	Thru	Rigni	App. Total	Left	Thru	Right	App. Total	i, erft	Thru	Right	App. Total	fe)	บาศไ	Right	App. Total	Int Total
Peak Hour From 16		5 - Peak	10/1	*******			-	·					-				
Intersection	16:15			[ļ									
Volume	101	0	184	285	0	159	22	181	0	0	0	0	13	136	0	149	615
Percent	35.4	0.0	64.6		0.0	87.8	12.2		0.0	0.0	0.0		8.7	91.3	0.0		0,5
Volume	101	0	184	285	0	159	22	181	0	٥	0	0	13	136	0	149	615
Volume	25	0	51	76	0	44	5	49	0	0	0	0	1	42	0	43	168
Peak Factor								-		-						, 0	0.915
High Int.	17:00				17:00			1					16:15				
Volume	31	0	46	77	0	49	6	55	0	0	0	0	4	43	O	47	
Peak Factor				0.925				0.823								0.793	į.

BAYSIDE ENGINEERING INC.

		PEDEST	RIAN MOVE	MENT SU	MMARY		
Section: Milepost: Time Periods:	6:00 - 9:0 4:00 - 1:0	Stat Intersection 1:00 Am Do Pm (Cou	e Road: SB g Road: SR Data By: Kon int Date: 1320	I-75 50 / Ryan / 1321	Ramps (City: Ridg County: Kry ted By: Date	e Manor
SR 50	et of SB I-75 OFF Ramp	Time	V cedy		Tot	SR A Total	

BAYSIDE ENGINEERING INC. **BICYCLE MOVEMENT SUMMARY** Total SR 50 SR 50 Total Time Total Total Time Total Total Total Total Time NORTH

Counted by Ron / Ryan Board # 1320 / 1321 Weather Cool / rainy File Name: SB I-75 Ramps @ SR 50 Site Code: 000000000

Site Code : 00000000 Start Date : 03/16/2005

Page No : 1

Groups Printed- Passenger Vehicles

	SH	T-75 ()	FF RAM	P		SR		:U- F 4556	iigei v	C115C4C3				SR	50		
	J U	South				Westb				Northb	ound			Eastb			
Start Time	Len	Thru	Right :	App. Total	Loft	Thru	Right	App. Total	Left	Thru	Right	App. Tetal	Left	Thru	Right	App. Total	Int Totat
r actor	101	101	10:		101	107	101		1.01	:0]	10:	i	101	1.0	10 ;		
06:00	6	0	17	23	45	67	Ū	112	Ü	0	0	0	Ū	69	24	93	228
06:15	11	0	21	32	41	75	0	116	0	0	0	0	0	91	24	115	263
06:30	15	0	26	41	34	108	0	142	0	0	0	0	0	92	27	119	302
06:45	14	00	18	32	33	91	0	124	0	0	0	0	0	109	21	130	286
Total	46	0	82	128	153	341	0	494	Ū	Ū	U	0	0	361	96	457	1079
07:00	10	1	26	37	37	98	0	135	0	0	0	0	0	101	12	113	285
07:15	13	0	22	35	45	116	0	161	0	0	0	0	0	127	27	154	350
07:30	16	0	17	33	26	125	0	151	0	0	0	١٥	0	129	17	146	330
07:45	8	0	18	26	34	114	O	148	0	0	٥	0 !	0	113	20	133	307
Total	47	1	83	131	142	453	0	595	U	Ū	Ū	0	σ	470	76	546	1272
08:00	13	0	29	42	31	100	0	131	ō	0	0	0 ;	0	121	12	133	306
08:15	17	0	8	25	19	107	0	126	0	O	0	0	0	128	24	152	303
08:30	11	O	23	34	29	109	0	138	0	0	0	0	0	138	22	160	332
08:45	9	0	26	35	46	120	0	166	0	0	O	0	0	140	19	159	
Total	50	Ū	86	136	125	436	0	561;	J	Ü	0	0	0	527	77	604	1301
16:00 16:15 16:30 16:45	21 19 26 20	0 0 0	45 38 39 28	66 57 65 48	23 30 26 24	134 144 145 135	0 0 0	157 174 171 159	0 0 0	0 0 0	0 0	0 : 0 : 0 :	0 0 0	191 177 159 161	37 33 23 20	228 210 182 181	451 441 418 388
Total	86	<u> </u>	150	236	103	558 558	0	661				- 0	0	688	113	801	1698
				,		454	Ū	uu : ;	Ü	Ü	Ů	٠,	ŭ	445		001	1,000
17:00	27	0	41	68	32	138	0	170	0	0	O	0	0	116	20	136	374
17:15	19	0	48	67	30	156	0	186	O	0	0	0	0	145	28	173	426
17:30	24	0	40	64	27	135	0	162	0	0	0	0 !	0	166	17	183	!
17:45	16	0	38	54	32	118	0	150 }	0	0	0	0 !	0	115	25	140	
Total	85	0	157	253	121	547	Ū	668	0	ū	0	91	Ū	542	90	632	1553
18:00	15	0	26	41	28	124	0	152	0	0	0	0	٥	130	20	150	5
18:15	13	0	22	35	15	104	0	119	0	0	0	0	0	103	12	115	1
18:30	8	0	28	36	23	87	0	110	0	0	0	0,	0	88	17	105	1
18:45	14	0	22	36	23	121	0	144 !	0	0	0	0 }	0	67	8	75	*
Total	50	O	98	148	89	436	ט	525	U	0	Ū	σ	0	388	57	445	1118
Grand Total	365	1	666	1032	733	2771	0	3504 !	0	0	0	0	0	2976	509	3485	8021
Apprch %	35.4	0.1	64.5		20.9	79.1	0.0	1	0.0	0.0	0.0		0.0	85.4			
Total %	4.6	0.0	8.3	12.9	9.1	34 5	0.0	43.7	0.0	0.0	0.0	0.0	0.0	37.1	6.3	43.4	
					r							1					

	58		IFF RAI bound	uP :		SR West				Northb	nund			SR Fasth	50 ound		
Stan Time	Left	Thru	Right	App. Total	Left	Thru	Rignt	Acp Total	Len	Thru	Right	Aco. Total	Left	nau]	Right	App Total	Int Total
Реак Ношт Гюті Об		- Peak	al 1		L							·····		- · · · · · · · · · · · · · · · · · · ·		·	
Intersection	08:00			í				1				1					1
Volume	50	0	86	136	125	436	0	561	0	0	D	0	0	527	77	604	1301
Percent	36.8	0.0	63.2		22,3	77.7	0.0	i .	0.0	0.0	0.0	ļ	0.0	87.3	12.7		
Volume	50	0	86	136	125	436	0	561	0	٥	0	0	0	527	77	604	1301
Volume	9	٥	25	35	46	120	0	166	0	0	0	0	0	140	19	159	360
Peak Factor												1					0,903
High Int.	08:00				08:45			-	5.45.00	i			08:30				
Volume	13	0	29	42	46	120	0	166	0	0	Ð	0	0	138	22	160	
Peak Factor				0.810				0.845				1				0.944	

File Name: SB 1-75 Ramps @ SR 50 Site Code: 000000000 Start Date: 03/1 6/2005 Page No: 2

1	SI		OFF RAI	MP			50 bound	7		Nonhi	bound			SR East	50 ound	İ	
Start Time	Left	ושתן	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Rigns	App. Total :	Left	Thvu	Right	App. j Totat i	Int Total
Peak Hour From 15		5 - Peak	1011			· · · · · · · · · · · · · · · · · · ·											
Intersection	16:00			İ				1								:	
Volume	86	0	150	236	103	558	0	661	٥	0	0	0	0	688	113	801	1698
Percent	36.4	0.0	63.6		15.6	84.4	0.0		0.0	0.0	0.0	ì	0.0	85.9	14.1	1	-
Volume	86	0	150	236	103	558	0	661	0	0	0	0	٥	688	113	801	1698
Volume	21	0	45	66	23	134	0	157	ð	0	0	0	0	191	37	228	451
Peak Factor												- (0.941
High Int.	16:00				16:15							1	16:00				
Volume	21	0	45	66	30	144	0	174	0	0	0	0	ð	191	37	228	
Peak Factor				0.894				0.950								0.878	

Counted by : Ron / Ryan Board # : 1320 / 1321 Weather : cool / rainy File Name: SB I-75 Ramps @ SR 50

Site Code : 00000000 Start Date : 03/16/2005

Page No : 1

Groups Printed- Trucks & Buses

,	SE	31-7575	FF RAM	D		SR		neo- Inc	- K3 G D					SR	50		
1	0.0	South				Westb				Northb	ound	į		Eastb		i	
Stan Ten	e Len	Thru	Right	App Total	Left	Thru	Right	App. Total	Lefi	Thru	Right	App. Total	Left	Thru	Right	App.	Int. Total
Facto		1.0	101		1.0	1.0	1.0		1.0	1.0	101		101	1.0	10 -	1	
06:0		0	3	5	4	8	0	12	0	0	0	0	0	21	10	31	48
06:1		0	1	6	3	17	٥	20	0	0	D	0	0	33	7	40	66
06:3		0	9	11	7	25	0	32	0	0	0	0	0	33	8	41	84
06:4		0	4	18	5	20	0	25	0	0	0	0	0	26	7	33	76
ota	73	0	17	40	19	70	ď	89	0	Ū	Ü	0	Ü	113	32	145	274
07:0		0	7	12 į	5	37	0	42	0	0	0	0	0	22	4	26	80
07:1		0	4	12	13	21	0	34	0	0	0	0	0	21	3	24	70
07:3		0	8	15	7	25	0	32	O	0	۵	0	0	30	10	40	87
07:4		0	12	17	4	26	0	30	0	٥	0	0	0	36	2	38	85
Tota	il 25	O	31	56	29	109	U	138	U	0	Ö	0	0	109	19	128	322
08:0	0 13	0	6	19	11	23	0	34	0	0	0	0	0	33	7	40	93
08:1		O	12	16	8	32	0	40	0	0	0	0	0	36	10	46	102
08:3	0 6	0	10	16	11	28	0	39	0	0	0	0	0	29	5	34	89
08:4		0	8	12	4	33	0	37 ¦	0	0	0	0	0	25	3	28	. 77
I ota	al 27	Ū	36	53 [34	116	0	150 !	Ū	0	0	0 1	Û	123	25	148	361
16:0 16:1 16:3 16:4	5 4 0 3 5 2	0 0 0	6 5 2 2	16 9 5	5 1 4 6	28 21 25 8	0 0 0	33 - 22 - 29 - 14 -	0 0 0	0 0 0	0 0 0	0 ; 0 : 0 :	0 0 0	27 10 13 12	5 5 3 2	32 15 16	50 32
Tet	al 19	0	15	34	16	82	0	98 ,	ď	0	U	O	Ū	62	15	77	209
17:0 17:1		0	1	4 : 8 :		11 6	0	13 . 14 :	0	0	0	0 !	0	16 10	2 2	18 12	35 34
17.3		Ġ	1	8		13	0	17	0	0	0	0	0	9	3	12	37
17:4		0	5	7	٥	6	0	6	0	0	a	o l	۵	7	3	10	
Tol	_		8	27	14	36	0	50	0	<u>0</u>	<u>0</u> _	<u>0</u> i		42	10	52	129
							_		_			i					
18:0		0	4	12	6	8	0	14	0	0	0	0	0	4	4	8	34
18:1		0	0	8	3	7	0	10	0	0	0	0	0	2	2	4	
18:3		0	1	13	5	3	0	8 !	٥	0	0	0	0	3	2	5	
18:4		0	0	9	2	7	0	9:	0	0	0	0		3	3	6	
Tot	al 37	0	5	42	16	25	U	41	Ō	0	Ū	U	0	12	11	23	106
Grand Tot	al 149	1	112	262	128	438	0	566 :	0	0	0	0	0	461	112	573	1401
Apprch		0.4	42.7		22.6	77.4	0.0	!	0.0	0.0	0.0		0.0	80.5	19.5		4
Total	% 10.6	0.1	0.8	18.7	9.1	31.3	0.0	40.4	0.0	0.0	0.0	0.0	0.0	32.9	8.0	40.9	ţ

1	SE		FF RAI	NP	errenen van de de de de de de de de de de de de de	SR West			nar wanter iiii iii	Northl	bnuoc			SR Eastt			
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	Acc. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From Do	00 to 08.4	5 - Peak	i of f			<u>-</u>						-					
Intersection	07:45											1				i	
Volume	28	0	40	58	34	109	0	143	0	0	0	0	0	134	24	158	369
Percent	41.2	0.0	58.8		23.8	76.2	0.0	į	0.0	0.0	0.0		0.0	84.8	15.2	:	
Valume	28	0	40	68	34	109	0	143	0	0	0	0	0	134	24	158	369
Volume	4	0	12	16	8	32	0	40	0	0	0	0	0	36	10	46 :	102
Peak Factor												į					0.904
High Int.	08:00				08:15			1	5.45:00				08:15				
Volume	13	0	6	19	8	32	٥	40	0	0	0	0	0	36	10	46	
Peak Factor				0.895	İ			0.894								0.859	

File Name: SB 1-75 Ramps @ SR 50 Site Code: 000O0000 Start Date: 03/1 6/2005 Page No: 2

[SB	11-75 C	FF RAI	NP .		SR	50				,			SR	50]	
		South	bound			West	bound			North	bound	1		Eastb	ound		
Start Time	Left	Thur	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Leh	Thru	Right	App. Total	int. Total
Peak Hour From 16		5 - Peax	l of !					***************************************									
Intersection	16:00							i				1					
Volume	19	٥	15	34	16	82	0	98	0	0	0	0	0	62	15	77	209
Percent	55.9	0.0	44.1		16.3	83.7	0.0		0.0	0.0	0.0		0.0	80.5	19.5		
Valume	19	0	15	34	16	82	0	98	0	0	٥	0	0	62	15	77	209
Volume	10	0	6	16	5	28	G	33	0	0	0	0	0	27	5	32	81
Peak Factor								1									0.645
High Int.	16:00				16:00								16:00				
Volume	10	0	6	16	5	28	0	33	Ø	0	0	0	0	27	5	32	
Peak Factor				0.531				0.742								0.602	

Counted by : Ron / Ryan Board # : 1320 / 1321 Weather : cool / rainy

File Name: SB 1-75 Ramps @ SR 50 Site Code: 00000000

Start Date : 03/16/2005

Page No : 1

Groups Printed- U-Turns

	SB	T-75 O South	FF RAM bound	P		SR : Westb		ļ		Northb	iound			SR Eastb			
Start Time	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Len	Thru	· 1	App. Total	Int. Total
Factor	10	וֹטיִר	1.0		10	101	10		1.0 1	1.01	1.0]		1.01	1.0.1	101		
06:30	0	0	0	0	1	0	0	1	0	0	٥	0	0	0	0	0 !	1
Total	Ū	U	U	0;	1	U	0	1	0	Ū	U	0	<u> </u>	0	0	0	
07:00	0	0	0	01	0	0	0	0 [0	0	0	0	1	0	0	1 ;	1
07:30	0	0	0	0 :	1	0	0	1 [0	0	٥	0 (0	0	0	0 :	
07:45	0	0	0	0 -	1	0	0	1	0	Ö	0	0	0	0	0	0 :	
Total	Ū	Ū	0	<u>o</u>	2	0	O	2	0	0	0	0	1	J	Ū	. 1	
08:15	0	0	0	0:	1	0	0	1 ;	۵	0	0	0:	0	0	0	0	:
Total	O	Ū	0	0 -	1	0	Ū	1.	0	U	0	0 [U	0	0	0	I
16:00	0	0	0	0 :	1	0	0	1 :	0	0	0	0:	0	0	0	0	
16:15	0	0	0	0 ;	1	O	0	1 -	u	U	U	U	U	U	Ų	U	
16:45	0	0	0	0 ;	1	0	0	1 !	0	0	0	0	0	0		0	
Total	U	Ü	Ū	0 :	3	0	υ	3	0	<u> </u>	0	U	Ū	σ	0	Ú	ţ.
17:00	0	٥	0	0 ;	1	0	0	1	0	0	0	0 }	0	0	0	C	:
Total	0	Ū	0	0 ;	7	0	0	1 }	0	0	0	0	Ū	0	O	0	
18:30	0	0	0	0 :		0	0	1	0	0	Û	0	0			0	1
18:45 Total	0	0	0	0 0		0	0	2	<u>0</u>	0		<u> </u>					1
10(4)	U	U	J	9 ;	4	J	J	-1	Ÿ	•	•	_	Į				
Grand Total	0	0	0	0		0	0	10	0	0		0	100			2	:
Appreh %	0.0	0.0	0.0		100. 0	0.0	0.0		0.0	0.0	0.0		0				:
Total %	0.0	0.0	0.0	0.0	83.3	0.0	0.0	83.3	0.0	0.0	0.0	0.0	16.7	0.4	0.0	16.7	, .

ę.	SB		FF RAM	P	······································		50 cound	; ;	·	North	pound			SR Eastb			
Stan Time i	Left	Thru	Right	App.	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left !	Thru	Right	App 10	nt. Total
Peak Hour From Ub		- Peak	CAT.				·	······································									
Intersection	07:00			1				ļ				į		_	_		_
Volume	O	0	0	0 ;	2	0	٥	2	0	0	0	0	1	0	0	1 :	3
Percent	0.0	0.0	0.0		100. 0	0.0	0.0	9	0.0	0.0	0.0	1	100. 0	0.0	0.0	:	
Volume	0	0	0	0	2	0	0	2	0	0	0	0	1	0	0	1	3
Volume	0	0	0	0 /	1	٥	0	1 1	0	0	0	0	0	0	0	0 -	1
Peak Factor	_	_	•	:				1								O	750
High Int.	5:45:00	ı			07:30			i	5:45:00)			07:00				
Volume	0	0	Ð	6	1	0	0	1	0	0	٥	0	1	0	0	1	
Peak Factor			-			-	-	0.500					i			0.250	

File Name : SB 1-75 Ramps @ SR 50 Site Code : 000000000

Start Date : 03/16/2005

Page No 2

	SE	17-75 C	OFF RAM	MP .		SR	50							SR	50		
1		South	nbound			West	bound			North	oound			Eastt	bound		
Start Time	Left	Thru		App. Total	Len	Thru	Rign	App. Total	Left	โทน	Right	App. Total	Lett	Thru	Right	App Total	tra. Total
Peak Hour From 16		5 - Pesk	ថេរ														
Intersection	16:00							1				i					
Volume	0	0	0	٥	3	0	0	3	0	0	0	0	0	0	0	0	3
Percent	0.0	0.0	0.0		100. 0	0,0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Volume	0	0	0	. 0	3	0	0	3	0	٥	0	0	0	0	0	0	3
Volume	٥	0	0	0	1	0	0	1	٥	0	0	0	0	0	0	0	1
Peak Factor								İ				-					0.750
High Int.					16:00			İ									
Volume	0	0	0	0	1	0	0	1				;					[
Peak Factor								0.750									

Counted by : Ron / Ryan Board # : 1320 / 1321 Weather : cool / rainy File Name: SB 1-75 Ramps @ SR 50

Site Code : 000 0000 Start Date : 03/1 6/2005

Page No . 1

Groups Printed- Passenger Vehicles - Trucks & Buses - U-Turns

	28	T-75 OI		P	·	SR		T				:		SR			
		Southt	ound]		West	ound			Northb	ound				ound	·	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Hight	App. Total	int Total
Factor	(0)	10:	101		1.0	10	101		101	1.01	10]		101	90	34		
06:00	8	0	20	28	49	75	0	124	<u>o</u>	0	0	0	Ü			124	276
06:15	16	0	22	38	44	92	0	136	0	0	0	0	0	124	31	155	329
06:30	17	0	35	52	42	133	0	175	0	0	0	0	0	125	35	160	387
06:45	28	0	22	50	38	111	0	149	0	0	0	0 :	0	135	28	163	362
Total	69	0	99	168	173	411	0	584	U	Ö	Ū	0	0	474	128	502	1354
07:00	15	1	33	49	42	135	0	177	0	٥	0	0	1	123	16	140	
07:15	21	0	26	47	58	137	0	195	٥	0	0	0 }	0	148	30	178	420
07:30	23	0	25	48	34	150	0	184	0	0	0	0	0	159	27	186	418
07:45	13	0	30	43	39	140	0	179	0	0	0	0 ;	0	149	22	171	393
Total	72	1	114	187	173	562	0	735	0	Ū	U	0	1	579	95	675	1597
08:00	26	0	35	61 (42	123	0	165	0	0	Ō	0	0	154	19	173	399
08:15	21	٥	20	41	28	139	0	167	0	0	0	0	0	164	34	198	406
08:30	17	0	33	50	40	137	0	177	0	0	٥	0 ;	0	167	27	194	421
08:45	13	0	34	47	50	153	0	203	0	0	0	0	0	165	22	187	437
Total	77	Ü	122	199 ;	160	552	0	712 :	Ū	Ü	U	0	0	650	102	752	1663
16:00 16:15 16:30	31 23 29	0	51 43 41	82 : 66 70	29 32 30	162 165 170	0	191 197 200	0	0	0	0	0 0 0	218 187 172 173	42 38 26 22	260 225 198	488 468
16:45	22 105	0	30 165	52 !	31	143	0	174	0	0	<u>0</u>	0	<u>0</u>	750		195 876	1
Total	103	IJ	100	270	122	640	0	762	0	U	Ü	u į	Ū			816	1910
17:00	30	0	42	72	35	149	0	184	0	0	0	0	0	132		154	
17:15	25	1	49	75	38	162	0	200	0	0	0	0 !	0	155		185	
17:30	31	0	41	72	31	148	0	179	0	0	0	0	0	175		195	†
17:45	18	0	43	61	32	124	0	156	0	0	0	0	0	122		150	I
Total	104	1	175	280	136	583	O	719	U	Ū	0	0	Ū	584	100	584	1683
18:00	23	0	30	53 !	34	132	0	166	0	0	0	0	0	134	-	158	- I
18:15	21	0	22	43	18	111	0	129	0	0	0	0	0	105		119	291
18:30	20	0	29	49	29	90	0	119	٥	0	0	0 '	0	91	19	110	
18:45	23	0	22	45	26	128	0	154	٥	0	0	0	1	70		82	281
Total	87	U	103	190	107	461	O	568	0	U	<u> </u>	0	1	400) 68	469	1227
Grand Total Apprch % Total %	514 39.7 5.4	2 0.2 0.0	778 60.1 8.2	1294	871 21.3 9.2	3209 78.7 34.0	0 0.0 0.0	4080 43.2	0.0 0.0 0.0	0 0.0 0.0	0.0	0.0	0.0 0.0	84	7 15.3	4060 43.0	

	SE		FF RAM	MP		SR West	50 oound			North	bound				50 sound	:	
Start Time	Left I	Thru	Right	App. Total	Lett	Thru	Right :	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App ; Total	int. Total
Peak Hour From Ut	DU to 08.4	5 - Peak	of 1														
Intersection	08:00							!				1				İ	
Volume	77	٥	122	199	160	552	0	712	0	0	0	0 !	0	650	102	752	1663
Percent	38.7	0.0	61.3		22.5	77.5	0.0		0.0	0.0	0.0	1	0.0	86.4	13.6		
Volume	77	0	122	199	160	552	0	712	0	0	0	0	0	650	102	752 !	1663
Volume	13	0	34	47	50	153	٥	203	0	Ð	0	0	0	165	22	187	437
Peak Factor																į	0.951
High Int.	06;00			;	08:45				5:45:00				08:15				
Volume	26	0	35	61	50	153	ō	203	0	0	0	0 :	0	164	34	198;	
Peak Factor				0.816				0.877	•							0.949	

File Name : SB 1-75 Ramps @ SR 50 Site Code : 000 00000 Start Date : 03/16/2005 Page No : 2

	SI		FF RAI	VIP		-	ponuq 50	***************************************	THE SHARE THE SECOND STREET	North	bound	1100000		SR Eastb	50 ound		
Start Time	- 1	Thru	Right	App Total	ne.i	Thru	Right	App. Total	Left	Thru	Rigns	App. Fotal	Left	ากกบ	Right	App Total	Int. Total
Peak Hour From 16	DU to 18:4	5 - Peak	3(1)								-					13,21	
Intersection	16.00			1				1				1					
Volume	105	0	165	270	122	640	٥	762	0	0	0	0	0	750	128	878	1910
Percent	38.9	0.0	51.1	ì	16.0	84.0	0.0		0.0	0.0	0.0		0.0	85,4	14.6		, , , , ,
Volume	105	0	165	270	122	640	٥	762	0	0	0	0	0	750	128	878	1910
Volume	31	0	51	82	29	162	0	191	0	0	0	٥	0	218	42	260	533
Peak Factor				ļ				İ				•					0.896
High Int.	16.00			1	16:30							į	16:00				0.000
Volume	31	٥	51	82	30	170	0	200	0	0	٥	اه	0	218	42	260	i I
Peak Factor				0.823				0.953				İ				0 844	<u> </u>

BAYSIDE ENGINEERING INC.

_				×10 -	/	? - ^ =		Didin	
Section:	6:00- 4:00-	Inters - 9:00 Am 7:00 PM	State Road: ecting Road: 1 Data By: Count Date:	100 1 SR 5 Ron 1320	-/5 P 50 / Ryan //321	Con	City: County: npleted By Date:	Herno	Manos
SR 50	NB I-75 OFF Ramp	Time Total Time		5/		Total	Total	SR Total	50 Time

BAYSIDE ENGINEERING INC. **BICYCLE MOVEMENT SUMMARY** Section: State Road: NB T-75 Ramp5 City: Ridge Manor Milepost: Intersecting Road: 5R 50 County: Herhando Time Penods: 6:00 - 9:00 Am 4:00 - 7:00 Pm Data By: Ron / Ryan Completed By: Count Date: 1320 / 1321 Date: Total SR 50 SR 50 Total Time Total Total Time Total Total Total Total Time NORTH

Counted by : Ron / Ryan Board # : 1320 / 1321 Weather : cool /rainy

File Name: NB I-75 Ramps@ SR 50

Site Code : 00000000 Start Date : 03/17/2005

Page No 1

	,						ups Print	ed- Passi	4								
		South	bound	Ç			50 cound		ИВ	1-75 OF Northb	FRAME			SR : Eastbo			
Start Time I	Left	Thru	Right	App.	Left	Thru	Right	Αρρ.	Left :	Thru	Right	App.	Left	Thru	Right	App.	Int. Total
Factor		1.0	10	Total	1.0	101	1.0	Total	7,01	10	1.0	Total	1,0	- 1.u :		Total	10(4)
06:00	0	Ū	<u> </u>	0	0	73	20	93	า๋บ้	0	11	21	24	66	- 0 :	90	204
06:15	٥	0	0	0	٥	122	23	145	14	0	19	33	25	87	0	112	290
06:30	0	0	0	0	O	116	31	147	14	Ö	25	39	34	70	0	104	290
06:45	0	0	٥	0	0	97	21	118	10	Ö	32	42	28	28	0	117	277
Total	Ū	0	Ū	0	0	408	95	503	48	U	87	135	111	312	0	423	1061
07:00	0	0	٥	0 :	٥	98	32	130 (15	0	41	56 1	30	82	٥	112 :	298
07:15	0	0	0	0	0	105	36	141	15	0	32	47	30	95	0	125	313
07:30	0	0	0	0	٥	139	31	170	9	0	32	41	31	120	ð	151	362
07:45	0	0	0	al	0	143	36	179	24	1	32	57	23	108	0	131	367
Total	Ū	Ū	0	U	U	485	135	620	63	1	137	201	114	405	0	519	1340
08:00	O	0	0	0 1	0	117	29	146 (22	٥	32	54	28	87	0	115 ;	315
08:15	0	٥	0	0	٥	128	22	150	25	0	39	64	32	99	٥	131	345
08:30	0	0	0	0	0	126	18	144	19	0	43	62	28	104	0	132	338
08:45	٥	0	0	0	0	123	33	156	16	0	58	74	26	110	0	136	366
Total	Ū	0	U	U	0	494	102	595	82	Ū	172	254	114	400	0	514	1364
															¥		
16:00	٥	0	0	0	0	168	34	202	34	0	50	84	24	179	0	203 ;	489
16:15	Ö	0	O	0	0	134	31	165	26	0	47	73	23	152	0	175	413
16:30	0	0	0	0	0	159	25	184	21	0	65	86	19	168	0	187	457
16:45	0	0	0	0 !	Û	157	29	186	31	0	51	82	25	137	0	163	431
lotal	U	U	0	0 ;	σ	618	119	737	112	0	213	325	92	636	Ū	728	1790
17:00	0	0	٥	0 ,	۵	150	21	171	30	0	60	90 (27	138	0	165	426
17:15	0	0	0	0	0	132	30	162	23	0	56	79	26	163	0	189	430
17:30	0	0	0	0	0	155	29	184	19	0	67	86	15	117	0	132	402
17:45	0	0	0	0	0	136	30	166	23	0	51	74	19	109	O	128	368
Total	0	0	0	0	Ū	573	110	683	95	0	234	329	87	527	Ū	614	1526
18:00	0	0	0	0	0	119	25	144	23	0	52	75	17	120	0	137	356
18:15	0	0	0	0	0	112	21	133	17	0	39	56	13	104	0	117	306
18:30	0	0	0	0	0	143	27	170	16	0	49	65	9	89	0	98	333
18:45	0	0	0	0 :	0	107	25	132	16	0	56	72	17	105	0	122	326
l otal	Ū	Ū	Ū	0	Ū	481	98	579	72	0	196	268	56	418	σ	474	132
Grand Total	0	0	0	0	0	3059	659	3718	472	1	1039	1512	574	2698	0	3272	850
Approh %	0.0	0.0	0.0	1	0.0	82.3	17.7		31.2	0.1	68.7		17.5	82.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	36,0	7.8	43.7	5.6	0.0	12.2	17.8	6.8	31.7	0.0	38.5	
1				F		্ব	२ ५०		. K	IB 1-75 (JFF FOAT	WP			R 50		1
		South	nbound	-			ibound		· · · · · · · · · · · · · · · · · · ·		pound				tbound) !
Start Time	Left		Right∤	App. Totari	Len	Thru	Right	App Total	Left	Thru	Riçm	App Total	Left	Thru	Right	App. Total	Int. Tota
Intersection Volume		0	Ö	0	0	527	118	E 4 5	an	1	135	216	114	414	0	528	138
4 0:01:10	v	U	Ų.	U	U	J£ [110	645	80	‡	1.00	210	; ; ; **	~1 1 **	U	J.Z.O	100

		South	bound	r t			50 cound		NI)FF FAN bound	þ		SR Eastb		1	
Start Tene	Left	Thru	Right	App. Totari	Len	Thru	Right	App Total	Len	Thru	Right	App Total	Left	מאנג	Right	App. Total	Int. Total
Peax Hour From 06		- Peak	व्हें १		-												
Intersection	07:30			İ				1								į	
Valume	0	0	0	0	0	527	118	645	80	1	135	216	114	414	0	528	1389
Percent	0.0	0.0	0.0	1	0.0	81.7	18.3	į	37.0	0.5	62.5		21.6	78.4	0.0		
Volume	0	O	Đ	o i	0	527	118	645	80	1	135	216	114	414	0	528	1389
Volume	0	0	0	0	0	143	36	179	24	1	32	57	23	108	0	131	367
Peak Factor								:									0.946
High Int.	5:45:00				07:45				08:15				07:30				
Volume	0	0	0	0 †	0	143	36	179 -	25	0	39	64	31	120	0	151	
Peak Factor								0.901				0 844				0.874	

File Name: NB 1-75 Ramps@ SR 50 Site Code: :000O0000

Start Date : 03/17/2005 Page No : 2

i i		South	ponuq	1 :			50 bound		NE		FF RAM bound	P	7.	-	50 counci		
Start Time	Lett	Thru	Right !	App Total	Left	Thru	Right	App. Total	Left	Thru	Rignt	App. Total	Left	Thru	Right	App. Total	Int Total
Peak Hour From 16		5 - Peak	C I						····						-		
Intersection	16:00			i												i	
Volume	0	0	0	0	0	618	119	737	112	0	213	325	92	636	0	728	1790
Percent	0.0	0.0	0.0		0.0	83.9	16.1		34.5	0.0	65.5		12.6	87.4	0.0		
Volume	0	0	0	0	0	618	119	737	112	0	213	325	92	636	O	728	1790
Volume	0	0	0	0 !	0	168	34	202	34	0	50	84	24	179	0	203	489
Peak Factor				i													0.915
High Int.				1	16:00				16:30				16:00				
Valume	0	0	0	0	0	168	34	202	21	0	65	86	24	179	0	203	
Peak Factor								0.912				0.945				0.897	

Counted by : Ron / Ryan Board # : 1320 / 1321 Weather cool /rainy File Name: NB 1-75 Ramps@ SR 50 Site Code: 000000000

Start Date : 03/1 7/2005 Page No : 1

Groups Printed- Trucks & Buses

		_	***********	i i			50	1	NE	75 O	FF RAMP			SR		1	
		South	bound	į		West	bound	i .		North	oound	į		Eastb	aund	-	
Start Time	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Led	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:00	0		1.0 }	0	1.01	10.	1,0 :	13	10:	1,0 ; U	1.0]	6 :	1,0]	1.0 (20	10:		
06:15	o o	ō	0	ō	0	14	7	21	2	0	5	9	10	28	٥	22	41
06:30	Ö	0	0	٥	0	9	2	11	6	0	4	10	6	28	0	38	68
06:45	ő	ō	0	õ	0	20	7	27	5	0	6	11	12	36	٥	34	55
Total	0	<u> </u>	Ü	- 6		55	17	721	3 77		19	36	30	112		48	86
, 0121			Ü	9 1	Ü	JJ	1.7	12	1.1	Ų	13	30	JU	114	U	142	250
07:00	0	0	0	0	0	14	3	17	4	0	7	11;	4	27	0	31	59
07:15	0	0	0	0	0	21	4	25	10	0	5	15	6	28	0	34	74
07:30	0	0	0	0	0	35	2	37	9	0	8	17	6	30	٥	36	90
07:45	0	0	0	0	0	32	5	37	5	1	12	18	7	26	O	33	88
Total	0	0	0	0	٥	102	14	116	28	1	32	61	23	111	Ū	134	311
08:00	0	0	0	0 !	0	31	7	20:	,	n	E	0.1		21	_	22	
08:15	0	Ö	0	0	0	25	5	38 í	4	0	5 4	9 6	1 7	21 41	0	22	
08:30	0	0	0	0	0	35	7	30 42	2	0	6	10	13	27	0	48	
08:45	0	0	0	0	0	37	9	42 46	8	0	13	21	19	28	0	40 47	
Total	<u>o</u>		- 0	0		128	28	156	18	0	28	46 :	40	117	0	157	
				•													
16:00	٥	0	0	0	0	13	11	24 :	7	0	6	13 :	11	11	0	22	59
16:15	0	0	0	0	٥	16	11	27	4	0	3	7	7	20	0	27	61
16:30	0	Ö	0	0	0	13	6	19	6	O	2	8	1	18	0	19	46
16:45	0	0	0	0 (0	11	9	20	2	0	13	15 ¦	3	18	0	21	56
Total	0	U	0	D :	0	53	37	90 (19	0	24	43	22	67	. 0	89	222
17;00	0	O	0	0	0	11	11	22 ;	2	0	7	9 †	2	14	0	16	47
17:15	0	0	0	0	0	10	7	17	3	0	8	11	4	17	0	21	
17:30	0	0	0	0	0	9	9	18,	4	0	5	9	5	11	0	16	43
17:45	0	0	0	0	0	9	10	19 :	1	0	5	5	3	8	0	11	
Total	0	0	0	0	O	39	37	76	10	0	25	35	14	50	O	64	175
18:00	0	0	0	0 :	0	5	8	13 (3	0	8	11 (3	12	0	15	39
18:15	0	Q	O	0	0	9	8	17		Ö	2	7	3	10		13	
18:30	0	0	0	0	0	18	8	26		0	3	5	1	16		17	
18:45	0	0	0	0	0	17	4	21	3	Q	6	9	٥	4		4	1
Total	0	Ū	0	0	Û	49	28	77	13	U	79	32	7	42		49	
Grand Total Apprch % Total %	0.0 0.0 0.0	0.0 0.0	0.0 0.0 0.0	0.0	0.0 0.0	426 72.6 28.9	161 27.4 10.9	587 : 39.8		1 0.4 0.1	147 58.1 10.0	253 17.2	136 21.4 9.2	499 78.6 33.8	0.0	635 43.1	}
				,													

		South	bound				50 bound	;	NE		FF FAN bound	P		SR Eastb	50 lound		
Start Time	Left	Thru	Rignt	App Total	Len	กิชษ	Right	App. Total	Left :	Thru	Right	App. Total	Len	Thru	Right	App Total	ini Totai
eak Hour From Ut		Peak	ला														
Intersection	08:00							1								1	
Volume	0	Ð	0	ol	0	128	28	156	18	0	28	46	40	117	٥	157	359
Percent	0.0	0.0	0.0	į	0.0	82.1	17.9		39.1	0.0	60.9		25.5	74.5	0.0		-
Volume	0	0	٥	0	0	128	28	156 :	18	0	28	46	40	117	٥	157	359
Volume	0	٥	0	0	0	37	9	45	8	0	13	21	19	28	0	47	114
Peak Factor				1									Ì			1	0.787
High Int.	5:45:00			1	08:45				08:45				08:15				0,, 0,
Volume	. 0	0	0	0	0	37	9	46	8	0	13	21	7	41	0	48	
Peak Factor				i				0.848				0.548	•			0.818	

File Name : NB 1-75 Ramps@ SR 50 Site Code : 00000000 Start Date : 03/1 7/2005 Page No 2

		South	าbอยกฮ	ĺ			t 50 bound		NE		FF RAN bound	IP !			50 ound	1	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Lett	มหก	Right	App. Total	Left	Thru	Right	App. Total	Int Total
Peak Hour From 16		5 - Pesk	161		· · · · · · · · · · · · · · · · · · ·							·	·	<u>-</u>			
Intersection	16:00			ŀ				1				1				:	:
Volume	0	0	0	0	0	53	37	90	19	0	24	43	22	67	0	89	222
Percent	0.0	0.0	0.0		0.0	58.9	41.1		44.2	0.0	55.8		24.7	75,3	Q.Q		-
Volume	0	0	0	0	٥	53	37	90	19	0	24	43	22	67	0	89	222
Volume	0	0	0	0	٥	16	11	27	4	O	3	7	7	20	0	27	61
Peak Factor								[0.910
High Int.				į	16:15			į	16:45				16:15				-
Volume	0	0	۵	0	0	16	11	27 !	2	0	13	15	7	20	0	27	
Peak Factor								0.833				0.717				0.824	-

Counted by Ron / Ryan Board # : 1320 / 1321 Weather cool /rainy

File Name: NB 1-75 Ramps@ SR 50 Site Code: 000 00000 Start Date: 03/1 7/2005 Page No: 1

Greups	Printed-	U-Tums
--------	----------	--------

		C #1	bound	1			50	s Printed-		1-75 O	FF RAMI	-		SR		· · · · · · · · · · · · · · · · · · ·	
Start Time	Left	South Dru	Right	App.	Left	Westi Thu		App.		Nonht	······································	App.		Eastb		App :	
Facor	! !	1,20	1.0	Total	Lett (1.0	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Int Total
			7.0	·	1.07	1.0 ;	101		1.0	101	101		10.	1,01	1.0 ;		
07:00	0	0	0	۱٥	0	0	0	0	0	0	0	0]	1	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1 (1
Total	0	Ū	0	0	0	0	0	0	0	O	U	U	2	U	0	2 ,	2
08:30	0	D	0	0 [0	0	0	0 !	٥	0	0	0 ·	1	0	0	1 :	1
Total	σ	0	Ū	0	υ	Ū	0	0 :	J	U	U	0	1	U	0	l i	T
17;15 17:30	0 0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1 :	•
17:45	0	0	0	0 !	Ō	Õ	0	o l	0	Ö	ő	0	1	0	Ö	1	1 1
Total	0	Ū	Ū	0	0	0	D	0 ;	0	Ū	Ū	Ū,	3	Ū	ō	3	3
18:30 18:45	0	0	0	0 !	1	0	0	1	0	0	0	0	0	0	0	٥	
Total	<u>_</u>	- 0		10	1		<u>0</u>	0 <u>†</u> 1 i	0	0 0	0	0	1	0	<u> </u>		1 2
Grand Total	0	0	0	0:	1	0	0	1:	0	0	0	0:	7	0	0	7	
Apprch %	0.0	0.0	0.0	-	100.	0.0	0.0		0.0	0.0	0.0	1	100.	0.0	0.0	,	٠
Total %	0.0	0.0	0,0	0.0	0 12.5	0.0	0.0	12.5		0.0	0.0	0.0	0 87.5	0.0	0.0	87.5	
		v				SH	750		NE	3 1-75 C	JFF RAN	æ :		SF	₹ 50		
	· · · · · · · · · · · · · · · · · · ·		bound	App.	···		bound				bound	i			bound		
Stan Time !	,	Thru Peak 1		Total	Left	Trvu	Right	App. Total	Left	Thru	Right	App. : Total	Len	thru .	Right	App Total	Int. Total
Intersection	06:45			1				1				1					!
Volume	٥	0	0	0	0	0	0	0	0	0	0	0	2	0	G	2	2
Percent	0.0	0.0	0.0	 	0.0	0.0	0.0	į	0.0	0.0	0.0		100. 0	0.0	0.0		
Volume	0	0	0	0	0	0	0	0	O	0	0	0	2	0	0	2	2
Volume Peak Factor	0	0	0	01	•	0	0	0	0	0	0	0		0	0	1	0.500
High Int. Volume Peak Factor	5:45:00 0	0	0	0	5:45:00 0	0	0	0	5:45:00 0	0	0	0	07:00 1	0	0	1 0.500	-
Peak Hour Fro		to 18:4	45 - Pea	k 1 of 1				i				1					
Volume	0	0	0	0	0	0	0	0	0	٥	0	٥	3 100.	0	0	3	3
Percent	0.0	0.0	0.0		0.0	0.0	0.0	:	0.0	0.0	0.0	1	0	0.0	0.0		: :
Volume Volume Peak Factor	0	0	0	0 0	0	0	0	0	0	0	0	0 0 ;		0	0	3	3 1 0.750
High Int. Volume Peak Factor	0	0	0	٥	0	0	0	0	0	0	0	o	17:15	0	0	1 0.750	

Counted by : Ron / Ryan Board # 1320 / 1321 Weather cool /rainy

File Name: NB I-75 Ramps@ SR 50

Site Code : 00000000 Start Date : 03/17/2005 Page No : 1

Groups Printed- Passenger Vehicles - Trucks & Buses - U-Turns

						SR	50		NE	31-75 C	FF RAM	P		SR	50		
		~	ponud			Westi	bound			North	bound	:		East	ponna		
Start Time	Left	Thru	Right 1.0	App. Total	Left	Thru	Right	App. Yotal	Loft	Thru	Right	App. Total	Loft	Thru	Rigru	App. Total	int Total
05:00	Ü	0	1.0	0	1.0 (1 ti 85	1.0 21	106	ן פו	10:	101		7.0	7.0	10		
06:15	0	ō	ō	0	٥	136	30	166	12		15	27	26	85	0	112	245
06:30	ō	Ď	ā	0	0	125	33	158	18	0	24	42	35	115	0	150	358
06:45	ō	ō	Õ	0	0	117	33 28	145	20	0	29	49	40	98	0	138	345
Total	- ŏ		0	0	0	463			15	0	38	53	40	125	0	165	363
	Ū	ū	·	U į	Ü	403	112	5751	65	Ū	106	171	141	424	J	565	1311
07:00	0	0	0	0	0	112	35	147 1	19	0	48	67	35	109	a	144	358
07:15	0	0	0	0	0	126	40	166	25	0	37	62	36	123	Ō	159	
07:30	0	0	0	0	0	174	33	207	18	0	40	58	38	150	ō	188	453
07:45	0	0	0	0	0	175	41	216	29	2	44	75	30	134	ō	164	455
I olal	Ū	Ū	0	0	0	587	149	736	91	2	169	262	139	516	<u>0</u>	655	
08:00	0	0	٥	0	0	148	36	184	26	0	37	63	29	108	0	137	384
08:15	O	0	٥	0	0	153	27	180	27	ō	43	70	39	140	ő	179	
08:30	0	0	0	0	0	161	25	186	23	ō	49	72	42	131	Ö	173	
08:45	0	0	0	0	0	160	42	202 [24	ō	71	95	45	138	Õ	183	
Total	0	Ü	0	0	Ü	622	130	752	100	0	200	300	155	517	Ū	672	1724
16:00	0	0	0	0 :	0	181	45	226 :	41	0	56	97 :	35	190	o	225	· 548
16:15	0	0	0	0	G	150	42	192	30	0	50	80	30	172	0	202	
16:30	0	0	0	0 :	0	172	31	203 +	27	0	67	94	20	186	0	206	503
16:45 Total	0	0	0	0 [0	168	38	206	33	0	64	97	29	155	0	184	487
10121	U	Û	. 0	0 ;	0	671	156	827	131	σ	237	368	114	703	Ū	817	2012
17:00	0	0	0	0	0	161	32	193 :	32	0	67	99 (29	152	0	181	473
17:15	0	0	0	0	0	142	37	179	26	0	64	90	31	180	0	211	480
17:30	0	0	O	0	0	164	38	202	23	0	72	95	21	128	Õ	149	
17:45	0	0	0	0	0	145	40	185	24	0	56	80	23	117	0	140	405
Total	Ū	U	0	0	0	612	147	759	105	0	259	364	104	577	Ū	681	
18:00	0	0	0	0 :	0	124	33	157 :	26	0	60	86 1	20	132	0	152	395
18:15	0	0	0	0	Q	121	29	150	22	0	41	63	16	114	0	130	
18:30	0	0	0	0	1	161	35	197	18	0	52	70	10	105	Õ	115	r
18:45	0	0	0	0	٥	124	29	153 :	19	ō	62	81	18	109	0	127	
Total	Ū	0	Ū	0	T	530	126	657	85	Ū	215	300		460	Ö	524	
Grand Total	0	0	0	0	1	3485	820	4306 :	577	2	1186	1765	717	3197	0	3914	9985
Apprch %	0.0	0.0	0.0	:	0.0	80.9	19.0		32,7	0.1	67.2		18.3	81.7	_	55 14	3303
Total %	0.0	0.0	0.0	0.0	0.0	34.9	8 2	43.1	5.8	0.0	11,9	17.7	7.2	32.0		39.2	ŧ.

	!	South	rbound	į			50 bound		NI		FFRAN bound	(P			. 50 Dound		
Start Time	Left i	Thru	Right	App. Total	Left	Thru	Right	App Total	Len	Thru	Right	App. Total	Len	Theu	Right	App Total	Int. Terai
Peak Hour From 06		- Paak	191			·····	i			· · · · · · · · · · · · · · · · · · ·		70127	L	1		ıcıaı	
Intersection	08:00			[ı				,
Volume	0	0	0	0	0	622	130	752 !	100	0	200	300	155	517	٥	672	1724
Percent	0.0	0.0	0.0	i	0.0	82.7	17.3	:	33.3	0.0	66.7		23.1	76.9	0.0	J. 2.	,,,,
Volume	0	0	٥	0	0	622	130	752 :	100	0	200	300	155	517	0	672	1724
Volume Peak Factor	0	0	0	0	0	160	42	202	24	0	71	95	45	138	0	183	480
High Int.	5:45:00	1			08:45			į.	08:45				08:45				0.898
Volume Peak Factor	0	0	0	0	0	160	42	202 0.931	24	0	71	95 0.789	45	138	0	183 0.918	: ! !

File Name: NB 1-75 Ramps@ SR 50 Site Code: 00 O 00000 Start Date: 03/17/2005 Page No: 2

		South	bound				7 50 bound		N		OFF RAK	AP .	***************************************		50 cound		
Start Time Peak Hour From 15	Left	Thru	Right	App. Total	Len	Thru	Right	App. Total	Len	Thru	Right	App. Total	Len	Thru	Right	App Total	Int Total
Intersection	16:00	J-reak∣	i Of i	l l									<u>-</u>	<u>-</u> _			
Volume	0	0	0	0	0	671	156	827	131	0	237	368	114	703	O	817	2012
Percent	0.0	0.0	0.0		0.0	B1.1	18.9		35.6	0.0	64.4	000	14.0	86.0	0.0	017	2012
Volume	0	0	0	0	0	671	156	827	131	0.0	237	368	114	703	0.0	817	2012
Volume Peak Factor	0	0	0	٥١	0	181	45	226	41	0	56	97	35	190	0	225	548
High Int				a constant of	16:00				16:00				16:00				0.918
Volume Peak Factor	0	0	0	0	0	181	45	226 0.915	41	0	56	97 0.948	35	190	0	225 0.908	

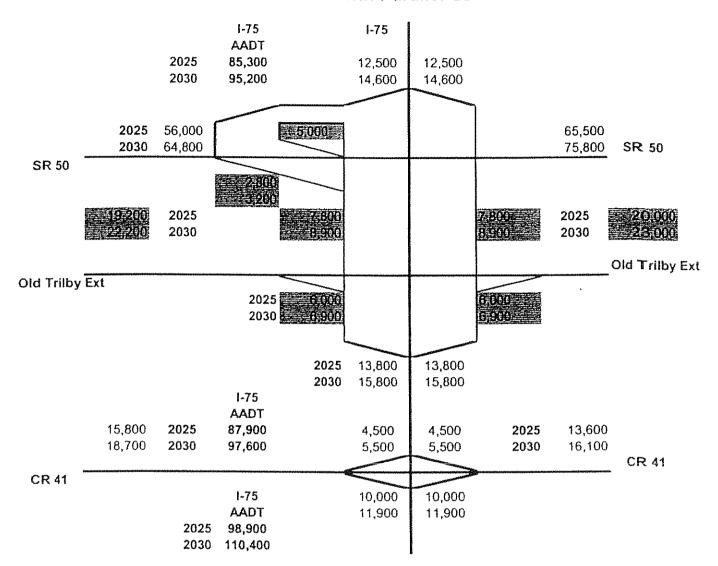
APPENDIX 'C' TRAFFIC RELATED CORRESPONDENCE

	AADT		45,800 54,600 72,300 81,200 90,000	1-75				TCIAA	
2005 2010 2020 2025 2030	20,600 29,300 46,600 55,300 64,000 SR 50			4,300 6,200 10,000 11,900 13,800	4,300 6,200 10,000 11,900 13,800			24,100 34,300 54,600 64,800 75,000	2005 2010 2020 2025 2030
		2010	AADT 49,400 58,200	6,100 8,000 11,900 13,800 15,800	8,000 8,000 11,900 13,800 15,800				SR 50
2005 § 2010	AADT 4,200 7,000	2020 2025 2030	76,100 85,000 94,000	8 00	800 1,700		స్తు 21	AADT 3,600 6,000	2005 2010
2020 2025 2030	12,700 15,700 18,400 CR 41			3,400 4,300 5,200	3,400 4,300 5,200	5200	15800	10,900 13,400 15,800	2020 2025 2030 CR 41
				4,300 8,100 10,000 11,900	4,300 8,100 10,000 11,900				
		2005 2010 2020 2025 2030	AADT 52,600 63,400 85,500 96,400 107,400		1-75				

Traffic Projection for I-75 / SR 50 / CR 41

		Haine	Projecti	on tor	1-/5/SK	(50 / GR 41		
175 PD&E Lo	ochner.xls			. C.D				
2/8/05			9	Lochner	A.			
			2005	45,800	1-75			
			2010	55,700				
			2020	75,400				
			2025	85,300				
	AADT		2030	95,200			A A 157	
	MAD I		2030	33,200			AADT	
2005	20,600				4,300	4 300	24,100	200=
2010	the restriction of the second							2005
	29,400				6,400	6,400	34,400	2010
2020	47,100				10,500	10,500	55,100	2020
2025	56,000				12,500	12,500	65,500	2025
2030	64,800				14,600	14,600	75,800	2030
	SR 50							_
•								SR 50
								5.0
					6400	6 100		
					8,000	8,000		
					11,900	11,900		
					13,800	13,800		
						1		
				AADT	15,800	15,800		
			2005		a			
				49,400				
			2010	58,900				
			2020	78,200				
			2025	87,900				
			2030	97,600				
	AADT						AADT	
***	4,200				800	800	3;600	2005
2010	7,100				1,700	1,700	6,100	2010
2020	12,900				3,600	3,600	11,100	2020
2025	15,800				4,500	4,500	13,600	2025
2030	18,700				5,500	5,500	16,100	2030
					The state of the s		•	
	CR 41		***************************************					CR 41
					_			
					2,400	2,400		
					4,300	4,300		
					8,100	8,100		
					10,000	10,000		
					11,900	11,900		
					11,000	11,000		
				AADT				
			2005	52,600				
			2010	64,100	Ų.			
			2010					
				87,200				
			2025	98,900				
			2030	110,400				
						1-75		

Sketch I-75 with Parallel CD



LOCKKER

H. W. LOCHNER, INC., 13577 FEATHER SOUND DRIVE, SUITE 600, CLEARWATER, FLORIDA 33762

(727) 572-7111 FAX (727-571-3371

MEMORANDUM

TO:

I-75 PD&E Study File

WPI Seg. No.: 4110141, FAP No.: 0751-1201

FROM:

Herschel Conner

CC:

Mark Clasgens, Frank DeLuca, Ed Bryant

DATE:

07/11/05

SUBJECT: Traffic Factors for I-75 PD&E Study Traffic Technical

Memorandum

The Draft Traffic Technical Memorandum (TTM), dated May 2005, was developed using K, D, and T factors provided in F. Bitar's memo of April 18, 2005. submission of the Draft TTM, we received a revised set of K, D, and T factors based on a review of 4-year historical factors for Pasco, Hernando, and Sumter Counties and recommended statewide values. The revised factors were included in memo received from F. Bitar on June 15, 2005 subsequent to submitting the Draft TTM to District VII for review.

We have reviewed the memo and the justification used for revising the factors used for traffic analysis. Although, we do not disagree with the revised D and T factors, we would like to review the K factor recommended. The K factor used in the Draft TTM and originally approved by F. Bitar was 8.76 while the revised K factor is significantly higher at 10.75. Reviewing the tables reporting historical data and statewide averages, we believe that the appropriate factor is somewhere in between the original and revised number.

Since over 90% of the project length is the southern counties of Pasco and Hernando counties, and there are no study interchanges in Sumter County, historical factors from Pasco and Hernando should be emphasized in determining an appropriate K-factor for The observed K-factors from the 2001 to 2004 Florida Traffic Information CD range from 8.55 to 8.94 with an average of 8.81 in Pasco and from 8.76 to 9.52 with an average of 9.23 in Hernando. These factors are less than the statewide average for urban interstates is 9.7 and are instead closer to the minimum statewide recommended

value of 9.4. By 2030, the study corridor should primarily be a commuter roadway during the peak hour periods and thus an urban factor is more appropriate than a rural factor.

We suggest a K-factor of 9.40 be used for traffic analysis in this study. At this K-factor, design year (2030) traffic volumes will operate at LOS C for the mainline and all ramps will operate at LOS C or D. LOS D will require substantially less ramp construction than LOS E (the LOS result with a K-factor of 10.75) in order to meet the level of service standard. Also, the Highway Capacity Software analysis results show that at a K-factor of 10.75, the I-75 mainline with 6 lanes will operate at LOS D south of SR 50 and LOS C north of SR 50. Thus to meet the LOS standard of C, the lane call south of SR 50 will need to be 8 lanes and 6 lanes north of SR 50.

After you review the above, please provide us guidance regarding which factors to use in the Final TTM. Once we receive direction from you regarding traffic factors for use in this study, we will complete the Final TTM and submit it to your office. If you have any questions for us regarding our evaluation of this issue, please get in touch with us.

MEMORANDUM

Department of Transportation District Seven Planning MS 7-500

DATE:

June 15, 2005

TO:

Mark Clasgen, PD&E Project Manager

FROM:

Fawzi Bitar, Systems Planning Coordinator

COPTES:

File

SUBJECT:

W.P.L.

: 411014-1

State Road: I-75 (SR 52 to CR 476B) PD&E Study

County

: Pasco/Hernando/Sumter

Per you request, I took a closer look the last four (4) years of K and D factors for I-75 for Pasco, Hernando and Sumter counties as well as the Recommended State factors and revised the factors. The recommended K and D factors are:

K = 10.75%

D = 56.35%

Please see enclosure.

/FKB

Enclosure

MEMORANDUM

Department of Transportation District Seven Planning MS 7-500

DATE:

April 18, 2005

TO:

Mark Glasgens, PD&E Project Manager

FROM:

Fawzi Bitar, Systems Planning Coordinator

COPTES:

File

SUBJECT:

W.P.I.

: 411014-1

State Road: I-75 (SR 52 to CR 476B) PD&E Study

County : Pasco/Hernando/Sumter

Per your request dated February 11, 2005, enclosed is a sketch of the existing 2005 ALADT and projected 2010, 2020, 2025 and 2030 AADT, the (K.D&T) factors, for the above referenced section.

K = 8.79 %

D = 53.67 %

24HrT = 27.00%

Design Hr T = 13.50 %

The projected traffic was developed after reviewing:

- A) The January 2005 District Five PD&E Study prepared by Ghyabi & Associates. (I-75 Hernando/Sumter Co. Line to SR 44).
- B) The 2000 Model outputs of the Tampa Bay Regional Planning Model (TBRPM).
- C) The results of the 2025 TBRPM run using the 2025 socioeconomic data, and the Adopted 2025 Long Range Transportation Plan (LRTP) network.
- D) The model traffic was smoothed and converted to AADT.
- E) The projected 2010, and 2020 AADTs are interpolated and the 2030 extrapolated between 2005 and 2025 AADT.

I have followed The FDOT Project Traffic Forecasting Procedure.

/FKB

Enclosure

2005	<u>'orkst</u>	<u>neet</u>		raffic FDOT 42000	Projecti	on for		50 / CR 41 PD&E Ghyabi D5	
2005 2060	1999		2005 2010 2020 2025	45800 51200 62100 67600	1-75	AADT	Lochner 45800		
2010 25600 5500 5500 29800 2010 2020 35700 7800 7800 7800 44100 2020 2025 40800 9000 9000 46800 2025 2030 45800 10200 10200 52500 2030 SR 50					4200	4000	8286	04400	~~~
2020 35700 7800 7800 41100 2020 2025 40800 9000 9000 46800 2025 2030 45800 10200 10200 52500 2030 SR 50 37300 SR 50 SR 50 37300 SR 50 SR 50 37300 SR 50 SR 50 37300 SR 50 AADT 49400 49400 49400 49400 2025 2020 49400 2020 69100 2020 69100 2020 69100 2020 69100 2020 1000 1000 1000 1000 2025 2030 82000 CR 41 2400 2500 2500 2000 10300 2025 2030 14000 2030 2030 2030 2030 2030 2030 2030					F		8500		
2025 40800 9000 46800 2025 2030 45800 10200 10200 52500 2030 SR 50									
2030 45800 10200 10200 52500 2030 SR 50	2025	40800							
SR 50 SR 50 SR 50 SR 50	2030	45800			i i				
SR 50						.02.00	37300	02000	2000
Second S	***								SR 50
7800 7800 11300 11300 13000 13000 13000 14700 14						Market Control of the			-2(00
11300					6100	6100	12100		
13000 13000 14700 36500 2003					7800	7800			
13000 14700 14700 14700 14700 14700 2005 49400 2005 75600 2010 69100 1000 1000 1000 1000 1000 2005 1000 6900 6900 2000 AADT FDOT Lochner Ghyabi 2010 14700 14700 14700 14700 14700 1000 10					11300	11300			
35500 2003 49400 49400 2010 55800 2020 69100 2020 69100 2025 75600 2030 82000 2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 5200 2010 2020 10100 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 47800 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6900 2005 52600 52600 AADT FDOT Lockner Ghyabi 2025 83600 2030 91200					i				
2005 49400 49400 2010 55800 2020 69100 2025 75600 2030 82000 2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 5200 2010 2020 10100 1700 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 6900 2010 60200 AADT FDOT Lochner Ghyabi 2025 83800 2020 75900 2025 83800 2030 91200					14700	14700			
2010 55800 2020 69100 2025 75600 2030 82000 2025 75600 2030 82000 2026 4200 800 800 1600 3600 2005 2010 6100 1100 1100 5200 2010 2020 10100 1700 1700 8600 2020 2025 12000 2000 10300 2025 2030 14000 2300 2300 2300 12000 2030 2030 2030		35500							
2020 69100 2025 75600 2030 82000 2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 5200 2010 2020 10100 17700 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 3300 5100 5100 6000 6000 6900 6900 39500 2003 AADT 2005 52600 2010 60200 AADT 1007 1700 1700 1000 1000 1000 1000 1000							49400	•	
2025 75600 2030 82000 2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 5200 2010 2020 10100 2000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 2020 75900 2020 75900 2020 75900 2020 75900 2020 75900 2030 91200									
2030 82000 2005 4200 800 800 1600 3600 2005									
2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 1100 5200 2010 2020 10100 1700 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 47800 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6900 CR 41 2005 52600 6900 39500 2003 AADT LEGEND 2010 60200 AADT FDOT Lochner Ghyabi 2025 83600 2030 91200			2030	82000					
2005 4200 800 800 1600 3600 2005 2010 6100 1100 1100 1100 5200 2010 2020 10100 1700 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 47800 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6900 CR 41 2005 52600 6900 39500 2003 AADT LEGEND 2010 60200 AADT FDOT Lochner Ghyabi 2025 83600 2030 91200									
2010 6100 1100 1100 5200 2010 2020 10100 1700 1700 8600 2020 2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 5100 6000 6900 6900 39500 2003 AADT 2005 52600 6900 2010 60200 AADT FDOT Lochner 2025 83600 2030 91200		****							
2020 10100 1700 1700 8600 2020 2025 12000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 5100 6000 6000 6900 39500 2003 AADT 2005 52600 2010 60200 AADT FDOT Lochner 2025 83600 2030 91200					!	1	1600		
2025 12000 2000 2000 10300 2025 2030 14000 2300 2300 12000 2030 CR 41						į			
2030 14000 2300 2300 12000 2030 CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 6900 39500 2003 AADT 2005 52600 2010 60200 2010 60200 2010 60200 2020 75900 2025 83600 2030 91200									
CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 6900 39500 2003 AADT 2005 52600 2010 60200						1			
CR 41 2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 6900 39500 2003 AADT 2005 52600 52600 2010 60200 AADT FDOT 2020 75900 Lochner 2025 83600 2030 91200	2030	14000			2300	2300			2030
2400 2400 4800 3300 3300 5100 5100 6000 6000 6900 6900 2003 AADT 2005 52600 2010 60200 2010 60200 2020 75900 2025 83600 2030 91200 LEGEND Lochner Ghyabi	•	~	THE PROPERTY OF THE PROPERTY O	***************************************			¥/8U		
3300 3300 5100 5100 6000 6900 6900 LEGEND 2005 52600 52600 AADT FDOT Lochner 2025 83600 Ghyabi 2030 91200		CR 41							CR 41
3300 3300 5100 5100 6000 6900 6900 LEGEND 2005 52600 52600 AADT FDOT Lochner 2025 83600 Ghyabi 2030 91200					2400	2400	# Q-754	2	
S100						R	7000	•	
6000 6900 6900 39500 2003 AADT LEGEND 2005 52600 52600 2010 60200 AADT FDOT 2020 75900 Lochner 2025 83600 Ghyabi 2030 91200						2			
39500 2003 AADT LEGEND 2005 52600 52600 2010 60200 AADT FDOT 2020 75900 Lochner 2025 83600 Ghyabi 2030 91200									
2005 52600 2010 60200 2020 75900 2025 83600 2030 91200 52600 AADT FDOT Lochner Chyabi Ghyabi					6900	6900			
2005 52600 2010 60200 2020 75900 2025 83600 2030 91200 52600 AADT FDOT Lochner Ghyabi									
2005 52600 2010 60200 2020 75900 2025 83600 2030 91200 52600 AADT FDOT Lochner Chyabi Ghyabi		39500	2003	AADT					LEGEND
2010 60200 AADT FDOT 2020 75900 Lochner 2025 83600 Ghyabi 2030 91200					ı		5260	0	
2025 83600 Ghyabi 2030 91200						##CG9##	AADT		
2030 91200									
									Ghyabi
	-75 PD&E 9	Study.xls		ن بدن		*			

220 20 20 20

40.00

I-75 (SR 52 to CR 476B) PD&E Study

	Pa	Pasco	Hern	Hernando	Sur	Sumter
Year	¥	Q	K	٥	エ	Ω
2001	8.94	55.00	9.52	57.42	10.94	57.94
2002	8.99	56.15	8.99	56.15	11.69	54.81
2003	8.78	53,67	8.76	53.67	11.14	55.41
2004	8.55	55.03	6.63	56.22	10.60	57.12
4 Avg	8.81	54.96	9.23	55.87	11.09	56.32

Interstate Urban	
Intersta	-
Rural	
Interstate Rural	1

'errenant	Pa	Pasco	Herr	Hernando	Sur	Sumter	S	State	Σ,	State	Recom	Recommended
Bennumi	Ж	Q	¥	۵	К	a	አ	۵	ጟ	٥	X	۵
C N	8.55	53.67	8.76	53.67	10.6	54.81	9.6	52.3	9.4	50.4		
Max	8.99	56.15	9.83	57.42	11.69	67.94	14.6	57.3	10.0	67.1		
verage	8.81	54.96	9.23	55,87	11.09	56.32	11.8	54.8	9.7	57.9	10.75	56.35

aprive e

APPENDIX 'D'

EXISTING YEAR (2005) INTERSECTION LOS ANALYSIS

Two-Way Stop Control Page 1 of 1

			CONTRO					
General Information				<u>formatio</u>	n			
Nnalyst	CRH		Intersec			1-75 NB Ra		11
Agency/Co.		chner, Inc.	Jurisdict			Pasco Cou		
Date Performed	10/26/0	6	Analysis	Year		Existing Ye	ear	
Analysis Time Period	DHV							
Project Description					/ 75 NO	<u> </u>		
East/West Street: CR 4		ď			i: I-75 NB	катр		***************************************
Intersection Orientation:		**************************************	Study Pe	eriod (hrs)	. 0.25			
Vehicle Volumes ar	<u>nd Adjustm</u>						<u> </u>	
Major Street		Eastbound				Westboun	<u>d</u>	
<u>Movement</u>		2	3		4	5		6
	L L	T	R			T 162		R
Volume (veh/h)	54	89	1		1.00	0.85		26 0.85
Peak-Hour Factor, PHF Hourly Flow Rate, HFR	0.85	0.85	1.00					
(veh/h)	63	104	0		0	190		30
Percent Heavy Vehicles	10	40-40-			0			
Median Type				Undivided	1			
RT Channelized			0					0
Lanes	1	1	0		0	1		0
Configuration	L.	Т						TR
Jpstream Signal		0				0		
Minor Street		Northbound				Southbou	nd	
Vovement	7	8	9		10	11		12
	L	T	R		L	T		R
∠olume (veh/h)					113			147
Peak-Hour Factor, PHF	1.00	1.00	1.00		0.91	1.00		0.91
Hourly Flow Rate, HFR veh/h)	0	0	0		124	0		161
Percent Heavy Vehicles	0	0	0		9	0		6
Percent Grade (%)		0				0		
-lared Approach		N				N		
Storage		0				0		***************************************
RT Channelized			0				l l	0
anes	0	0	0		1	0		1
Configuration					L			R
Delay, Queue Length, a	nd Level of S	ervice	OOMOOMOOMOOMOOMOOMOOMOO	***************************************				
Approach	Eastbound	Westbound	N	orthbound	d	S	outhbound	 j
Viovement	1	4	7 1	8	9	10	11	12
ane Configuration	L					L		R
/ (veh/h)	63		†			124		161
C (m) (veh/h)	1303			····		538	**************************************	826
//c	0.05					0.23		0.19
95% queue length	0.15				1	0.88		0.72
			 			13.7		10.4
Control Delay (s/veh)	7.9		-		-			
_OS	А		<u> </u>		1	В	<u> </u>	В
pproach Delay (s/veh)	-						11.8	······································
Approach LOS		***					В	

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated, 11/14/2006 9:14 AM

	TW	O-WAY STOP	CONTRO	L SUM	MARY			
General Information	1		Site In	formatio	on			
Analyst	CRH		Intersec	tion		1-75 SB Ra	mps/CR	41
kgency/Co.	HW Loch	ner, Inc.	Jurisdic			Pasco Cou		
Date Performed	10/26/06		Analysis	s Year		Existing Ye	ear	
Analysis Time Period	DHV					<u> </u>		
Project Description 1-7		2005 CR41 SB R						
East/West Street: CR 4					et: <i>I-75 Rar</i>	пр		
ntersection Orientation:	<u> </u>		Study P	eriod (hrs)): 0.25			
/ehicle Volumes ar	<u>nd Adjustmei</u>							
Vlajor Street		Eastbound				Westboun	d .	
Movement	1 1	2 T	3		4	5 T		6
International (name that	L		R 710		90	219		R
/olume (veh/h) Peak-Hour Factor, PHF	1.00	110 0.88	110 0.88		0.95	0.95	_	1.00
Hourly Flow Rate, HFR			 					***************************************
veh/h)	0	125	125		94	230		0
Percent Heavy Vehicles	0				3			
Лedian Туре				Undivide	d			
RT Channelized			0					0
_anes	0	1	0		1	1		0
Configuration			TR		L	T		
Jpstream Signal		0				0		
Ainor Street		Northbound				Southbou	nd	
Novement	7	8	9		10	11		12
	L	Т	R		<u> </u>	Т		R
olume (veh/h)	38		32		,			
Peak-Hour Factor, PHF	0.89	1.00	0.89		1.00	1.00		1.00
Hourly Flow Rate, HFR veh/h)	42	0	35		0	0	ļ.	0
Percent Heavy Vehicles	10	0	10		0	0		0
Percent Grade (%)			1			0		
Flared Approach	1	T N	1			T N		······································
		0				0		W-14
Storage Storage		U				 		0
RT Channelized	1		0		0	0		0
_anes		0	1 R		V	-		U
Configuration							<u></u>	
Delay, Queue Length, a				la eta barra	٠	T 6	outhbour	<i>A</i>
Approach	Eastbound	Westbound		lorthboun o				
Novement	1	4	7	8	9	10	11	12
ane Configuration		L	L		R			
(veh/h)		94	42		35	<u> </u>		
C(m) (veh/h)		1310	415		834		<u> </u>	
/c		0.07	0.10		0.04			
95% queue length		0.23	0.34		0.13		<u></u>	
Control Delay (s/veh)		8.0	14.6		9.5			
.OS		А	В	***************************************	Α			
		 	t					
Approach Delay (s/veh)				12.3				

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:14 AM

	·····		170					REPOR				····				
General Information								format					\ C\ /			
\nalyst CRH							Interse				Ramp	_	SK:	5 <i>U</i>		
gency or Co. FDOT						- 1	Area T				r areas	3				
Date Performed 10/26/06						- 1	Jurisdi			rnan	ao					
Time Period						1	Analys	is Year		c	0 E C4	ء براسون	200	۶.		
		-					Projec	t ID			&E Sti IB Ran		200.	J		
Make and Timing Innie								***************************************		0011	, C , (G),	.,00				
Volume and Timing Input	1		EB		1	·	WB		Т-		NB		- T		SB	
	LT		ED TH	RT	+	T	TH	RT	$+$ $\frac{1}{L}$	r T	TH	RT	\dashv	LT	TH	RT
Number of Lanes, N1	1		3	131	╁		3	1	$\frac{1}{1}$		111	1				
Lane Group	+ /_	1	 Т	 -	╁		T	$\frac{1}{R}$	$\pm i$			R	一十			.
Volume, V (vph)	230		339		+		1042	220	25	6		384	$\neg \dagger$			<u> </u>
% Heavy Vehicles, %HV	11		1	<u> </u>	+-		12	12	12			12	\dashv			
Peak-Hour Factor, PHF	0.90		90		-		0.91	0.91	0.9			0.95	┰			
	0.90 A		4		╂		0.91 A	A	A A			A				
Pretimed (P) or Actuated (A)	2.0		.0	 	-		2.0	2.0	2.0)		2.0	\dashv	······		<u> </u>
Start-up Lost Time, In			.0 .0		+		2.0	2.0	2.0			2.0				
Extension of Effective Green, e	3		. <i>0</i> 3		╂	************	3	3	3			3				
Arrival Type, AT					-		3.0	3.0	3.0	`		3.0				
Unit Extension, UE	3.0		.0 000	 	+		1.000					1.00				
Filtering/Metering, I	1.000			<u> </u>	-							0.0	-		 	
Initial Unmet Demand, Qb	0.0		.0		+~		0.0	0.0	0.0		0	220				
Ped / Bike / RTOR Volumes	10		0		0		0	0	0		U	12.0				
Lane Width	12.0		2.0	ļ	1		12.0	12.0	12.						 	┼
Parking / Grade / Parking	N N	'	0	N	N		0	N	N		0	<u> N</u>			<u> </u>	
arking Maneuvers, Nm										····						<u> </u>
ப்uses Stopping, Nв	0		0		1		0	0)		0			<u> </u>	<u> </u>
Min. Time for Pedestrians, Gp			3.2				3.2		l		3.2					
Phasing EW Perm Th	ru & R7	-	03	3		04		NB O	nly		06			07	1)8
G = 11.0 G:	= 21.3	10	G =		G=			G = 1	2.7	G=	=		<u> </u>		G =	
Timing $Y = 5$ $Y = 5$	- 5		Y =		Y =			Y = 5		Y =			′=		Y =	
Duration of Analysis, $T = 0.25$										Су	de Ler	ngth, (<u> </u>	60.0		
Lane Group Capacity, Contr	ol Dela	y, ar	nd LC	S Det	ermi	nati	on									
		EE					WB				NB				SB	
	LT	TH		RT	LT		TH	RT	LT		TH	RT		LT	TH	RT
Adjusted Flow Rate, v	256	932	·			1	145	242	269			173				
, tojaktou i iore i roko; e			i	í		- 1		t	 		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 205			†	
		000	$\overline{}$			1.	C 4 C	4440	1 244	•			'		<u>L</u>	
Lane Group Capacity, c	298	289	9			1	640	1442	341			305		·····		1
Lane Group Capacity, c	298	289 0.32					640 70	1442 0.17	341 0.79			0.57				
Lane Group Capacity, c v/c Ratio, X	298).86	0.32				0.	.70	0.17	 			 				
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C	298).86).18	0.32 0.62				0.	.70 .35	0.17 1.00	0.79			0.57				
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁	298 0.86 0.18 23.7	0.32 0.62 5.4				0.	.70 .35 6.6	0.17 1.00 0.0	0.79 0.21 22.4			0.57 0.21 21.2				
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁	298 0.86 0.18 23.7	0.32 0.62				0.	.70 .35 6.6	0.17 1.00	0.79			0.57				
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF	298 0.86 0.18 23.7 1.000	0.32 0.62 5.4	00			0.	.70 .35 6.6	0.17 1.00 0.0	0.79 0.21 22.4			0.57 0.21 21.2	0			
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF Delay Calibration, k	298 0.86 0.18 23.7 1.000	0.32 0.62 5.4 1.00	00			0. 0. 1. 0.	.70 .35 6.6 .000	0.17 1.00 0.0 0.950	0.79 0.21 22.4 1.00	9		0.57 0.21 21.2 1.00	0			
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF Delay Calibration, k Incremental Delay, d ₂	298 0.86 0.18 23.7 1.000 0.39	0.32 0.62 5.4 1.00 0.11	00			0. 0. 1. 1.	.70 .35 6.6 .000	0.17 1.00 0.0 0.950 0.11	0.79 0.21 22.4 1.00 0.34	9		0.57 0.21 21.2 1.00 0.16	0			
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF Delay Calibration, k Incremental Delay, d ₂ Initial Queue Delay, d ₃	298 0.86 0.18 23.7 1.000 0.39 21.5	0.32 0.62 5.4 1.00 0.11 0.1	00			0. 0. 1. 1. 0	.70 .35 .000 .26 1.3	0.17 1.00 0.0 0.950 0.11 0.1	0.79 0.21 22.4 1.00 0.34 11.8 0.0	0		0.57 0.21 21.2 1.00 0.16 2.5	0			
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF Delay Calibration, k Incremental Delay, d ₂ Initial Queue Delay, d ₃ Control Delay	298 0.86 0.18 23.7 1.000 0.39 21.5 0.0	0.32 0.62 5.4 1.00 0.11 0.1 0.0	00			0. 0. 1. 1. 0.	70 35 6.6 .000 .26 1.3 0.0	0.17 1.00 0.0 0.950 0.11 0.1 0.0	0.79 0.21 22.4 1.00 0.34 11.8 0.0	0		0.57 0.21 21.2 1.00 0.16 2.5 0.0	0			
Lane Group Capacity, c v/c Ratio, X Total Green Ratio, g/C Uniform Delay, d ₁ Progression Factor, PF Delay Calibration, k Incremental Delay, d ₂ Initial Queue Delay, d ₃	298 0.86 0.18 23.7 1.000 0.39 21.5	0.32 0.62 5.4 1.00 0.11 0.0 5.4 A	00			0. 0. 1. 1. 0.	.70 .35 .6.6 .000 .26 .1.3 .0.0 .17.9	0.17 1.00 0.0 0.950 0.11 0.1	0.79 0.21 22.4 1.00 0.34 11.8 0.0	0	0	0.57 0.21 21.2 1.00 0.16 2.5	0			

Approach LOS				
Intersection Delay	16.7	$X_{c} = 0.76$	Intersection LOS	В

byright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 1 1/14/2006 9:14 AM

Detailed Report Page 1 of 2

Detailed Ke	port															· · · · · · · · · · · · · · · · · · ·	1 41	20101.	
					HCS	S+**	DETA											——————————————————————————————————————	
General Inf	formation									ormati							······································		
Analyst CRH									iterse			I-75 SB Ramps @ SR 50 All other areas							
gency or Co. FDOT								rea Ty	,				3						
Date Performed 10/26//06								urisdid		He	Hernando								
Time Period								A	nalysi	s Year	. ~	175 DDAE D() - 0005 DD							
										ID		I-75 PD&E Study - 2005 SR 50 SB Ramps							
Volume and	d Timing Inpu	t	T) A (C)				KID.		— Т				
			LT	E Th		RT	+ _L T		WB TH	RT	L.	r I	NB TH	RT		LT	SB TH	RT	
Number of Lanes, N1			1	3	1	1	1	+	3	1	╅	' 				1	111	1	
Lane Group			 	$\frac{3}{T}$	-+	R	1/_	\dashv	T	+	+			╂	-	Ĺ		R	
			 	85		<u> 220</u>	290	-	1008		_			├		140		210	
Volume, V (vph)			├	9	9	9	13		13		╁			├		13		13	
% Heavy Vehicles, %HV			 		a /o						+-			╂──		0.89		0.89	
Peak-Hour Factor, PHF			 	0.88 A).88 A	0.95 A	L	0.95 A	-				├	\dashv	0,89 A		0.89 A	
Pretimed (P) or Actuated (A)			 	i	I		1	-		<u> </u>				├		2.0		2.0	
Start-up Lost Time, In			ļ	2.0		2.0	2.0		2.0					<u> </u>		2.0			
Extension of Effective Green, e			 	2.0		2.0	2.0	+	2.0	<u> </u>			·	-	-	3	····	2.0	
Arrival Type, AT			<u> </u>	3		3	3	-	3					 					
Unit Extension, UE			<u> </u>	3.0		3.0	3.0		3.0	-						3.0		3.0	
Filtering/Metering, I			ļ	1.00		.000			1.000							1.000		1.000	
Initial Unmet Demand, Qь				0.0		0.0	0.0	4	0.0					↓		0.0		0.0	
Ped / Bike / RTOR Volumes			0	0		0	0	_	0					 		0	0	70	
Lane Width			ļ	12.0		2.0	12.0	_[12.0					<u> </u>		12.0		12.0	
Parking / Grade / Parking			N	0		Ν	N		0	N						Ν	0	N_	
`arking Maneuvers, Nm																			
uses Stopping, Nв				0		0	0		0							0		0	
Min. Time for Pedestrians, Gp				3.	2				3.2								3.2		
Phasing EW Perm E\		EW	Perr	n	03			04		SB Only						07 08		08	
	G = 7.3	G =	28.0	G	G=		G =			G = 9.	7	G =		G =		G =			
Timing	Y = 5	Y =	5	Y	Υ =		Y =			Y = 5		Y =	Y =		Y =		Y =		
Duration of A	Analysis, $T = C$	25										Сус	de Ler	igth,	C =	60.0			
Lane Group	Capacity, Co	ontro	l Del	ay, and	LOS	S De	termina	itio	n			-							
		Ĭ		EB					VB				NB				SB		
			_T	TH	R	Τ	LT	Т	Ή	RT	LT		TH	R1	-	LT	TH	RT	
Adjusted Flow Rate, v				976	25	0	305	10	61							157		157	
Lane Group Capacity, c				2216	148	22	391	30	76			$\neg \dagger$				258	<u> </u>	231	
v/c Ratio, X				0.44	0.1		0.78	0.3				_	***************************************			0.61	<u> </u>	0.68	
Total Green Ratio, g/C				0.47	1.0	0	0.67	0.6	37							0.16		0.16	
Uniform Delay, d ₁			*************	10.7	0.0)	5.5	4.2	2							23.4		23.7	
Progression	Factor, PF			1.000	0.9	50	1.000	1.0	000							1.000		1.000	
Delay Calibration, k				0.11	0.1	1	0.33	0.1	11							0.19		0.25	
Incremental	Delay, d ₂		~~~~	0.1	0.	1	9.8	0.	. 1							4.1		7.8	
Initial Queue Delay, d ₃				0.0	0.0)	0.0	0.0	0			***************************************				0.0		0.0	
				10.9	0.	1	15.3	4.	.3							27.5		31.5	
	ay .	1												· · · · · · · · · · · · · · · · · · ·		1		1	
	·····			В	Α		В	Α								C	<u></u>	C	
Control Dela	LOS		8.	<u> </u>	Α			7			·		was were a second of the secon	<u></u>		<u> </u>	<u>]</u> 29.5	<u> </u>	

Approach LOS					
Intersection Delay	10.0	į.	Intersection LOS	В	

HCS+TM Version 5.2

Generated: 11/14/2006 9:15 AM

Page 2 of 2

APPENDIX 'E'

EXISTING YEAR (2005) FREEWAY SEGMENT AND RAMP LOS

	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Washing 10 10 10 10 10 10 10 1	B/ Ç	1450 1690 1750 1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (V _p)	Input FFS, N, v _p FFS, LOS, v _p FFS, LOS, N FFS, N, AADT FFS, LOS, AA FFS, LOS, N	
General Information		***************************************	Site Inform	nation		**************************************
Analyst Agency or Company Date Performed Analysis Time Period	EJB HW Lochner, 7/28/2005 DHV &E - 2005 NB Sc	Inc. outh of CR 41 (I-	Highway/Dire From/To Jurisdiction Analysis Yea	ection of Travel	I-75 Northboo South of CR Pasco Count 2005	41
M Oper.(LOS)			Des.(N)		圖 Plannin	g Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	2790 0.95	veh/h veh/day veh/h	Peak-Hour Fa %Trucks and %RVs, P _R General Terra Grade %	Buses, P _T	0.94 14 1 Level mi	
alculate Flow Adjustn						
E _T	0.95 1.5		E _R f _{HV} = 1/(1+P _T (E	$E_{T} - 1) + P_{R}(E_{R} - 1)$	1.2 0.933	
Speed Inputs			Calc Spee	d Adj and FFS	3	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 2	ft ft I/mi mi/h mi/h	f _L w f _L C f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
	75.0	1) 11/1)		1		
LOS and Performance I Operational (LOS) $v_p = (V \text{ or DDHV}) / (PHF \times N \times f_p)$ S $D = v_p / S$ LOS		pc/h/ln mi/h pc/mi/ln	f_p) S $D = v_p / S$) DHV) / (PHF x N x imber of Lanes, N		pc/h mi/h pc/mi/In
Glossary			Factor Lo		·	
- Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flov BFFS - Base fr		E _R - Exhibits	:23-8, 23-10 : 23-8, 23-10, 23-	11 f _{LC}	v - Exhibit 23-4 - Exhibit 23-5 - Exhibit 23-6

DANCE REEL WARRENCE

rage z or z

DDHV - Directional design hour volume

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:13 AM

		BASIC FREEWAY	SEGMENTS V	VORKSHEET
Average Passenger-Car Speed (minh)	80 - 70 - 60 - 50 - 40 - 30 -	1200 1600 Flour Rate (pc/h/ln)	2000 2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)

Application	<u>Input</u>	Output
Operational (LOS)	FFS, N, v _p	LOS, S,
Design (N)	FFS, LOS, v _n	N, S, D
Design (v _n)	FFS, LOS, N	ν _p . S. D
Planning (LOS)	FFS, N, AA DIT	LOS, S.
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v _D)	FFS, LOS, N	v _n , S, D

General Information			Site Information					
Analyst	EJB		Highway/Direction of Travel I-75 Northbound					
Agency or Company	HW Lochner,	Inc.	From/To	CR 41 to	SR 50			
Date Performed	7/28/2005		Jurisdiction	Hernande	County			
Analysis Time Period	DHV		Analysis Year	Existing `	Yea <i>r</i>			
Project Description I-75 PD8	RE - 2005 NB C	R 41 to SR 50 (I-75 = 4 Lanes)					
		S	Des.(N)		ining Data			
Flow Inputs								
Volume, V	2610	veh/h	Peak-Hour Factor, PHF	0.93				
AADT		veh/day	%Trucks and Buses, P_{T}	14				
Peak-Hr Prop. of AADT, K			%RVs, P _R	2				
Peak-Hr Direction Prop, D			General Terrain:	Level				
DDHV = AADT x K x D		veh/h	Grade % Length	mi				
Oriver type adjustment	0.95		Up/Dawn %					
alculate Flow Adjustm				 				
' p	0.95		E _R	1.2				
E _T	1.5		$f_{HV} = 1/[1 + P_T(E_T - 1) + P_R(E_R - 1)]$	0.931				
Speed Inputs			Calc Speed Adj and FF	S				
ane Width	12.0	ft	fw	0.0	mi/h			
Rt-Shoulder Lat. Clearance	6.0	ft						
nterchange Density	0.50	I/mi	f _{LC}	0.0	mi/h			
Number of Lanes, N	2		f _{ID}	0.0	mi/h			
FFS (measured)		mì/h	f _N	0.0	mi/h			
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h			
OS and Performance N	/leasures		Design (N)					
Operational (LOS)			Design (N)	······································				
	r		Design LOS					
$r_p = (V \text{ or DDHV}) / (PHF \times N \times N)$	т _{ну} х 1586	pc/h/ln	$v_n = (V \text{ or DDHV}) / (PHF \times N)$	vf v				
,)	, , , ,	po	"	` 'HV ^	pc/h			
Š	73.6	mi/h	$ f_{\rm p}\rangle$					
v_p/S	21.5	pc/mi/ln	s		mi/h			
os	C	1	$D = v_p / S$		pc/mi/lr			
			Required Number of Lanes, N	J				
Blossary			Factor Location					
' - Number of lanes	S - Speed		F F		F			
- Hourly volume D - Density		E _R - Exhibits23-8, 23-10		f _{LW} - Exhibit 23-4				
•	FFS - Free-flow	, enand	E_T - Exhibits 23-8, 23-10, 23-11 f_{LC} - Exhibit 23					
1 1044 1416			f_p - Page 23-12 f_N - Ext					

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:12 AM

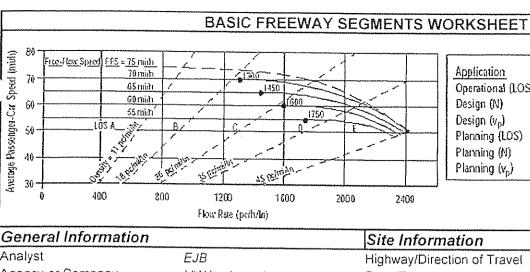
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
10 10 10 10 10 10 10 10	B C	1600 1600 1750 0		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, Vp FFS, LOS, V FFS, LOS, N FFS, N, AAI FFS, LOS, N	V _{IP} , S, D DT LOS, S, D VADT N, S, D
30 + 30 20	0 1200	1000 2000	2400			
	Flow Rese (peth/li	1)				
General Information			Site Inform			
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 Pt	EJB HW Lochner, 7/28/2005 DHV D&E - 2005 NB No		From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northbo North of SR Hernando C 2005	2 50
M Oper.(LOS		· · · · · · · · · · · · · · · · · · ·	Des.(N)		疆 Planni	ng Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D DDHV = AADT x K x D	2430	veh/h veh/day veh/h	Peak-Hour Fa %Trucks and %RVs, P _R General Terra Grade %	Buses, P _Ţ	0.94 14 2 Level mi	
Driver type adjustment	0.95		(Up/Down %		
`alculate Flow Adjust		***************************************	**************************************			
l p	0.95		E _R		1.2	
E _T	1.5			(-1) + P _R (E _R -1)	0.931	
Speed Inputs Lane Width	12.0	ft		d Adj and FFS		
Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured)	6.0 0.50 2	ft I/mi mi/h	f _{LW} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
Base free-flow Speed, BFFS		mi/h			7 0.0	7 + 11/ 5]
LOS and Performance	Measures		Design (N)	<u> </u>		
Operational (LOS) v _p = (V or DDHV) / (PHF x N f _p) S D = v _p / S LOS	x f _{HV} x 1461 74.4 19.6 C	pc/h/ln mi/h pc/mi/ln	$f_p\rangle$ S $D = v_p / S$	HV) / (PHF x N x mber of Lanes, N		pc/h mi/h pc/mi/ln
Glossary			Factor Loc			
· - Number of lanes · - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr		E _R - Exhibits2	23-8, 23-10 23-8, 23-10, 23-1	1 f	LW - Exhibit 23-4 LC - Exhibit 23-5 N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:13 AM



Application	Input	Output
Operational (LOS)	FFS, N, Vp	LOS, S,
Design (N)	FFS, LOS, v	N, S, D
Design (v _o)	FFS, LOS, N	Vor. S. D
Planning (LOS)	FFS, N, AADT	LOS, S.
Planning (N)	FFS, LOS, AADT	N.S.D
Planning (v _p)	FFS, LOS, N	V _m , S, D

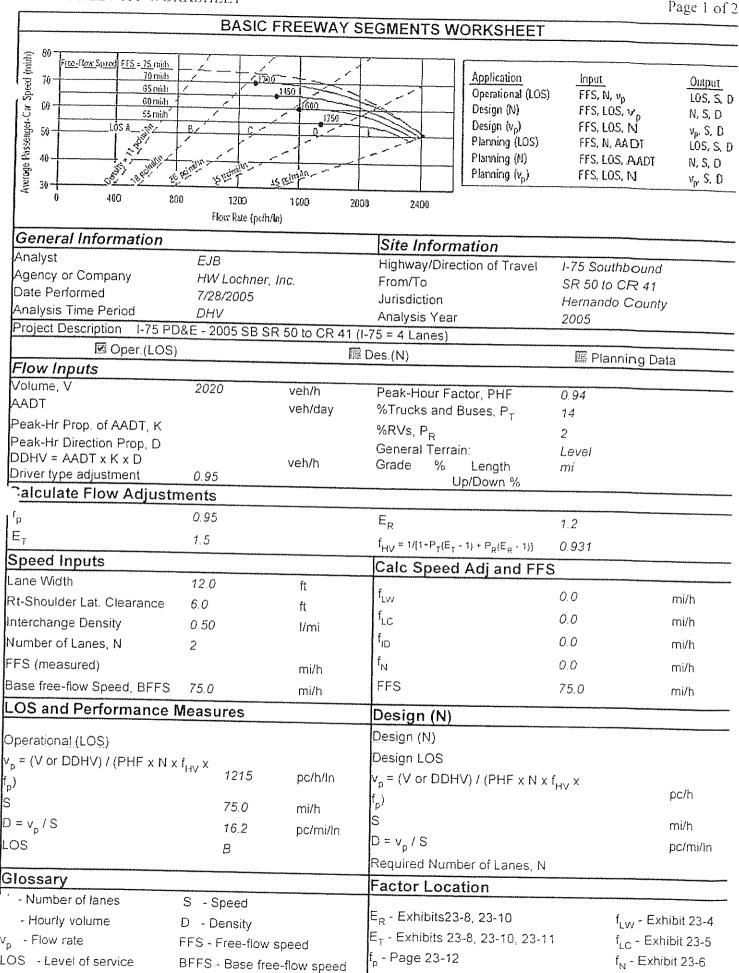
General Information			Site Information					
Analyst	EJB	***************************************	Highway/Direction of Travel 1-75 Southbound					
Agency or Company	HW Lochner,	Inc.	From/To	North of S				
Date Performed	7/28/2005		Jurisdiction	Hernando	County			
Analysis Time Period	DHV		Analysis Year	2005	•			
Project Description 1-75 PD	&E -2005 SB No	rth of SR 50 (1-7	'5 = 4 Lanes)					
图 Oper.(LOS)			Des.(N)	區 Plan	nning Data			
Flow Inputs								
Volume, V	1880	veh/h	Peak-Hour Factor, PHF	0.93				
AADT		veh/day	%Trucks and Buses, P _T	14				
Peak-Hr Prop. of AADT, K			%RVs, P _R	2				
Peak-Hr Direction Prop, D			General Terrain:	Level				
DDHV = AADT x K x D		veh/h	Grade % Length	mi				
Driver type adjustment	0.95		Up/Down %					
Calculate Flow Adjustm	<u>ients</u>							
f _p	0.95		E _R	1.2				
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.931				
Speed Inputs			Calc Speed Adj and FF	S				
Lane Width	12.0	ft	f _{tw}	0.0	mì/h			
Rt-Shoulder Lat. Clearance	6.0	ft	}					
nterchange Density	0.50	I/mi	^f ic	0.0	mi/h			
Number of Lanes, N	2		f _{ID}	0.0	mi/h			
FFS (measured)		mi/h	f _N	0.0	mi/h			
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h			
OS and Performance N	Neasures		Design (N)					
			Design (N)	····	***************************************			
Operational (LOS)			Design LOS					
$v_p = (V \text{ or DDHV}) / (PHF \times N \times N)$	t _{HV} X 1143	pc/h/ln	$v_p = (V \text{ or DDHV}) / (PHF \times N)$	v f v				
_p)	7,40	релип	[F	, ,H/ ,	pc/h			
8	75.0	mi/h	f _p) S		·			
$D = v_p / S$	15.2	pc/mi/ln			mi/h			
r.	В	•	$D = v_p / S$		pc/mi/ln			
OS			lo : 111 1 11					
.OS	D		Required Number of Lanes, N	4				
.os Glossary			Factor Location	<u>{</u>				
***************************************	S - Speed		Factor Location					
Glossary	S - Speed		Factor Location E _R - Exhibits23-8, 23-10					
Glossary ' - Number of lanes - Hourly volume		speed	Factor Location		f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5			

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:13 AM

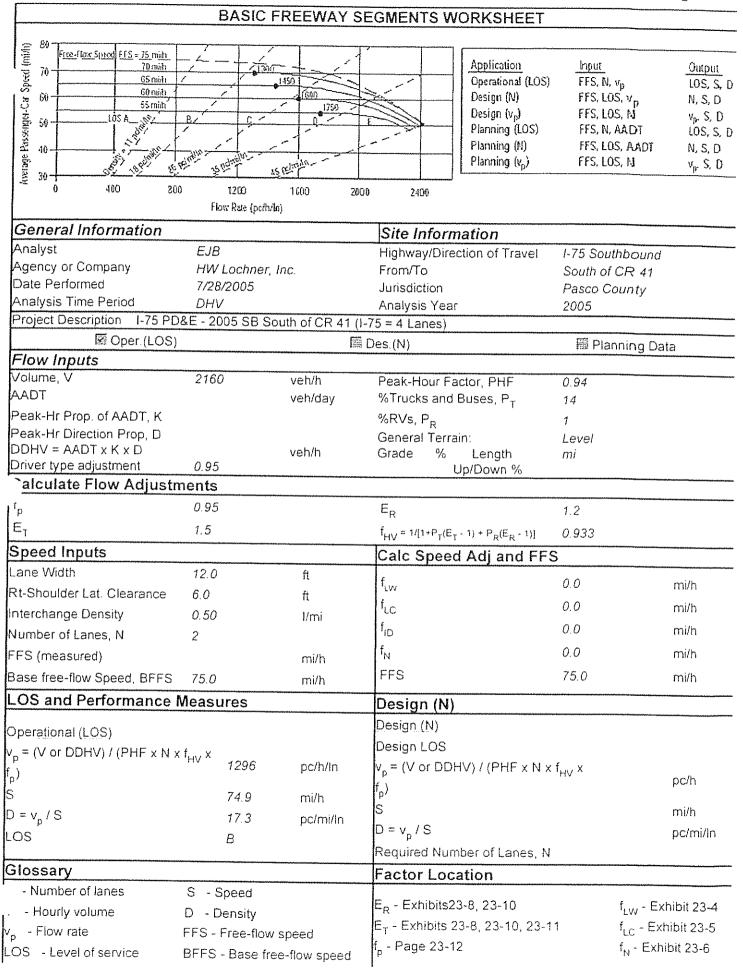


LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/14/2006 9:14 AM



LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Flonda, All Rights Reserved

HCS+™ Version 5.2

Generated: 11/14/2006 9:13 AM

		RAMP	S AND	RAMI	P JUN	CTIONS	s wo	ORKS	HEE	T		1 14
General	Informat	***************************************				Site In:		······	·····	-		
Analyst Agency or Co Date Perform Analysis Time	mpany ed Period	EJB HW Loch 7/28/200 DHV	5	***************************************	Ju Ju An	eeway/Dir on notion risdiction allysis Yea	of Trav	ound ton Road Off nty	-Ramp			
Project Descr	iption 1-75 f	PD&E Study -	2005 NB C	off Ramp	at CR 41							
Inputs		Terrain: Lev	ol	***************************************		·					1.	
Upstream Adj — Yes	ŕ	remain. Lev	ei								Downstre Ramp	am Adj
	. Off										F Yes	
	ft										∏ No	
^n = ^{C^{nb} =}	veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 m	ph		L _{down} = V _D =	620 ft 80 veh/h
Conversi	ion to po	/h Under				A D	es; 11				<u> </u>	
(pc/h)	V (Veh/hr)				%Truck	%Rv		f _{HV}	***************************************	fp	v = V/PH f _{HV} x f _ρ	Fx
Freeway	2790	0.94	Leve	el	14	1	0.	933	0	.95	3349	
Ramp UpStream	260	0.91	Leve	Levei		1	0.5	951	0	.95	316	
DownStream	80	0.91	10	1		951		.95	97			
		Merge Area	Leve		1		1		<u> </u>	ge Areas		
Estimatio	on of V ₁₂	***************************************		······································		Estima	tior	of v		·		
- _{EO} = (Equ - _{EM} = using / ₁₂ = pc/h	ation 25-2					L _{EO} = (E P _{FD} = 1.0 V ₁₂ = 33 ²	00 L	ion 25- Ising E	8 or 2	25-9)	- V _R)P _{FD} bit 25-11)	
Capacity	Checks		······································			Capac	ity C	Check	S			
	Actu	····	ximum	LO	SF?		- Control of the Cont	Actu		Ma	kimum	LOS F?
1/						V _{F1} =	٧ _۴	3349)	4	800	No
V _{FO}						V ₁₂		3349		44	11A:00	No
V _{R12}		Manager between the control of the c				$V_{FO} = V_{R}$		3033	3	48	300	No
			***************************************			V _R		316		2(000	No
Level of S						Level		***************************************	***************************************		nation (i	
$D_{R} = 5.475$	5 + 0.0073	$4 v_R + 0.06$	078 V ₁₂ -	0.0062	27 L _A		D _R	= 4.252	2 ± 0.	0086 V	12 - 0.0009	L _D
) _R = (p	c/mi/ln)					D _R =	31.3	(pc/mi/	ln)			
.OS = (E	Exhibit 25-4	1)				LOS =	D (E	xhibit 2	5-4)			
Speed Es	timation)				Speed	Est	imati	on			
$M_{\rm S} = (Ex$	ibit 25-19)					D _s = 0.456 (Exhibit 25-19)						
	(Exhibit 2		S _R = 57.2 mph (Exhibit 25-19)									
	(Exhibit 2					S ₀ = N/A mph (Exhibit 25-19)						
	(Exhibit 2	· · ·				S =	57 2 (mph (E:	khibit	25-15)		
1 © 2005 Unive	rsity of Florida	i. All Rights Re	served					Version		······································		ad 11/8/2006

HCS+TM Version 5.2 Generated 11/8/2006 10:34 AM

	S WC	RKS	HEE	T									
General	Informati	on				Site Information							
Analyst Agency or Co Date Perform Analysis Time	ed e Period	EJB HW Loch 7/28/2009 DHV	5		ul Ul Ar	eeway/Dir onction risdiction nalysis Yea		el	CF	sco Cour	ton Rd On-R	Ramp	
Project Descr	iption I-75 F	D&E Study -	2005 NB (On Ramp									
Inputs													
Upstream Adj		Terrain: Lev	el								Downstrea	m Adj Ramp	
F Yes	F On		☐ Yes ☐ On										
L No	IZ Off		□ No □ Off L _{down} = ft										
L _{up} =	620 ft		2 - 70	Omah			· -	35 A m	- h		L _{down} =	•	
·	260 veh/h			Sketch (s, L _A , L _D ,V	, , ,	35.0 m _l	JII		V _c =	veh/h	
Convers	ion to pc/	'h Under	Base	Condi	tions								
(pc/h)	V (Veh/hr)	PHF Terrain %Truck				%Rv		f _{HV}		f_{ρ}	$v = V/PHF$ $f_{HV} \times f_p$	X	
Freeway	2530	0.94	Lev	el	14	1	0.9	933	().95	3037		
Ramp	80	0.91	Lev	el	10	1	0.9	951	C	.95	97		
UpStream	260	0.91	Lev	el	10	1	0.9	951	().95	316		
DownStream							<u> </u>	·····	L		<u> </u>		
rationati.		Merge Areas	<u> </u>			r				ge Areas			
Estimatio	JII OI V ₁₂					Estima	шоп	OI V	12				
	V ₁	$_2 = V_F \{ P_{FM} \}$)					1	/ ₁₂ = V	' _R + (V _F -	$V_R)P_{FD}$		
L _{EQ} = (Equa	ation 25-2 or 2	5-3)				L _{EO} = (E	quation	n 25-8 c	г 25-9	}			
$P_{FM} = 1.000$	using Equation	n (Exhibit 2	5-5)			P _{FD} = us	sing Ed	quation	(Exhibi	1 25-11)			
$V_{12} = 3037$	pc/h					V ₁₂ = pc.	/h						
Capacity	Checks			······································		Capac	itv C	heck	S				
	Actual	Max	imum	LO:	SF?			Actu	~~~	Ma	ximum	LOS F?	
						V _{FI} = \	V _c						
V _{FO}	3134	See Ex	hibit 25-7	N	0	V ₁₂	r						
V _{R12}	3134	460	IIA:00	N	o	$V_{FO} = V_{F}$ V_{R}	F -						
			***			V_R							
Level of	Service D	etermin	ation (i	f not i	F)	Level	of Se	ervic	e De	termi	nation (i	f not F)	
D _R = 5	.475 + 0.0073	4 v _R + 0.007	78 V ₁₂ - 0.0	0627 L _A			[) _R = 4.2	52 + 0	.0086 V ₁	₂ - 0.0009 L ₁)	
D _R = 2	6.7 (pc/mi/ln)					D _R =	(pc/mi	/ln)					
OS = C (Exhibit 25-4)						1 ''	 (Exhib	oit 25-4)					
Speed Es		Speed	Est	imati	on								
								D _s = (Exhibit 25-19)					
~	mph (Exhibit	•				S _R = mph (Exhibit 25-19)							
- 1	mph (Exhibit :	·				Į.		Exhibit :					
_	mph (Exhibit					1		Exhibit					
		· · · · · · · · · · · · · · · · · · ·				<u>L</u>	1/		/				

HCS+TM Version 5.2

Generated 11/8/2006 10:34 AM

		RA	MPS AND	RAMI	ONUL ^c	CTIONS	WC	RKSI	HEET			***************************************	
General	Informati					Site Information							
Analyst		EJB				eway/Dir o		***************************************	I-75 S	Southbo	und		
Agency or Co	mpany	HWI	Lochner, Inc.			nction CR 41/Blanton Rd Off-Ramp					amp		
Date Perform	ed	7/28	/2005		Jur	risdiction			Pasc	o Coun	ty		
Analysis Time	e Period	DHV			An	nalysis Year 2005							
Project Descr	iption I-75 P	D&E Stu	ıdy - SB Off Ran	np at CR	<u> 41 </u>								
Inputs											r	***************************************	
Upstream Ad	Ramp	Terrain:	Level								Downstre Ramp	am A	dj
	Г On									ি Yes	☞ () On	
₹ No	□ Off											Γ(Off
L _{up} =	ft		S _{FF} = 70.0) moh			=	35.0 m;	h.		L _{down} =	700	ft
V ₁₁ =	veh/h		* *		ahaw laga		,	33.0 111	,,,		V _D =	200	veh/h
					s, L _A , L _D ,V	R₁√()				<u> </u>	~		
Convers	ion to pc	h Un	<u>der Base C</u>	tions		1				L V(D()		···········	
(pc/h)	V (Veh/hr)	PHF Terrain %Truck				%Rv	1	HV	f	ρ	$v = V/PH$ $f_{HV} \times f_p$	r x	
Freeway	2030	0.94 Level 14				1	0.9	933	0.9	5	2437		
Ramp	70	0.89				1 0.951 0.95							
UpStream												***************************************	
DownStream	200	0.89	Leve	10	1	0.9	951	0.9		249	***************************************		
		Merge /	Areas						Diverge	Areas		***************************************	
Estimatio	on of v ₁₂					Estima	ition	of v ₁	2				
<u></u>		₁₂ = V _F (1 141						,	•	- V _R)P _{FD}		
	uation 25-2					L _{EQ} = (E	quati	on 25-l	3 or 25	5-9)			
P _{FM} = usinq	g Equation	(Exhibit	. 25-5)			$P_{FD} = 1.0$	-00 u	ising E	quation	n (Exhil	oit 25-11)		
V ₁₂ = pc/h						V ₁₂ = 240	37 pc	:/h					
Capacity	Checks					Capac	ity C	heck	S				
	Actua	31	Maximum	LC	SF?			Actu	31	Мах	imum	LO	SF?
						V _{F1} =	V _F	2437		4	B00	Ν	Ô
V _{FO}						V ₁₂		2437		44(0:Ali	N	0
V_{R12}	***************************************					$V_{FO} = V_{R}$	ì	2350		48	00	N	0
						V _R		87		20	000	N	0
Level of	Service L)eterr	mination (i	f not	F)	Level	of S	ervice	e Det	ermir	nation (i	f not	F)
D _R = 5.47	5 + 0.00734	4 v _R +	0.0078 V ₁₂ -	0.0062	27 L _A		D _R	= 4.252	+ 0.0	086 V	- 0.000	9 L _D	
$D_R = $ (D _R =	24.0	(pc/mi/l	n)								
LOS = (Exhibit 25-4	!)				LOS =	C(E	xhibit 2	5-4)				
Speed E	stimation					Speed	Est	imati	on				
M _s = (Ε:		D _s =	0.436	(Exhit	it 25-1	9)							
.,		S _R = 57.8 mph (Exhibit 25-19)											
	h (Exhibit 25 h (Exhibit 25					S ₀ = N/A mph (Exhibit 25-19)							
	h (Exhibit 25	,				S =		mph (E)					
- 101/		/				<u> </u>	717			/	Coocer	nd til	0.090.09

HCS+[™] Version 5.2

Generaled: 11/8/2006 10:35 AM

		RAMP	SAND	RAMI	P JUN	CTIONS	WC	RKSI	HEET			
General	Informati	ion JAS				Site Information						
Analyst Agency or Co Date Perform Analysis Tim Project Desc	Ju Ju Ar	eeway/Dir conction inction irisdiction nalysis Year		e!	CR 4	Southbo 1/Blanto Coun	on Rd On-R	amp				
Inputs		000	2000 00 0	21. (Camp	DI OIT II		·			,		
· · · · · · · · · · · · · · · · · · ·	''' '	Terrain: Lev	el									
Upstream Ad	j Ramp										Downstrear	n Adj Ramp
দ Yes	Г On		☐ Yes ☐ On ☐ No ☐ Off									
Γ No	L Off											ft Off
L _{up} =	700 ft										L _{down} =	''
	70 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D .V	111	35.0 mpi	h		V ₀ =	veh/h
Convers	ion to pc	/h Under	·····									·
(pc/h)	V (Veh/hr)	PHF	Terr	***************************************	%Truck	%Rv	f	HV	f	•	v = V/PHF . f _{HV} x f _p	X
Freeway	1960	0.94	Lev	el	14	1	0.9	33	0.9	5	2353	
Ramp	200	0.89	Lev		10	1	0.9		0.9		249	
UpStream	70	0.89	Lev	el	10	1	0.9	151	0.9)	87	
DownStream	il	Merge Area	<u></u>		<u> </u>		<u> </u>		Diverge	Areas		
Estimati	on of v ₁₂	morgo / nou	J			Estima	tion			711000	······································	
		₁₂ = V _F (P _{FM}	1						2 12 = V _R ·	÷ (\/ -	V IP	
1	ation 25-2 or 2 using Equatio	15-3)				$V_{EO} = (Ec)$ $V_{D} = us$ $V_{12} = pc/s$	ing Eq		25-9)	•	*RP FD	
Capacity						Capaci		hecks				-
	Actua	ıl Max	ximum	LO	SF?	0.07.00	Ť	Actua		Max	imum	LOS F?
						V _{F1} = V	/ <u>_</u>					
V _{FO}	2602	See Ex	thibit 25-7	N	lo	V ₁₂						
V _{R12}	2602	46	00:Ail	N	lo	$V_{FO} = V_{F}$ V_{R}						***************************************
l evel of	Service L)etermin	ation (fnot	F)		of Se	nvice	Dete	rmir	nation (i	f not F)
	5.475 + 0.007					207010					- 0.0009 L ₀	
'`	20.6 (pc/mi/ln)	7, - R 0.00	12	700E, EA		D_ =			2 0.00		; 5.5555 [)
1							D _R = (pc/mi/ln) LOS = (Exhibit 25-4)					
	Speed Estimation							matic)n			
								it 25-19)	***************************************			
								$D_s = (Exhibit 25-19)$ $S_R = mph (Exhibit 25-19)$				
	mph (Exhibit	•				S ₀ = mph (Exhibit 25-19)						
	1 mph (Exhibi					1		Exhibit 2				
	((,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	/				<u> </u>	٠٠٠١ (د		/			

HCS+TM Version 5.2

Generated 11/8/2006 10:35 At

		RAMP	S AND	RAMI	P JUN(CTIONS	WC	<u> RKS</u>	HEET			
General	Informati	ion_				Site Inf	orn	nation				
Analyst Agency or Co Date Performe	ed	EJB HW Loch 7/28/200			Ju Ju	eeway/Dir onetion		vel .	SR 5 Herr	iando C	ez Blvd. Off-F	Ramp
Analysis Time		DHV				alysis Year			2005)		
Project Descri	ption I-75 P	D&E Study -	2005 NB C)ff Ramp	at SR 50	(1-75 = 4 La)	anes)					***************************************
Inputs		I							····			
Upstream Adj TYes		Terrain: Lev	eı								Downstre Ramp	am Adj
											F Yes	
F No	□ Off										I No	
L _{up} ≖	ft		S _{FF} = 70.	0 mph		S	-co =	35.0 m	ph		L _{down} =	2360 ft
V _u =	veh/h		, .		show lane	s, L _A , L _D ,V					$V_D =$	450 veh/h
Conversi	on to no	/h Undor				-1 -A: -D: *!	K! 1/				<u> </u>	
Conversi	<i>V</i> ∨	/II Ulluei	Dase (Jonai	lons		Τ				v = V/PH	Fx
(pc/h)	v (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		p	$f_{HV} \times f_p$	
Freeway	2610	0.93	Leve	el	14	2	0.9	931	0.0	5	3173	
Ramp	640	0.95	Leve	el	19	2	0.9	910	2.0)5	779	·
UpStream												
DownStream	450	0.95	Leve	el	19	2	0.	910	0.9		548	
• · · · · · · · · · · · · · · · · · · ·		Merge Area	}			F - 4'	4:	£	Diverg	e Areas	5	***************************************
Estimatio	m oi v ₁₂					Estima	uoi				······································	
/		$_{12} = V_F (P_{FM})$)			(_		•		•	- V _R)P _{FD}	
L _{EO} = (Equ			7)			L _{EO} = (E					5 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
P _{FM} = using	Equation	(EXUIDIT 25-))			$P_{FD} = 1.0$			dnano	n (Exni	IDIT 20-11)	
$V_{12} = pc/h$		······································				$V_{12} = 317$						***************************************
Capacity	Checks	nevenes en mis e primpiritanti septicio di	; innerina e despuesta eninges placeiro principale	·		Capac	ity (check	S	valuation de la Calife		
	Actua	al Ma	ximum	LC)S F?			Actu			ximum	LOS F?
V _{FO}						V _{F1} = '	V _F	3173		4	1800	No
°FO						V ₁₂		3173		44	00:All	No
V _{R12}						V _{FO} = \	-	2394		41	800	No
						V _R		779			000	No
Level of S						Level					nation (i	
$D_{R} = 5.475$	5 + 0.0073	4 v _R + 0.0	078 V ₁₂ -	0.0062	27 L _A		D_R	= 4.252	2 + 0.0	086 V	1 ₁₂ - 0.0009	L _D
11	oc/mi/ln)					''		(pc/mi/				
	Exhibit 25-4							xhibit 2				
Speed Es	timation	<u> </u>				Speed	Est	imati	on	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
M _S = (Ex	ibit 25-19)					1 "		(Exhil				
S _R = mph	(Exhibit 2	5-19)						mph (E:				
S ₀ = mph	(Exhibit 2	5-19)				S ₀ =		nph (Ex				
S = mpt	(Exhibit 2	5-14)				S =	56.1	mph (E	khibit 2	25-15))	
n: © 2005 Unive	rsity of Florida	a, All Rights Ri	eserved			HC	S+TM	Version	5.2		Genera	sted: 11/8/2006

Generated: 11/8/2006 9:52 AM

		RAMP	S AND	RAMI) JUN(CTIONS	WC	RKS	HEE	T		
General	Informati	on				Site Int	form	ation	7			
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	EJB HW Loch 7/28/2009 DHV D&E Study -	5)n Ramo	Ju Ju An	eeway/Dir onction risdiction alysis Year (1-75 = 4 La		rel	SR	nando C	z Blvd. On-	Ramp
Inputs					0.01100	1110 120	117007		·			
		Terrain: Lev	el				***************************************		*******************			
Upstream Ad	j Ramp										ŀ	m Adj Ramp
√ Yes	ГОп										☐ Yes	
T No	IZ Off										dowu = 1 140	□ Off ft
L _{up} =	2360 ft										down	
Vu =	640 veh/h	;	S _{FF} = 70.		show lane	s, L _A , L _D ,V	111	35.0 m	ph		V ₀ =	veh/h
Convers	ion to pc/	h Under				······	·····	***************************************				
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		f_p	v = V/PHF f _{HV} x f _p	X
Freeway	1980	0.94	Lev	el	14	2	0.9	931	0.	95	2381	
Ramp	450	0.95	Lev	el	19	2		910	ļ	95	548	
UpStream	640	0.95	Lev	el	19	2	0.9	910	0.	95	779	
DownStream		Merge Areas	<u>. </u>		<u> </u>		<u> </u>		Divorc	e Areas	<u> </u>	
Estimati		WORLD ATOM			***************************************	Estima	tion	of v		C Alcas		
		₂ = V _E (P _{EM}	<u> </u>							₂ + (V _F -	V IP	
l - /Eau	1 * ation 25-2 or 2		,			L _{EO} = (Eo	au atia		12 .	ś. (*k.	'R" FD	
	using Equatio		E E\			1				25 111		
$V_{12} = 2381$		ii (Cambii 2	3-3)			$P_{FD} = us$ $V_{12} = pc$		quanon	(EXHIDI	25-11)		
Capacity	***************************************	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						`hool				***************************************
Сараспу		1 1 1.60	inim	10	C [2	Capac	ily C			ł d n	kimum	LOSF?
	Aclua	i ivid	kimum	10	SF?	1/ -1	, 	Actu	141	iVid	CONTRACTOR CONTRACTOR	LUGE
V_{FO}	2929	See Ex	hibit 25-7	N	lo	V _{F1} = \	F .	***************************************			····	
						V ₁₂						
.,						$V_{FO} = V_{f}$. "					
V _{R12}	2929	46	00:All	N	lo	V _R						
						V _R						
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Service E			<del></del>	<del></del>	Level		***************************************				if not F)
	5.475 + 0.0073	4 v _R + 0.001	78 V ₁₂ - 0.6	00627 L _A				$O_{R} = 4.2$	(52 + 0.)	0086 V ₁	₂ - 0.0009 L	Ð
, ,	24.2 (pc/mi/ln)					1 '`	(pc/m	i/ln)				
	Exhibit 25-4	************************************		**************************************		ļ	······	oit 25-4)	,			
Speed E	<u>stimation</u>					Speed	Est	imati	ion			
$M_{\rm S} = 0.3$	51 (Exibit 25-1	9)				D _s =	(Exhit	oit 25-19	9)			
S _R = 60.	2 mph (Exhibit	25-19)				S _R =	mph (	Exhibit	25-19)			
S ₀ = N/A	mph (Exhibit	25-19)				S ₀ =	mph (	Exhibit	25-19)			
	2 mph (Exhibit	25-14)				S =	mph (	Exhibit	25-15)			
											-	

HCS+TM Version 5.2

Generated: 11/8/2006 9:53 AM

General	Informati	·····	11 130	++#11 1		CTIONS Site Inf	~~~~~~			<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	
	monnau	EJB	······································		·				75 0 . 4	اد در ده دا	
Analyst Agency or Ci	ampany	HW Foch	nor Inn			eeway/Dir o nction	TITAV		75 South	ibouna rtez Blvd. Off-F	) a ma
Sate Perform		7/28/2005				risdiction			lernando		/arrih
Analysis Tim		DHV	,			ialysis Year			005	County	
<del> </del>	ription I-75 P	·····	2005 SB C	off Ramp at	·····			***************************************			
nputs						(1.10 1.22	,				
pstream Ad	lj Ramp	Terrain: Lev	el		***************************************	······································	***************************************			Downstre Ramp	am Adj
√ Yes										F Yes	₹ On
√ No	□ Off									Гио	□ Off
	ft									L _{down} =	2360 ft
	t . R.		S _{FF} = 70.					35.0 mph		V ₀ =	£10 vob/
/ _u =	veh/h			Sketch ( sho	ow lane	s, L _A , L _D ,V _I	ر,۷ _۱ )			, D	510 veh/
Convers	ion to pc	/h Under	Base (	Conditio	ons						
(pc/h)	V (Veh/hr)	PHF	Terra	ain 🧗	Truck	%Rv	·	f _{HV}	f _p	$v = V/PH$ $f_{HV} \times f_{p}$	Fχ
Freeway	1880	0.93	Leve	el	14	2	0.9	931	0.95	2285	
Ramp	350	0.89	Leve	9	19	2	0.9	910	0.95	455	<del>'''                                  </del>
UpStream											
DownStream	า 510	0.89	Leve	el l	19	2	0.9	910	0.95	663	
		Merge Areas	}						erge Are	as	
Estimati	on of v ₁₂					Estima	tion	of V ₁₂			
	٧.	12 = V _E (P _{EM}	)					V., =	V _D + (\	' _E - V _R )P _{ED}	***************************************
(Ea	uation 25-2		-			L. = /F	quati	ion 25-8 o		, IV FU	
	g Equation		.)			1		ising Equa		hihit 25-11\	
₁₂ = pc/t		Investigation	7			$V_{12} = 228$			(L)	AGENT EUT 11]	
						<u> </u>					***************************************
apacny	/ Checks			1 100	T 0	Capaci	ly c	hecks	Т .	La fara ma	100.50
	Actua	i Ma	ximum	LOS	F?	<del>                                     </del>	,	Actual	1 1	laximum 4000	LOS F?
$V_{FO}$						V _{F1} = \		2285	<u> </u>	4800	No
						V ₁₂		2285		1400:All	No
V						$V_{FO} = V_{R}$	/ _F ~	1830		4800	No
V _{R12}				<u> </u>		V _R		455		2000	No
evel of	Service L	)etermin	ation (i	if not F			of S		etern	nination (i	f not F
***************************************	75 + 0.00734	<del></del>						····		V ₁₂ - 0.000	***************************************
• • •		* * R · 0.00	12	0.00021	_¥	h -			0.0000	- 12 0.000.	- D
• • • • • • • • • • • • • • • • • • • •	pc/mi/ln)					1 "		(pc/mi/ln)			
	Exhibit 25-4	·	·			LOS =	C (E	xhibit 25-4	)		
peed E	stimation					Speed	Est	imation			
Λ _S = (E	xibit 25-19)					O _s =	0.469	(Exhibit 2	(5-19)		
-	h (Exhibit 25	5-19)				i	56.9	mph (Exhit	il 25-1	9)	
IL						l .	KUA n	nph (Exhib	it 2510	11	
; ₀ = mp	h (Exhibit 28	5-19)				S _o =	14074 1	npn (Exinu	11 20 1	<i>' 1</i>	

		RAMP	S AND	RAME	) JUNC	CTIONS	WC	RKSI	1EET			
General	Informati	on			······································	Site Int	form	ation				
Analyst Agency or Co Date Perform Analysis Tim	ned	EJB HW Loche 7/28/2005 DHV	5	in Dama	Jui Jui An	eeway/Dir conction risdiction alysis Year		el	SR 5	ando C	z Bivd. On-l	Ramp
	ription 1-75 P	DAE SIUUY -	2003 SB C	и капр	al SR 30	1-73 - 4 Lc	iles)					····
Inputs		Terrain: Lev										
Upstream Ad		remain. Lov	J1								Downstread Yes	m Adj Ramp ☐ On
マ Yes	□ On										I No	
∏ No	년 Off										L _{down} =	ft
rnb =	2360 ft	(	S _{FF} = 70.	0 mph	· · · · · · · · · · · · · · · · · · ·	S	S =	35.0 mp	h		V _D =	veh/h
	350 veh/h		, .	Sketch (		s, L _A , L _D .V						
Convers	ion to pc	<u>/h Under</u>	Base (	Condi	tions		т	T			1////	
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}	f	p p	v = V/PHF f _{HV} x f _p	X
Freeway	1520	0.94	Leve	el	14	2	·ŧ	31	0.9		1828	·····
Ramp	510	0.89	Levi	el	19	2	<del></del>	910	0.9	······	663	***************************************
UpStream	350	0.89	Lev	el	19	2	0.9	910	0.9	)5	455	······
DownStream	ח	Marga Arasi	<u> </u>		L		<u> </u>		Diverge	Διρας	<u> 1</u>	
Fetimati	on of V ₁₂	Merge Areas	7	<del> </del>		Estima	tion	of v		. /11000		
LSIIIIGU						LJamo				, () (	V VO	
		12 = V _F (P _{FM}	}						,,,	T(VF	$V_R)P_{FD}$	
	ation 25-2 or 2					L _{EQ} = (Ει						
	using Equation	on (Exhibit 2	5-5)			'-	•	quation (	Exhibit :	25-11)		
$V_{12} = 1828$	pc/h					V ₁₂ = pc					·	
Capacity	/ Checks					Capac	ity C	heck	S			
	Actua	al Ma:	kimum	LO	SF?			Actu	al	Ma	kimum	LOS F?
V _{FO}	2491	See Ex	hibit 25-7	١	lo	V _{FI} = \	V _F	······································				
						V ₁₂						
						V _{FO} = V	F ~					
$V_{R12}$	2491	46	00:All	١	10	V _R						
						V _R						
Level of	Service L	Determin	ation (	if not	F)	Level	of S	ervice	Det	ermi	nation (	if not F)
D _R =	5.475 + 0.0073	34 v _R + 0.00	78 V ₁₂ - 0.0	00627 L _A			[	$O_{R} = 4.25$	52 + 0.0	1086 V	₂ - 0.0009 L	D
D _R =	20.6 (pc/mi/ln)					D _R =	(pc/m	i/ln)				
	C (Exhibit 25-4	1)				LOS =	(Exhil	oit 25-4)				
	stimation	•				Speed	Est	imati	on			
	324 (Exibit 25-					D _s =		oit 25-19				
_	.9 mph (Exhibi	it 25-19)				S _R =	mph (	Exhibit 2	25-19)			
.,	A mph (Exhibit					S ₀ =	mph (	Exhibit :	25-19)			
	.9 mph (Exhibi	-				S =	mph (	(Exhibit :	25-15)			
t				<del></del>								

HCS+TM Version 5.2

Generated: 11/8/2006 9:55 AM

## APPENDIX 'F' OPENING YEAR (2010) NO-BUILD INTERSECTION LOS

	TWC	-WAY STOP	CONTRO	LSUMN	IARY			***************************************
General Informatio	n		Site Inf	ormatio	n			
Analyst	JAS		Intersect			1-75 NB Ra	amps/CR	41
Agency/Co.	HW Lochn	er. Inc.	Jurisdict			Pasco Cou		
Date Performed	1 1/03/2000		Analysis			Opening Y		
Analysis Time Period	DHV Revi							
Project Description No	o Build Alternativ	e - 2010	1					
East/West Street: CR 4			North/So	uth Street	: 1-75 NE	Ramp	***************************************	·
Intersection Orientation:				riod (hrs):				
Vehicle Volumes ai	nd Adiustmer	nts				***************************************		CONTROL CONTRACTOR
Major Street		Eastbound				Westbour	ıd	
Movement	1	T 2	3		4	5		6
	L	T	R		L	Т		R
Volume (veh/h)	136	113				273		44
Peak-Hour Factor, PHF	0.85	0.85	1.00		1.00	0.85		0.85
Hourly Flow Rate, HFR (veh/h)	159	132	0		0	321		51
Percent Heavy Vehicles	10				0			**
Median Type				Undivided				
RT Channelized			0					0
Lanes	1	1 1	0		0	1		0
Configuration	L	<del>†</del> 7						TR
Upstream Signal		0				0		***************************************
Minor Street		Northbound				Southbou	nd	
Movement	7	8	9		10	11	1	12
	L	T	R		L.	Т		R
Volume (veh/h)					199			261
Peak-Hour Factor, PHF	1.00	1.00	1.00		0.91	1.00		0.91
Hourly Flow Rate, HFR (veh/h)	0	0	0		218	0	***************************************	286
Percent Heavy Vehicles	0	0	0		9	0		6
Percent Grade (%)		0				0	······································	
Flared Approach		N				N		****
Storage		<del>                                     </del>			······	0		······································
RT Channelized			0					0
Lanes	0	<del>                                     </del>	1 0		1	<del></del>		1
Configuration	<u> </u>	<u> </u>			L	7		R
Delay, Queue Length, a	and level of So-	<u>l</u>			<u> </u>			1 1
Approach	Eastbound	Westbound	T KI	orthbound		c	outhboun	1
Movement	1	4	7 1	8	9	10	11	12
Lane Configuration	L			· · ·	· · · · · · · · · · · · · · · · · · ·	L	, ,	$\frac{1}{R}$
	159					218		286
v (veh/h)								
C (m) (veh/h)	1144					299		688
v/c	0.14					0.73		0.42
95% queue length	0.48					5.30		2.05
Control Delay (s/veh)	8.7					43.6		13.9
LOS	A					E		В
Approach Delay (s/veh)					<del> </del>		26.8	
Approach LOS			<u> </u>				D	

Generated: 11/8/2006 2:50 PM

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

11/8/2006

		D-WAY STOP		<u> </u>				
General Informatio	n		Site I	nforma	tion			
Analyst	JAS		Interse	ection		1-75 SB Ra	mps/CF	3 4 1
Agency/Co.	HW Lochi	ner, Inc.	Jurisd	ction		Pasco Cou		
Date Performed	11/03/200	)6	Analys	is Year		Opening Y	ear .	
Analysis Time Period	DHV							
Project Description N	o Build Alternativ	/e - 2010				·		
East/West Street: CR 4			North/S	South Str	eet: <i>I-75 SE</i>	3 Ramp		
ntersection Orientation:	East-West		Study I	Period (hi	rs): 0.25			
Vehicle Volumes a	nd Adiustme	nts		***************************************				
/lajor Street		Eastbound			<del></del>	Westboun	d	
Movement	1	2	3		4	5	<del>-</del> T	6
	L	Т	R		Ĺ	T		R
/olume (veh/h)		185	184		176	357		· · · · · · · · · · · · · · · · · · ·
Peak-Hour Factor, PHF	1.00	0.88	0.88		0.95	0.95		1.00
lourly Flow Rate, HFR veh/h)	0	210	209		185	375		0
Percent Heavy Vehicles	0				3			
Nedian Type				Undivid	ed		·····	
RT Channelized		***************************************	0			Ţ.		0
anes	0	1	1 0		1	1		0
Configuration			TR		L	<del>                                     </del>		
Jpstream Signal		0	<u> </u>			1 0		***************************************
Minor Street		Northbound				Southbour	nd h	
Novement	7	8	T 9		10	11		12
	L	T	R			† T		R
olume (veh/h)	75		65			<u> </u>		
eak-Hour Factor, PHF	0.89	1.00	0.89		1.00	1.00		1.00
lourly Flow Rate, HFR veh/h)	84	0	73		0	0		0
ercent Heavy Vehicles	10	0	10		0	0		0
ercent Grade (%)		0			<u> </u>	0	······································	
lared Approach		N	1			N		
Storage		0	<del>                                     </del>		<del>, , , , , , , , , , , , , , , , , , , </del>	1 0		
T Channelized	1		1 0			+ -		0
anes	1	0			0	1 0		
onfiguration	<del>                                     </del>		$\frac{1}{R}$		U	<del>                                     </del>		0
elay, Queue Length, a						1		**************************************
pproach	Eastbound	Westbound		Vorthbou	od		outhboun	
fovement	1		7	·		- <del> </del>		<del></del>
ane Configuration		.4	<del></del>	8	9	10	11	12
		100	L		R		***************************************	_
(veh/h)		185	84		73			
(m) (veh/h)		1135	201		708			
C		0.16	0.42		0.10			
5% queue length		0.58	1.91		0.34			
ontrol Delay (s/veh)		8.8	35,2		10.7			
OS		A	E		В			
pproach Delay (s/veh)		**	L	23.8				
pproach LOS				23.0 C				

Generated: 11/8/2006 2:51 PM

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

					нс.	S+™	D	ETA	IL	ED I	RE	EPO	RT									
General In												rmat										
Analyst	JAS								10	nters	ecl	tion	I	-75	NE	3 Ramp	os i	@ SR	50			
	Co. FDOT								į.	\rea			A	All c	othe	er area	2					
Date Perfor	med 11/08/200	)6							J	lurisd	ict	ion	ŀ	<i>ler</i>	nar	ndo						
Time Period	b								Α	Analy	sis	Year	•									
									F	rojec	t l	D	1	Vo I	Bui	ld Alter	na	tîve -	2010	_		
Volume an	d Timing Inpu	t																				
		T	***************************************	E	В	***************************************	П		************	WB		<del> </del>		•		NB	••••				SB	
		Γ	LT	TH	1	RT		LT	T	TH	П	RT		LŢ		TH	I	₹Т	LT	Т	TH	RT
Number of l	Lanes, N1		1	3					1	3	٦	- 1	$\top$	1			1	1		7		·····
Lane Group	)	1	L	7	1	*******			1	T	7	R		L			7	7		$\dashv$		
Volume, V (	vph)		346	118	36		7	***************************************	7	1482	1	314	1	340			5	10		1		
% Heavy Ve	ehicles, %HV		6	6		***************************************	1		1	6	7	6		6			1	3		7		
Peak-Hour I	Factor, PHF	(	0.90	0.90	5	***************************************	1		7	0.91	1	0.91	0.	95			0.	95		7		
	) or Actuated (	A) [	Α	A			7		十	A	7	A		Ā				۹		7		
Start-up Los	st Time, Iı		2.0	2.0		***************************************	7		十	2.0	1	2.0		2.0			2	.0		1		······································
Extension o	f Effective Gre	en,	2.0	2.0			1		-	2.0		2.0	2	2.0			2	.0		1		
Arrival Type	. AT		3	3		·····	+		T	3	-	3	+	3			T	3	ļ	$\dashv$		
Unit Extensi	<del></del>		3.0	3.0			+		十	3.0	+	3.0		.0				.0	<del>                                     </del>	+		ļ
Filtering/Me			1.000				7			1.000	7	1.000		.00	n		4	000	<del></del>	+		
	t Demand, Qb		0.0	0.0			$\dashv$			0.0	-	0.0		0.0			4	.0	<b></b>	┪		<b></b>
	RTOR Volume		0	0			+	0	十	0.0	┪	0.0		0		0		20		1		
Lane Width			12.0	12.0	7	***************************************	+	<del></del>	+	12.0	┪	12.0		2.0				2.0	<b></b> -	1	·	
	ade / Parking		N	0		N	$\dashv$	N	$\dashv$	0	┪	N		N		0	4	V		$\dashv$		
·····	neuvers, Nm		***************************************	Ť			$\dashv$		$\dashv$		1		+				T.		ļ	$\dashv$		
Buses Stops			0	0			十		十	0	1	0		Ō		номинический пости	十	0			***************************************	
	or Pedestrians,	Gp		3.2	<u>.</u>		$\dashv$	****		3.2						3.2	<u></u>		<u> </u>			<u> </u>
Phasing	EW Perm	Thru	& R*	r T	03		T	04	4		٨	√B Or	nlv	T		06		(	)7		0	8
	G = 27.5	G =		G			$\dagger_{c}$					= 37		+	G =			G =			G =	~
Timing	Y = 5	Y = 5		Y:		*************************		- / =	*****			= 5			_ Y =			Y =			Y =	
Duration of	Analysis, T = 0	.25		1		***************************************				1				L_		le Len	atr	L C =	150	.0	<u> </u>	
	Capacity, Co		Dela	av an	d10	)S De	ete	rmin	af	ion					- ) -		<u> </u>				· · · · · · · · · · · · · · · · · · ·	
		1		EB		Ť				NB		I				NB					SB	
		Lī	Г	TH	R	T	L	T		Н	F	₹T	L	r		TH	F	₹T	LT	T	TH	RT
Adjusted Flo	ow Rate, v	38-	4	1318						29		45	35					25				
Lane Group	Capacity, c	31.	2	3350					22	92	15	524	42	1			3	77				
v/c Ratio, X		1.23	3 (	0.39				Jo	0.7	71	0.2	23	0.8	5			0.8	31			***************************************	
Total Green	Ratio, g/C	0.18	3 (	0.69					). <i>4</i>	17	1.0	00	0.2	5			0.2	25				
Uniform Dela	- 1	61.3	3	10.1					31.	.7	0.	0	53.	3	$\int$		53	. 1				
Progression		1.00	00	1.000	-				1. C	000	0.9	950	1.0	00			1.0	200		_		
Delay Calibr		0.50	) (	0.11					0.2	?7	0.	11	0.3	8			0.3	35	<b>.</b>			
Incremental		128		0.1	<u> </u>				1.			), 1	15	**********				2.4	ļ			
Initial Queue	Delay, d ₃	0.0		0.0					0.0	0	0.	.0	0.0	}			0.	0				
Control Dela	У	189	.9	10.2					32	2.7	С	), 1	69.	0			6.	5.5				
Lane Group	LOS	F		В					С	;	4	4	E		T		E					
		1					***********	L					<b>†</b>				······		<b>1</b>			·

Approach Delay	50.8	27.0	67.4	
Approach LOS	D	С	E	
Intersection Delay	42.5	X _c = 0.85	Intersection LOS	D

HCS+TM Version 5.2

Generated: 11/8/2006 1:49 PM

				***************************************	HCS+	" D	ETA	ILED	RE	POF	 ₹T							
General Int								Site										
Analyst	JAS							Inters					B Ram		SR 50			
	Co. FDOT							Area			Al	oth	ier area	S				
	med 11/08/20	06						Juris			He	erna	indo					
Time Period	d .							Analy	/sis `	Year								
								Proje	ct IE	)	No	Вι	iild Alte	rnativ	e - 2010		_	
Volume an	d Timing Inp	ut	***************************************		***************************************													
•				E	В			W	3				NB			S	В	***************************************
			LT	TH	l R	T	LT	TH	1	RT	L	T	TH	RT	LT	T	H	RT
Number of l	Lanes, N1			3	1		1	3	$\neg$		1				1			7
Lane Group		***************************************		T	R		L	T	T	***************************************					L	T		R
Volume, V (	vph)			122	1 31	2	358	146	4						311			209
% Heavy Ve	ehicles, %HV		1	6	6		6	6	1	···········			1		6			6
Peak-Hour I	Factor, PHF			0.88	0.8	3	0.95	0.95	,						0.89		******	0.89
Pretimed (P	) or Actuated	(A)	I	A	A	************	Α	A			1				Α		***************************************	А
Start-up Los	st Time, Iı			2.0	2.0	1	2.0	2.0							2.0			2.0
Extension o	f Effective Gre	en,	T T	2.0	2.0		2.0	2.0			1		<u> </u>		2.0		·	2.0
e													<u> </u>			$\perp$		<u> </u>
Arrival Type		····	<u> </u>	3	3		3	3			<u> </u>			ļ	3			3
Unit Extensi		***************************************		3.0	3.0		3.0	3.0						<u> </u>	3.0			3.0
Filtering/Me			<u> </u>	1.00			1.000						<u> </u>		1.000			1.000
	t Demand, Qb			0.0	0.0		0.0	0.0							0.0			0.0
	RTOR Volum	es	0	0	250		0	0	_						0	0		70
Lane Width				12.0		)	12.0	12.0	)				<u> </u>		12.0			12.0
Parking / Gr	ade / Parking		N	0	N		N	0		Ν			<u> </u>		N	0		N
Parking Mar	neuvers, Nm																	
Buses Stopp	ping, Nв			0	0		0	0							0			0
Min. Time fo	or Pedestrians	i, Gp		3.2	2			3.2	,							3.	2	
Phasing	EW Perm	EW	Pern	n	03		0	4	S	B On	ly		06		07		(	08
Timing	G = 23.3		81.0	G	=		G =		G	= 30	.7	G	=	G	) =	(	) =	
Hilling	Y = 5	Y =	5	Υ	=		Υ=		Υ:	= 5		Υ			´ =		′ =	
Duration of a	Analysis, T =	0.25										Су	cle Ler	igth, (	C = 150	.0		
Lane Group	Capacity, C	ontro	ol Del	ay, an	d LOS	Det	ermir	nation		***************************************	······································						***************************************	
				EB				WB					NΒ				βB	
		L	Т	TH	RT	L	T	TH	R	T	LT		TH	RT	LT	T	Ή	RT
Adjusted Flo	ow Rate, v			1388	70	3	77	1541							349			156
Lane Group	Capacity, c			2637	1524	3:	93	3558				†			349			312
v/c Ratio, X			ľ	2.53	0.05	0.9	96	0.43							1.00			0.50
Total Green	Ratio, g/C		į	0.54	1.00	0.7	73	0.73							0.20			0.20
Uniform Del				22.2	0.0	35		8.1							59.6			52.8
Progression				1.000	0.950		Į	1.000	_			_			1.000			1.000
Delay Calibr				0.13	0.11	0.4	ļ	0.11	_			$\bot$			0.50			0.11
1	Delay, d ₂			0.2	0.0	<del>-</del> Į	4.8	0.1	_			_			48.2	4		1.3
	·						^ I	0.0	í	1		ı		ı	0.0	1		0.0
Initial Queue	·			0.0	0.0	0.	<i>U</i>	0.0							0.0			1
	e Delay, d ₃			0.0 22.4	0.0		0.0	8.2							107.8			54.1

Approach Delay	21.3	20.3	***************************************	91.2
Approach LOS	С	С		F
Intersection Delay	29.9	X _c = 0.92	Intersection LOS	С

HCS+TM Version 5.2

Generated: 11/8/2006 1:53 PM

## APPENDIX 'G' INTERIM YEAR (2020) NO-BUILD INTERSECTION LOS

	TW	O-WAY STOP	CONTROL	SUMMARY			······································
General Informatio	n	·	Site Info	rmation			
Analyst	JAS		Intersectio	N	1-75 NB Ra	mps/CR	41
Agency/Co.	HW Loch	ner, Inc.	Jurisdiction	n	Pasco Cou		······································
Date Performed	11/03/20	06	Analysis Y	'ear	Interim Ye	ar	
Analysis Time Period	DHV_Re	vised 9.4K					****
Project Description N	o Build Alternat	ive - 2020	<u> </u>				
East/West Street: CR 4	41/Blanton Road	<i>i</i>	North/Sout	h Street: I-75 Ni	3 Ramp		
Intersection Orientation:	East-West		Study Perio	od (hrs): 0.25			······································
Vehicle Volumes a	nd Adjustme	ents	riken manasa da kalenda andara da kalenda da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kalenda andara da kal				
Major Street		Eastbound			Westboun	d	
Movement	1	2	3	4	5		6
	L	T	R	L	T		R
Volume (veh/h)	291	177			493		79
Peak-Hour Factor, PHF	0.85	0.85	1.00	1.00	0.85		0.85
Hourly Flow Rate, HFR (veh/h)	342	208	0	0	579		92
Percent Heavy Vehicles	10			0			
Median Type			Ur	ndivided		***************************************	
RT Channelized			0				0
Lanes	1	7	0	0	1		0
Configuration	L	$\overline{\tau}$					TR
Upstream Signal		0			0		
Minor Street		Northbound			Southbour	nd	
Movement	7	8	9	10	11	l l	12
	L	T	R		Ť		R
Volume (veh/h)				372	1		488
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.91	1.00		0.91
Hourly Flow Rate, HFR (veh/h)	0	0	0	408	0		536
Percent Heavy Vehicles	0	0	0	9	0		6
Percent Grade (%)		0			0	<u>F</u>	
Flared Approach		T N	1		N		V
Storage					0		
RT Channelized			0				0
Lanes	0		0		0		1
Configuration	U	<u> </u>	U	<del>-  </del>	0		R
Delay, Queue Length, a	and Loval of S					1	
Approach	Eastbound	Westbound	Nor	thbound		outhbound	4
Movement	1	vvestodina 4	7	8 9	10	11	12
Lane Configuration	L.	**	<b></b>	0 3	L	i i	R
v (veh/h)	342				408		536
							<del></del>
C (m) (veh/h)	883	<u> </u>	<b></b>		77		478
v/c	0.39				5.30	· · · · · · · · · · · · · · · · · · ·	1.12
95% queue length	1.85				44.79		18.26
Control Delay (s/veh)	11.6				2042		107.3
LOS	В				F		F
Approach Delay (s/veh)						943.5	
Approach LOS						F	*****

HCS+TM Version 5.2

Generated: 11/8/2006 2:21 PM

	1 W	O-WAY STOF	CONTRO	DL SUMI	MARY			
General Informatio	n		Site In	formati	on			
Analyst	JAS		Interse	ction		1-75 SB Ra	mps/CR	41
Agency/Co.	HW Loch	ner, Inc.	Jurisdio	ction	·····	Pasco Cou	inty	
Date Performed	11/03/200	76	Analysi	s Year		Interim Ye	ar	······································
Analysis Time Period	DHV							······································
Project Description N	o Build Alternati	ve - 2020						
East/West Street: CR -	11/Blanton Road	1	North/S	outh Stree	et: <i>I-75 SB</i>	Ramp	***************************************	
ntersection Orientation:	East-West		Study P	eriod (hrs	): 0.25			
Vehicle Volumes a	nd Adiustme	nfs		***************************************				
Vajor Street		Eastbound				Westboun	d	·····
Movement	1	2	3		4	5		6
	L	T	R		L	Т		R
/olume (veh/h)		334	332		338	642		
Peak-Hour Factor, PHF	1.00	0.88	0.88		0.95	0.95		1.00
Hourly Flow Rate, HFR veh/h)	0	379	377		355	675		0
Percent Heavy Vehicles	0				3			
Лedian Type				Undivided	d			
RT Channelized			0					0
anes.	0	1	0		1	1		0
Configuration			TR		L	T		
Jpstream Signal		0				0		
/linor Street		Northbound				Southbour	าd	
Movement .	7	8	9		10	11	T	12
	L	Т	R		L.	т		R
/olume (veh/h)	156		134					***************************************
Peak-Hour Factor, PHF	0.89	1.00	0.89		1.00	1.00		1.00
Hourly Flow Rate, HFR veh/h)	175	0	150		0	0		0
Percent Heavy Vehicles	10	0	10		0	0		0
ercent Grade (%)		0				0		
lared Approach		N				Ν		
Storage		0				0		***************************************
RT Channelized			0			<del>                                     </del>		0
anes	1	1 0	1	<del></del>	0	0		0
Configuration	L	1	R		_			
Delay, Queue Length, a	and Level of Se	rvice						***************************************
Approach	Eastbound	Westbound	<b>1</b> N	lorthboun	d	S	outhbour	ıd
Novement	1	4	7	8	9	10	11	12
ane Configuration		<u> </u>			R	1	1 I	
(veh/h)		355 858	175		150			
; (m) (veh/h)	***************************************	850	39		507			
/c		0.42	4.49	.,	0.30			
5% queue length		2.08	20.24		1.23			
Control Delay (s/veh)		12.2	1777		15.1			
OS		В	F		С			
pproach Delay (s/veh)				964.1			<u> </u>	
pproach LOS	n ==		<del> </del>	F	·			

HCS+TM Version 5.2

Generaled: 11/8/2006 2:27 PM

Site Information		· · · · · · · · · · · · · · · · · · ·				HC.	S+"	Ď	ETA	JLED	R	EPO	RT				·····	•	······································	
Analysis JAS Agency or Co. FDOT Date Performed 1/108/2006 Time Period	General In	formation		**********	***************************************												····	~~~~		
Agency or Co. FIDT Date Performed 11/08/2006 Time Period	Analyst	JAS	***************************************	***************************************	***************************************								~~~~~	75 N	B Ram	ns @ S	R 50			
Date Performed 11/08/2006   Time Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period   Fine Period	Agency or 0	Co. FDOT																		
Time   Period   Time   Period   Time   Period   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time   Time	Date Perfor	med 11/08/20	06								•	•								
Volume and Timing Input	Time Period	d								1				C111U	1100					
Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution   Solution		-								1 '				. n	HI AUL		2024	`		
Number of Lanes, N1	17-1									Proje	:Ct	IU 	//	o Bu	iia Ane	rnauve	- 2020			
Number of Lanes, N1	voiume an	a riming inp	ш	T													~- <del></del>			
Number of Lanes, N1				<u> </u>				_			*******	T ==	<u> </u>			T	<del> </del>			<del></del>
Lane Group	Number of I	ance N+		<del></del>		1	KI		LI			<del> </del>			I IH		1		TH	RT
Volume, V (vph)   S60   1882   2962   500   504   756				<del></del>				$\dashv$							ļ		-			
% Heavy Vehicles, %HV	<del></del>	<del></del>		<b></b>		<del></del>						<del> </del>			ļ		<b>-</b>		<u> </u>	
Peak-Hour Factor, PHF				<u> </u>		32		_			2									
Pretimed (P) or Actuated (A)	<del></del>			ļ											ļ				<u> </u>	
Start-up Lost Time, It			/ ^ >	<u> </u>		,		_		<del></del>		<u> </u>							<u></u>	L
Extension of Effective Green, Arrival Type, AT			(A)	<del></del>				_				<b>}</b>			<u> </u>	_ <u>}</u>	<b>_</b>			<u> </u>
Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   C				2.0	2.0			_		2.0		2.0	2.	0	<u> </u>	2.0		-		
Unit Extension, UE	Extension of e	TETTECTIVE Gre	een,	2.0	2.0	'				2.0		2.0	2.	0		2.0				
Filtering/Metering, I	Arrival Type	, AT		3	3		····			3		3	3		<b>T</b>	3	<u> </u>			
Initial Unmet Demand, Qb	Unit Extensi	on, UE		3.0	3.0					3.0	*****	3.0	3.	0		3.0				
Ped / Bike / RTOR Volumes	Filtering/Me	tering, I		1.00	0 1.00	00		$\neg$		1.00	o	1.000	1.0	000		1.000	1			
Lane Width				0.0	0.0				-	0.0		0.0	0.	0		0.0	1			
Parking / Grade / Parking	Ped / Bike /	RTOR Volum	es	0	0			٦	0	0	*******	0	7	)	0	220			<del> </del>	
Parking Maneuvers, Nm	Lane Width		01012/11/07	12.0	12.0	)		7	·····	12.0		12.0	12	.0		12.0	1			
Buses Stopping, Ne         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <t< td=""><td>Parking / Gr</td><td>ade / Parking</td><td></td><td>Ν</td><td>0</td><td></td><td>Ν</td><td>7</td><td>N</td><td>0</td><td></td><td>N</td><td>1</td><td>I</td><td>0</td><td>N</td><td></td><td>***********</td><td></td><td><b>†</b></td></t<>	Parking / Gr	ade / Parking		Ν	0		Ν	7	N	0		N	1	I	0	N		***********		<b>†</b>
Buses Stopping, Ne         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <t< td=""><td>Parking Mar</td><td>neuvers, Nm</td><td></td><td><u> </u></td><td>_</td><td></td><td></td><td>1</td><td></td><td><b>—</b></td><td></td><td></td><td>_</td><td></td><td>† -</td><td>1</td><td></td><td></td><td></td><td></td></t<>	Parking Mar	neuvers, Nm		<u> </u>	_			1		<b>—</b>			_		† -	1				
Min. Time for Pedestrians, Gp         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         Phasing         EW Perm         Thru & RT         03         04         NB Only         06         07         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         08         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09         09 <td>Buses Stopp</td> <td>oing, Ne</td> <td></td> <td>0</td> <td>0</td> <td>$\neg \dagger$</td> <td></td> <td>1</td> <td></td> <td>10</td> <td>*********</td> <td>7</td> <td></td> <td>n .</td> <td><b>-</b></td> <td>10</td> <td><b></b></td> <td>···</td> <td></td> <td></td>	Buses Stopp	oing, Ne		0	0	$\neg \dagger$		1		10	*********	7		n .	<b>-</b>	10	<b></b>	···		
Phasing   EW Perm   Thru & RT   03			. Gn			<del>l</del>	***********	1			)	L	+		3.2	1	_		<u> </u>	1
Timing				ı & R			***************************************	᠇	^			NID O	<u> </u>	T		Table 1		******		
Timing   Y = 5	***	<del></del>	<del></del>					۲,		**			***************************************	<del> </del>		<del></del>		····	_	0
Duration of Analysis, T = 0.25   Cycle Length, C = 150.0	Timing	<u> </u>	J								<u></u>		7.1							*
Lane Group Capacity, Control Delay, and LOS Determination   EB	Duration of A	<u> </u>		<u> </u>					1 -		Ľ	<i>–</i> 3		<del></del>						
EB				10-1										Cy	cie Ler	igth, C	= 750	0.0		
LT         TH         RT         LT         TH         RT         LT         TH         RT         LT         TH         RT         LT         TH         RT         LT         TH         RT         LT         TH         RT         LT         TH         RT           Adjusted Flow Rate, v         622         2091         2596         549         531         564         1           Lane Group Capacity, c         312         3350         2292         1524         421         377         1           V/c Ratio, X         1.99         0.62         1.13         0.36         1.26         1.50         1.50           Total Green Ratio, g/C         0.18         0.69         0.47         1.00         0.25         0.25         0.25         0.25           Uniform Delay, d1         61.3         12.9         39.8         0.0         56.5         56.5         56.5         56.5           Progression Factor, PF         1.000         1.000         0.950         1.000         1.000         1.000         1.000         1.000         0.50         0.50         0.50         0.50         0.50         0.50         0.50         0.50         0.50         0.00         0	Lane Group	сарасну, с	ontro	i Dei		a rc	ע פנ	ete	ermir		····				VIC.		1			·
Adjusted Flow Rate, v       622       2091       2596       549       531       564         Lane Group Capacity, c       312       3350       2292       1524       421       377         v/c Ratio, X       1.99       0.62       1.13       0.36       1.26       1.50         Total Green Ratio, g/C       0.18       0.69       0.47       1.00       0.25       0.25         Uniform Delay, d1       61.3       12.9       39.8       0.0       56.5       56.5         Progression Factor, PF       1.000       1.000       1.000       0.950       1.000       1.000         Delay Calibration, k       0.50       0.21       0.50       0.11       0.50       0.50         Initial Queue Delay, d2       458.4       0.4       65.8       0.1       135.5       236.8         Initial Queue Delay, d3       0.0       0.0       0.0       0.0       0.0       0.0       0.0         Control Delay       519.7       13.3       105.6       0.1       191.9       293.2			-	T		1 0	Ŧ		<del>- T</del>		T	D 7	17			ГОТ	+			
Lane Group Capacity, c 312 3350 2292 1524 421 377 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Adjusted Flo	w Rate, v		***************************************	***************************************	<del>  ``</del>	-	<u></u>			┪				111	<del> </del>	1 - 1	-	1173	KI
v/c Ratio, X       1.99       0.62       1.13       0.36       1.26       1.50         Total Green Ratio, g/C       0.18       0.69       0.47       1.00       0.25       0.25         Uniform Delay, d1       61.3       12.9       39.8       0.0       56.5       56.5         Progression Factor, PF       1.000       1.000       1.000       0.950       1.000       1.000         Delay Calibration, k       0.50       0.21       0.50       0.11       0.50       0.50         Incremental Delay, d2       458.4       0.4       65.8       0.1       135.5       236.8         Initial Queue Delay, d3       0.0       0.0       0.0       0.0       0.0       0.0         Control Delay       519.7       13.3       105.6       0.1       191.9       293.2	·····					╁					╀╌						-			
Total Green Ratio, g/C	· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , , ,				1					╫┈			-			+	-		
Uniform Delay, d ₁ 61.3 12.9 39.8 0.0 56.5 56.5 Progression Factor, PF 1.000 1.000 1.000 1.000 0.950 1.000 1.000 1.000 Delay Calibration, k 0.50 0.21 0.50 0.11 0.50 0.50 0.50 Incremental Delay, d ₂ 458.4 0.4 65.8 0.1 135.5 236.8 Initial Queue Delay, d ₃ 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay 519.7 13.3 105.6 0.1 191.9 293.2	·	Ratio o/C				-					╀						+			<b> </b>
Progression Factor, PF       1.000       1.000       1.000       0.950       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       0.50       0.50       0.50       1.000       0.50       0.50       1.000       0.50       0.50       0.50       1.000       0.50       0.50       0.50       0.50       0.50       0.50       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00						-					┿					<b></b>	-			
Delay Calibration, k       0.50       0.21       0.50       0.11       0.50       0.50       0.50         Incremental Delay, d2       458.4       0.4       65.8       0.1       135.5       236.8         Initial Queue Delay, d3       0.0       0.0       0.0       0.0       0.0       0.0         Control Delay       519.7       13.3       105.6       0.1       191.9       293.2		, , , , , , , , , , , , , , , , , , , ,				╂-			<del></del>		╂						+			
Incremental Delay, d ₂						$\vdash$					+		<b> </b>			<u> </u>				<u> </u>
Initial Queue Delay, d ₃ 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	······································		<del> </del>			-					┿					<b>.</b>	<b>_</b>			<b> </b>
Control Delay 519.7 13.3 105.6 0.1 191.9 293.2			<del> </del>		· · · · · · · · · · · · · · · · · · ·	╂-					┿					ļ		-		ļ
		<u> </u>				-		·			<del> </del>			_		<del> </del>	-			<del> </del>
T D T A F						_		·····			┿			7		ļ	-			ļ
	con oroup		+-			<u> </u>		-		<i>t</i>	Ľ	4	-		······································	<u> </u>				<u></u>

Detailed Report Page 2 of 2

Approach Delay	129.4	87.2	244.1	
Approach LOS	F	F	F	
Intersection Delay	128.4	$X_{c} = 1.41$	Intersection LOS	F

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:33 PM

Detailed Report Page 1 of 2

					HC	<u> </u>	DETA											··	
General In									ite In										
Analyst	JAS							-1	nterse					B Ramp	-	<u>)</u> SI	₹ 50		
Agency or (								1	rea T					er area	S				
	med 11/08/200	)6						1	urisdi			He	rna.	ndo					
Time Period	ď								nalys										
								P	rojec	l ID		No	Bu	ild Alte	rnat	ive -	- 2020		
Volume an	d Timing Inpu	ıt	<b></b>																
			<u> </u>		EB	¥-			WB		···			NB	,			SB	<del></del>
			LT		ГН	RT	LT		TH	_	RT	L'	Τ	TH	R	T	LT	TH	RT
Number of				3		1	1		3	4		_			<u> </u>		1		1
Lane Group			ļ			R	L		T	_	····				ļ		L		R
Volume, V (	<u> </u>	************	ļ		345	489	492		2374				,		<u> </u>		497		333
	ehicles, %HV		<u> </u>		- 	6	6		6	_					<u> </u>		6		6
	Factor, PHF		ļ	<u>-</u>	88	0.88	0.95		0.95	$\bot$					<u> </u>		0.89		0.89
	or Actuated	(A)	<b> </b>	4		A	A		A	4				<b></b>	╄		A		<u> </u>
Start-up Los			<b> </b>	2.	.0	2.0	2.0		2.0	4		4-		<b></b>			2.0		2.0
Extension o	of Effective Gre	en.		2.	0	2.0	2.0		2.0								2.0		2.0
Arrival Type					3	3	3		3								3		3
Unit Extens				3.	0	3.0	3.0		3.0								3.0		3.0
Filtering/Me				1.	000	1.000	1.00	0	1.000	)							1.000		1.000
	et Demand, Qb			0.	.0	0.0	0.0		0.0								0.0		0.0
	RTOR Volum	es	0		)	250 12.0	0		0	$\perp$						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0	0	70
Lane Width				12	12.0		12.0		12.0	_					<u> </u>		12.0		12.0
Parking / G	rade / Parking		Ν	- (	)	N	N		0		N						N	0	N
Parking Ma	neuvers, Nm		<u> </u>												$oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}$				
Buses Stop				- (	)	0	0		0								0		0
Min. Time for	or Pedestrians	, Gp	<u> </u>		3.2				3.2								<u> </u>	3.2	
Phasing	EW Perm	EW	Peri	1		3	(	)4			B On			06			07		80
Timing	G = 23.3		81.0		G =		G =				= 30	. 7	G			G =	~~~	G =	
	Y = 5	Y =	5		Υ =		Y =			Υ:	= 5		Y			Υ =		Y =	
	Analysis, $T = 0$							••••					C	cle Ler	ngth	1, C	= 150.0	)	
Lane Grou	p Capacity, C	ontro	ol De			.os L	)etermi	-									<del></del>		
		ļ		EE					NB .					NB	r ==		<b>_</b>	SB	T ==
		+-	_T	TH		RT	LT	+	r <del>H</del>	LR R	T	LT	-	TH	R	. 1	LT	TH	RT
Adjusted Fl				2210		272	518	╀-	199			giantina international solon	4		<u> </u>		558	<b></b>	296
	Capacity, c	_		2637		52 <i>4</i>	313	╄	558	_			4		<u> </u>		349	<u> </u>	312
v/c Ratio, X				0.84		18	1.65	┼	70				_		<u> </u>		1.60	<u> </u>	0.95
	n Ratio, g/C		~~~~	0.54		.00	0.73	┼	73	_			$\perp$				0.20	<u> </u>	0.20
Uniform De				29.0		0.0	53.2	╅—	1.3				$\dashv$				59.6	<b> </b>	58.9
	Factor, PF			1.00	0 0.	950	1.000	1.	000				_				1.000	<u> </u>	1.000
Delay Calib	ration, k			0.37	0.	.11	0.50	0.	27	_					_		0.50		0.46
Incrementa				2.6	_	0.1	308.6	+-	).6	_			$\perp$		_		282.6	<u> </u>	37.4
	e Delay, d ₃			0.0		).0	0.0	0	.0						_		0.0	<u> </u>	0.0
Control Del	ay			31.5	5	0.1	361.8	1	1.9								342.3	<u> </u>	96.3
Lane Group							F	1							1		F		F

Approach Delay	28.1	72.0		257.0
Approach LOS	С	Ε		F
Intersection Delay	79.7	$X_{c} = 3.78$	Intersection LOS	E

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:17 PM

## APPENDIX 'H' DESIGN YEAR (2030) NO-BUILD INTERSECTION LOS

	TV	VO-WAY STOP	CONTROL	SUMMARY			
General Information	n		Site Info	ormation			
Analyst	JAS		Intersecti	on	1-75 NB R	amps/CR	41
Agency/Co.	HW Loc	chner, Inc.	Jurisdicti		Pasco Col	~~~~	
Date Performed	11/03/2	006	Analysis	Year	Design Ye		
Analysis Time Period	DHV_R	evised 9.4K					
Project Description N	lo Build Alterna	ntive - 2030	1				
East/West Street: CR	41/Blanton Ro	ad	North/Sou	uth Street: I-75 N	B Ramp		
Intersection Orientation:	East-West		Study Per	riod (hrs): 0.25			
Vehicle Volumes a	nd Adjustm	nents	**************************************	789-450-100-100-100-100-100-100-100-100-100-1		<del></del>	
Major Street		Eastbound			Westbour	ıd	
Movement	1	2	3	4	5		6
	L	T	R	L	T		R
Volume (veh/h)	436	246			713		114
Peak-Hour Factor, PHF	0.85	0.85	1.00	1.00	0.85		0.85
Hourly Flow Rate, HFR (veh/h)	512	289	0	0	838		134
Percent Heavy Vehicles	10		-	0			
Median Type			L	Individed			
RT Channelized			0				0
Lanes	1	1	0	0	1		0
Configuration	L	Τ					TR
Upstream Signal		0			0		
Minor Street		Northbound			Southbou	nd	
Movement	7	8	9	10	11		12
	L	Т	R	L	Т		R
Volume (veh/h)				546			714
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.91	1.00		0.91
Hourly Flow Rate, HFR (veh/h)	0	0	О	599	0		784
Percent Heavy Vehicles	0	0	0	9	0		6
Percent Grade (%)		0			0		
Flared Approach		Ν			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	1	0		1
Configuration				L			R
Delay, Queue Length, a	and Level of S	Service		**************************************			
Approach	Eastbound	Westbound	Nn	rthbound	T 8	outhbound	
Movement	1	4	7	8 9	10	11	12
Lane Configuration	L		<u> </u>	<u> </u>	L		R
v (veh/h)	512				599		784
C (m) (veh/h)	678						<del></del>
	······································		<b> </b>		11		329
v/c	0.76				54.45		2.38
95% queue length	6.94		<b></b>		76.44		61.64
Control Delay (s/veh)	24.8				24716		656.6
LOS	С				F		F
Approach Delay (s/veh)		M V-				11077	- Control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the cont
Approach LOS	Mr As			······································		F	

Generated: 11/8/2006 11:17 AM

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

file://C:\Documents and Settings\jschirripa\Local Settings\Temp\u2k453.tmp

General Informatio	n		Site In	forma	tion							
	JAS				HUH	1-75 SB Ra	mno/CD	A				
Analyst Agency/Co.	HW Loch	nor Ino	Interse Jurisdio			Pasco Cou		41				
Date Performed	1 1/03/200		Analysi			Design Ye						
Analysis Time Period	DHV		- Priciya	3 1 6 41		Pedigit 10		······································				
	Build Alternati	va - 2030		<b></b>								
East/West Street: CR 4			North/S	outh Str	eet: <i>I-75 SB</i>	Ramp						
ntersection Orientation:					rs): 0.25	Татр						
	***************************************		1-1				O-HH Wiches to Horse control to					
Vehicle Volumes a Major Street	T Aujustine	Eastbound		T		Westbour	ıd					
Movement	1	2	3		4	5	<u> </u>	6				
ALCA CITICITY	Ĺ	T	R		L	Ť		R				
Volume (veh/h)		484	480		510	918						
Peak-Hour Factor, PHF	1.00	0.88	0.88		0.95	0.95		1.00				
lourly Flow Rate, HFR veh/h)	О	550	545		536	966	A. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	0				
Percent Heavy Vehicles	0				3							
Median Type				Undivid	led							
RT Channelized			0					0				
_anes	0	1	0		1	1		0				
Configuration			TR		L	Т						
Jpstream Signal		0				0						
Minor Street		Northbound				Southbou	nd					
Movement	7	8	9		10	11		12				
	L	T	R		L	T		R				
/olume (veh/h)	232		198									
Peak-Hour Factor, PHF	0.89	1.00	0.89		1.00	1.00		1.00				
Hourly Flow Rate, HFR veh/h)	260	0	222		0	0		0				
Percent Heavy Vehicles	10	0	10		0	0		0				
Percent Grade (%)		0				0						
Flared Approach		N				N		······································				
Storage		0				0						
RT Channelized			0					0				
.anes	1	0	1		0	0		0				
Configuration	L		R									
Delay, Queue Length, a	and Level of Se	ervice										
Approach	Eastbound	Westbound	1	lorthbou	nd	S	outhboun	ıd				
Movement	1	4	7	8	9	10	11	12				
ane Configuration		L	L		R							
· (veh/h)		536	260		222							
C (m) (veh/h)		634	3		362							
/c		0.85	86.67		0.61		<u> </u>					
95% queue length		9.32	34.92		3.89		<b>-</b>					
Control Delay (s/veh)		33.9	40933		29.5	-						
			4				<b></b>					
LOS	· · · · · · · · · · · · · · · · · · ·	D	ļ F	0000	<u>,                                    </u>							
Approach Delay (s/veh)				22094	1							
Approach LOS				F		1						

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 11:15 AM

			·	H	CS+°	DET			REPOF							
General Inf									formati							
Analyst	JAS								ction				s @ SR	50		
Agency or C							1		ype			er area:	S			
	med 10/26/200	96							ction		rnar	ido				
Time Period								•	is Year							
							Pro	oject	i ID	No	Bui	ld Alter	native -	2030		
Volume and	d Timing Inpu	ıt	1		····					1	······································	110				
				EB	0.7			WB	I nT	٠,,	-	NB TH	RT	LΤ	SB TH	RT
• • • • • • • • • • • • • • • • • • •			LT	TH	RT	L		<u>ГН</u> 3	RT			I   T	1	L 1	117	KI
Number of L	anes, N1		1	3 T				3 T	1 R				R			
Lane Group			L 774	2584	,			<u>1</u> 242	686	67	つ		1008			<b> </b>
Volume, V (	hicles, %HV		6	6		_		242 6	6	6			6			
Peak-Hour F			0.90	0.90				91	0.91	0.9	 5		0.95			<u> </u>
	or Actuated	(A)	0.90 A	0.90 A		+-	<i>O.</i> 3		A.	A A		<b> </b>	A			<del>                                     </del>
Start-up Los	<del>`</del>	4.4	2.0	2.0	-	+		.0	2.0	2.0		<b> </b>	2.0	<u> </u>	ļ	<b></b> -
	Effective Gre	en.	<del> </del>	_	$\dashv$	+				_		<del> </del>			<b> </b>	<b>1</b>
3		1	2.0	2.0				.0	2.0	2.0	· 		2.0			
Arrival Type			3	3				3	3	3			3			
Unit Extensi			3.0	3.0				.0	3.0	3.0		ļ	3.0	ļ		ļ
Filtering/Mel			1.000		9			000	1.000			ļ	1.000	<u> </u>		ļ
	t Demand, Qb		0.0	0.0				.0	0.0	0.0	)		0.0		<b></b>	<u> </u>
	RTOR Volum	es	0	0		0		0	0	0		0	220	<b>_</b>	ļ	ļ
Lane Width		***************************************	12.0	12.0				2.0	12.0	12.		<u> </u>	12.0		<u> </u>	╄
	ade / Parking		N	0	N	N		0	N	N		0	N	<u> </u>	<b></b>	<b>-</b>
Parking Mar			ļ									ļ	<del> </del>	<u> </u>	ļ	
Buses Stopp			0	0				0	0	C	<del>}</del>	<u> </u>	0	-	<u></u>	1
	r Pedestrians		<u> </u>	3.2				3.2				3.2		<u> </u>	<del></del>	
Phasing	EW Perm	<u> </u>	u & R7	<u>-</u>	03		04		NB O			06		07		)8
Timing	G = 27.5	4	70.4	G =		G =			G = 37	/. 1	G		G =		G = Y =	
	Y = 5	Y =	5	Y =		Y =	:		Y = 5		Y =		Y =	150 (		
	Analysis, T =		10.7								СУ	cie Lei	igth, C =	130.0	<i></i>	
Lane Group	Capacity, C	ontro	oi Deli	ay, and EB	LUSL	etern	ninatio W					NB	**************************************		SB	
		H	LT I	TH	RT	LT	TH	-	RT	LT	<b>—</b> r	TH	RT	LT	TH	RT
Adjusted Flo	w Rate, v		60	2871			356		754	707	$\top$		829			
Lane Group	Capacity, c	3	12	3350			229	2	1524	421	$\dashv$	aguuu uu uu uu uu uu uu uu uu uu uu uu uu	377		<u> </u>	
v/c Ratio, X				0.86			1.55		0.49	1.68	$\dashv$		2.20		1	1
Total Green	Ratio, g/C	0.	18	0.69			0.47		1.00	0.25	$\dashv$		0.25	1		
Uniform Del	ay, d ₁	61	1.3	17.9			39.8	3	0.0	56.5	$\dashv$		56.5	•		
Progression	Factor, PF	1.	000	1.000			1.00	00	0.950	1.000	)		1.000			
Delay Calibr	ation, k	0.	50	0.39			0.50	)	0.11	0.50			0.50			
Incremental	Delay, d ₂	79	9.3	2.4			251.	.7	0.3	315.	9		548.1			
Initial Queue	e Delay, d ₃	0.	.0	0.0			0.0		0.0	0.0			0.0			
Control Dela	ly	86	60.6	20.4			291	.5	0.3	372.	4		604.6			
Lane Group	LOS	1		С			F		А	F			F			
					<del></del>	1				1				1		

Approach Delay	214.0	240.7	497.7	
Approach LOS	F	F	F	
Intersection Delay	271.5	$X_{c} = 1.98$	Intersection LOS	F

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:23 PM

Detailed Report Page 1 of 2

					HCS-	-" <u>[</u>	DETA												
General Inf				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					ite In										
Analyst	JAS							1	terse					B Ramp		D SI	₹ 50		
Agency or C		_						1	rea T	• •				er area	S				
	med 4/19/200	5						1	ırisdi			He	rna.	ndo					
Time Period								1	nalys				_						
								P	roject	ID		No	Bu	ild Alter	nal	ive ·	- 2030		
Volume and	d Timing Inpu	ıt	T				<del></del>												
			<u> </u>	E					WB	<del></del>		<del> </del>		NB	r ==			SB	T
			LT	TH	<del></del>	T	LT	_	TH	$\bot$	RT	T.	<u> </u>	TH	R		LT	TH	RT
Number of L	.anes, N1		ļ	3	1		1	_	3	4		-			<u> </u>		1		1
Lane Group			ļ	T	F		L.	4	T	_		<b>_</b>			<b> </b>		L		R
Volume, V (			ļ	266		33	627	_ :	3287	4					<u> </u>		689	<del></del>	461
	hicles, %HV		ļ	6	6		6	_	6	4		_		ļ	<b> </b>		6		6
Peak-Hour F			ļ	0.88	0.8		0.95	(	0.95	+		╂		<u> </u>	<u> </u>		0.89		0.89
	or Actuated	(A)	<u> </u>	$\frac{A}{20}$	$\frac{A}{2}$		A 2.0	4	<u>A</u>	+		-		<b> </b>	-		A	***************************************	A 2.0
Start-up Los	t Time, h  Effective Gre		<b> </b>	2.0	2.	U	2.0	$\dashv$	2.0	$\dashv$					$\vdash$		2.0		2.0
Extension of e	Ellective Gre	en,		2.0	2.	0	2.0		2.0								2.0		2.0
Arrival Type				3	3		3		3	Ι							3		3
Unit Extensi	on, UE			3.0	3.	0	3.0		3.0						L		3.0		3.0
Filtering/Met	ering, I			1.00	0 1.0	000	1.000	) :	1.000								1.000		1.000
	t Demand, Qь			0.0	0.		0.0		0.0						<u> </u>		0.0		0.0
	RTOR Volum	es	0	0			0		0	$\perp$					<u> </u>		0	0	70
Lane Width			<u> </u>	12.0	12	************	12.0		12.0	1				<u> </u>	<u> </u>		12.0		12.0
Parking / Gr	ade / Parking		Ν	0	^	<u> </u>	N		0		Ν				<u> </u>		N	0	N
Parking Mar	neuvers, Nm		<u> </u>													ayaanna siste			
Buses Stopp				0	0		0		0						L		0		0
Min. Time fo	r Pedestrians	, Gp		3.2					3.2									3.2	
Phasing	EW Perm	1	Pern		03			4			B On			06			07		80
Timing	G = 23.3	1	81.0				G =		L		= 30	.7	G			G=		G =	
-	Y = 5	Y =	5	Υ:	=		Y =			Y =	= 5		Y			Y =		Y =	
	Analysis, T =													/cle Ler	ngth	1, C	= 150.0	)	
Lane Group	Capacity, C	ontro	ol Del		d LOS	De	etermi				<del></del>						· · · · · · · · · · · · · · · · · · ·		
		-	<u> </u>	EB	1 5=	_	1		VB					NB	r	<u> </u>	<del>                                     </del>	SB	T 67
	F3 - 1		_T	TH	RT		LT	<b></b>	H	R	-	LT	-	TH	R	. 1	LT	TH	RT
Adjusted Flo				3033	492		660	<b> </b> -	60				_				774	<u> </u>	439
Lane Group	Capacity, c			2637	1524		313	35	58	,			4		<u> </u>		349		312
v/c Ratio, X				1.15	0.32	2	2.11	0.5	7				_		<b></b>		2.22	<u> </u>	1.41
Total Green	Ratio, g/C		(	0.54	1.00	0	).73	0.7	73								0.20		0.20
Uniform Del	ay, d ₁			34.5	0.0	5	55.1	18.	.9								59.6		59.6
Progression	Factor, PF			1.000	0.950	) 1	.000	1.0	000								1.000		1.000
Delay Calibr	ation, k			0.50	0.11	С	).50	0.4	18		İ						0.50		0.50
Incremental	Delay, d ₂			72.5	0.1	5	09.6	9	.6				$\dashv$				557.2		201.3
Inilial Queue	e Delay, d ₃			0.0	0.0		0.0	0.	0								0.0		0.0
Control Delay 107.0		107 N	0.1	E	564.7	28	3.6								616.9		261.0		
Control Dela	ıy	- 1	•	101.0	1 0.	- 1~				1	ı		•		l		i	.1	. 1

Approach Delay	92.0	114.5		488.1
Approach LOS	F	F		F
Intersection Delay	156.7	$X_c = 5.75$	Intersection LOS	F

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:24 PM

## APPENDIX 'I' OPENING YEAR (2010) NO BUILD FREEWAY SEGMENT AND RAMP LOS

BASIC FREEWAY WORK	SHEET					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Fice-Flow Speed   FFS = 75 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh   70 minh	B. C.	150 (600 (750) L	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N, v _p FFS, LOS, v _p FFS, LOS, N FFS, N, AAD FFS, LOS, A, FFS, LOS, N	v _p . S, D T LOS, S, D ADT N, S, D
General Information	The New Desires	<i>1</i>	Site Inform	aation		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I 10/26/06 DHV SE - 2010 NB Sc		Highway/Dire From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northbo South of CR Pasco Court 2010	41
Project Description I-75 PD&	SE - 2010 IND 30	······································	75 - 4 <u>Lanes)</u> Des.(N)		Plannir	na Data
Flow Inputs  Volume, V  AADT  Peak-Hr Prop. of AADT, K  Peak-Hr Direction Prop, D  DDHV = AADT x K x D	3370	veh/h veh/day veh/h	Peak-Hour Fa %Trucks and %RVs, P _R General Terra Grade %	Buses, P _T	0.94 14 1 Level mi	
Driver type adjustment Calculate Flow Adjustn f _p	0.95		E _R	Up/Down %	1.2 0.933	
E _T	1.5			d Adj and FF		
Speed Inputs Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 2	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _D f _N FFS	a Auj anu i i	0.0 0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	***************************************		Design (N	)		enementa de militare en emission de la laborativa de monde emission en emission de la laborativa de la laborat
Operational (LOS)  v _p = (V or DDHV) / (PHF x N : f _p )  S D = v _p / S LOS		pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $V_p = (V \text{ or D} D)$ $f_p$ S $D = V_p / S$ Required No	DHV) / (PHF x N umber of Lanes, I		pc/h mi/h pc/mi/ln
Glossary  N - Number of lanes  V - Hourly volume  v _p - Flow rate  LOS - Level of service	S - Speed D - Density FFS - Free-flo BFFS - Base t	w speed ree-flow speed	<b>!</b> '`	s23-8, 23-10 s 23-8, 23-10, 23	-11 f	_{LW} - Exhibit 23-4 _{LC} - Exhibit 23-5 _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:26 PM

BASIC FREEWAY WORK	72UEE1					Pa	ge i of z
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET			
So	B C C	1600 2000	2404	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N, v _f FFS, LOS, FFS, LOS, FFS, N, A FFS, LOS, FFS, LOS	, v _p , N A DT , AADT	Output LOS, S, D N, S, D V _P , S, D LOS, S, D N, S, D V _P , S, D
General Information	rant ace thousan	· · · · · · · · · · · · · · · · · · ·	Site Inform	nation		***************************************	·····
Analyst	CRH			ection of Travel	I-75 North	hound	
Agency or Company	HW Lochner, I	Inc	From/To	CHOILOI TIEVEL	CR 41 to 3		
Date Performed	10/26/06		Jurisdiction		Hernando		
Analysis Time Period	DHV		Analysis Yea	г	2010	,	
Project Description I-75 PD	&E Study - 2010	NB CR 41 to SF	R 50 (I-75 = 4 L	anes)			
ア Oper.(LOS)		ि	Des.(N)		□ Plan	ning Data	
Flow Inputs	***************************************					<del>~~~</del>	***************************************
Volume, V	3090	veh/h	Peak-Hour F	actor, PHF	0.93		
AADT		veh/day	%Trucks and	Buses, P _T	14		
Peak-Hr Prop. of AADT, K			%RVs, P _R		2		
Peak-Hr Direction Prop, D			General Terr		Level		
DDHV = AADT x K x D	0.05	veh/h	Grade %	Length	mi		
Oriver type adjustment	0.95			Up/Down %	<u> </u>	***************************************	
Calculate Flow Adjustr	0.95				1.2	***************************************	
f _p			E _R				
E _T	1.5	***************************************		$(T - 1) + P_R(E_R - 1)$	0.931		
Speed Inputs			Calc Spee	d Adj and FF	<u>S</u>		
Lane Width	12.0	ft	$f_{LW}$		0.0		mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0		mi/h
Interchange Density	0.50	l/mi	1		0.0		mi/h
Number of Lanes, N	2		f _{ID}				
FFS (measured)		mi/h	fN		0.0		mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0		mi/h
LOS and Performance			Design (N	1	***************************************	***************************************	
			Design (N)		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		
Operational (LOS)			Design LOS				
$V_p = (V \text{ or DDHV}) / (PHF x N :$	x f _{HV} x 1878	pc/h/ln	_	OHV) / (PHF x N	v f v		
$f_{p}$ )	1010	родин	L",	5/1V / / (1 1 1 1 X 14	" 'HV "		pc/h
S	69.7	mi/h	P)				milh
D = v _p / S	26.9	pc/mi/ln	S				mi/h
LOS	D	•	$D = v_p / S$				pc/mi/In
			Required Nu	ımber of Lanes, I	4	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	www.eve.b
Glossary			Factor Lo	cation			
N - Number of lanes	S - Speed		E _B - Exhibits	:23_8_23_10		f Evi	nibit 23-4
V - Hourly volume	D - Density		1 ''		.11	f _{tC} - Exh	
v _p - Flow rate	FFS - Free-flov	v speed	1 '	: 23-8, 23-10, 23-	11		
LOS - Level of service	BFFS - Base fr	ee-flow speed	f _p - Page 23	-12		f _N - Exhi	UIL 23-10
* *			I				

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 $f_{\text{ID}}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/B/2006 4:27 PM

BASIC FREEWAT WORL	NSHEET				Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WORKS	HEET	
Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free	B C C	1500 2000	Design Design Plannin Plannin	onal (LOS) FFS, N, (N) FFS, LO: (v _p ) FFS, LO: g (LOS) FFS, N, g (N) FFS, LO:	S. V _p N, S, D S, N V _p , S, D 4A DT LOS, S, D S, AADT N, S, D
General Information			Site Information		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I 10/26/06 DHV	-	Highway/Direction of From/To Jurisdiction Analysis Year	North of	
Project Description I-75 PD  Goper.(LOS)	&E - 2010 NB No	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	/5 = 4 Lanes) Des.(N)	☐ Plai	ning Data
Flow Inputs		i i	Jes.(14)	; Fial	ming Data
Volume, V AADT Peak-Hr Prop. of AADT, K	2900	veh/h veh/day	Peak-Hour Factor, Ph %Trucks and Buses, %RVs, P _R		
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustn	0.95	veh/h	General Terrain: Grade % Leng Up/Dow		
f _p	0.95	- Warriet trade-animal-Universitate animal-Universitate R</sub>	1.2		
°p E _⊤	1.5		$f_{HV} = 1/(1+P_T(E_T - 1) + P_R$		
Speed Inputs			Calc Speed Adj	. 10	
Lane Width Rt-Shoulder Lat. Clearance	12.0 6.0	ft ft	f _{tw}	0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}	0.0	mi/h
Number of Lanes, N	2		\fip	0.0	mi/h
FFS (measured)		mi/h	f _N	0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
LOS and Performance	Measures		Design (N)		
Operational (LOS) v _p = (V or DDHV) / (PHF x N : f _p )	x f _{HV} x 1744	pc/h/in	Design (N) Design LOS v _p = (V or DDHV) / (F	PHF x N x f _{HV} x	pc/h
S D=v _p /S LOS	71.9 24.3 C	mi/h pc/mi/ln	f _p ) S D = v _p / S Required Number of	Lanes, N	mi/h pc/mi/ln
Glossary			Factor Location		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr		$E_R$ - Exhibits23-8, 23 $E_T$ - Exhibits 23-8, 23 $f_p$ - Page 23-12		f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 $f_{\rm ID}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:28 PM

F						
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs   Figs	B/ C	(500) (500) (750)		Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Input FFS, N, V _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	v _p
<b>0</b> 400 808		1000 2000	2400			
Canarallafarmatian	Flour Rate (pc/li/lin		10:4- 1-5-			
General Information	COL		Site Inform		I-75 South	harrad
Analyst Agency or Company	CRH HW Lochner, I	lnc.	From/To	ction of Travel	North of SI	
Date Performed	10/26/06	IIIG.	Jurisdiction		Hernando	
Analysis Time Period	DHV		Analysis Yea	r	2010	County
,	&E - 2010 SB No	orth of SR 50 (I-7				
ア Oper.(LOS)			Des.(N)		□ Plann	ing Data
Flow Inputs	**************************************					
Volume, V	2240	veh/h	Peak-Hour Fa	actor, PHF	0.93	
AADT		veh/day	%Trucks and	Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		2	
Peak-Hr Direction Prop, D			General Terr		Level	
DDHV = AADT x K x D	0.05	veh/h	Grade %	Length	mi	
Driver type adjustment  Calculate Flow Adjustr	0.95			Up/Down %		A
	0.95		E _R		1.2	
f _p						
E _T	1.5			1-1) + P _R (E _R -1))	0.931	
Speed Inputs	· · · · · · · · · · · · · · · · · · ·	**************************************	Calc Spee	d Adj and FF	<u>S</u>	·
Lane Width	12.0	ft	$f_{LW}$		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	$f_{LC}$		0.0	mi/h
Interchange Density	0.50	l/mi	1.		0.0	mi/h
Number of Lanes, N	2		f _{ID}			
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N	)		
44.00			Design (N)			
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x 1361	pc/h/ln	1	) / (PHF x N	≺ f _{cs.} , x	
$f_p$ )		<b>(** -</b> * · · · · · · · · · · · · · · · · · · ·	1 -	, \	ΠV	pc/h
S	74.8	mi/h	f _p ) S			mi/h
$D = v_p / S$	18.2	pc/mi/ln	l.			pc/mi/ln
LOS	С		$D = v_p / S$	unhar aflamas A		ролити
Classic				ımber of Lanes, N	·	
Glossary			Factor Lo	cation		
N - Number of lanes	S - Speed		E _R - Exhibits	23-8, 23-10		f _{LW} - Exhibit 23-4
V - Hourly volume	D - Density		1 ''	; 23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	•	f _o - Page 23			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	Th			N

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:29 PM

BASIC FREEWAY WORK					Page I of.
	BASIC FREEW	AY SEGMENTS V	WORKSHEET		
\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	E. C. O. O. O. O. O. O. O. O. O. O. O. O. O.	2000 2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Input FFS, N, Vp FFS, LOS, Vp FFS, LOS, M FFS, N, AA DT FFS, LOS, AADT FFS, LOS, M	Output  LOS, S, E  N, S, D  v _p , S, D  LOS, S, E  N, S, D  v _p , S, D
General Information	Filow Rate (pcfh/lin)	Site Info	mation		
Analyst	CRH		rection of Travel	I-75 Southbour	nd
Agency or Company Date Performed Analysis Time Period	HW Lochner, Inc. 10/26/06 DHV	From/To Jurisdiction Analysis Ye	ear	CR 41 to SR 50 Hernando Cou 2010	)
<u></u>	&E Study - 2010 SB CR	~~	Lanes)	☐ Planning t	Data
□ Oper.(LOS)		☐ Des.(N)		i rantaty	vala
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K	2390 veh/r veh/c	day %Trucks ar %RVs, P _R	Factor, PHF nd Buses, P _T	0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustn	veh/r 0.95	General Te n Grade %		Level mi	
	0.95	E _R		1.2	
ք _ը E _T	1.5		_r (E _T - 1) + P _R (E _R - 1)]	0.933	
Speed Inputs		1	ed Adj and FF	S	
_ane Width	12.0 ft				milh
Rt-Shoulder Lat. Clearance	6.0 ft	f _{LW}		0.0	mi/h
Interchange Density	0.50 I/n	ni f _{LC}		0.0	mi/h
Number of Lanes, N	2	f _{ID}		0.0	mi/h
FFS (measured)	mi	/h f _N		0.0	mi/h
Base free-flow Speed, BFFS	<i>75.0</i> mi	lcce		75.0	mi/h
LOS and Performance		Design (	N)		
Operational (LOS)		Design (N) Design LO			
v _p = (V or DDHV) / (PHF x N : ⁽ _p )	1435 pc	f_)	DDHV) / (PHF x N	x f _{HV} x	pc/h
S		"" s			mi/h
D ≈ v _p / S _OS	19.3 pc C	c/mi/ln $D = v_p / S$ Required t	Number of Lanes, I	N	pc/mi/ln
Glossary		Factor L			
N - Number of lanes	S - Speed			f	. Evhihit aa 7
V - Hourly volume v _p - Flow rate LOS - Level of service	D - Density FFS - Free-flow speed BFFS - Base free-flow	E _T - Exhib	oits23-8, 23-10 oits 23-8, 23-10, 23 23-12	-11 f _{LC}	- Exhibit 23-4 - Exhibit 23-5 Exhibit 23-6
	2 2000 HOC HOV				

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/8/2006 4:30 PM

BASIC FREEWAY WOR	KSHEET					Page 1 of 2
	BASIC FI	REEWAY SE	GMENTS W	ORKSHEET		
= 80   51   51   51   51   51   51   51   5	7 7	1				
F100-F10x Sp1cd FTS = 75 reich 70 reich	-/			Application	input	Output
E 65 mids	<u> </u>	150		Operational (LOS)	FFS, N, v _p	LOS, S, D
S till 60 milh 55 milh		1750 1750		Design (N)	FFS, LOS, v FFS, LOS, N	
Los à les	_B/	0.2		Design (v _p ) Planning (LOS)	FFS, N, AA [	
98 SE		-1  -		Planning (N)	FFS, LOS, A	· ·
Proc.Flox Speed   FFS = 75 minh   70 minh   65 minh   65 minh   65 minh   65 minh   65 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh	Kinin 38 British	Missign -		Planning (v _p )	FFS, LOS, M	
30 + 32 52 0 400 800		1000 2000	J 2400			
	Flow Rate (poth/lin)	)	To: L.S.			
General Information			Site Inform	<del></del>	1700-446	***************************************
Analyst	CRH			ection of Travel	I-75 Southb South of CF	
Agency or Company  Date Performed	HW Lochner, I.	ПС.	From/To Jurisdiction		Pasco Cour	
Analysis Time Period	10/26/06 DHV		Analysis Yea	ır	2010	лу
	0&E - 2030 SB So	uth of CR 41 (I-			2010	
		<del></del>	Des.(N)		☐ Planni	ng Data
Flow Inputs	***************************************	<del></del>				
Volume, V	2610	veh/h	Peak-Hour F		0.94	
AADT		veh/day	%Trucks and	l Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		1	
Peak-Hr Direction Prop, D			General Terr		Level	
DDHV = AADT x K x D	0.95	veh/h	Grade %	Length Up/Down %	mi	
Oriver type adjustment Calculate Flow Adjusti				Op/Down 76		
f _p	0.95		E _R		1.2	***************************************
E _T	1.5			$E_T - 1) + P_R(E_R - 1)$	0.933	
Speed Inputs		<del></del>		ed Adj and FF	S	
Lane Width	12.0	fŧ	r		0.0	mi/ħ
Rt-Shoulder Lat. Clearance	6.0	ft	TLW			
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	2	, 1 11	$f_{ID}$		0.0	mi/h
FFS (measured)	<b>6</b>	mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance		[ ] [ ] [ ]	Docian /N	IV.	······	······································
LOS and Feriormance	Measures		Design (N Design (N)			
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	xf _{HV} x	es es lles Non	_		v f v	
$f_p$ )	1567	pc/h/ln	1.".	DHV) / (PHF x N :	x IHV X	pc/h
S	73.8	mi/h	(p)			•~
D = v _o / S	21.2	pc/mi/ln	S			mi/h
LOS	C	1. m	$D = v_p / S$			pc/mi/ln
				umber of Lanes, N	٧	
Glossary			Factor Lo	cation		
N - Number of lanes	S - Speed		EFvhihite	s23-8, 23-10	f	LW - Exhibit 23-4
V - Hourly volume	D - Density		1 '`	s23-8, 23-10 s 23-8, 23-10, 23-		LC - Exhibit 23-5
v _p - Flow rate	FFS - Free-flow	v speed	•	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s		LC - Exhibit 23-5
LOS - Level of service	BFFS - Base fr	ee-flow speed	f _p - Page 23	1- IZ	Į.	N - EVIIIDIE 52-0

LOS, S, FFS,  $v_p$  - Exhibits 23-2, 23-3  $f_{1D}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:30 PM

	· -	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	SAND	KAMF		TIONS			<u> TEE l</u>		
General I	nformati					Site Inf					***************************************
Analyst Agency or Co Date Performe Analysis Time	ed	CRH HW Loch 7/28/2005 DHV			Jul Tul	eway/Dir conction isdiction alysis Year		el		thbound Stanton Road Off County	-Ramp
		D&E Study -	2010 NB C	)ff Ramo					2010		
nputs	phot 1101	Dar Gray	2010140 0	717 T TUITED	at OIX 41	(1-10 - 4 6)	11100/				
	Dome	Terrain: Lev	e							Downstre	am Adi
Jpstream Adj I [—] Yes	ramp □ On									Ramp	·
	□ Off									į.	F On □ Off
±up ==	ft				· · · · · · · · · · · · · · · · · · ·					L _{down} =	
	t. D.		$S_{FF} = 70.$	0 mph		S	FR =	35.0 m _l	oh	V _D =	180 veh/h
/ _u =	veh/h			Sketch (s	show lane	s, L _A , L _D ,V	$_{R},V_{f})$			, D	190 AC11/1
Conversi	on to pc	/h Under	Base (	Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	í	н∨	f _p	v = V/PH f _{HV} x f _p	Fx
Freeway	3370	0.94	Leve	el	14	1	0.9	933	0.95	4046	
Ramp	460	0.91	Leve	el	10	1	0.9	951	0.95	560	***************************************
JpStream											-
DownStream	180	0.91	Leve	el	10	1	0.9	951	0.95	219	·····
		Merge Areas	6				- ×		Diverge A	reas	****
Estimatio	on of v ₁₂					Estima	ition	of v	2		
	ation 25-2	$I_{12} = V_F (P_{FM})$ or 25-3) (Exhibit 25-5				P _{FD} = 1.0	00 u	on 25- ising E	8 ог 25-9	(V _F - V _R )P _{FD} I) Exhibit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 404					
Capacity	Checks			_		Capac	ity C	:heck	S		
w.,	Actu	al Ma	ximum	LO	SF?			Actu		Maximum	LOS F?
$V_{FO}$						V _{FI} =	V _F	4045		4800	No
FO						V ₁₂		4046	)	4400:All	No
V _{R12}	Anglithman parameters of the second					V _{FO} = '	- 1	3486		4800	No
7312						V _R		560		2000	No
_evel of	Service I	Determin	ation (	if not	<i>F</i> )	Level			<del></del>	mination (	
$D_{R} = 5.47$	5 + 0.0073	$4 v_R + 0.00$	078 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.252	800.0 + 2	16 V ₁₂ - 0.000	9 L _D
) ^E = (t	oc/mi/ln)					D _R =	37.2	(pc/mi/	ln)		
.os = (1	Exhibit 25-	4)				LOS =	E (E:	xhibit 2	5-4)		
Speed Es	stimation	7	······································			Speed	Est	imati	on		
National Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Commence of the Comme	(ibit 25-19)		Hillowide and the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the second account of the seco	massonnen en ari in werinin.	***************************************	D _s =	***************************************		oit 25-19	)	
C	·					-s S _R =		,	xhibit 25-		
"	) (Exhibit 2					S ₀ =		•	:hibit 25-		
<u>~</u> = mn1	ı (Exhibit 2	D-19)				-0	14/14/11	uhu fmy		,	
u	r (Exhibit 2	5-141				S =	55 5	mnh /⊏	xhibit 25-	.151	

		RAMP	SAND	RAMF	NUL 9	CTIONS	W	ORKSI	HEET			
General	Informati			***************************************		Site In						<del>*************************************</del>
Analyst Agency or C Date Perforn Analysis Tim Project Desc	ned	CRH HW Loch 7/28/200 DHV D&E Study -	5	On Ramn	ut ut 1A	eeway/Dir onction risdiction ralysis Year	of Trav		CR 41	orthbound /Blanton Rd County	On-Ra	amp
Inputs		Due ottog	201011111	or ruinp		()-/3 - 4 La	ines)	· ••••••••••••••••••••••••••••••••••••	<del></del>		·····	······································
		Terrain: Lev	rel	<del></del>		· · · · · · · · · · · · · · · · · · ·						
Upstream Ac	lj Ramp									Down	stream	ı Adj Ramp
ア Yes	□ On									L A		□ On
Γ No	✓ Off									l⊵ N	0 =	□ Off ft
L _{up} =	620 ft									Ldown		fl,
	460 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 mp	V _D =		veh/h	
Convers	ion to pc	/h Under									· · · · · · · · · · · · · · · · · · ·	
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		Į ^{HΛ}	f _p	(HV X	PHF x	
Freeway	2910	0.94	Leve	el	14	1	0.	933	0.95		493	
Ramp	180	0.91	Leve		10	1		951	0,95		219	
UpStream DownStream	460	0.91	Leve	el	10	1	0.	951	0.95		60	
DOWNSHEAM	<u> </u>	Merge Area	<u> </u>						Diverge /	<u></u>		···
Estimati	on of v ₁₂					Estima	tior			***************************************		
		~V (D	1					<u> </u>		/// \/ \/		
- /Eau		₁₂ = V _F (P _{FM}	1			- (5				$(V_F - V_R)P_F$	D	
	ation 25-2 or 2		C C\			$L_{EQ} = (Ec$						
$V_{12} = 3493$	using Equation	n (⊏xnidit∠	0-0)			P _{FD} = us		quanon (t	EXMON 20	)-11)		
	·····			<del></del>	······································	$V_{12} = pc/$		31 1.	-			
Japacity	' Checks					Capaci	TY C					
***************************************	Actua	I Mai	dmum	LOS	5 F?	<u> </u>		Actua	1 -	Maximum		LOS F?
$V_{FO}$	3712	See Ex	hibit 25-7	No	ο	V _{F1} = V	F.					
*******					***************************************	$V_{FO} = V_F$						
V _{R12}	3712	46	00:All	No	'n	V _B						
. K12		1	00.7 til	144	J	V _R			_		-+	
aval of	Service L	)otormin	otion (i	f nat l	<del>-</del> 1	<u> </u>	£ C		Data			
·····	5.475 + 0.0073			~~~~~	7	Lever	***************************************	~~~~~~		rminatio		notr)
**		7 V R ™ U.UU.	10 v ₁₂ + 0.0	10021 L _A				* `	∡ + U.UU≀	36 V ₁₂ - 0.00	חם רD	
**	31.2 (pc/mi/ln)	ı				<b>l</b> '`	(pc/m	•				
	) (Exhibit 25-4	·	***************************************			<u> </u>	·	oit 25-4)				
····	stimation		***************************************		····	Speed	**********	ANIMACINA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA COMPANIA CO				· · · · · · · · · · · · · · · · · · ·
$M_{\rm S} = 0.4$	46 (Exibit 25-1	9)				1	(Exhil	bit 25-19)				
S _R = 57.	5 mph (Exhibit	25-19)				S _R =	mph (	Exhibit 2	5-19)			
~	mph (Exhibit	25-19)				S ₀ =	mph (	(Exhibit 2	5-19)			
	5 mph (Exhibit	. 25-14)				s =	mph (	Exhibit 2	5-15)			
t © 2005 Univ	ersity of Florida	, All Rights Re	served			HÇS	+TM	Version 5	2	Ge	nerale	d: 11/8/2006

General	Informati		'S AND			Site Inf			<del> `</del>		
	inomat		······································				***************************************		1700 ፡ ፡	shoue d	
Analyst Agency or Co	mnanv	CRH HW Loc	nner, Inc.			eeway/Dir c nction	я ггаче	TI .	1-75 Sout	nbouna anton Rd Off-F	omn.
Agency or co Date Perform		7/28/20(				risdiction			Pasco Co		Kattib
Analysis Time			/3			ialysis Year			2010	meny	
Project Descr			2010 SB (	Off Rame					2010		
nputs	ibiloit 1-101.	DAL SIGGY	. 2010 35 (	лі Канр	at UN 41	(1-73 - 4 La	mes)	·····	······································		·····
Jpstream Adj	Ramp	Terrain: Le	vel	······································	<del>· ·</del>					Downstre	eam Adj
□ Yes	Г On									Ramp	₹ On
₹ No	ি Off									□ No	
- _{up} =	ft									L _{down} =	
			$S_{FF} = 70$	.0 mph		S	FR =	35.0 mph		_	500 1 11
V _u =	veh/h			Sketch (	show lane	s, L _A , L _D ,V	$\{V_i\}$			V _D =	360 veh/t
Conversi	on to pc	/h Unde									
	V		T				_		·	v ≈ V/PH	IF x
(pc/h)	(Veh/hr)	PHF	Terr	rain	%Truck	%Rv	f _t .	ł۷	f _p	$f_{HV} \times f_p$	
Freeway	2390	0.94	Levi	el	14	1	0.93	33	0.95	2869	
Ramp	140	0.89	Lev	***************************************	10	1	0.95		0.95	174	
UpStream			<b>†</b>		<u> </u>		_,				······································
DownStream	360	0.89	Lev	el	10	1	0.95	51	0.95	448	
,	***************************************	Merge Area			<u> </u>				iverge Are	as	
Estimatio	on of V ₁₂					Estima	tion	of V ₁₂			
·····		12 = V _E ( P _{EA}	1		***************************************		·····			′ _F - V _R )P _{FD}	
- 15		,,	j							F " "R ^{JF} FD	
_{-EQ} = (Equ			<b></b>			L _{EQ} = (E					
o _{FM} = using	Equation	(Exhibit 25-	5)			1			iation (Ex	hibit 25-11)	
₁₂ = pc/h		·				$V_{12} = 286$					
Capacity	Checks	***************************************				Capaci	ty CI	hecks			
	Actua	al Ma	aximum	FO	SF?			Actual	N	laximum	LOS F?
						V _{F1} = \	F	2869		4800	No
V _{FO}			···		*******************	V ₁₂		2869		1400:All	No
V _{R12}		- Communes Cream (7.78)				V _{FO} = \ V _R	/ _F -	2695		4800	No
1712						$V_{R}$		174		2000	No
Level of S	Service L	)etermir	nation (i	if not	F)	Level o	of Se	rvice	Determ	ination (i	if not F)
$D_{R} = 5.475$	5 + 0.00734	1 v _R + 0.0	078 V ₁₂ -	0.0062	27 L _a		Dp =	4.252 +	0.0086	V ₁₂ - 0.000	9 L _D
	c/mi/ln)	, ,	1.2		,,	D _R =	• • •	c/mi/ln)		••	-
	Exhibit 25-4	.)				[ "					
-		,			······································	<u> </u>		nibit 25-			
Speed Es		·				Speed			***************************************		
$M_{\rm S} = (Ex$	ibit 25-19)					D _s =	0.444 (	Exhibit	25-19)		
	(Exhibit 25	5-19)				S _R =	57.6 m	ph (Exh	ibit 25-19	9)	
S _R = mph	•										
	(Exhibit 25	5-19)				S ₀ =	N/A mp	h (Exhi	bit 25-19	)	

		RAMP	S AND	RAME	JUN(	CTIONS	WOI	RKSH	IEET		
General	Informatio	on	· · · · · · · · · · · · · · · · · · ·			Site Inf	forma	tion			
Analyst Agency or Co Date Perform Analysis Tìme	ed Period	CRH HW Loch 7/28/2005 DHV	)		Jui Jui An	eeway/Dir c nction risdiction alysis Year			I-75 Sout CR 41/BI Pasco Co 2010	anton Rd On-R	lamp
	iption I-75 PI	)&E Study -	2010 SB C	n Ramp	at CR 41	(1-75 = 4 La)	anes)				
inputs	ŀ		-1	·····	······································			<del>,,</del>			
Upstream Adj		errain: Levi	31								m Adj Ramp
√ Yes	□ On									I Yes	□ On □ Off
□ No	F Off									L _{down} =	
r ^{nb} =	700 ft		S _{FF} = 70.	() mnh	······································		S _{ER} = 3	5 0 mpt		V _D =	veh/h
	140 veh/h			Sketch (		s, L _A , L _D ,V	* 15	v.v.,		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	VCIDIE
Convers	ion to pc/i	h Under	Base (	Condi	tions		·				***************************************
(pc/h)	V (Veh/hr)	PHF	Теп	ain	%Truck	%Rv	f _H	v	fp	v = V/PHF f _{HV} x f _p	X
Freeway	2250	0.94	Lev	el	14	1	0.93		0.95	2701	
Ramp	360	0.89	Levi		10	1	0.95		0.95	448	THEA
UpStream	140	0.89	Lev	el	10	1	0.95	าโ	0.95	174	
DownStream		Merge Areas	<u></u>		<u> </u>		<u> </u>		Diverge Are	<u>L</u>	
Estimatio		werge / weat	,			Estima	ition				
L _{EO} = (Equa	V _{ti} ation 25-2 or 25					L _{EQ} = (E(	quation	V ₁ 25-8 or	₂ = V _R + (V 25-9)	/ _F - V _R )P _{FD}	
	using Equation	) (EXNOR 2	0-0)			i '-		ialion (E	xhìbit 25-1	1)	
V ₁₂ = 2701						V ₁₂ = pc					
Capacity	Unecks					Capac	ity Ci				10050
	Actual	Max	cimum	LO	SF?			Actua	1	viaximum	LOS F?
$V_{FO}$	3149	See Ex	hibit 25-7	N	lo	V _{F1} = \	V _F				
V _{R12}	3149	460	DO:AII	N	lo	$V_{FO} = V_{F}$ $V_{R}$					
Level of	Service D	etermin	ation (i	if not	F)	Level	of Se	rvice	Detern	nination (	if not F)
D _R = 5	5.475 + 0.0073	4 v _R + 0.007	78 V ₁₂ - 0.0	00627 L _A	<del></del>	1	D _F	= 4.25	2 + 0.0086	V ₁₂ - 0.0009 L	·D
D _R = 2	4.8 (pc/mi/ln)		,,,			D _R =	(pc/mi/l	n)			
	(Exhibit 25-4)					LOS =	(Exhibit	(25-4)			
Speed Es	stimation					Speed	Esti	matic	n		
	56 (Exibit 25-1	۵۱				D _s =		(25-19)			
_	00 (Exhibit 0 mph (Exhibit	•				S _R =		xhibit 2			
i .	, mph (Exhibit :	•				S ₀ =		xhibit 2			
	0 mph (Exhibit	•				S =		xhibit 2			
L					······		T. 4				4 - 4 - 4 4 10 10 0 10 C

~ · · · · · · · ·			2 AND	KAMP		CTIONS				wanner in the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the se	
General I	ntormati	······				Site Inf					· · · · · · · · · · · · · · · · · · ·
Analyst Agency or Cor Dale Performe Analysis Time	d	CRH HW Lochi 10/26/06 DHV	ner, Inc.		Jui Jui	eeway/Dir on nction risdiction alysis Year	l Trav	el	SR 50	orthbound Cortez Blvd. Off ndo County	-Ramp
Project Descrip	otion I-75 P	D&E Study -	2010 NB O	iff Ramp a	at SR 50	(1-75 = 4 La	nes)				
nputs											
Jpstream Adj	,	Terrain: Levi	el							Downstr Ramp	eam Adj
	On On									į	√ On
	Off ft									□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	□ Off 2360 ft
-up =	11		S _{FF} = 70.	nnh n		S	=	35.0 m _j	nh	Tdown	2000 11
	veh/h			Sketch (s		s, L _A , L _D ,V _I	• •	00.0 111	V _D =	660 veh/h	
Conversi	on to pc	<u>'h Under</u>	Base (	Condit	ions						
(pc/h)	V (Veh/hr)	PHF	Теп	ain	%Truck	%Rv	f	H∨	f _p	v = V/PI f _{HV} x f _p	X
Freeway	3090	0.93	Leve	el l	14	2	0.9	931	0.95	3756	
Ramp	850	0.95	Leve	el .	19	2	0.9	910	0.95	1035	
UpStream											
DownStream	660	0.95	Leve	1	19	2	9.0	910	0.95		
		Merge Areas	i	·····					Diverge.	Areas	
Estimatio	n of v ₁₂					Estima	tion	of $v_1$	2		
		₁₂ = V _F ( P _{FM}	}					•	• ' '	$(V_F - V_R)P_{FD}$	•
_{EQ} = (Equa						L _{EQ} = (E	quati	on 25-	8 or 25-	9)	
_{FM} = using	Equation	(Exhibit 25-5	)			P _{FD} = 1.00	)0 u	ising E	quation	(Exhibit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 375	6 рс	:/h			
Capacity	Checks					Capaci	ty C	heck	S		
	Actua	ai Ma	kimum	LO	SF?			Actu	al	Maximum	LOS F?
V		į.				V _{F1} = \	/ _F	3756		4800	No
V _{FO}						V ₁₂		375€		4400:All	No
V _{R12}						V _{FO} = \ V _R	F -	2721		4800	No
						V _R		1035	5	2000	No
Level of S	Service L	Determin	ation (i	f not l	F)	Level o	of S	ervice	e Dete	rmination	(if not F)
D _R = 5.475	5 + 0.00734	4 v _R + 0.00	)78 V ₁₂ -	0.0062	7 L _A		D _R :	= 4.252	2 + 0.00	86 V ₁₂ - 0.000	09 L _D
) _R = (p	c/mi/ln)					D _R =	36.6 (	(pc/mi/	in)		
••	xhibit 25-4	<b>}</b> )						 xhibit 2	•		
Speed Es		·		······································		Speed					
	ibit 25-19)			<del>no resontante de la colo</del>	drivenini, w drivene w sales and compact research				oit 25-19	3)	
J	(Exhibit 2!	5-10)				1		•	khibit 25		
						l .			hibit 25		
•	(Exhibit 2:	•				S =		•			
<del></del>				·····		1			khibit 25		
r © 2005 Unive	rsity of Florida	ı, Ali Righls Re	served			HCS	+114	Version	5.2	Gener	aled: 11/8/2006

		RAMP	S AND	RAMP	JUNG	CTIONS	W	ORKS	HEET			
General	Informati			***************************************		Site Inf						
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	CRH HW Lochi 10/26/06 DHV		one Ramo	Ju Ju An	eeway/Dir o nction risdiction nalysis Year	f Trav		I-75 No	Cortez I	Blvd. On-F	Ramp
Inputs	iipios resi	Dur Siddy -	20101115	zii i veriip e	31 311 30	(1-70 - 4 LC	1163)				······································	
Upstream Ad	j Ramp	Terrain, Lev	el		······································					þ	ownstrear	n Adj Ramp
√ Yes	F≅ On									- 1	- Yes	ΓOn
Γ No	F Off									1	⊽ No =	F Off
-up =	2360 ft										down =	ц
	850 veh/h	Š	S _{FF} = 70.		how lane	s, L _A , L _D ,V		35.0 mp	h	ľ	D =	veh/h
Convers	ion to pc	/h Under	Base (	Condit	ions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}	ſp	1	= V/PHF _{dV} x f _p	X
Freeway	2240	0.94	Leve		14	2		931	0.95		2694	
Ramp	660	0.95	Leve		19	2		910	0.95		804	
UpStream DownStream	850	0.95	Leve	el	19	2	0.	910	0.95		1035	
DOMINGUESIII	<b>4</b>	Merge Areas		<u>l</u>	<del></del>	<u> </u>	L		Diverge A	reas	······································	
Estimati	on of v ₁₂	go / 110130	,	<del></del>		Estima	tior	of v.			· ·	
- _{EO} = (Equ	V ation 25-2 or 2 using Equatio			**************************************		L _{EO} = (Ec P _{FD} = us V ₁₂ = pc/	juatio ing E	V n 25-8 oi	- / ₁₂ = V _R + r 25-9)		R)P _{FO}	
Canacity	Checks					Capaci		heck	's			
	Actua	l Max	imum	LOS	; F7	Оприс.	.,	Actu		Maxim	um T	LOSF?
$V_{FO}$	3498		hibit 25-7	No		V _{F1} = V	F.					
V _{R12}	3498	460	00:All	No	)	$V_{FO} = V_F$ $V_R$	-					
Level of	Service L	etermin	ation (i	if not F	<del>-</del> )	Level	of S	ervice	e Deter	mina	ation (i	f not F)
······································	5.475 + 0.0073	***************************************	<u></u>	<del> </del>		<u> </u>		<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	52 + 0.008	·····		······································
) _R = 2	28.5 (pc/mi/ln)	, ,	12	A.		1 "	(pc/m	i/ln)		12	i.	,
	) (Exhibit 25-4	<i>-</i>				<u> </u>	·	bit 25-4)				
Speed E	<u>stimation</u>	·	managaran da ang ang ang ang ang ang ang ang ang an	DESCRIPTION OF STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET,	recombed enteriority recommended	Speed	*******			***************************************		······································
$M_{\rm S} = 0.4$	06 (Exibit 25-1	19)				1 "		bit 25-19	•			
$S_R = 58.$	6 mph (Exhibit	1 25-19)				l '`		(Exhibit 2	•			
U	mph (Exhibit	•				S ₀ =	mph (	(Exhibit 2	25-19)			
S = 58.	6 mph (Exhibit	25-14)				S =	mph (	(Exhibit 2	25-15)			
t © 2005 Univ	ersity of Florida	, All Rights Re	served			HCS	+TM	Version 5	5.2		General	ed: 11/8/2006 1:

^_	Informati	······	- 3 XE V B 1	RAMP JUN			**************************************	·····	***************************************	
<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	Informati					ormatio				
Analyst	2000.701	CRH	1		eeway/Dir c	ıravel	I-75 Soul		Dame	
Agency or Co Date Perform		HW Lochr	ier, Inc.		inction			ortez Blvd. Off-Ramp o County		
Date Penoim Analysis Time		10/26/06			irisdiction			o County		
		DHV	0040 CD 04		nalysis Year		2010			
nputs	ilpiion i-75 m	טמב אוווטץ	2010 SB OI	f Ramp at SR 50	(1-75 = 4 La	ines}				
Ipstream Adj	j Ramp	Terrain: Leve	ı					Downstre	am Adj	
□ Yes	□ On							Ramp	√ On	
√ No	□ Off							l		
								l	□ Off	
Tup [≖]	ft		· - 70 f	) mnb	· ·	_{ER} = 35.0 r	moh	L _{down} =	2360 ft	
√  =	veh/h		FF = 70.0				npn	V _D =	670 veh/h	
				keich ( show land	es, L _A , L _D ,V	R,V _f )		L		
<u>Convers</u>	ion to pc	<u>/h Under</u>	Base C	onditions						
(pc/h)	V (Veh/hr)	PHF	Terra	in %Truck	%Rv	f _{HV}	f _p	v = V/PH f _{HV} x f _p	Fχ	
Freeway	2240	0.93	Leve	1 14	2	0.931	0.95	2723		
Ramp	520	0.89	Leve	19	2	0.910	0.95	676		
UpStream										
DownStream	670	0.89	Leve	19	2	0.910	0.95	871		
		Merge Areas					Diverge Ar	eas		
Estimatio	on of v ₁₂				Estima	tion of v	12			
	V	12 = V _E ( P _{FM}	)			V	'.a = V _B + ('	V _E - V _R )P _{ED}	····	
					  -== /F		5-8 or 25-9)	,		
= (Ent					L		Equation (E			
	a Fauation		!		I ED = 1.0	oo usiiigi	Lquation (L	ARDIC 20-11/		
_{FM} = using	g Equation	(EXHIDIT 20-0			1	12 mm/h				
_{FM} = using / ₁₂ = pc/h	1	(EXHIBIT 23-3			V ₁₂ = 272					
o _{FM} = using 1 ₁₂ = pc/h	Checks				V ₁₂ = 272	ity Chec				
o _{FM} = using 1 ₁₂ = pc/h	1		imum	LOS F?	V ₁₂ = 272 Capac	ity Chec		Maximum	LOS F?	
P _{FM} = using V ₁₂ = pc/h <b>Capacity</b>	Checks		ìmum	LOS F?	V ₁₂ = 272	ity Chec	lual I	Maximum 4800	LOS F? No	
/ ₁₂ = pc/h	Checks		imum	LOS F?	V ₁₂ = 272  Capac  V _{F1} = V ₁₂	ity Chec Add V _F 272 273	tual 1 23			
P _{FM} = using V ₁₂ = pc/h <b>Capacity</b> V _{FO}	Checks		imum	LOSF?	V ₁₂ = 272    Capac   V _{F1} =   V ₁₂   V _{F0} =   V _{F0} =   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V _{F0}   V	Act           V _F 272           273         274           V _F 200	tual 1 23 23	4800	No	
P _{FM} = using V ₁₂ = pc/h <b>Capacity</b>	Checks		imum	LOS F?	V ₁₂ = 272   Capac     V _{F1} =	Act	tual   1 23 23 23 47	4800 4400:All	No No	
P _{FM} = using V ₁₂ = pc/h Capacity V _{FO}	Actua	al Max			V ₁₂ = 272    Capac     V _{Fi} =     V ₁₂       V _{Fi} =     V _{FO}       V _R	Act   Act	tual   1 23 23 23 47	4800 4400:Ali 4800 2000	No No No No	
Capacity  V _{FO} V _{R12}	Checks Actua	el Man	ation (i	f not F)	V ₁₂ = 272    Capac     V _{Fi} =     V ₁₂       V _{Fi} =     V _{FO}       V _R	Act	tual   1 23 23 47 6   ce Deterr	4800 4400:All 4800 2000 <b>nination</b> (a	No No No No if <b>not F</b> )	
$V_{\rm FM}$ = using $V_{12}$ = pc/h $V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm C}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{\rm R}$ $V_{$	Checks Actual Actual Service I	el Man	ation (i	f not F)	V ₁₂ = 272   Capac     V _{F1} =     V _{F2} =     V _{F0} =     V _R     V _R	Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add   Add	tual   1 23 23 47 6 <b>ce Deterr</b> 52 + 0.0086	4800 4400:Ali 4800 2000	No No No No if not F)	
$V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm R}$	Checks Actual Service I 75 + 0.0073- pc/mi/ln)	Determin	ation (i	f not F)	V ₁₂ = 272    Capac     V _{F1} =     V ₁₂     V _{F0} =     V _R     V _R     Level     D _R =	Act   Act     V _F   272     V _F   204     Cof Service     D _R = 4.25     27.7 (pc/m	tual   1 23 23 47 6 <b>ce Deterr</b> 52 + 0.0086 i/ln)	4800 4400:All 4800 2000 <b>nination</b> (a	No No No No if not F)	
$O_{\rm FM}$ = using $O_{\rm 12}$ = pc/h $O_{\rm APAC}$ $O_{\rm FO}$ $O_{\rm R}$ = 0.05 = (1.05)	Service L 75 + 0.00734 pc/mi/ln) Exhibit 25-4	Determin	ation (i	f not F)	V ₁₂ = 272   Capac     V _{F1} =     V ₁₂     V _{F2} =     V _R     V _R     V _R     Level     D _R =     LOS =	$V_{\rm F}$ 272 $V_{\rm F}$ 273 $V_{\rm F}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 204 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277 $V_{\rm C}$ 277	tual   1 23 23 47 6 <b>ce Deterr</b> 52 + 0.0086 i/ln) 25-4)	4800 4400:All 4800 2000 <b>nination</b> (a	No No No No if not F)	
$C_{FM} = using$ $V_{12} = pc/h$ $Capacity$ $V_{FO}$ $V_{R12}$ $Column = 5.47$ $Column = 0$	Checks Actual Service I 75 + 0.0073- pc/mi/ln)	Determin	ation (i	f not F)	V ₁₂ = 272    Capac     V _{F1} =     V ₁₂     V _{F0} =     V _R     V _R     Level     D _R =     LOS =     Speed	Act	tual   1 23 23 47 6   1 52 + 0.0086 i/In) 25-4)	4800 4400:All 4800 2000 <b>nination</b> (a	No No No No if not F)	
$C_{FM}$ = using $V_{12}$ = pc/h $Capacity$ $V_{FO}$ $V_{R12}$ $V_{FO}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_$	Service L 75 + 0.00734 pc/mi/ln) Exhibit 25-4	Determin	ation (i	f not F)	V ₁₂ = 272   Capac     V _{F1} =     V ₁₂   V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R	Act	tual   1 23 23 47 6 <b>ce Deterr</b> 52 + 0.0086 i/ln) 25-4)	4800 4400:All 4800 2000 <b>nination</b> (a	No No No No if not F)	
$P_{FM}$ = using $V_{12}$ = pc/h $Capacity$ $V_{FO}$ $V_{R12}$ $V_{FO}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_{R12}$ $V_$	Service L 75 + 0.00734 pc/mi/ln) Exhibit 25-4 stimation	Determin 4 v _R + 0.00	ation (i	f not F)	V ₁₂ = 272    Capac     V _{F1} =     V ₁₂     V _{F0} =     V _R     V _R     Level     D _R =     LOS =     Speed	Ity Chec           Act $V_F$ 272 $V_F$ 273 $V_F$ 204           67         67           DR = 4.25         27.7 (pc/m           C (Exhibit         Estimat           0.489 (Exh	tual   1 23 23 47 6   1 52 + 0.0086 i/In) 25-4)	4800 4400:All 4800 2000 <b>mination</b> (65 V ₁₂ - 0.000	No No No No if not F)	
$C_{FM} = using$ $V_{12} = pc/h$ $Capacity$ $V_{FO}$ $V_{R12}$ $Cos = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LOS} = (I_{LO$	Service I 25 + 0.0073- pc/mi/ln) Exhibit 25-4 stimation xibit 25-19)	Determin 4 v _R + 0.00	ation (i	f not F)	V ₁₂ = 272   Capac     V _{F1} =     V ₁₂   V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R     V _R	$V_{\rm F}$ 277 $V_{\rm F}$ 277 $V_{\rm F}$ 200 $V_{\rm F}$ 27.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$ 20.7 $V_{\rm F}$	tual   1 23   23   23   47   6   6   6   6   6   6   6   6   6	4800 4400:All 4800 2000 <b>mination (</b> 35 V ₁₂ - 0.000	No No No No if not F)	

		RAMPS	S AND I	RAMF	JUNC	TIONS	WO	RKSI	HEET		
	Informati	on				Site Inf					····
Analyst Agency or Co Date Perform Analysis Time	ed e Period	CRH HW Lochr 10/26/06 DHV		o Damo	Jur Jur Ana	eway/Dir o iction isdiction alysis Year		·	I-75 Soutl SR 50/Co Hernando 2010	ortez Blvd. On-f	Ramp
***************************************	iption I-75 Pl	D&E Sludy	2010 38 0	n Kamp	at 2K 30 (	1-1J - 4 La	iies)				***************************************
Inputs		Terrain: Leve									
Jpstream Ad		Terrain. Leve	21							Downstrea	m Adj Ramp ☐ On
F Yes	□ On									₹ No	C Off
□ No	F Off									L _{down} =	ft
up =	2360 ft										
√u =	520 veh/h	(	S _{FF} = 70.0		show lane	s, L _A , L _D ,V		35.0 mp	h	V _D =	veh/h
Convers	ion to pc	h Under	Base (	Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Terra		%Truck	%Rv	f	нν	$\mathfrak{f}_{p}$	v = V/PHF f _{HV} x f _p	X
Freeway	1720	0.94	Leve	9	14	2	0.9	31	0.95	2069	
Ramp	670	0.89	Leve	el	19	2	0.9		0.95	871	
UpStream	520	0.89	Leve	<u></u>	19	2	0.9	10	0.95	676	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
DownStream	1		<u> </u>		<u> </u>	***************************************	<u></u>		Pinnero Ar		***************************************
pm	·	Merge Area	S			Estima	tion	of w	Diverge Ar	cas	······································
Estimati	on of v ₁₂	,				ESUIIIa	MON				***************************************
	ation 25-2 or 2 using Equation					L _{EQ} = (E P _{FD} = us V ₁₂ = pc	sing Ed	n 25-8 o	/ ₁₂ = V _R + (\ r 25-9) (Exhibit 25-1	,	
						<u> </u>		bock	76		
Capacity	/ Checks	. 1		T		Capac	ny c	Santana santana sa Maria		Maximum	LOS F?
	Aclua	al Ma	ximum	LU	SF?			Actu	161	MAXILL	1001;
V _{FO}	2940	See E	xhibit 25-7	, , , , , , , , , , , , , , , , , , ,	40	V _{FI} = '	V _F				
V _{R12}	2940	46	ilA:00		No	$V_{FO} = V$ $V_{R}$ $V_{R}$					
Lovelof	Service I	Determir	nation (	if not	F)	Level	of S	ervic	e Deteri	mination	(if not F)
	5.475 + 0.007									6 V ₁₂ - 0.0009	
		• `	110 112 0.	00027 2	A	D _R =	(pc/m			12	U
**	24.1 (pc/mi/ln) C (Exhibit 25-4					LOS =	.,	"'"') bit 25-4)	)		
	stimation					Speed	I Est	imat	ion		
	351 (Exibit 25-	<u> </u>		****	Maria de la composição de la composição de la composição de la composição de la composição de la composição de	D _s =	(Exhi	bit 25-1	9)		·····
ľ	).2 mph (Exhib	it 25-19)				S _R =	πφħ	(Exhibit	25-19)		
,,,	'A mph (Exhibi	,				S ₀ =	mph	(Exhibit	25-19)		
	).2 mph (Exhib	,				S =	mph	(Exhibit	25-15}		
) = OL	7.2 mpn (Exmu	11 23-14)				<u> </u>	111P11	/EVI HOU	20 101		

## APPENDIX 'J'

INTERIM YEAR (2020) NO BUILD FREEWAY SEGMENT AND RAMP LOS

BASIC PREEWAT WOR	NOUEE1				Page 1 of 1
	BASIC F	REEWAY SE	GMENTS WORKSH	EET	
So   Free-Flow Spreed   FFS = 25 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 mink   70 m	P. C.	150 150 1750 1600 2000	Application Operation Design (N Design (v Planning Planning	al (LOS) FFS. N. V FFS, LOS FFS, LOS (LOS) FFS. N. V (N) FFS, LOS	S, v _p N, S, D S, N v _p , S, D AA DT LOS, S, D S, AADT N, S, D
General Information	ika kas ibtura		Site Information		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I DHV &E - 2020 NB So		Highway/Direction of Tr From/To Jurisdiction Analysis Year	ravel I-75 North South of Pasco Co 2020	CR 41
F Oper.(LOS)		****	Des.(N)	□ Plar	ning Data
<b>Flow Inputs</b> Volume, V AADT Peak-Hr Prop. of AADT, K	4530	veh/h veh/day	Peak-Hour Factor, PHF %Trucks and Buses, P- %RVs, P _R	0.94	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustr	0.95 <b>nents</b>	veh/ħ	General Terrain: Grade % Length Up/Down		and the second supplies with the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco
f _p E _T	0.95 1.5		E _R f _{HV} = 1/[1+P _T (E _T - 1) + P _R (E _F	1.2 R-1)) 0.933	***************************************
Speed Inputs			Calc Speed Adj ar	nd FFS	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 2	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _{ID} f _N FFS	0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance Measures			Design (N)		
Operational (LOS)  v _p = (V or DDHV) / (PHF x N : f _p ) S D = v _p / S LOS	x f _{HV} x 2719	pc/h/ln mi/h pc/mi/ln	Design (N)  Design LOS $v_p = (V \text{ or DDHV}) / (PHf_p)$ S $D = v_p / S$ Required Number of Lag		pc/h mi/h pc/mi/ln
Glossary  N - Number of lanes  V - Hourly volume  v _p - Flow rate  LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base free	•	Factor Location $E_R - Exhibits 23-8, 23-1$ $E_T - Exhibits 23-8, 23-1$ $f_p - Page 23-12$		f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:46 PM

BASIC FREEWAY WOR	W2HEE1					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Free-Plan Speed   FTS = 75 minh   70 minh   70 minh   65 minh   55 minh   55 minh   50   60 minh   55 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 mi	B. C.	1450 (590) 1759 (Minch) 1600) 2000	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N, Vp FFS, LOS, FFS, LOS, FFS, LOS, FFS, LOS, FFS, LOS,	v _p N, S, D N v _p , S, D .DT LOS, S, D AADT N, S, D
General Information	ton ton them	***	Site Inform	nation		
Analyst	CRH			ction of Travel	I-75 Northb	ound
Agency or Company	HW Lochner,	Inc.	From/To		CR 41 to S	
Date Performed	10/26/06		Jurisdiction		Hernando (	County
Analysis Time Period	DHV		Analysis Yea		2020	
	D&E Study - 2020			anes)		
✓ Oper.(LOS)	)	[F]	Des.(N)		Plann	ing Data
Flow Inputs Volume, V	4040	vola /a-	D1:11 = =	Dur	0.02	
volume, v AADT	4040	veh/h veh/day	Peak-Hour Fa %Trucks and		0.93 14	
Peak-Hr Prop. of AADT, K		verillay	%RVs, P _R	Duaga, F.T	2	
Peak-Hr Direction Prop, D			General Terra	ain.	2 Level	
DDHV = AADT x K x D		veh/h	Grade %	Length	mi	
Driver type adjustment	0.95			Up/Down %		
Calculate Flow Adjusti						
$f_p$	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (E	T - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs			Calc Spee	d Adj and FF	3	<del></del>
Lane Width	12.0	ft	f		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{tw}			
Interchange Density	0.50	I/mi	^f LC		0.0	mi/h
Number of Lanes, N	2		fiD		0.0	mi/h
FFS (measured)		mi/h	F-13		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance			Design (N	<b>}</b>		
			Design (N)			
Operational (LOS)			Design LOS			
$V_p = (V \text{ or DDHV}) / (PHF \times N)$	x f _{HV} x 2456	pc/h/ln		HV)/(PHF x N x	: f x	
$f_p$ )	2700	Poits (1)	r. \		HA .,	pc/h
S		mi/h	p)			mi/h
$D = v_p / S$		pc/mi/ln	D=7/9			pc/mi/ln
LOS	F		$D = v_p / S$	mharaflaaa Al	ı	heumun
Classon:				mber of Lanes, N		
Glossary	C C :		Factor Loc	cation		
N - Number of lanes	S - Speed		E _R - Exhibits:	23-8, 23-10	1	Lw - Exhibit 23-4
V - Hourly volume	D - Density	1	1.0	23-8, 23-10, 23-1		f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flow	,	f _p - Page 23-			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	1"			14

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:43 PM

BASIC FREEWAY WORL	KSHEET					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Free-Flow Spread   FFS = 76 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith   70 mith	A C	150 (600) 1750 (750) 1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Input FFS, N, V _I FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N v _p . S, D .DT LOS, S, D AADT N, S, D
General Information	Tour rate (perma)	,	Site Inform	nation		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I 10/26/06 DHV		Highway/Direct From/To Jurisdiction Analysis Year	ction of Travel	I-75 NorthE North of SE Hernando 2020	₹ 50
Project Description I-75 PD  GOPer.(LOS)	&E - 2020 NB No	· · · · · · · · · · · · · · · · · · ·	o = 4 Lanes) Des.(N)		Plann	ing Data
<b>Flow Inputs</b> Volume, V AADT Peak-Hr Prop. of AADT, K	3830	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R	Buses, P _T	0.94 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustr	0.95 <b>nents</b>	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
f _p E _T	0.95 1.5		E _R f _{HV} = 1/[1+P _T (E ₁	₁ - 1) + P _R (E _R - 1)]	1.2 0.931	
Speed Inputs			Calc Spee	d Adj and FF	S	***************************************
Lane Width Rt-Shoulder Lal. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 2 75.0	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS)  v _p = (V or DDHV) / (PHF x N f _p ) S D = v _p / S LOS	x f _{HV} x 2303 57.4 40.1 E	pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DD} f_p)$ S $D = v_p / S$	)HV) / (PHF x N )		pc/h mi/h pc/mi/ln
Glossary		***************************************	Factor Loc			
N - Number of lanes  V - Hourly volume  v _p - Flow rate  LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fro	·	E _R - Exhibits:	23-8, 23-10 23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:44 PM

BASIC FREEWAY WOR	KSHEET				Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WORKSHEET	-	
S0   Free-Flow Speed FFS = 75 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids	Br C	1500 2000	Application Operational (LO) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input S) FFS, N, v FFS, LOS FFS, N, A FFS, LOS FFS, LOS	S. V _p N. S. D S. M V _p . S. D GADT LOS. S. D S. AADT N, S. D
	Flow Rate (publish	)			
General Information			Site Information		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I 10/26/06 DHV		Highway/Direction of Travel From/To Jurisdiction Analysis Year	I-75 Sout North of S Hernando 2020	SR 50
	&E - 2020 SB No	· · · · · · · · · · · · · · · · · · ·		E Dia-	min - Duta
ি Oper.(LOS) <b>Flow Inputs</b>		1 L	Des.(N)	r Plan	ining Data
Volume, V AADT Peak-Hr Prop. of AADT, K	3040	veh/h veh/day	Peak-Hour Factor, PHF %Trucks and Buses, P _T %RVs, P _R	0.93 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustr	0.95 <b>nents</b>	veh/h	General Terrain: Grade % Length Up/Down %	Level mi	
f _p	0.95		E _R	1.2	***************************************
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$		
Speed Inputs			Calc Speed Adj and F		
Lane Width	12.0	ft	f		
Rt-Shoulder Lat. Clearance	6.0	ft	'tw	0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}	0.0	mi/h
Number of Lanes, N	2		f _{ID}	0.0	mi/h
FFS (measured)		mi/h	f _N	0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
LOS and Performance	Measures		Design (N)	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	
Operational (LOS)  v _p = (V or DDHV) / (PHF x N :	× f _{enz} ×		Design (N) Design LOS		
$f_{\rho}$ )	1848	pc/h/ln	$v_p = (V \text{ or DDHV}) / (PHF x I)$	V x f _{HV} x	pc/h
S D = v _p / S LOS	70.2 26.3 D	mi/h pc/mi/ln	$\binom{r_p}{p}$ S $D = v_p / S$ Required Number of Lanes	N	mi/h pc/mi/In
Glossary			Factor Location	+ · *	
N - Number of lanes	S - Speed		I actor Location		
V - Hourly volume v _p - Flow rate LOS - Level of service	D - Density FFS - Free-flow BFFS - Base free	•	$E_R$ - Exhibits23-8, 23-10 $E_{\uparrow}$ - Exhibits 23-8, 23-10, 2 $f_{\rho}$ - Page 23-12	3-11	$f_{LW}$ - Exhibit 23-4 $f_{LC}$ - Exhibit 23-5 $f_N$ - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:51 PM

						rage ren.
	BASIC F	REEWAY SE	GMENTS WO	RKSHEET		
\$0	4130	1450		Application Operational (LOS)	Input FFS, N, v _{is}	Output LOS, S, D
S 60 mish 55 mish	Bz C. C	(600)		Design (N) Design (v _p )	FFS, LOS, FFS, LOS,	ν _p N, S, D N ν _p , S, D
To S a Security of S and S and S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of S a security of	Friend Particular			Planning (LOS) Planning (N) Planning (v _o )	FFS, N, AA FFS, LOS, FFS, LOS,	AADT N, S, D
\frac{1}{20}		1600 2000		3 (I)		The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
	Flow Rate (pc/h/l					
General Information			Site Inform			
Analyst	CRH		Highway/Direc	tion of Travel	I-75 South	
Agency or Company Date Performed	HW Lochner,	Inc.	From/To		CR 41 to S	
Date Performed Analysis Time Period	10/26/06		Jurisdiction		Hernando ( 2020	Jounty
	<i>DHV</i> D&E Study - 2020	SB CR 41 to SE	Analysis Year 2 50 (1-75 = 4 Lac	nes)	2020	
ি Oper.(LOS		*******	Des.(N)		☐ Plann	ing Data
Flow Inputs	<u></u>					
Volume, V	3200	veh/h	Peak-Hour Fac		0.94	
AADT		veh/day	%Trucks and E	Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		1	
Peak-Hr Direction Prop. D		1.0	General Terrai		Level	
DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	Grade %	Length lp/Down %	mi	
Calculate Flow Adjust				Production 19		
f _p	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (E _T	- 1) + P _R (E _R - 1)]	0.933	
Speed Inputs			Calc Speed	Adj and FFS	3	
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	1		0.0	mi/h
Interchange Density	0.50	I/mi	fLC			
Number of Lanes, N	2		^f D		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS)			Design (N)			
$v_p = (V \text{ or DDHV}) / (PHF \times N)$	v f v		Design LOS			
	1921	pc/h/ln	$v_p = (V \text{ or DD})$	4V) / (PHF x N x	: f _{HV} x	nc/h
; _p ) S	68.8	on i th	$f_{p}$ )			pc/h
		mi/h	S			mi/h
D = v _p / S _OS	27.9	pc/mi/ln	$D = v_p / S$			pc/mi/ln
_05	D		Required Num	nber of Lanes, N		
Glossary			Factor Loc	ation		
N - Number of lanes	S - Speed			3 0 72 40		Eubihit 22 4
√ - Hourly volume	D - Density		E _R - Exhibits2			LW - Exhibit 23-4
ν _ρ - Flow rate	FFS - Free-flov	v speed	i '	23-8, 23-10, 23-1		LC - Exhibit 23-5
OS - Level of service	BFFS - Base fr	ee-flow speed	ք _թ - Page 23-1	2	i	N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:49 PM

						1 agc 1 01 2
	BASIC FRE	EWAY SE	GMENTS W	ORKSHEET		
10   10   10   10   10   10   10   10	B. C. 1150  Right Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septiment Septimen	1759 0 1 100 100 2000	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (fl) Planning (v _p )	Input FFS, N, V _P FFS, LOS, 1 FFS, N, AA FFS, LOS, 1 FFS, LOS, 1	N v _p , S, D DT LOS, S, D AADT N, S, D
V 400 000	Flow Rate (pc/h/lin)	900 TeOA	2400			
General Information			Site Inform	nation		
Analyst	CRH		Highway/Dire	ction of Travel	I-75 Southb	
Agency or Company	HW Lochner, Inc.	ч	From/To		South of Ci	
Date Performed	10/26/06		Jurisdiction		Pasco Cou	nty
Analysis Time Period	DHV		Analysis Year		2020	
	0&E - 2020 SB South				厂 n:	ina Data
□ Oper.(LOS)		I_L	Des.(N)		□ Plann	ing pata
<i>Flow Inputs</i> Volume, V	3590 v	veh/h	Peak-Hour Fa	actor PHF	0.94	***************************************
AADT		veh/day	%Trucks and		14	
Peak-Hr Prop. of AADT, K		· ora day	%RVs, P _p		1	
Peak-Hr Direction Prop, D			General Terra	ain:	Level	
DDHV = AADT x K x D	1	veh/h	Grade %	Length	mi	
Driver type adjustment	0.95			Up/Down %		
Calculate Flow Adjustr	<u>nents</u>					
f _p	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/(1+P _T (E	r - 1) + P _R (E _R - 1))	0.933	
Speed Inputs	***************************************		Calc Spee	d Adj and FF	S	
Lane Width	12.0	ft			0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}			
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	2		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mì/h
LOS and Performance		1110/11	Design (N	\		
LOG and renormance	Measures		Design (N)		,	
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x	m m /le /l m		NUM TODE V N V	z f v	
$f_p$ )	2155	pc/h/ln	l P	)HV) / (PHF x N >	K IHV X	pc/h
S	62.7	mi/h	f _p )			• •
D = v _p / S	34.4	pc/mi/ln	S			mi/h
LOS	D	,	$D = v_p / S$			pc/mi/In
			Required Nu	mber of Lanes, N	1	
Glossary			Factor Lo	cation		
N - Number of lanes	S - Speed		E _R - Exhibits	23-8 23-10		f _{LW} - Exhibit 23-4
V - Hourly volume	D - Density		1 ''			f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flow s	peed	1 '	23-8, 23-10, 23-		<del></del> -
LOS - Level of service	BFFS - Base free	-flow speed	f _p - Page 23-	12		f _N - Exhibit 23-6
			*			

LOS, S, FFS,  $v_p$  - Exhibits 23-2, 23-3

 $f_{\rm 1D}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:53 PM

		RAM	PS AND	RAMI	JUN(	CTIONS	WC	RKS	HEE	T		
General	Informati	on				Site Inf	orm	ation	)			
Analyst		CRH			Fre	eeway/Dir c	of Trav	⁄el	1-7:	5 Northb	ound	
Agency or Co		HW Lo	chner, Inc.		Ju	nction CR 41/Blanton Road Off-Ra				-Ramp		
Date Perform	ed	10/26/0	6		Ju	urisdiction Pasco Coun				nty	ļ	
Analysis Time				····		alysis Year			20:	20		
Project Descr	iption I-75 P	D&E Study	- 2020 NB C	iff Ramp	at CR 41	(1-75 = 4 La	anes)					
Inputs							.,,					
Upstream Adj		Terrain: L	evel								Downstre Ramp	am Adj
□ Yes	□ On										I Yes	F On
₽ No	Off		□ No □ Off									
L _{up} =	ft		C = 70	n mnh	<del></del>		·	25 N m	nh.		down =	620 ft
v _u =	veh/h		S _{FF} = 70.				111	35.0 m	ihii		V _D =	370 veh/h
		***************************************	s, L _A , L _D ,V	R,V()								
Convers	on to pc	/h Unde	<u>er Base (</u>	Condi	tions		<b></b>		,			
(pc/h)	V (Veh/hr)	PHF	Tem	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PH f _{HV} x f _p	Fx
Freeway	4530	0.94	Leve	14	1	0.	933	0	.95	5438		
Ramp	860	0.91	Leve	el	10	1	0.	951	0	.95	1047	
UpStream												
DownStream	370	0.91	Leve	el .	10	1	0.5	951	0	.95	450	
		Merge Are	as							ge Area	S	
Estimation	on of v ₁₂					Estima	itior	of v	12			L. C. C. L. C. C. C. C. C. C. C. C. C. C. C. C. C.
	٧	₁₂ = V _F ( P _f	., )					V,	_ = V	- + (V	- V _R )P _{FD}	
L _{EO} = (Equ			3VI '			L _{EO} = (E	nuat				- RY FO	
P _{EM} = using			(3.5)			l					ibit 25-11)	
		(EXHADIC 25	)- <i>3</i> )			i -			.quau	OH (LXH	nun 25-11)	
$V_{12} = \rho c/h$						$V_{12} = 543$						
Capacity	Cnecks					Capac	ity (	ACCUSATION OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE				
	Actua	al N	Maximum	LC	SF?	<del> </del>		Actu		***************************************	iximum	LOS F?
V _{FO}						V _{FI} =	٧ _٤	5438	3	,	4800	Yes
FO				<u> </u>		V ₁₂		543	8	44	100:All	Yes
$V_{R12}$						$V_{FO} = V_{R}$		439	1	4	800	No
				<u></u>		V _R		104	7	2	2000	No
Level of	Service L	Determi	nation (i	f not	F)	Level	of S	ervic	e De	termi	ination (i	f not F)
$D_{R} = 5.47$	5 + 0.00734	4 v _R + 0.	0078 V ₁₂ -	0.0062	27 L _a		Dp	= 4.25	2 + 0.	/ 9800	/ ₁₂ - 0.0009	∍L _n
D _R = (1	oc/mi/ln)	,,	,,,		^	D _R =	, ,	(pc/mi/			72	
LOS = (I	Exhibit 25-4	1)				LOS =	F (E:	xhibit 2	25-4)			
Speed Es	stimation					Speed	Esi	timati	on			
	(ibit 25-19)			<u></u>		D _s =	0.522	(Exhi	bit 25	-19)		
		S _R = 55.4 mph (Exhibit 25-19)										
'	h (Exhibit 2! h (Exhibit 2!	· ·				$S_0$ = N/A mph (Exhibit 25-19)						
,	h (Exhibit 2: h (Exhibit 2:	-				S =		•		25-15		
<u> </u>	ersity of Florida	*	Dornad			I		Mersion		. 20-10		ated: 11/9/2006

Copyrigi

9-18 AM

		RAMP	S AND	RAMI	2 JUN	CTIONS	WC	RKS	HEET					
General	Informati			Site Int	***********	~~~~								
Analyst Agency or C Date Perforr Analysis Tin	med	CRH HW Loch 10/26/06 DHV	ner, Inc.		Ju Ju	reeway/Dir of Travel I-75 Nor unction CR 41/E urisdiction Pasco C nalysis Year 2020				/Blant	on Rd On-F	Ramp		
<del></del>	cription I-75 F		2020 NB C	n Ramp						···				
Inputs					<del></del>	<del>^</del>		***************************************						
Upstream A	dj Ramp	Terrain: Lev	el								Downstrea	m Adj Ramp		
F Yes	☐ On							F Yes	,					
F No	L Oŧŧ										₽ No =	ft Off		
L _{up} =	620 ft		S _{FF} = 70.					·····			L _{down} =	*1		
Vu =	860 veh/h	show lane	s, L _A , L _D ,V		35.0 mp	h		V ₀ =	veh/h					
Convers	sion to pc	/h Under	Base (	Condi	tions									
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		н٧	fp		v = V/PHF f _{HV} x f _p	Х		
Freeway	3670	0.94	Leve	el	14	1	0.9	333	0.9	)	4406			
Ramp	370	0.91	Leve	el	10	1	<del></del>	)51	0.95		450			
UpStream	860	0.91	Leve	el	10	1	0.9	951	0.9	)	1047			
DownStream	ווו	Merge Areas	<u> </u>	***************************************	<u></u>		<u> </u>		Diverse	٨٠٥٥٥	<u> </u>			
Estimat	ion of v ₁₂	Meige Areas	<u> </u>		······································	Estima	tion	of v	Diverge	MIEGS		······································		
		N / P									1 + 1 5	······		
_		₁₂ = V _F (P _{FM}	)						$'_{12} = V_{R}$	+ (V _F -	V _R )P _{FD}			
	uation 25-2 or 2					L _{EO} = (E								
	using Equation	n (Exhibit 2	5-5)			P _{FD} = us		quation (	Exhibit 2	5-11)				
$V_{12} = 4406$						$V_{12} = pc.$	/h							
Capacit	y Checks					Capac	ity C	heck	S					
	Actua	l Max	kimum	LO	SF?			Actu	al	Max	imum	LOS F?		
V _{FO}	4856	See Ex	hibit 25-7	Yı	es	V _{F1} = \	/ _F			·				
			···			V ₁₂		·						
V _{R12}	4856	46	00:All	Y	es	$V_{FO} = V_{FO}$	F -			***************************************				
						V _R								
Level of	Service L	)etermin	ation (i	f not	F)	Level	of Se	ervice	e Dete	rmir	nation (	if not F)		
D _R =	5.475 + 0.0073	34 v _R + 0.001	78 V ₁₂ - 0.0	00627 L _A			Г	) _R = 4.2	52 + 0.00	86 V ₁₂	, - 0.0009 L	D		
D _R =	40.0 (pc/mi/ln)					D _R =	(pc/mi	i/ln)						
LOS =	F (Exhibit 25-4	)				l	(Exhib	oit 25-4)						
Speed E		Speed	, 	<u> </u>	on		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>							
	787 (Exibit 25-1		<del>//</del>			D _s =		oft 25-19				***************************************		
Ÿ	:.0 mph (Exhibi	,				I		Exhibit 2	•					
"	.o mpn (Exhibit A mph (Exhibit							Exhibit :	,					
	.0 mph (Exhibit					S =	, ,	Exhibit :						
- 70	versity of Florida					<u> </u>	mpn (	LAIHDII /			<u> </u>	2007(11/0/2006		

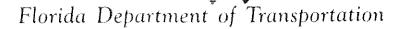
HCS+TM Version 5.2

Generated: 11/9/2006 9:21 AM

		R	AMP	S AND	RAMI	CTIONS WORKSHEET								
General	Informat			***************************************			Site Information							
Analyst		CI	RH		·····	Fre	eeway/Dir c	f Tra	vel	1-7	5 Southbo	ound	***************************************	
Agency or Co	mpany	H	W Lochi	ner, Inc.		Ju	inction CR 41/Blanton Rd Off-f				on Rd Off-R	lamp		
Date Perform	ed	10	0/26/06			Ju	risdiction Pasco County							
Analysis Time			ΗV				alysis Year			20	20			
Project Descr	iption I-75 F	D&E	Study -	2020 SB C	ff Ramp	at CR 41	(1-75 = 4 La	ines)						
Inputs		<b></b>												
Upstream Ad	Ramp	Terra	in: Leve	el								Downstre Ramp	eam A	dj
☐ Yes	□ On											দ Yes	<u>  -</u>	On
₩ No	Off		□ No □ Off										Off	
L _{up} =	ft			S _{FF} = 70.	O mph		S	==	35.0 m	nnin		L _{down} =	700	ft
V _u = .	veh/h			• •		chou lane	s, L _A , L _D ,V		00.011	, p. 11		V _D =	670	veh/h
Canyara	ion to no	14.11					3, LA, LD, V	R, V ()				<u> </u>		
Convers		/n o	naer	Base (	onai.	tions		ı —				v = V/PH	<i>-</i>	
(pc/h)	V (Veh/hr)	Ρ	'HF	Terra	nie	%Truck	%Rv		f _{HV}		f _p	f _{HV} x f _p	ГХ	
Freeway	3200	0.	0.94 Level 14				1	0.	933	(	).95	3841		
Ramp	290	0.	89	Leve	<u>:</u>	10	1	0.	951	(	).95	361		
UpStream														
DownStream	670	<u> </u>	89	Leve	el .	10	1	0.	951	L	).95	834		
B000		Merg	e Areas			***************************************					ge Areas	·····		
Estimatio	on of V ₁₂						Estima	tior	1 of v	12				
	V	₁₂ = V	F (PEM	)					٧,	₂ = V	_R + (V _F	- V _R )P _{FD}		
L _{EQ} ≡ (Equ	ation 25-2	or 25	5-3)				L _{EO} = (E	guat		_		,		
P _{FM} = using				}			P _{ED} = 1.00					sit 25-11)		
ν ₁₂ = pc/h		,		,						quon	O1. (27.11.	20 ,		
Capacity			· · · · · · · · · · · · · · · · · · ·		<del> </del>		V ₁₂ = 3841 pc/h						····	
Capacity	Actua	-1	**************************************			Λ.Ε.Ω.	Capacity Checks							Λ <b>Γ</b> Λ Ι
	MCIU!	<b>1</b> !	IVI <i>a)</i>	imum	LO	SF?	1/ 1	,						
$V_{FO}$							$V_{FI} = V$	F	384	]		300	N	0
							V ₁₂		384	1	440	11A:00	N	0
V _{R12}							V _{FO} = \ V _R	/ _F -	348	0	48	00	N	0
						***************************************	V _R		361		20	00	N	0
Level of a	Service L	)ete	rmin	ation (i	f not i	F)	Level c	of S	ervic	e De	termir	nation (i	f not	F)
$D_{R} = 5.47$	5 + 0.00734	4 v R	+ 0.00	78 V ₁₂ -	0.0062	7 L _A		D _B	= 4.252	2 + 0	0086 V.	, - 0.0009	∋ L _D	
	oc/mi/ln)					,	D _R =	36.1	(pc/mi/	ln)				
LOS = (E	Exhibit 25-4	)	*****				LOS =	E (E	xhibit 2	5-4)				
Speed Es	stimation						Speed	Est	timati	on				
$M_s = (Ex$	ribit 25-19)						D _s =	0.460	Exhit	oit 25	-19)			
	n (Exhibit 2	5-191						57.1 i	mph (E.	xhibit	25-19)			
	ı (Exhibit 25 ı (Exhibit 25						1		nph (Ex					
	i (Exhibit 2: i (Exhibit 2:	,					] *				25-15)			
nt © 2005 Unive				canad			L		Uniterior		(۱۵ "ک	Conor	sted 11	1812000

Copyrigh

9:44 AM



JEB BUSH GOVERNOR 605 Suwannee Street Tallahassee FL 32399-0450 DENVER J. STUTLER, JR. SECRETARY

October 20, 2006

Thomas Neyer, P.E.
Regional Vice President
H.W. LOCHNER, INC
5850 T. G. Lee Blvd., Suite 320
Orlando, Fforida, 32822

Dear Mr. Neyer

The Florida Department of Transportation has reviewed your application for qualification package and determined that the data submitted is adequate to qualify your firm for the following types of work:

Group 2	- Project Development and Environmental (PD&E) Studies
Group 3	- Highway Design - Roadway
3 1 3 2 3 3	- Major Highway Design
Group 4	- Highway Design - Bridges
	2 - Minor Bridge Design - Major Bridge Design - Concrete
Group 5	- Bridge Inspection
5 1 5 2 5 3 5 4	<ul> <li>Movable Bridge Inspection</li> <li>Complex Bridge Inspection</li> </ul>
Group 6	- Traffic Engineering and Operations Studies
6 1 6 2 6 3 6 3	<ul> <li>Traffic Signal Timing</li> <li>Intelligent Transportation Systems Analysis and Design</li> </ul>
Group 7	- Traffic Operations Design
7 1 7 2 7 3	<ul> <li>Signing, Pavement Marking and Channelization Lighting</li> <li>Signalization</li> </ul>

Group	10	- Construction Engineering Inspection
	10 1 10 3 10 4	<ul> <li>Roadway Construction Engineering Inspection</li> <li>Construction Materials Inspection</li> <li>Minor Bridge &amp; Miscellaneous Structures CEI</li> </ul>
Group	1 1	- Engineering Contract Administration and Management
Group	13	- Planning
1	13 3 13 4 13 5 13.6	<ul> <li>Policy Planning</li> <li>Systems Planning</li> <li>Subarea/Corridor Planning</li> <li>Land Planning/Engineering</li> <li>Transportation Statistics</li> </ul>

Your <u>Unlimited</u> Notice of Qualification shall be valid until <u>October 31, 2007</u> at such time as your <u>April 30, 2007</u> overhead audit will be due to comply with the Department's requirement on overhead audits. We will automatically notify your firm 45 to 60 days prior to your update deadline

On the basis of data submitted the Department has approved your accounting system and considers the rates listed below as acceptable rates for qualification purposes

			Facilities	
	Home/Branch	Field	Capital Cost	
	_Office	Office	of Money	Direct Expense
Overhead Rate	165 55%	127.94%	0.396%	13.47%(Home)
				20.44%(Field)

Should you have any questions, please feel free to contact me at 850/414-4485.

Sincerely,

Lorraine E. Odom
Professional Services
Qualification Administrator

orraine E. Odom

LEO/smr

		RAMP	S AND	RAMI	JUNO	CTIONS	WO	RKSH	HEET		
Genera	l Informati				***************************************	Site Inf					***************************************
Analyst Agency or C Date Perfort Analysis Tin	med	CRH HW Loch 10/26/06 DHV		in Pomn	iot Jul An	eeway/Dir onction risdiction alysis Year		el	I-75 Sout CR 41/Bla Pasco Co 2020	anton Rd On-F	lamp
Inputs	CIIDHOIT 1-73 F	DOE STORY .	2020 SB O	n Kamp	al CR 41	(1-10 - 4 La	mes)				·
mpats		Terrain: Levi	əl				<del></del>				
Upstream A		10114111. 2011	,							Downstrea	m Adj Ramp
F Yes	F On									☐ Yes	
□ No	IF Off										□ Off ft
L _{up} =	700 ft		S _{FF} = 70.0	n mak			`	35.0 mpl	h		
Vu =	290 veh/h			Sketch (		s, L _A , L _D ,V	* * * *	aa.u mpi	· I	V _D =	veh/h
Conver	sion to pc	<u>'h Under</u>	Base (	Condi	tions						······································
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv		HV	fp	v = V/PHF f _{HV} x f _p	X
Freeway	2910	0.94	Leve	<b>∋</b> İ	14	1	0.9	)33	0.95	3493	
Ramp	670	0.89 Level 10				1		51	0.95	834	
UpStream	290	0.89	Leve	el	10	1	0.9	951	0.95	361	·
DownStrea		Merge Areas			<u> </u>		<u> </u>	<u> </u>	Diverge Are		
Estimat	ion of v ₁₂	Merge Areas	•			Estima	tion			-83	<del></del>
		= V _F (P _{FM}	)						2 ₁₂ = V _R + (V	′ _F - V _R )P _{FD}	
	uation 25-2 or 2 ) using Equatio		5-5)			$L_{EO} = (Equation 25-8 \text{ or } 25-9)$ $P_{FD} = using Equation (Exhibit 25-11)$					
V ₁₂ = 3493	pc/h					V ₁₂ = pc.	/h				
Capacit	y Checks					Capac	ity C	heck	s		
	Actua	l Max	imum	ΓO	SF?			Actua	al le	<i>N</i> aximum	LOS F?
V _{FO}	4327	See Ex	hibit 25-7	ĺ	lo	V _{FI} = \	/ _F				
					·	V _{FO} = V _F	-	DE			
V _{R12}	4327	46	00:All	1	lo	V _R		······································		***************************************	TO THE THE SHARE COMMAND SHAPE AND THE SECOND COMMAND
Level of	f Service L	)etermin	ation (i	f not	F)	<u> </u>	of S	ervice	Detern	nination (	if not F)
	5.475 + 0.0073		<del></del>	·	/					V ₁₂ - 0.0009 L	
D _R =	33.8 (pc/mi/ln)	. K	- 12			D _R =	(pc/m	,,		12	υ
K LOS =	D (Exhibit 25-4	)				l '`	.,	oit 25-4)			
	stimation	······································				Speed			on		
	560 (Exibit 25-1		······································			D _s =		oit 25-19	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		***************************************
ľ							,	Exhibit 2			
'`	4.3 mph (Exhibit Manh (Exhibit	·				S ₀ ≖		Exhibit 2			
ľ	/A mph (Exhibit 4.3 mph (Exhibit	,				S =		Exhibit 2	•		
<u> </u>	iversity of Electric					<u> </u>	j ngm  MT. az	LATION 2	.0-10/	Can	3005/P/11 hate:

			2 AND	KAIVI		CTIONS						
	Informati	on	~~~		······	Site Inf						
Analysi		CRH			Fre	eway/Dir c	of Trav	el		lorthbo		
Agency or Co		HW Loch	ner, Inc.			action					z Blvd. Off-I	Ramp
Date Perform		10/26/06				isdiction				ando Ci	ounty	
Analysis Time		DHV		······································		alysis Year			2020			
	iption I-75 P	D&E Study -	2020 NB C	off Ramp	at SR 50	(1-75 = 4 La	anes)					
nputs		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		······································			~~~~~~~~~		····		·	·····
Jpstream Adj		Terrain: Lev	el								Downstr∈ Ramp	am Adj
	□ On										F Yes	√ On
F No	□ Off										ΓNο	
-up =	ft		***************************************	······································							L _{down} =	2360 ft
	. r 8.	!	S _{FF} = 70.	0 mph		S	FR =	35.0 m	ph		ν ₀ =	1060 veh
/ _u =	veh/h			Sketch (	show lane	s, L _A , L _D ,V	$_{R},V_{i})$				'D -	rood ven
Convers	ion to pc	/h Under	Base (	Condi	tions							
	٧						T		ε		v = V/PH	Fx
(pc/h)	(Veh/hr)	PHF	Tem	ain	%Truck	%Rv		HV	f	5	$f_{HV} \times f_p$	
Freeway	4040	0.93	Leve	<u></u>	14	2	0.9	931	0.99	5	4911	***************************************
Ramp	1260	0.95	Leve		19	2	<del> </del>	910	0.9		1534	
UpStream	7.000	0.00	2011		10		1					
DownStream	1060	0.95	Leve		19	2	0.9	910	0.9	5	1291	<del></del>
		Merge Areas	L		1		1		Diverge		<u> </u>	<del></del>
Estimatio	on of v ₁₂					Estima	tion	of v				
	<del></del>								· ····		\	***************************************
		$_{12} = V_F (P_{FM})$	)					•	- '`	•	- V _R )P _{FD}	
- _{EO} = (Equ	ation 25-2	or 25-3)				L _{EQ} = (E	.quati	on 25-	8 or 25	-9)		
o _{rm} = using	g Equation	(Exhibit 25-5	i)			P _{FD} = 1.0	00 u	ising E	quation	(Exhit	oit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 491	11 pc	:/h				
Capacity	Checks	***************************************		***************************************		Capac	ity C	heck	S			***************************************
	Actua	al Ma	ximum	LC	)S F?			Actu		Max	imum	LOS F?
			***************************************	<del></del>		V _{FI} = '	V.	4911			800	Yes
$V_{FO}$												
······································						V ₁₂		4911	<u> </u>	44(	00:All	Yes
V _{R12}						$V_{FO} = V_{R}$	1	3377	7	48	00	No
10,2		-				V _R		1534	1	20	000	No
	<u> </u>	<u> </u>	- 4: /:	· · · · · · ·	<b>,</b>	<u> </u>						<u> </u>
	Service L		· · · · · · · · · · · · · · · · · · ·			Level					nation (i	
$D_{R} = 5.47$	5 + 0.00734	4 v _R + 0.00	078 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.252	2 + 0.00	086 V	₁₂ - 0.0009	∃ L ^D
) _R = (p	oc/mi/ln)					D _R =	42.0	(pc/mi/	ln)			
.OS = (B	Exhibit 25-4	)				LOS =	F (E)	khibit 2	5-4)			
Speed Es	stimation		<del></del>	·····		Speed	·····					
			·····			<del> </del>	·····		oit 25-1	Ω\		······································
ā ,	dbít 25-19)					,				•		
S _R = mpl	ı (Exhibit 2	5-19)				S _R =		•	khibit 2			
	n (Exhibit 2	5_10}				S₀=	N/A n	nph (Ex	:hibit 25	5-19)		
S ₀ = mpl	I (EVIUDIUS:	)- ( <i>2)</i>				1 "		,				
•	n (Exhibit 2	•				S =		•	xhibit 2	5-15)		

Copyrig

9:48 AM

			SANU	KAMI	JUNG	CTIONS					***************************************
	Informati					Site Inf	***************************************		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Analyst		CRH				eeway/Dir c	f Trav	el	I-75 North		_
Agency or Co		HW Loch	ner, Inc.			nction				rtez Blvd. On-f	₹amp
Date Perform	ea Period	10/26/06 DHV				risdiction			Hernando	County	
***************************************	iption I-75 P		2020 ND 0	n Domo		alysis Year			2020		·
	ibion East	Dac Sludy -	ZUZU NB C	n Kamp	at SR 50	(1-75 - 4 La	nes)				
Inputs		T ( 1	- I								
Jpstream Adj	Ramo	Terrain: Lev	21							Downstread	n Adi Ramo
<b>.</b> ,										1	
√ Yes	「On									☐ Yes	☐ On
										₽ No	r⊓ Off
No	F Off										
	0000 /									L _{down} =	ft
тup == -	2360 ft									_	
/ _{ti} =	1260 veh/h		S _{FF} = 70.6				1 **	35.0 mp	h	V _D =	veh/h
			5	Sketch (	show lane	s, L _A , L _D ,V	$_{R}$ , $V_{i}$ )				
Conversi	ion to pc	h Under	Base (	Condi	tions						
/ (h. )	V	ריניור	<b>*</b>	_:_	D( T	n/m			£	v = V/PHF	X
(pc/h)	(Veh/hr)	PHF	Terra	BIN	%Truck	%Rv	<b>l</b> '	HV	$f_p$	$f_{HV} \times f_p$	
Freeway	2780	0.94	Leve	3	14	2	0.9	31	0.95	3343	
Ramp	1060	0.95	Leve	<u> </u>	19	2	0.9	10	0.95	1291	
UpStream	1260	0.95	Leve	el	19	2	0.9	10	0.95	1534	
DownStream											
		Merge Areas	i						Diverge Are	as	
Estimatio	on of v ₁₂					Estima	tion	of v	12		
	V.	2 = V _E (P _{EM}	ì					V	12 = V _R + (V	c - Vn)Pcn	
= /Equa	ation 25-2 or 2		,			L _{EQ} = (E(	runtion		12	r K'rU	
			- F:			_				4,	
	using Equatio	n (EX⊓IDILZ	0-5)			l "		luation (	Exhibit 25-1	* )	
/ ₁₂ = 3343	<del></del>					$V_{12} = pc.$					
Capacity	Checks			TO ALCOHOLOGICA CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRA		Capac	ity C	heck	S		70000000000000000000000000000000000000
	Actua	l Max	imum	LO	SF?			Actu	al N	1aximum	LOS F?
						V _{FI} = \	/_				
$V_{FO}$	4634	See Ex	hibit 25-7	N	lo		-				***************************************
						V ₁₂					
						$V_{FO} = V_{F}$	-				
$V_{R12}$	4634	460	IIA:00	Y	es	V _R	l				
						V _R					
aval of	Sandaa F	<u> </u>	ation (i	fact	<i>[</i> ]		~# C		Dotorn	nination (i	f not E
····	Service E			***************************************		LEVE!		***************************************			
	.475 + 0.0073	14 V _R + 0.007	0 V ₁₂ - U.L	iudz/ L _A	i		L	$P_{R} = 4.23$	oz + 0.0086	V ₁₂ - 0.0009 L _E	)
) _R = 3	7.1 (pc/mi/ln)					D _R =	(pc/mi	/ln)			
.OS = F	(Exhibit 25-4	)				LOS =	(Exhib	it 25-4)			
Speed Es	stimation	***************************************	************************			Speed	·	·····	on		·····
						<del>                                     </del>					
5	79 (Exibit 25-1	•					•	oit 25-19	•		
$S_{R} = 51.0$	) mph (Exhibit	25-19)				l '`		Exhibit 2	-		
$S_0 = N/A$	mph (Exhibit	25-19)				S ₀ =	mph (	Exhibit 2	25-19)		
5= 51.0	) mph (Exhibit	25-14)				S =	mph (	Exhibit 2	25-15)		

			S AND	RAMI				···				
General i	nformat	ion		· · · · · · · · · · · · · · · · · · ·		Site Inf	form	ation				····
Analyst		CRH			Fre	eeway/Dir o	of Trav	el	1-75	Southbo	und	
Agency or Co	•	HW Loch	ner, Inc.		Ju	nction			SR 5	0/Corte	z Blvd. Off-F	₹amp
Dale Performe		10/26/06			Ju	risdiction			Hern	iando Co	ounty	
Analysis Time		DHV				alysis Year	***************************************		2020	)		~
Project Descri	ption I-75 F	D&E Sludy -	2020 SB O	ff Ramp	at SR 50	(1-75 = 4 La	anes)					···
nputs												
Jpstream Adj	Ramp	Terrain: Lev	el								Downstre Ramp	am Adj
Yes											F Yes	☑ On
₩ No											Г No	
_= Tup	ft							······································	······································		L _{down} =	2360 ft
			S _{FF} = 70.0	) mph		S	FR =	35.0 m	ph		<b>.</b> -	000
/ _u =	veh/h		S	Sketch (	show lane	s, L _A , L _D ,V	$_{R},V_{i})$				V _D =	990 veh/l
Conversi	on to pc	/h Under	Base C	Condi	tions						<u></u>	<del></del>
	V	<u> </u>					T			- <del></del>	v = V/PH	Fχ
(pc/h)	(Veh/hr)	PHF	Terra	ain	%Truck	%Rv		f _{HV}		f _p	f _{HV} x f _p	
Freeway	3040	0.93	Leve		14	2	n	931	0.9	<del>)</del> 5	3695	***************************************
Ramp	830	0.89	Leve		19	2	<del></del>	910	0.9		1079	
JpStream	900	0.00	1 2010	.1	13		0.	710	0.4	/	10.0	***************************************
DownStream	990	0.89	Leve		19	2	n o	910	0.9	<u></u>	1287	······································
	000	Merge Area	<del></del>	*1	1 10		1 0	310		e Areas	1 1201	
Estimatio	on of v ₁₂		~	······	***************************************	Estima	tion	ofv		<u> </u>		
		·····		·····	· · · · · · · · · · · · · · · · · · ·							<del></del>
		$Y_{12} = V_F (P_{FM})$	)					V ₁	$_2 = V_R$	+ (V _F	- V _R )P _{FD}	
_{EQ} = (Equ	ation 25-2	ог 25-3)				L _{EQ} = (E	quati	ion 25-	8 or 25	5-9)		
o _{rm} = using	Equation	(Exhibit 25-5	5)			$P_{FD} = 1.0$	00 u	ising E	quatio	n (Exhit	oit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 369	95 pc	:/h				
Capacity			·····	······	·····	Capac	***************************************			******************************	· · · · · · · · · · · · · · · · · · ·	··
Japaony	Actu	al Ma	ximum	1.0	SF?	Capac	119	Actu	essence and the second	£.A⊃∨	imum	LOSF?
		ai Ivia	AREIUITI	L.\	JOE!	37 -						
$V_{FO}$						V _{FI} =	***************************************	369	<u> </u>	4(	300	No
, 0						V ₁₂		3698	5	44(	)0:All	No
V _{R12}						$V_{FO} = V_{R}$		2610	â	48	00	No
R (Z		100				V _R		1079	$\overline{}$	20	100	No
	1					<u> </u>			<u>i</u> _			
		Determin	<u>-</u>			Level					nation (i	
$D_R = 5.47$	5 + 0.0073	$4 v_R \pm 0.0$	078 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.25%	2 + 0.0	086 V.	₁₂ - 0.0009	e L _D
) _R = (p	oc/mi/ln)					D _R =	36.0	(pc/mi/	ln)			
.OS = (E	Exhibit 25-4	4)				LOS =	F (F:	xhibit 2	5-4)			
	stimatior					Speed						<del>"</del>
	····	*****				<del>                                     </del>				4 (% )		
$M_{\rm S} = (Ex$	ibit 25-19)					D _s =		i (Exhil				
	ı (Exhibit 2	5191				S _R =	55.31	mph (E	xhibit 2	25-19)		
	I (EXHIDIC A	0 10)				1						
S _R = mpf	i (Exhibit 2 i (Exhibit 2					S ₀ =	N/A n	nph (E)	chibit 2	5-19)		
S _R = mpf S ₀ = mpf		5-19)				1		nph (E) mph (E				

		RAMP	S AND	RAMI	O JUN(	CTIONS	WOR	<b>KSHE</b>	ΞT		····
General	Informat	ion				Site Inf	formati	on			**************************************
Analyst Agency or C Date Perforn Analysis Tim Project Desc	ned	CRH HW Loch 10/26/06 DHV PD&E Study -		)n Ramo	Ju Ju An	eeway/Dir onction risdiction risdistion rialysis Year (1-75 = 4 La	•	SF He	75 South R 50/Cor ernando 920	tez Blvd. On-F	Ramp
Inputs						1					
Upstream Ad	dj Ramp	Terrain: Lev	el		***************************************					Downstrear	n Adj Ramp
☑ Yes	□ On									☐ Yes	
□ No	IZ Off									₩ No	
L _{up} =	2360 ft		c - 70	() mnh			· - 201	) contr		L _{down} =	ft
Vu =	830 veh/h		S _{FF} = 70.	-	show lane	s, L _A , L _D ,V	S _{FR} = 35.0 _R ,V _I )	mpn .		V _D =	veh/h
Convers	ion to pc	/h Under	Base (	Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	f _{HV}		$\mathfrak{f}_{\mathfrak{p}}$	v = V/PHF f _{HV} x f _p	X
Freeway	2210	0.94	Lev	el	14	2	0.931		0.95	2658	
Ramp	990	0.89	Levi	91	19	2	0.910		0.95	1287	
UpStream	830	0.89	Levi	el	19	2	0.910		0.95	1079	
DownStream	A)	Merge Area	<u></u>		<u> </u>			Divo	rge Area		
Estimati	on of v ₁₂	Morgo Area	J		<del></del> ,,	Estima	tion of		ige Area	1.3	
		12 = V _E { P _{EM}	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				***************************************		V _D + (V _C	- V _R )P _{FD}	·
L _{en} = (Eau	ation 25-2 or 2					L _{EO} = (Eo	nuation 25			K' FU	
	using Equation		5-51			P _{FD} = us				١	
$V_{12} = 2658$		··· (—······ <del>·</del>	,			$V_{12} = pc$		(270 II		1	
	/ Checks					Capac		rke			······································
Capacity	Actua	al Ma	ximum	ın	SF?	Capac		Actual	l M	aximum	LOS F?
	1,000	11 (1915)	XIIII		011	V _{F1} = \		1,01001	143:	QXIIIOIII	
V _{FO}	3945	See Ex	chibit 25-7	N	0	V ₁₂	F	in			
V _{R12}	3945	46	00:All	N	in	V _{FO} = V _F V _R					
K12					J	V _R					
Level of	Service L	Determin	ation (i	f not	F)	Level o	of Serv	ice De	eterm	ination (i	f not F)
D _R = :	5.475 + 0.007	34 v _R + 0.00	78 V ₁₂ - 0.0	0627 L _A			D _R =	4.252 + (	0.0086 V	/ ₁₂ - 0.0009 L _r	)
	31.7 (pc/mi/ln)					D _R =	(pc/mi/ln)				
LOS = I	D (Exhibit 25-4	)				LOS =	(Exhibit 2	5-4)			
Speed E	stimation	1		***************************************		Speed	Estim	ation			
	78 (Exibit 25-					<del> </del>	(Exhibit 2		***************************************	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	· · · · · · · · · · · · · · · · · · ·
<u> </u>	6 mph (Exhibi	•				1	mph (Exh	•	)		
	A mph (Exhibit	•				1	mph (Exh				
	6 mph (Exhibi	•				1	mph (Exh		-		
	ersity of Florida		acorund			<u> </u>	ML2		1	Coner	ited: 11/9/2006

## APPENDIX 'K'

DESIGN YEAR (2030) NO BUILD FREEWAY SEGMENT AND RAMP LOS

DASIC FREEWAT WOR	TYDITLE					rage 1 01
	BASIC F	REEWAY SE	EGMENTS W	ORKSHEET		
So	B. C.	1600 200	0 2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N v _p , S, D .DT LOS, S, AADT N, S, D
	Flow Rate (pc/h/le		V 2100			
General Information			Site Inform	ation		
Analyst	EJB		* *	ction of Travel	I-75 NorthE	
Agency or Company	HW Lochner,	Inc.	From/To		South of C	
Date Performed	7/28/2005		Jurisdiction		Pasco Cou	nty
Analysis Time Period Project Description I-75 PD	<i>DHV</i> D&E - 2030 NB Sc	with of CD 41 (I	Analysis Year		2030	**************************************
F Oper.(LOS)			Des.(N)		F Diana	ing Data
Flow Inputs	<i>i</i>	1	Des.(N)		; [ (CIH)	ing Data
Volume, V	5690	veh/h	Peak-Hour Fa	ictor PHF	0.94	V
AADT	<del>-</del>	veh/day	%Trucks and		14	
Peak-Hr Prop. of AADT, K		•	%RVs, Pp	ţ	1	
Peak-Hr Direction Prop, D			General Terra	in:	Level	
DDHV = AADT x K x D		veh/h	Grade %	Length	mi	
Oriver type adjustment	0.95			Jp/Down %		
Calculate Flow Adjusti			·		4.0	
f _p	0.95		E _R		1.2	
E _T	1.5	***************************************		$(-1) + P_R(E_R - 1)$	0.933	Name
Speed Inputs			Calc Speed	d Adj and FF	<u>S</u>	
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0	mi/h
Interchange Density	0.50	I/mi			0.0	
Number of Lanes, N	2		[†] io			mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75. <i>0</i>	mi/h
LOS and Performance	Measures		Design (N)	i		
Operational (LOS)			Design (N) Design LOS			
$V_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x 3415	pc/h/ln	-	HV) / (PHF x N >	rf v	
$f_p$ )	3470	ролин	۳	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	`'HV ^	pc/h
S		mi/h	f _p )			on i lla
D = v _p / S		pc/mi/ln	S D=v /9			mi/h
LOS	F		$D = v_p / S$			pc/mi/lr
Classon		·		mber of Lanes, N	1	
Glossary  .V - Number of lanes	S - Speed		Factor Loc	ation		**************************************
	·		E _R - Exhibits2	23-8, 23-10		f _{LW} - Exhibit 23-4
V - Hourly volume	D - Density		E _T - Exhibits	23-8, 23-10, 23-	11	f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	•	f _p - Page 23-			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-tiow speed	,,			• •

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 $f_{\rm ID}$  - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:45 PM

BASIC FREEWAY WOR	NOTICE					rage 1 01.
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
High   See   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   Free   F	By C	150 (500) 1710 1 1 5 (K) 1710 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N
	Flow Rate (pc/h/l	n)	lov to			
General Information			Site Inform			
Analyst	EJB			ction of Travel	I-75 Northb	
Agency or Company	HW Lochner,	Inc.	From/To		CR 41 to S Hernando	
Date Performed Analysis Time Period	7/28/2005 DHV		Jurisdiction Analysis Year	-	2030	County
	&E Study - 2030	NR CR 41 to SE			2000	Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie
F Oper.(LOS)	<del></del>		Coo (1-15 - 4 E) Des.(N)	aries)	□ Plann	ing Data
		13-1	Jes.(14)		1 1 (211)	ing Data
Flow Inputs Volume, V	4980	veh/h	Peak-Hour Fa	actor PHF	0.93	
AADT	+300	veh/day	%Trucks and		14	
Peak-Hr Prop. of AADT, K		vornday	%RVs, P _R		2	
Peak-Hr Direction Prop, D			General Terra	ain:	Level	
DDHV = AADT x K x D		veh/h	Grade %	Length	mi	
Driver type adjustment	0.95			Up/Down %		~
Calculate Flow Adjustr	nents					·
f _p	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (E	T - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs				d Adj and FF	S	
Lane Width	12.0	ft				- 71
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50		f _{LC}		0.0	mi/h
		I/mi	$f_{ID}$		0.0	mi/h
Number of Lanes, N	2		f _N		0.0	mi/h
FFS (measured)		mi/h	FFS		75.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h 	11.0		70.0	1317/11
LOS and Performance	Measures		Design (N	<u>)                                    </u>	·	
Operational (LOC)			<u>Design (N)</u>			
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	х _{НV} х 3027	pc/h/ln	$v_0 = (V \text{ or } DC)$	HV)/(PHF x N :	x f _{HV} x	
( _p )			f_)			pc/h
S		mi/h	S			mi/h
$D = v_p / S$		pc/mi/ln	$D = v_p / S$			pc/mi/ln
LOS	F		1	mber of Lanes, N	J	<b>,</b>
Classan:					*	
Glossary	C		Factor Lo	CALIVII		
N - Number of lanes	S - Speed		E _R - Exhibits	23-8, 23-10		f _{LW} - Exhibit 23-4
V - Hourly volume	D - Density		1 '	23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flo		f _p - Page 23-			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base f	ree-flow speed	1			

LOS, S, FFS,  $v_p$  - Exhibits 23-2, 23-3  $f_{ID}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:13 PM

BASIC I RELWAT WOR						rage rorz
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		***************************************
See   Free-Flow Spicol FES = 75 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mink   10 mi	By Sudmin 15	1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N, vp FFS, LOS, 1 FFS, LOS, 2 FFS, N, AA FFS, LOS, 2 FFS, LOS, 3	N
	Flour Rate (pulh/li	i)				
General Information			Site Inforn	······································	·····	
Analyst Agency or Company Date Performed Analysis Time Period Project Description	EJB HW Lochner, 7/28/2005 DHV	Inc.	Highway/Dire From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northb North of SF Hernando ( 2030	₹ 50
Project Description Proper.(LOS)			Des.(N)		— □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ing Data
Flow Inputs			D63.(14)		, , idine	ing Data
Volume, V AADT Peak-Hr Prop. of AADT, K	4770	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
Calculate Flow Adjustr	······································	***************************************				
q =	0.95 1.5		E _R	1) . D . (5 . 4)	1.2 0.931	
E _T	1.5			T - 1) + P _R (E _R - 1))		
Speed Inputs Lane Width	12.0	ft		d Adj and FF	**************************************	
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	2	33 4 1 65	$f_ID$		0.0	mi/h
FFS (measured)	_	mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures	***************************************	Design (N	)		
Operational (LOS) v _p = (V or DDHV) / (PHF x N f _p )		pc/h/ln	Design (N) Design LOS v _p = (V or DE	) DHV) / (PHF x N :	x f _{HV} x	pc/h
S D = v _p / S LOS	F	mi/h pc/mi/ln	$f_p$ ) S $D = v_p / S$ Required Nu	imber of Lanes, N	<b>V</b>	mi/h pc/mi/In
Glossary			Factor Lo			
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fi		E _R - Exhibits	23-8, 23-10 23-8, 23-10, 23-	-11	$f_{LW}$ - Exhibit 23-4 $f_{LC}$ - Exhibit 23-5 $f_N$ - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:46 PM

	BASIC FI	REEWAY SE	GMENTS W	ORKSHEET		
S0   Free-Fleex Spreed   FTS = 75 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70 mids   70	A C	150 (500) 1750 E	2408	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS, N. vp FFS, LOS, 1 FFS, N. AA FFS, LOS, 1 FFS, LOS, 1	V v _p , S, D DT LOS, S, D AADT N, S, D
	Flow Rate (pc/h/ln)					
General Information			Site Inform			
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD8	EJB HW Lochner, II 4/20/2005 DHV AF - 2030 SB No		From/To Jurisdiction Analysis Yea	ection of Travel	I-75 SouthE North of SF Hernando ( 2030	₹ 50
F Oper.(LOS)			Des.(N)		☐ Plann	ing Data
Flow Inputs		-				
Volume, V AADT	3780	veh/h veh/day	Peak-Hour F %Trucks and		0.93 14 2	
Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustm	0.95	veh/h	%RVs, P _R General Terr Grade %	rain: Length Up/Down %	Level mi	
f _p	0.95	**************************************	E _R		1.2	
E _T	1.5			E _T - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs	,, ,			ed Adj and FFS		***************************************
Lane Width	12.0	ft		, a ray ara r r		://-
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	2		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	(N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance I	Measures		Design (N	i)		
Operational (LOS)  v _p = (V or DDHV) / (PHF x N x	: f _{HV} x 2298	pc/h/ln	Design (N) Design LOS		α ( _{fH} Λ ×	00/h
f _p )	57 G	milh	(p)			pc/h
S D = v ₀ / S	<i>57.6</i> 39.9	mi/h pc/mi/ln	s			mi/h
LOS	59.9 E	реннин	D = v _p / S			pc/mi/ln
	h		Required No	umber of Lanes, N	l	
^I Glossary			Factor Lo	ocation		
A - Number of lanes	S - Speed		E _p - Exhibit	s23-8, 23-10		f, w - Exhibit 23-4
V - Hourly volume	D - Density		1 ''	s 23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
ν _ρ - Flow rate LOS - Level of service	FFS - Free-flow BFFS - Base free		f _p - Page 23			f _N - Exhibit 23-6
	5 D000 III	opcco	1			

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:18 PM

BASIC FREEWAT WORK				(AD1/A) 1===		
	BASIC FI	REEWAY SE	GMENTS W	ORKSHEET		***************************************
See	By C	150 (600 (750 )		Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Input FFS, N, Vp FFS, LOS, V FFS, LOS, N FFS, N, AA FFS, LOS, N FFS, LOS, N	v _p , S, D Dt LOS, S, D AADT N, S, D
400 290	1200	1000 2000	2400			
Caracallaformation	Flow Rate (polls/lin	}	Site Infor	mation		**************************************
General Information	EJB			ection of Travel	I-75 Southb	oound
Analyst Agency or Company	БЈБ HW Lochner, I	Inc	From/To	Cotton of 110vo.	CR 41 to S	
Date Performed	7/28/2005	no.	Jurisdiction		Hernando (	County
Analysis Time Period	DHV		Analysis Yea	ār	2030	
	&E Study - 2030	SB CR 41 to SF	R 50 (1-75 = 4 L	Lanes)		
ত Oper.(LOS)		Γ ⁺ ι	Des.(N)		☐ Plann	ing Data
Flow Inputs						
Volume, V	3950	veh/h	Peak-Hour F		0.94	
AADT		veh/day	%Trucks and	d Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		1	
Peak-Hr Direction Prop, D  DDHV = AADT x K x D		veh/h	General Ter Grade %		Level mi	
Driver type adjustment	0.95	venni	Grade 76	Up/Down %	*11*	
Calculate Flow Adjustn						
$f_p$	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (	$(E_1 - 1) + P_R(E_R - 1)$	0.933	
Speed Inputs	***************************************			ed Adj and FF	S	
Lane Width	12.0	ft			0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}			mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	
Number of Lanes, N	2		f _{ID}		0.0	mi/h
FFS (measured)	•	mi/h	fN		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance		FIRNTI	Design (I	N/		
LOS and renormance	Micasules		Design (N)			
Operational (LOS)			Design LOS			
$V_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x 2371	pc/h/ln		DDHV) / (PHF x N	x f x	
f _p )	23/1	ренин	[ P	20114) / (1111 / 111	,HA	pc/h
S	54.6	mi/h	f _p )			mi/ħ
D = v _p / S	43.4	pc/mi/ln	S D = 11 / S			pc/mi/ln
LOS	E		$D = v_p / S$	. ,	A !	рсинин
				Number of Lanes,	1.3	
Glossary			Factor L	ocation		
N - Number of lanes	S - Speed		E _e - Exhibi	its23-8, 23-10		f _{LW} - Exhibit 23-4
V - Hourly volume	D - Density		1 ''	its 23-8, 23-10, 23	i-11	f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flo		f _p - Page 2			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base f	free-flow speed	P	•		

LOS, S, FFS,  $v_p$  - Exhibits 23-2, 23-3  $f_{1D}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:18 PM

		give as give a solic same			~ <u>~ ~ ~</u>		1450 1 01 2
		BASIC F	REEWAY SE	GMENTS W	OKKSHEET		
Awinge Passenger-Car Speed (minh)  85 69 62 68	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	By C	150 (600 2000	2409	Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (N) Planning (v _p )	Irput FFS, N, v _p FFS, LOS, FFS, N, A& FFS, LOS, FFS, LOS, FFS, LOS,	v _p N, S, D           M         v _p , S, D           LDT         LOS, S, D           AADT         N, S, D
		Flow Rate (pc/h/lin					
Gene	ral Information			Site Inforn	nation		
Date P Analysi	t or Company erformed s Time Period Description 1-75 PD8	EJB HW Lochner, I 7/28/2005 DHV - Dec Tra RE - 2030 SB So	affic	From/To Jurisdiction Analysis Year	ction of Travel	I-75 South South of C Pasco Cou 2030	R 41
1 10,000	P Oper.(LOS)		<del></del>	Des.(N)		☐ Plann	ning Data
Flow	Inputs						
Volume AADT		4510	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 1	
DDHV Driver t	Ir Direction Prop, D = AADT x K x D ype adjustment	0.95	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
	late Flow Adjustm			······································			
f _p E _T		0.95 1.5		E _R f _{HV} = 1/[1+P _T (E	T - 1) + P _R (E _R - 1)]	1.2 0.933	
Speed	i Inputs		······································	Calc Spee	d Adj and FF	3	
1	/idth ulder Lat. Clearance ange Density	12.0 6.0 0.50	ft ft I/mi	f _{LW}		0.0	mi/h mi/h
Numbe	r of Lanes, N	2		f _{ID}		0.0	mi/h
l '	easured) ee-flow Speed, BFFS	75.0	mi/h mi/h	f _N FFS		0.0 75.0	mi/h mì/h
	and Performance I			Design (N	}	<u></u>	
Operati v _p = (V f _p )	onal (LOS) or DDHV) / (PHF x N x		pc/h/ln	Design (N) Design LOS	) DHV) / (PHF x N x	∈f _{HV} ×	pc/h
S D = v _p / LOS		F	mi/h pc/mi/ln	S D = v _p / S Required Nu	mber of Lanes, N	j	mi/h pc/mi/ln
Gloss				Factor Lo	cation		
V - Ho v _p - Fl	mber of lanes ourly volume ow rate Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	,	$E_R$ - Exhibits $E_T$ - Exhibits $f_p$ - Page 23-	23-8, 23-10, 23-	11	$f_{LW}$ - Exhibit 23-4 $f_{LC}$ - Exhibit 23-5 $f_N$ - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:19 PM

	· · ·	RA	MPS AND	RAMF	JUNC	CTIONS	WC	RKS	HEE	T		
General	Informati	on				Site Inf	orm	ation				
Analyst Agency or Co Date Perform			Lochner, Inc.		Jur	eway/Dir c action isdiction	of Trav	el	CR	Northbo 41/Blant sco Coun	on Road Off-	-Ramp
Analysis Time		DHV				alysis Year			203		ч	
			udy - 2030 NB O	ff Ramo	*****				200	) U		
Inputs	1,5001		30, 20001100	ii i (anip	ar or ar	(), (0 , 2	211001					
Upstream Adj	Ramp	Terrain:	Level		······································						Downstre Ramp	am Adj
□ Yes	□ On										F Yes	☑ On
☑ No	□ Off										□ No	□ Off
L _{up} =	ft		S _{FF} = 70.0	) mnh		S		35.0 m	nh		_t-down =	620 ft
V ₁₁ =	veh/h		• •		chow land	s, L _a , L _n ,V		00.0 111	·P··		$V_D =$	550 veh/h
		/2-1/				2, LA, LD, v	R, V()				<u> </u>	
Convers	T	/n Un	der Base C	onan	tions		т				v = V/PH	
(pc/h)	V (Veh/hr)	PH	F Terra	ain	%Truck	%Rv		f _{HV}		fp	f _{HV} x f _p	· · ·
Freeway	5690	0.94	Leve		14	1	0.	933	0	.95	6831	
Ramp	1260	0.91	Leve	:1	10	1	0.	951	0	.95	1533	
UpStream		<b></b>					<u> </u>					
DownStream	550	0.91		!!	10	1	0.	951	<u> </u>	.95	669	<del></del>
F . 4: 4:		Merge	Areas						<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	ge Areas		***************************************
Estimatio	011 01 V ₁₂					Estima	<i>wor</i>				······································	
L _{EO} = (Equ P _{FM} = using	uation 25-2 g Equation		3)			L _{EO} = (E P _{FD} = 1.0	00 L	ion 25- using E	-8 or 2	25-9)	- V _R )P _{FD}	
V ₁₂ = pc/h	······					$V_{12} = 680$					·····	···
Capacity					0.00	Capac	ny c		and the second second	l fa		LOS F?
	Actu	al	Maximum	<u>LC</u>	OS F?	V _{F1} =	V _F	Actu 6831			ximum 800	Yes
V _{FO}					······	V ₁₂		683 ⁻	1	44	00:All	Yes
V _{R12}		***************************************				V _{FO} = '		529		4	800	Yes
						V _R		153	3	2	000	No
Level of	Service I	Deter	mination (i	f not	F)	Level	of S	ervic	e De	termi	nation (i	f not F)
D _R = 5.47	5 + 0.0073	4 v _R +	- 0.0078 V ₁₂ -	0.0062	27 L _A		$D_R$	= 4.25	2 + 0	.0086 V	' ₁₂ - 0.0009	∂ L _D
D _R = (	pc/mi/ln)					D _R =	61.2	(pc/mi/	'ln)			
LOS = (	Exhibit 25-	4)				LOS =	F (E	xhibit 2	25-4)			
Speed E.	stimatior	7				Speed	Es	timati	on	· · · · · · · · · · · · · · · · · · ·		**************************************
M _s = (E:	xibit 25-19)					D _s =	0.566	s (Exhil	bit 25	-19)		
,	h (Exhibit 2					S _R =	54.2	mph (E	xhibit	25-19)	<b>†</b>	
	h (Exhibit 2					S ₀ =	N/A i	mph (E)	khibit	25-19)		
	h (Exhibit 2	,				S =	54.2	mph (E	xhibit	25-15)	)	
	ersity of Florid		ints Reserved			1		Version				sted 11/8/2006

General	Informati		SAND			Site Inf			<del></del>		
Analyst Agency or Co Date Perform Analysis Time	ompany ned	EJB HW Loch 7/28/200 DHV			Ju Ju	eeway/Dir o nction nsdiction alysis Year	f Trave			thbound Blanton Rd On- County	-Ramp
	ription I-75 F		2030 NB O	n Ramp							······
nputs		······································			····	·	<del></del>				
Jpstream Adj	j Ramp	Terrain: Lev	rel .				***************************************			Downstre	arn Adj Ramp
⊽ Yes	Г On									□ Yes	
□ No	i Off										□ Off
-up =	620 ft		C - 70.0	) one b				35 A		L _{down} =	
/u =	1260 veh/h		S _{FF} = 70.0		show lane	s, L _A , L _D ,V _F		35.0 mpt		V _D =	veh/h
Convers	ion to pc	/h Under	Base C	Condi	tions		,				
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv	1,	ł۷	fp	v = V/PH f _{HV} x f _p	Fx
Freeway	4430	0.94	Leve	<u>:</u>	14	1	0.93		0.95	5318	
Ramp	550	0.91	Leve		10	1	0.9		0.95	669	
JpStream DownStream	1260	0.91	Leve	9	10	1	0.9	51	0.95	1533	}
Downoneam	<u> </u>	Merge Area	<u> </u>	***************************************	L				Diverge A		
										reac	
Estimatio	on of v ₁₂	ivierge Area	3			Estima	tion			reas	
Estimatio	on of v ₁₂	12 = V _F ( P _{FM}				Estima	tion	of v ₁	2	V _F - V _R )P _{FD}	
		₁₂ = V _F ( P _{FM}				<b>Estima</b> L _{EO} = (Eq		of v ₁ ;	2 ₂ = V _R + (		
_{-EO} = (Equa	V	₁₂ = V _F ( P _{FM} (5-3)	)				uation	of v ₁ ; V ₁ 25-8 or	2 ₂ = V _R + ( 25-9)	V _F - V _R )P _{FD}	
_{EO} = (Equa P _{FM} = 1.000	V ation 25-2 or 2 using Equatio	₁₂ = V _F ( P _{FM} (5-3)	)			L _{EO} = (Eq	uation ing Equ	of v ₁ ; V ₁ 25-8 or	2 ₂ = V _R + ( 25-9)	V _F - V _R )P _{FD}	
$P_{EQ} = (Equal_{PEQ} = 1.000)$ $V_{12} = 5318$	V ation 25-2 or 2 using Equation pc/h	₁₂ = V _F ( P _{FM} (5-3)	)			L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/	uation ing Equ	of v ₁₂ V ₁ 25-8 or uation (E	<b>?</b> 2 = V _R + ( 25-9) :xhibit 25-	V _F - V _R )P _{FD}	
$P_{EQ} = (Equal_{PEQ} = 1.000)$ $V_{12} = 5318$	V ation 25-2 or 2 using Equatio	₁₂ = V _F ( P _{FM} (5-3) on (Exhibit 2	5-5)	LO	S F?	L _{EO} = (Eq P _{FO} = usi	uation ing Equ	of v ₁ ; V ₁ 25-8 or uation (E	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD}	LOS F?
$P_{EQ} = (Equal_{PEQ} = 1.000)$ $V_{12} = 5318$	V ation 25-2 or 2 using Equation pc/h Checks	12 = V _F ( P _{FM} 25-3) on (Exhibit 2	)	***************************************	S F?	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ <b>Capaci</b> V _{FI} = V	juation ing Equ h	of v ₁₂ V ₁ 25-8 or uation (E	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD}	LOS F?
C _{EO} = (Equa P _{FM} = 1.000 V ₁₂ = 5318 Capacity	V ation 25-2 or 2 using Equation pc/h r Checks Actua	12 = V _F ( P _{FM} 25-3) on (Exhibit 2	) (5-5) (ximum	***************************************	····	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/i <b>Capaci</b> V _{FI} = V V ₁₂	juation ing Equ h ty Ci	of v ₁ ; V ₁ 25-8 or uation (E	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD}	LOS F?
C _{EO} = (Equa C _{FM} = 1.000 C ₁₂ = 5318 Capacity V _{FO}	ation 25-2 or 2 using Equation pc/h Checks Actua	12 = V _F ( P _{FM} 25-3) on (Exhibit 2 al Ma See E)	) :5-5) ximum khibit 25-7	Y	es	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ <b>Capaci</b> V _{FI} = V V ₁₂ V _{FO} = V _F	juation ing Equ h ty Ci	of v ₁ ; V ₁ 25-8 or uation (E	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD}	LOS F?
C _{EO} = (Equa P _{FM} = 1.000 V ₁₂ = 5318 Capacity	V ation 25-2 or 2 using Equation pc/h r Checks Actua	12 = V _F ( P _{FM} 25-3) on (Exhibit 2 al Ma See E)	) (5-5) (ximum	Y	······································	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ <b>Capaci</b> V _{F1} = V V ₁₂ V _{FO} = V _F V _R	juation ing Equ h ty Ci	of v ₁ ; V ₁ 25-8 or uation (E	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD}	LOS F?
V _{FO} = (Equa V ₁₂ = 1.000 V ₁₂ = 5318 Capacity V _{FO}	vation 25-2 or 2 using Equation pc/h  Checks Actual 5987	V _F ( P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}   P _{FM}	) ximum xhibit 25-7	Yı Yı	es es	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ <b>Capaci</b> V _{F1} = V V ₁₂ V _{FO} = V _F V _R	juation ing Equ th	of v ₁₂ V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) (xhibit 25-	V _F - V _R )P _{FD} 11)  Maximum	
V _{FO} = (Equal Points)	ation 25-2 or 2 using Equation pc/h / Checks Actual 5987	Postermin	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ <b>Capaci</b> V _{F1} = V V ₁₂ V _{FO} = V _F V _R	juation ing Equ h ty C	of v ₁ ; V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) 5 xhibit 25-	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
$V_{\rm FO} = ({\rm Equat})$ $V_{\rm FO} = 1.000$ $V_{\rm 12} = 5318$ $V_{\rm FO} = 0$ $V_{\rm R12} = 0$ $V_{\rm R12} = 0$	V ation 25-2 or 2 using Equation pc/h Checks Actual 5987  5987  Service L 5,475 + 0,0073	Postermin	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/i <b>Capaci</b> V _{F1} = V V ₁₂ V _{FO} = V _F V _R V _R	ing Equation the sty Ci	of v ₁ ; V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) 5 xhibit 25-	V _F - V _R )P _{FD} 11)  Maximum	(if not F)
V _{FO} = (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)	V ation 25-2 or 2 using Equation pc/h V Checks Actual 5987 5987 Service E 5.475 + 0.0073 88.7 (pc/mi/ln)	See Example   Permin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin   Petermin	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R Level C	ing Equation  ty Ci  F  Of Se  D _f (pc/mi/l	of v ₁₂ V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) 5 xhibit 25-	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
$V_{\rm FO} = ({\rm Equat})^{-1}$ $V_{\rm FO} = 1.000$ $V_{\rm 12} = 5318$ $V_{\rm FO} = 0$ $V_{\rm R12} = 0$ $V_{\rm R2} = 0$ $V_{\rm R3} = 0$ $V_{\rm R3} = 0$ $V_{\rm R4} = 0$	V ation 25-2 or 2 using Equation pc/h Checks Actual 5987  Service E 5.475 + 0.0073 18.7 (pc/mi/ln) F (Exhibit 25-4	$ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R Level c	puation ing Equ t ty Ci  F D (pc/mi/l (Exhibi	of v ₁ ;  V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) Exhibit 25- S 1 Deter 2 + 0.0080	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
$V_{\rm FO} = ({\rm Equat})^{-1}$ $V_{\rm FO} = 1.000$ $V_{\rm 12} = 5318$ $V_{\rm FO} = 0$ $V_{\rm R12} = 0$ $V_{\rm R2} = 0$ $V_{\rm R3} = 0$ $V_{\rm R3} = 0$ $V_{\rm R4} = 0$	V ation 25-2 or 2 using Equation pc/h V Checks Actual 5987 5987 Service E 5.475 + 0.0073 88.7 (pc/mi/ln)	$ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	$L_{EO}$ = (Eq $P_{FD}$ = usi $V_{12}$ = pc/ Capaci $V_{F1}$ = $V$ $V_{12}$ $V_{FO}$ = $V_{F}$ $V_{R}$ Level c $D_{R}$ = (1)	ing Equation  ty Ci  F  Of Se  D;  (pc/mi/li (Exhibi	of v ₁ :  V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) Exhibit 25- S 1 Deter 2 + 0.0080	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
$V_{\rm FO} = ({\rm Equat})^{-1}$ $V_{\rm FO} = 1.000$ $V_{12} = 5318$ $V_{\rm FO} = 0$ $V_{\rm R12} = 0$ $V_{\rm R2} = 0$ $V_{\rm R3} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$ $V_{\rm R4} = 0$	V ation 25-2 or 2 using Equation pc/h Checks Actual 5987  Service E 5.475 + 0.0073 18.7 (pc/mi/ln) F (Exhibit 25-4	$ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$ $ V_{12}  = V_F (P_{FM})$	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R Level C D _R = ( LOS = ( Speed D _S = (	ing Equation ing Equation ing Equation in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in th	of v ₁ ;  V ₁ 25-8 or uation (E hecks Actua	2 = V _R + ( 25-9) (xhibit 25- 3 1	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
V _{FO} = (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)   (Equal Points)	stimation 25-4 or 2 using Equation 25-2 or 2 using Equation pc/h  Checks Actual 5987  Service E 5.475 + 0.0073  18.7 (pc/mi/ln)  (Exhibit 25-4 stimation	See Example   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss   Permiss	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R V _R Level c D _R = ( LOS = ( Speed D _S = (	ing Equation ing Equation ing Equation in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in the second in th	of v ₁ :  V ₁ 25-8 or uation (E hecks Actua	2 = V _R + ( 25-9) (xhibit 25- 3 1	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)
$V_{FO} = (Equal_{PM} = 1.000)$ $V_{12} = 5318$ $V_{FO} = V_{R12}$ $V_{FO} = V_{R12}$ $V_{R12} = V_{R12}$ $V_{R12} = V_{R12}$ $V_{R13} = V_{R13}$ $V_{R14} = V_{R15}$ $V_{R15} = V_{R15}$ $V_{R16} = V_{R16}$ $V_{R17} = V_{R16}$ $V_{R18} = V_{R16}$ $V_{R18} = V_{R16}$ $V_{R18} = V_{R18}$ $V_{R18} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R18}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$ $V_{R19} = V_{R19}$	V ation 25-2 or 2 using Equation pc/h Checks Actual 5987  Service I 5.475 + 0.0073 8.7 (pc/mi/ln) F (Exhibit 25-4 stimation 39 (Exibit 25-1	$V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{FM})$ $V_{F} = V_{F} (P_{F$	)  5-5)  ximum  chibit 25-7  00:All	Y f not	es F)	L _{EO} = (Eq P _{FD} = usi V ₁₂ = pc/i Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R V _R Level of D _R = ( LOS = ( Speed D _S = ( S _R = (	ing Equation for the following Exhibition (Exhibition of the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the following for the follo	of v ₁ ;  V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + ( 25-9) (xhibit 25- 3 1 Detern 2 + 0.008(	V _F - V _R )P _{FD} 11)  Maximum  mination	(if not F)

		RAMP	SAND	RAMF	JUNC	TIONS	WO	RKSHE	ET				
General I	nformati	on				Site Inf	orm	ation					
Analyst Agency or Cor Date Performe Analysis Time	ed Period	EJB HW Loch 7/28/2009 DHV	)		Jer Jur An:	eway/Dir o nction isdiction alysis Year		(	-75 South CR 41/Bla Pasco Cot 2030	nton Rd Off-R.	amp		
Project Descri	ption I-75 P	D&E Study -	2030 SB O	ff Ramp	at CR 41 (	[I-75 = 4 La	nes)				<del></del>		
Inputs				······				****		Υ_			
Upstream Adj		Terrain: Lev	el							Downstre Ramp	am Adj		
□ Yes	Г On									I Yes	I₹ On		
₽ No	Off									ΓNο			
L _{up} =	ft		^ _ TA	· ι.	wa			25.0 mah		L _{down} ≃	700 ft		
V _u =	veh/h		S _{FF} = 70.0		show lane	$S_{FR} = 35.0 \text{ mph}$ enes, $L_A$ , $L_D$ , $V_R$ , $V_I$ )							
Conversi	on to pc	/h Under	Base (	Condi	tions		····						
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv	f	н∨	f _p	v = V/PH f _{HV} x f _p	Fx		
Freeway	3950	0.94	Leve	el	14	1	0.9	33	0.95	4742	<del></del>		
Ramp	430	0.89	Leve	H	10	1	0.9	51	0.95	535	··		
UpStream DownStream	990	0.89	Leve		10	1	no	51	0.95	1232	****		
DOMINGRAM	330	Merge Area	<u> </u>	51	1 10		0.5		verge Are				
Estimatio	on of V ₁₂					Estima	tion						
L _{EO} = (Equ P _{FM} = using V ₁₂ = pc/h	ation 25-2 Equation					P _{FD} = 1.0 V ₁₂ = 474	00 u 12 pc	on 25-8 d sing Equ /h	or 25-9)	$(F - V_R)P_{FD}$			
Capacity	Checks					Capac	ity C						
	Actu	al Ma	eximum	LC	DS F?	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Actual		1aximum 4000	LOS F?		
$V_{FO}$						V _{F1} =		4742		4800 4400:Ali	No Yes		
V						V ₁₂ V _{FO} = V _R	V _F -	4742 4207		4800 4800	No		
V _{R12}						V _R		535		2000	No		
Level of	Sarvica	<u> </u>	nation (	if not	<u>F</u> I				Detern	nination (	if not F)		
	5 + 0.0073	<del> </del>		***************************************		LCVCI				V ₁₂ - 0.000			
	oc/mi/ln)	., k	0,0 112	0.000	A	D _R =	* 1	(pc/mi/ln)		12	В		
LOS = (	Exhibit 25-	4)				LOS = F (Exhibit 25-4)							
Speed Estimation						Speed Estimation							
	kibit 25-19)					D _s =	0.476	(Exhibit	25-19)				
-	h (Exhibil 2					S _R =	56.7	mph (Exh	ibit 25-1	9)			
I ''	,					c -	N1/A	anh /Muhi	hi 95 10	31			
S ₀ = mp	h (Exhibit 2	:5-19)				S ₀ =	IM/A II	nph (Exhi	DIL 25-13	<del>)</del>			

Can			SAND	((),())	20141	····	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>				·
General I	птоrmatic					Site Int					
Analysi		EJB				eeway/Dir o	of Travel		South		
Agency or Cor		HW Lochr				nction				iton Rd On-F	Ramp
Date Performe		7/28/2005				risdiction			o Cou	nty	
Analysis Time		DHV				alysis Year	-	2030	)		···
Project Descri	ption 1-75 PL	J&E Study - S	SB On Rai	mp at CR	41 (1-75	= 4 Lanes)					
nputs											
		errain: Leve	1								
Jpstream Adj	Ramp									Downstrea	rn Adj Ramp
₹ Yes	⊏On .									☐ Yes	☐ On
1, 162	Oli										
□ No	F Off .									I국 No	☐ Off
: 110	1. 011									[ _	
<del></del> 77	00 ft									r ^{qowii} =	ft
_{'up} = 7	VV 11		***		<del></del>					_	
/u = 4	30 veh/h	5	FF = 70.	-			S _{FR} = 35.0	) mph		V _D =	veh/h
_			5	Sketch ( :	show lane	s, L _A , L _D ,V	$_{R}$ , $V_{f}$ )				
Conversi	on to pc/	h Under				<del>-</del>	· · · · · · · · · · · · · · · · · · ·				
	v T	1					T	1		v = V/PHF	٧
(pc/h)	(Veh/hr)	PHF	Terr	ain	%Truck	%Rv	f _{HV}		f _D	$f_{HV} \times f_{p}$	^
Craaway		0.04		- 1							
Freeway	3520	0.94	Leve		14	1	0.933	0.9		4226	
Ramp	990	0.89	Leve		10	1	0.951	0.9		1232	
JpStream	430	0.89	Leve	el	10	1	0.951	0.9	<del>)</del> 5	535	***************************************
DownStream		<u> </u>			<u> </u>				<b></b>		····
		Merge Areas						Diverge	e Area	S	***************************************
Estimatio	n of v ₁₂					Estima	tion of	V ₁₂			
	٧.,	= V _E ( P _{EM} )						V ₁₂ = V _R	+ (V.	· V_IP	<del></del>
- /Equat						_ ,-			( * F	TR// FD	
_{EO} = (Equal						$L_{EQ} = (Ec$					
² _{FM} = 1.000 ι	ising Equation	(Exhibit 25	-5)			P _{FD} = us	ing Equati	on (Exhibit	25-11)		
$I_{12} = 4226 \text{ p}$	nc/h					V ₁₂ = pc/	'n				
Capacity	Checks					Capaci		cks			
	minimized the forest the same for a supplier of the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same for the same				2.50	Capaci		description de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución d			10050
	Actual	Maxi	mum	LO	SF?			\ctual	Ma	ıximum	LOS F?
V	EVED	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	allen of T	V.		V _{F1} = \	/ _F				
$V_{FO}$	5458	See Exr	nibit 25-7	Υe	35	V ₁₂					
				<u> </u>		<del> </del>					****
						$V_{FO} = V_{F}$	· -				
$V_{R12}$	5458	460	0:All	Υe	es	$V_R$					
						$V_{\rm R}$					
				<u> </u>		<del> </del>					
<u>evel of S</u>	***************************************	············		<del></del>		Level	of Serv	ice Det	ermi	nation (i	t not F)
D _R = 5.	475 + 0.00734	$v_R + 0.007$	8 V ₁₂ - 0.0	00627 L _A			D _R ≃	4.252 + 0.0	086 V	₁₂ - 0.0009 L ₁	)
	.5 (pc/mi/ln)		• =	4.		D _R =	(pc/mi/in)				
							. ,				
***************************************	(Exhibit 25-4)			***************************************		LOS =	(Exhibit 25	0-4)	······		
Speed Es	timation		-			Speed	Estim	ation			
1 _s = 1.180	0 (Exibit 25-19	1}		·			(Exhibit 25	·······			
•	,	•				T	•	,			
m ** -	mph (Exhibit :	25-19)				S _R =	mph (Exhi	DIL 20-19)			
_R = 37.0						S _o = mph (Exhibit 25-19)					
	mph (Exhibit 2	5-19)				Տ ₀ =	mph (Exhi	bit 25-19)			
₀ = N/A 1		*				l	mph (Exhi mph (Exhi				

Generated 11/8/2006 9:37 AM

			<u> </u>	I CATION	P JUN(	***************************************		***************************************				
General .	intormati					Site Int					~~~~	
Analyst		EJB				eeway/Dir c	of Trav	el		orthbound		
Agency or Co		HW Loch				nction				Cortez Blvd. C	ff-Ramp	
Date Perform		4/19/2005	)			risdiction				ndo County	•	
Analysis Time		DHV				alysis Year			2030			
Project Descr	iption I-75 F	D&E Sludy -	2030 NB C	)ff Ramp	at SR 50	(1-75 = 4 La)	anes)					
Inputs											***************************************	
Jpstream Adj —	•	Terrain: Lev	el							Downs Ramp	tream Adj	
	□ On									F Yes	s	
	□ Off										□ Off	
Tup =	ft		70		***************************************					Ldown ==	2360 ft	
√  =	veh/h		$S_{FF} = 70.0$					35.0 m	ph	V _D =	1460 veh/	
v u -	ACIBII			Sketch (	show lane	s, L _A , L _D ,V	$(R,V_1)$			U	1400 4011	
Conversi	on to pc	/h Under	Base (	Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv		f _{HV}	fp	v = V/F f _{HV} x f		
Freeway	4980	0.93	Leve	3l	14	2	0.9	931	0.95	1		
Ramp	1680	0.95	Leve		19	2	<del> </del>	910	0.95		6	
UpStream		<u> </u>			,,,		<del>                                     </del>					
DownStream	1460	0.95	Leve	<u>-</u>	19	2	n:	910	0.95	177	8	
	. , , ,	Merge Area	<u> </u>		] ,0		<u> </u>	<i></i>	Diverge /			
Estimatio	on of v.s					Estima	tior	ofv				
										07 17 10		
		$I_{12} = V_F (P_{FM})$	)							(V _F - V _R )P _F	D	
L _{EQ} = (Equ						L _{EO} = (E	quat	ion 25-	8 or 25-	9)		
o _{FM} = using	Equation	(Exhibit 25-5	5)			P _{FD} = 1.0	00 L	ısing E	quation	(Exhibit 25-11)	)	
/ ₁₂ = pc/h						V ₁₂ = 605	54 pc	:/h				
Capacity	Checks	······································	·		······································	Capac	ity (	heck	S	<u></u>	***************************************	
	Actu	al Ma	ximum	1 10	SF?			Actu		Maximum	LOS F?	
		- 1119		<u> </u>		V _{FI} =	V	6054		4800	Yes	
$V_{FO}$												
						V ₁₂		6054	1	4400:All	Yes	
V _{R12}						$V_{FO} = V_{R}$		400	3	4800	No	
*****						V _R		204	:	2000	Yes	
	<u> </u>			<u> </u>	<b>***</b> *********************************			<u> </u>				
<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	····	Determin				Level					(if not F)	
$D_{R} = 5.47$	5 + 0.0073	$4 v_R + 0.06$	078 V ₁₂ -	0.0062	27 L _A	1	$D_R$	= 4.252	2 + 0.00	86 V ₁₂ - 0.00	009 F ^D	
) _R = (p	c/mi/ln)					D _R =	56.3	(pc/mi/	ln)			
.OS = (E	Exhibit 25-4	1)				LOS =	F (E)	khibit 2	5-4)			
***************************************	timation	·				ļ				<u> </u>		
		•				Speed Estimation  D _s = 0.612 (Exhibit 25-19)						
3	ibil 25-19)					1 -						
S _R = mpt	(Exhibit 2	5-19)				l ''			xhibit 25			
	S _n = mph (Exhibit 25-19)						NIA o	anh /Ev	hibit 25	101		
S ₀ = mph	i (Exhibit 2	5-19)				S ₀ =	IMW II	iibii (r	HIDR 25	-13)		
~	i (Exhibit 2 i (Exhibit 2	•				S =			xhibit 25			

Copyrigi

MA 10:01

<u> </u>	I_E		2 WIAD	IVANI	- JUNE	····	WORK				
<b>General</b> i Analyst Agency or Co Date Perform		ON EJB HW Loch 7/28/200			រុក	Site Inf eeway/Dir onclion risdiction	ormatic f Travel	I-75 N SR 50	forthbound D/Cortez Blvd. ( ando County	On-Ramp	
Analysis Time		DHV				alysis Year		2030			
	iption I-75 P	D&E Sludy -	2030 NB O	n Ramp							
nputs											
Jpstream Adj		Terrain: Lev	el						Downst	tream Adj Ramp	
▼ Yes	厂 On								F vo	s 「On 「Off	
□ No	IZ Off								L _{down} =		
_ _{up} =	2360 ft										
Vu =	1680 veh/h	,	S _{FF} = 70.0		show lane	S s, L _A , L _D ,V _I	$S_{FR} = 35.0$ $R_{P}, V_{p}$	mph	V _D =	veh/h	
Conversi	on to pc	h Under	Base C	ondi	tions						
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv	f _{HV}	f	$v = V/F$ $f_{HV} \times f_{p}$		
Freeway	3310	0.94	Leve	el .	14	2	0.931	0.9			
Ramp	1460	0.95	Leve		19	2	0.910	0.9	·········		
UpStream	1680	0.95	Leve	2	19	2	0.910	0.9	5 20	46	
DownStream		Merge Area	<u></u>		<u> </u>			 Diverge	Λιασο		
Estimatio	on of v	weige Alea	3	·····		Ectima	tion of		Alcas		
		₂ = V _F ( P _{FM}	)						+ (V _F - V _R )P _{FD}		
L _{EO} = (Equa	ition 25-2 or 2	5-3)				L _{EO} = (Ed	quation 25-8	3 or 25-9)			
P _{FM} = 1.000	using Equatio	n (Exhibit 2	5-5)			P _{FD} = us	ing Equatio	n (Exhibit 2	5-11)		
V ₁₂ = 3981	pc/h					V ₁₂ = pc/	ħ				
Capacity	Checks				************************	Capaci	ty Chec	ks			
	Actua	l Ma	ximum	LO	SF?			ctual	Maximum	LOS F?	
V _{FO}	5759		hibit 25-7		es	V _{FI} = \					
10						V ₁₂					
. ,						V _{FO} = V _F	-				
$V_{R12}$	5759	46	00:All	Y	es	V _R					
					******	$V_{R}$					
_evel of	Service E	etermin	ation (i	fnot	F)	Level	of Servi	ce Dete	erminatio	n (if not F)	
D _R = 5	.475 + 0.0073	4 v _R + 0.00	78 V ₁₂ - 0.0	0627 L _A			$D_R = 4$	.252 + 0.00	086 V ₁₂ - 0.000	)9 L _D	
O _R = 4	5.7 (pc/mi/ln)					D _R =	(pc/mi/ln)				
11	(Exhibit 25-4	)				1	" (Exhibit 25-	4)			
	stimation						Estima				
	······································	***************************************			***************************************	<del>                                     </del>	(Exhibit 25	**************************************			
J	14 (Exibit 25-1						mph (Exhib	•			
~ ^~	6 mph (Exhibil	ZD-19)									
	manh //"t. t. t.	25 421				S_=	mnh (Evhili	it 25-19\			
$S_0 = N/A$	mph (Exhibit 3 mph (Exhibit	•				ľ	mph (Exhit mph (Exhit				

	·····		S AND	RAME	, JUNG	CTIONS						
	Informati	ion				Site Inf			}			
Analyst		EJB			Fre	eeway/Dìr o	f Trav	el		Southbo		
Agency or Co		HW Lochi				nction					z Blvd. Off-F	₹amp
Date Perform		7/28/2005	٢			risdiction				ando C	ounty	
Analysis Time		DHV				ialysis Year			2030	}		
	ription I-75 F	D&E Study -	2030 SB C	off Ramp	at SR 50	(I-75 = 4 La	nes)					
Inputs												
Upstream Ad	,	Terrain: Leve	ēļ								Downstre Ramp	am Adj
□ Yes	□ On										F Yes	☑ On
™ No	Off										Г No	□ Off
L _{up} ≈	fi						······································				L _{down} ≕	2360 ft
V'' =	veh/h	5	$S_{\rm FF} = 70.1$	0 mph		Sı	-R =	35.0 m	iph		V _D =	1310 veh
, п <u>.</u>	veiiii			Sketch (s	how lane	s, $L_A$ , $L_D$ , $V_F$	$(V_i)$				D D	1310 4611
Convers	ion to pc	/h Under	Base (	Condit	ions							
(pc/h)	V (Veh/hr)	PHF	Terri	ain	%Truck	%Rv		ſ _{HV}	i	: р	v = V/PH f _{HV} x f _p	Fx
Freeway	3780	0.93	Leve	9	14	2	0.9	931	0.9	5	4595	
Ramp	1150	0.89	Leve		19	2		910	0.9		1495	
UpStream											<del>                                     </del>	***************************************
DownStream	1310	0.89	Leve	el	19	2	0.	910	0.9	5	1703	
	<u>*</u>	Merge Areas							Diverge	e Areas	J	
Estimation	on of v ₁₂					Estima	tior	ofv	17			
		₁₂ = V _F ( P _{FM}	١	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······································	<u> </u>				+ /\/	- V _R )P _{FD}	
- (Eas	vuation 25-2		,			- /=:				•	*R/ FD	
						$L_{EO} = (Ee$						
	g Equation	(EXNIBIT 25-5	)			P _{FD} = 1.00			quatio	ı (Expil	oit 25-11)	
V ₁₂ = pc/h	·····					$V_{12} = 459$				***************************************		
Capacity	Checks					Capaci	ty (	Check	(S			
	Actu-	al Max	dmum	LO	SF?			Actu	al	Max	imum	LOS F?
W						V _{F1} = \	/ _F	459	5	4	800	No
$V_{FO}$						V ₁₂		459	5	441	IIA:00	Yes
						V _{F0} = V	E -					
V _{R12}						V _R	'	310		48	00	No
R12						<u> </u>		440		20	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	ht.
				<u> </u>		V _R		149			000 000	No
<del></del>	Service I	····				<u> </u>					nation (i	<del></del>
$D_{R} = 5.47$	5 + 0.0073	4 v _R + 0.00	)78 V ₁₂ -	0.0062	7 L _A		D _R	= 4.25	2 + 0.0	086 V	₁₂ - 0.0009	L _D
D _R = (	pc/mi/ln)					$D_R = 4$	43.8	(pc/mi/	ln)			
_OS = (I	Exhibit 25-4	1)				LOS = I	F (E:	xhibit 2	5-4)			
	stimation	·				Speed			·			
	kibit 25-19)					<del>                                     </del>			oit 25-1	9)		
	h (Exhibit 2	5-19)				1		•	xhibit 2	-		
**						1		•	thibit 2			
,	h (Exhibit 2. h (Exhibit 2:					1		•				
	h (Exhibit 2				1.1	S = 54.2 mph (Exhibit 25-15)						
t © 2005 Unive	ersity of Florida		HCS+ TM Version 5.2 Generated: 11/8/2006									

Copyrig

0-06 AM

		RAMP	S AND	RAMI	P JUN	CTIONS	wo	RKS	HEET			***************************************
General	Informati	ion				Site Inf	form	ation				
Analyst Agency or Co Date Perform Analysis Tim	ned	EJB HW Loch 7/28/200! DHV			Ju Ju	eeway/Dir onction risdiction nalysis Year		<b>;</b>	SR 50	Southbo )/Corte: ando Co	z Bivd. On-l	Ramp
Project Desc			2030 SB C	n Ramp				······································	2000			~
Inputs												
Upstream Ad	j Ramp	Terrain: Lev	el	***************************************		***************************************					Downstrear	n Adj Ramp
√ Yes	□ On										☐ Yes	
ΓNο	F Off										™ No	
L _{up} =	2360 ft		2 - 70	0			· _ /	DE O mon	<u> </u>		_down =	ft
Vu =	1150 veh/h	•	$S_{FF} = 70.$					35.0 mp	n		V _D =	veh/h
		<u> </u>	<del></del>			es, L _A , L _D ,V	_R ,V _I )		***************************************			
Convers	ion to pc	/h Under	Base (	Condi	tions		· · · · ·				, upus	
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	<u> </u>	HV	f		v = V/PHF f _{HV} x f _p	X
Freeway	2640	0.94	Lev		14	2	0.9		0.95		3175	
Ramp	1310	0.89	Lev		19	2	0.9		0.9		1703	***
UpStream DownStream	1150	0.89	Lev	<u>el</u>	19	2	0.9	10	0.98	)	1495	
DOWNSTICAN		Merge Areas	<b></b>	***************************************	<u> </u>		<u> </u>	1	Diverge	Areas	1	
Estimati	on of V ₁₂		<del></del>		<del></del>	Estima	tion					
		12 = V _E ( P _{EM}	)	······································					₁₂ = V _R	+ (V _F -	V _R )P _{ED}	
L _{EO} = (Equ	ation 25-2 or 2	25-3)				L _{EQ} = (Ed	guation			•	Ν / υ	
P _{FM} = 1.000			5-5)			P _{FD} = us				5-11)		
V ₁₂ = 3175			•			V ₁₂ = pc/		-		•		
Capacity		<del></del>			<b>%</b>	Capac		heck	S			
	Actua	al Max	dimum	10	S F?		T	Actu		Maxi	imum	LOS F?
						V _{F1} = \	/_			11.07		
$V_{FO}$	4878	See Ex	hibit 25-7	Ye	es	ļ						
					<del></del>	V ₁₂	$\dashv$	·····				
\/	4878	46	00:AH			V _{FO} = V _F	•					
V _{R12}	4070	401	JU.All	Ye	25	V _R						
Level of	Service L	<u> </u>	ation (i	f not	F)		of Se	rvice	Dete	rmin	ation (i	f not F)
Level of Service Determination (if not F) $D_R = 5.475 + 0.00734 \text{ v}_R + 0.0078 \text{ V}_{12} - 0.00627 \text{ L}_4$							<del></del>				- 0.0009 L _r	
]	18.8 (pc/mi/ln)	• • • • • • • • • • • • • • • • • • • •	12	А		D _R =	(pc/mi/	11		12	r	J
l	Exhibit 25-4	}				1	(Exhibi	1 25-4)				
Speed E	·	-		······································		Speed	<u> </u>		) <i>n</i>			
<u> </u>	M _s = 0.789 (Exibit 25-19)							t 25-19				
f	9 mph (Exhibi	,				1 "	•	Exhibit 2				
1	. mph (Exhibit	·				1		xhibit 2				
	9 mph (Exhibi	•				1 *		xhibit 2				
L	ersity of Florida		served		· · · · · · · · · · · · · · · · · · ·	<u> </u>		ersion 5			Generat	ed 11/8/2006 1

Generated 11/8/2006 10:09 AM

## APPENDIX 'L' OPENING YEAR (2010) BUILD INTERSECTION LOS

				<u> </u>	<u> </u>	<u>DET A</u>	<u> </u>				······································						
General Inf	ormation								rmati								
Analyst	JAS						Inter					B Ram		D C	R 41		
Agency or C	Co. FDOT						Area					er area					
Date Perfori	med 11/03/200	96					Juris			P	asco	Count	y				
Time Period	i						Anal	/sis	Year		, n	0		سمادا			
							Proje	ct I	D			op Rai (WBT=			native - =2)		
Volume and	d Timing Inpu	rt I		EB			W	D		1		NB				SB	
			т	TH	RT	+			RT	+-	_T	TH	R	<del>-</del>	LΤ	TH	RT
Number of L	anaa Ni	1	}	2	171	LT	2	1	KI	┵	_ !	117	$\vdash$		2	117	2
				T	╂	+	$\frac{1}{T}$		<u> </u>			<b></b>	-		L		R
Lane Group		L	10	Ļ					<del> </del>	-			┼		199		261
Volume, V (		13		113	-		27.	3	<u> </u>	_		<b> </b>	╂		9		<del>-</del>
% Heavy ve Peak-Hour f	ehicles, %HV	10		5 0.85	-		0.85		<b>_</b>	+		<b></b>	┼		9 0.91		6 0.91
		O.8 (A) A		0.85 A	-			,	<u> </u>	+		<del> </del>	┼		0.91 A		0.91 A
Start-up Los	) or Actuated (	A) A 2.		2.0			2.0		<del> </del>	+-		<b> </b>			2.0	<del></del>	2.0
	f Effective Gre			2.0	+		2.0		<b></b> -	+		<del> </del>	┢		2.0	,	2.0
Arrival Type		en, e, 2.1		3	_		3		<b> </b>	-		<b></b>	╂		3		3
Unit Extensi		3.0		3.0	╅		3.0		├	+		<del>                                     </del>	╫		3.0		3.0
Filtering/Met			00	1.000	<del> </del>		1.00		<b></b>	_		<b></b>	╁─		1.000		1.000
	t Demand, Q _b	0.1		0.0		+	0.0		<u> </u>	+		<b> </b>	╫		0.0		0.0
	RTOR Volume			0.0		10	0.0	**********		╁		<b></b>	╂		0.0	0	0.0
Lane Width		12		12.0	+	<del>  "</del>	12.0	ን	<del> </del>	+			╫┈		12.0	Ů.	12.0
Parking / Grade / Parking		1/2. N		0	₩.	<b>-</b> N	12.0		N	+		<b> </b>	╁		N	0	N N
	Parking / Grade / Parking Parking Maneuvers, N _m					┤~	+	·		+		<u> </u>	╫		''	<u> </u>	1 / *
Buses Stopp		<del></del>		0		_	<u> </u>		<u> </u>	_		<del> </del>	╂		0	<u> </u>	0
	or Pedestrians,			3.2		-	3		<u> </u>	╫		<u> </u>			<del>  '</del>	3.2	1 0
		EW Pe			3	<del></del>	)4		CD O		T	06	T		<u>1</u> 07		08
Phasing	EB Only G = 6.2	G = 24		G =	13	G =	J4		SB Or i = 14		G			G =		G=	00
Timing	Y = 5	Y = 5	.0	Y =		Y =			= 5		Y			Y =		Y =	
Duration of	Analysis, T = 0			<del>                                     </del>		1 -	·····	<u> </u>					aath		= 60.0		
			- I - : :		00 n						10)	/CIG LG	igas		- 00.0	***************************************	
Lane Group	Capacity, Co	טוונוטו ט		, ano i EB	_US <i>U</i>	etermi	nauon WB		T			NB			1	SB	
		LT		TH	RT	LT	TH	1	RT	LT	Т	TH	R	T	LT	TH	RT
Adjusted Flo	w Rate, v	160		33			321	T			$\neg \dagger$			`	219		287
Lane Group	Capacity, c	576	20	021			1391	T			_				793	<del> </del>	1169
v/c Ratio, X		0.28	-	07			0.23	+			$\dashv$		T		0.28		0.25
Total Green	Ratio, g/C	0.59		59			0.40	+			$\dashv$				0.25	<del>                                     </del>	0.43
Uniform Del	ay, d,	5.8		.3			11.9	$\dagger$			-		<del> </del>		18.3		10.8
Progression		1.000		000			1.000	T							1.000		1.000
Delay Calibr	ration, k	0.11	0.	11		***************************************	0.11	T			$\dashv$				0.11		0.11
Incremental	Delay, d ₂	0.3	10	0.0			0.1	1			$\dashv$				0.2		0.1
Initial Queue	e Delay, d ₃	0.0	0.	.0			0.0								0.0		0.0
Control Dela	зу	6.1	5	5.3			12.0								18.5		10.9
	LOS		7	4			В	T					1		В	1	В

Approach Delay	5.7	12.0		14.2
Approach LOS	А	В		В
Intersection Delay	11.3	$X_{c} = 0.34$	Intersection LOS	В

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/9/2006 4:28 PM

					HC	S+"	DE				POR								
General In	formation										rmatic								
Analyst	JAS								Inters					B Ram	-	CI	R 41		
Agency or (	Co. FDOT							1	Area ⁻					er area	-				
Date Perfor	rmed 11/03/20	06							Jurisd			Pa.	sco	Count	У				
Time Period	d								Analy:	SIS	Year	MO	. 1 .	D	11	4	منائمه		
									Projed	:1 10	)			op Rai 'WBT=.			native - =1)		
Volume an	d Timing Inp	ut	T						1.4.15			1		LID					
l			LT	T	EB TH	l n-	+	, -	WE	<u>'</u>			- 1	NB TH	RT		LT	SB	T 0=
Number of	t ance Nt		1		2	RT	-	LT	TH 2	$\dashv$	RT	1		117	171	┥	1	TH	RT 2
Lane Group			Ľ		T		+		T	$\dashv$		<del> </del>			<del> </del> -	$\dashv$	L		$\frac{1}{R}$
Volume, V (			136		113		┽		273	┥		╂──			<del> </del>	$\dashv$	199	<u> </u>	261
	ehicles, %HV		10	<del>'</del>	5	-	╁		4	┪		╂			-		9		6
	Factor, PHF	····	0.85		0.85	<b></b>	╁		0.85	$\dashv$		╂			├		0.91		0.91
	) or Actuated	(A)	A	- 1	A		+		A	$\dashv$		+-			1	-	Α	<u> </u>	A
Start-up Los	<del> </del>	· · · /	2.0		2.0		+		2.0	1		╁──			<b> </b>	_	2.0		2.0
	of Effective Gre	en. e		_	2.0	<del> </del>	T		2.0	$\dashv$					<b>1</b>		2.0	<del> </del>	2.0
Arrival Type		, -	3	1	3		T	<del></del>	3	_		†			<b>†</b>		3		3
Unit Extens		***************************************	3.0		3.0		$\dagger$		3.0	1	•••	1					3.0	<u> </u>	3.0
Filtering/Me	etering, I	***************************************	1.00	0	1.000	<b>1</b>			1.000	)		1			<b>1</b>		1.000		1.000
Initial Unme	et Demand, Qu	)	0.0		0.0		1		0.0	T							0.0		0.0
Ped / Bike /	ed / Bike / RTOR Volumes		0		0			0	0		***************************************						0	0	0
ane Width			12.0		12.0				12.0								12.0		12.0
Parking / Gr	Parking / Grade / Parking				0	N		N	0		N						Ν	0	N
Parking Mar	neuvers, Nm																		
Buses Stop			0		0		T		0								0		0
Min. Time fo	or Pedestrians	, G _p			3.2				3.2			<u> </u>						3.2	
Phasing	EB Only	4	Perr		03	}		04			B Oni	·		06			07		08
Timing	G = 5.9		49. <i>E</i>	}	G =			<u> </u>			= 39.	5	G :			3 =		G =	
	Y = 5	Y =	5		Y =		Υ	=		Y	= 5		γ:			<u> </u>		Y =	
	Analysis, T =				<u> </u>								Су	cle Ler	ngth,	<u>C</u> :	= 110.0	)	
Lane Group	p Capacity, C	ontro	ol Dei		and Lo	OS De	etei							ND			I	SB	
		<b>-</b>	T	T		₹T	L		WB TH	T E	रा	LT	<b>-</b>	NB TH	RT		LT	TH	RT
Adjusted Flo	ow Rate, v		60	13		`			321	Ϊ́	``	<u> </u>	1	* * * *			219		287
Lane Group	Capacity, c	5	11	18	95			1	568	Γ		·····	T				595		1236
v/c Ratio, X		0.3	31	0.0	7	1		o.	20				T				0.37		0.23
Total Green	Ratio, g/C	0.3	55	0.5	5			0.	45	T			T				0.36		0.46
Uniform Del	lay, d ₁	12	.6	11.	6			1.	8.3				1				26.0		18.1
Progression	Factor, PF	1.0	200	1.0	000			1.	000				T				1.000		1.000
Delay Calibr	ration, k	О.	11	0.1	1			0.	.11								0.11		0.11
	Delay d	0	),4	0.	0				0.1				J				0.4		0.1
<u> </u>	ociay, u ₂								0.0	Γ			T				0.0		0.0
Incremental		0.	0	0.0	9				7. U	L					<u></u>		0.0	<u></u>	
Incremental Initial Queue Control Dela	e Delay, d ₃		0 2.9	<del> </del>	.6		<b></b>		8.3				T				26.4		18.2

Approach Delay	12.3	18.3		21.7
Approach LOS	В	В		C
Intersection Delay	18.3	$X_c = 0.32$	Intersection LOS	В

HCS+TM Version 5.2

Generated: 11/9/2006 4:45 PM

		***********	HC	S+"	DETA	ILED	REPO	)RT	-					***************************************
General Information				1			nforma		************					***************************************
Analyst JAS Agency or Co. FDOT	·····	***************************************			<del></del>	Inters Area	ection Type		I-75 N All oth	IB Ramı ner area	s	CR 41		
Date Performed 11/08/2000	e					Jurisd			Pasco	County	/			
Time Period	o .					Analy	sis Yea			_		,		
Time Feriou						Projec	et ID			(WBT=1		lernative - LT=1,		
Volume and Timing Input														
			EB			WE	3			NB			SB	
	Ľ	Ī	TH	RT	LT	TH	R.	T	LT	TH	RT	LT	TH	RT
Number of Lanes, N ₁	1		1			1						1		
Lane Group	L		T			T						L		
Volume, V (vph)	13	6	113			273						199		
% Heavy Vehicles, %HV	10		5			4						9		
Peak-Hour Factor, PHF	0.8	5	0.85			0.85						0.91	<u></u>	
Pretimed (P) or Actuated (A	·····		Α	<u> </u>		A					<u></u>	Α	<u> </u>	
Start-up Lost Time, I1	2.0		2.0			2.0				<b></b>		2.0	<u> </u>	
Extension of Effective Gree		)	2.0			2.0			···	<u> </u>	<u> </u>	2.0	ļ	
Arrival Type, AT	3		3	ļ		3				<u>  </u>	<b> </b>	3	<b></b>	
Unit Extension, UE	3.0		3.0	<u> </u>		3.0			·········	<b></b>	<b>_</b>	3.0	<u> </u>	
Filtering/Metering, I Initial Unmet Demand, Qb	1.0		1.000			1.00	0			<del>                                     </del>	<b> </b>	1.000	<b></b>	
Ped / Bike / RTOR Volume:	0.0 s 0	'	0.0		<del>-</del>	0.0					<del> </del>	0.0	<del></del>	
Lane Width	s 0		12.0	<b> </b>	10	0 12.0	_			-	╂	12.0	0	_
Parking / Grade / Parking	12. N		0	N	$\frac{1}{N}$	0	$\dashv_{\scriptscriptstyle N}$				<b>-</b>	N 12.0	$\mathbf{I}_{o}$	$\frac{1}{N}$
Parking Maneuvers, Nm			U	17	+"	U	- 10			-	1	- 1/	10	14
Buses Stopping, Na	<del>-</del>		0		-	10		$\dashv$			╂	<del>-                                    </del>	ļ	
Min. Time for Pedestrians,			3.2	<u> </u>	-	3.2		-+		1	<u> </u>		3.2	
	EW Per				1 -	***************************************				00		07		~~
	G = 59.		03 G =		G =	14	SB (			_06 _	-	07 3 =	G =	08
Timino -	Y = 5	<del></del>	Y =		Y =	<del></del> -	Y = 5		Y		L	/ =	<del>                                    </del>	
Duration of Analysis, $T = 0$ .		<del></del>	' -		<u> </u>		l					C = 150.6		****
Lane Group Capacity, Co		./au	and I (	) S () c	tormi	nation				y CIC ECI	igur,	700.0		
Lane Ordan Ospacity, Co	T		8710 LC	7 <u>0</u> 06	. CEI IIIII	WB		<u> </u>		NB		1	SB	
	LT			रा 🕇	LT	TH	RT	Τī	T	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	160	<del></del>	33		· · · · · · · · · · · · · · · · · · ·	321		<b>T</b>				219		
Lane Group Capacity, c	672	12	07	T		730			l			442		
v/c Ratio, X	0.24	0.1	1 7			0.44		<b>T</b>				0.50		
Total Green Ratio, g/C	0.67	0.6	67	1		0.40		1				0.27		
Uniform Delay, d ₁	11.0	9.0	0			32.8						46.5		
Progression Factor, PF	1.000	1.0	000	-		1.000						1.000		
Delay Calibration, k	0.11	0. 1	11			0.11						0.11		
Incremental Delay, d ₂	0.2	0.	.0			0.4						0.9		
Initial Queue Delay, d ₃	0.0	0.4	0			0.0						0.0		
Control Delay	11.1		.0			33.2	ļ					47.4		<u> </u>
	В	A	-			С		1				D		Į

Lane Group LOS				
Approach Delay	10.2	33.2		47.4
Approach LOS	В	С		D
Intersection Delay	28.8	X _c = 0.45	Intersection LOS	С

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:47 PM

					HC	S+"	DE	ETAI	LED	RE	EPOF	RT							
General Int	ormation										rmati	ion	·						***************************************
Analyst Agency or C									Inters Area Juriso	Тур	эе	A	VII oth	B Ramp er area: County	s	CR	41		
	med 11/08/200	06									Year		a300	County					
Time Period	1								Proje			Λ	IB Sli _l 2010	p Ramp	Alte	erna	tive -		
Volume and	d Timing Inpu	ıt	***************************************																
					EB				WI	3				NB				SB	
			LT	_	TH	RT	4	LT	TH		RT		LT	TH	R'	T	LT	TH	RT
Number of L			1	_	2	<b> </b>	4		12		1		2	<u> </u>	ـــــ		······································		ļ
Lane Group			L 120	$\dashv$	T	ļ	4		T 077		R		<u>L</u>		╂				<u> </u>
Volume, V (	vp⊓) ehicles, %HV		136 10	-	113 5	<b></b>	+		273 4		44 10	<del>-</del>	261 6	-	╄				<del> </del>
	Factor, PHF		0.85	-	).85	<del> </del>	+		0.85		0.85		.90		┼─				<del> </del>
	) or Actuated	(A)	A	<del>-  </del>	A	<del>                                     </del>	+		A	***********	0.65 A		A	<del>                                     </del>	+				<del>                                     </del>
Start-up Los		` '/	2.0	$\dashv$	2.0	<del>                                     </del>	+		2.0		2.0		2.0	<b>†</b>	†				1
<del></del>	f Effective Gre	en, e	L		2.0	<b>†</b>	T		2.0		2.0		2.0	1	1				1
Arrival Type			3		3		_		3		3		3						
Unit Extensi			3.0		3. <i>0</i>		1		3.0		3.0		3. <i>0</i>						
Filtering/Me			1.00		1.000				1.00	0	1.000		.000						
~~~~	t Demand, Qb		0.0 0	_	0.0	ļ	_		0.0		0.0		0.0	ļ	<b>_</b>				
	ed / Bike / RTOR Volumes				0	 	4	0	0		0		0	0	4-				
Lane Width	ade / Parking		12.0 N		12.0 0	N	+	N	12.0 0		12.0		2.0	 	+ _N				<u> </u>
			14	_	U	I N	\dashv	N.	10		Ν	+	N	0	114				-
Buses Stop	neuvers, Nm		0		0	 -	-		10		0	+		-	-				
	or Pedestrians	Ga	0		3.2	<u> </u>	+		3.2	,	U	\dashv	0	<u>1</u> 3.2	—		 	<u> </u>	
Phasing	EB Only		Pern	n	03	}	┰	04			NB Or		T	06	T		<u>l</u> 07	T	08
	G = 12.4		16.5		G =	······································	10) =	· · · · · · · · · · · · · · · · · · ·		= 16		G:			G =		G =	
Timing	Y = 5	Y =		\dashv	<u> </u>		_L				= 5		Ť.			 Y =		Y =	
Duration of	Analysis, T = 6	0.25			•				· · · · · · · · · · · · · · · · · · ·	1,				cle Len	gth.	C =	60.0		
	Capacity, C		l Del	ay,	and L	OS D	ete	rmin	ation		***************************************	*******							***************************************
				E	В		*****		WB					NB	····			SB	
			T	T		रा	L	T	TH	L	RT	Ľ.		TH	R	Τ	LT	TH	RT
Adjusted Flo	ow Rate, v	1	60	13	3				321		52	29	0						
Lane Group	Capacity, c	6	12	194	46				956	9	920	88	37						
v/c Ratio, X		0.2	26	0.0	7			C	0.34	0.	.06	0.3	3						
Total Green	Ratio, g/C	0.5	56	0.5	6			(D. 28	0.	.63	0.2	7						
Uniform Del	ay, d ₁	6.	5	5.9)	l	*********	1	17.4	4	1.3	17.	6	····	T				T
Progression	Factor, PF	1.0	000	1.0	00		*******	1	1.000	1.	.000	1.0	00						
Delay Calibr	ation, k	0. 1	11	0.1	1			6	0.11	0.	.11	0.1	1		T	***************************************			
Incremental	Delay, d ₂	0	. 2	0.	0				0.2	1	0.0	0.	2				<u> </u>	1	
Initial Queue	Delay, d ₃	0.	0	0.0)			1	0.0	C	0.0	0.0)						
Control Dela	ч	6	.7	5.	9		******		17.6	T	4.4	17	7.8						
	LOS	 	\	А		-			В	+	A	В			1		1	1	

Approach Delay	6.4	15.7	17.8	
Approach LOS	А	В	В	
Intersection Delay	13.5	$X_c = 0.37$	Intersection LOS	В

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:13 PM

					НС	 CS+"	- D	ETA	11	ED F	₹F	EPO	RT			··········		***************************************		······································	
General Inf	ormation								~~~	Site Ir	**********							C-11			
Analyst	JAS								.	nterse				75 S	B Ram	ps	@ CF	41	···	************	
Agency or C	Co. FDOT								1	Area T	Гуг	эе			er area		_				
Date Perfor	med 11/08/200	26							١.	Jurisd	ict	ion	P	asco	Count	y					
Time Period	i								1	4nalys	sis	Year									
			~~~						F	⊃rojec	it I	D	S	B Ra	amps -	20	10				
Volume and	d Timing Inpu	ıt	T																		
			.,		EB	1 67	_	ļ , <u>, , , , , , , , , , , , , , , , , ,</u>	1	WB			<del>-</del>		NB		<b></b>	LT	SB		r>
Number of L	anec NI+		LT		TH 2	RT	_	LT 1		TH 2	-	RT	+-	.T	TH	_ <b>j</b>	RT 1	LI.	TH	_	RT
Lane Group			<del> </del>		T	-			$\dashv$	T	-		+i				R		╁──		
Volume, V (			╂	$\dashv$	185	-		176		357				5		<u> </u>	65		╂──	+	***********
	hicles, %HV		-	$\dashv$	4	-		3		6	_		10			-	10		╅	+	<del></del>
Peak-Hour f			<del> </del>		0.88	+-		0.95		0.95			0.8		<b></b>	_	89		<u> </u>	╁	
	or Actuated	(A)	<b> </b>		0.00 A	+		0.95 A		0.93 A			0.c			4	A		<del>                                     </del>	+	·····
Start-up Los	<del></del>		<b></b>	$\dashv$	2.0	<b>†</b>		2.0	-	2.0	$\dashv$		12.		<b>—</b>		2.0		<del>                                     </del>	+	<del></del>
	f Effective Gre	en, e		$\dashv$	2.0	1		2.0	7	2.0	-		2.		<del>                                     </del>		2.0		1	T	·········
Arrival Type	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>		<b>†</b>	7	3	1		3	_	3			3				3		1	十	······································
Unit Extensi				7	3.0	1		3.0		3.0		l	3.		1	13	2.0			1	
Filtering/Mel			<b>1</b>	7	1.000	1		1.000	7	1.000	)	<b> </b>	1.0	000	1	1	.000		1	1	***************************************
Initial Unme	t Demand, Q _b			7	0.0			0.0		0.0			0.	0		10	0.0			1	***************************************
Ped / Bike /	RTOR Volum	es	0		0	1		0		0			0	}	0		15			T	
Lane Width					12.0			12.0		12.0			12	.0		1	2.0			T	···
Parking / Gr	arking / Grade / Parking				0	N		Ν		0		Ν	1	Ī	0		N				
Parking Mar	neuvers, Nm															T					
Buses Stopp	oing, Na				0	1		0		0			1	0		T	0			T	
Min. Time fo	r Pedestrians	, Gp			3.2					3.2					3.2						
Phasing	WB Only		Perr		0	3	I	0	4		1	VB O	nly		06			07		80	
Timing	G = 5.0	G =		)	G =		$\perp$	G =				= 6.	1	G			G =		G =		
	Y = 5	Y =	5		Y =	····		Y =			Υ	= 5		Υ			Y =		<u> </u>		
	Analysis, $T = 0$													C	cle Ler	ngt	h, C =	60.0			
Lane Group	Capacity, C	ontro	l De			os E	)et	termir							. L.C.						
		<b>-</b>	_T		EB H	RT	╀╴	L.T		WB TH		RT	LT	T	NB TH	T	₹T	LT	SB TH		RT
Adjusted Flo	w Rate v		. I	<b>-</b>	10	13.1	t	85		76	<u> </u>	1 \ }	84		1 1 i	+	56	<u> </u>	1	╅	1 \ E
Lane Group		-		<del> </del>			╀		<u> </u>		_					╂			<del> </del>	+	
	Сарасну, с	-		-	65		╄	55		497	_		167			┼	94		-	+	<u></u>
v/c Ratio, X	D.C. YO	_		0.1			┼			15	_		0.50			╀	14		<del> </del>	_	
Total Green				0.5		***************************************	╀		ļ	73	_		0.10			ļ	27	<b></b>		_	
Uniform Dela				6.0			╀	.4	├	.4	L		25.5			╂	6.7	<b></b>	-	_	
Progression					00		1.		ļ	000	_		1.00			╄	000	<u> </u>	<u> </u>	$\bot$	
Delay Calibr				0.1	1		0.	11	0.	11			0.11			┿	11	<u> </u>			
Incremental				0.			ļ	), 1		0.0			2.4			╄	0.2				
Initial Queue				0.0	2		0	.0	0.	.0	L		0.0			┰	.0	ļ		_	
Control Dela				6.	1		2	2.6	2	2.5			27.5	9		1	6.9				
Lane Group	LOS			Α				4	_	4			С				В				
			6.	1				2.	.5					23	.5						

Approach Delay				
Approach LOS	Α	А	С	
Intersection Delay	6.5	$X_c = 0.26$	Intersection LOS	А

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 8:13 PM

		<del></del>		ノンヤ	<u>ueia</u>		REPOF							
General Info	ormation					L	formati		A (C)	<u> </u>	- @ - CD	EO		
Analyst	JAS					Interse					s @ SR	50		
Agency or C	o. FDOT					Area T	• •		nano	areas	•			
Date Perform	ned 11/08/2006					Jurisdi		Her	nano	Ю				
Time Period						Analys	is Year		- 1	n.co. 10	mont			
						Projec	l ID			prove. ive - 2				
Volume and	Timing Input		<del></del>	<del></del>		<u> </u>	···		<u> </u>					
VOIDING GITE		T	EB		Т	WB		Т		NB			SB	
		LT	TH	RT	LT	TH	RT	LT		TH	RT	LT	TH	RT
Number of L	anes, Nı	2	3			3	1	2			2			
Lane Group		L	7			T	R	L			R			
Volume, V (v	/ph)	346	1186			1482	314	340	)		510			
	hicles, %HV	6	6			6	6	6			6			
Peak-Hour F		0.90	0.90			0.91	0.91	0.95	5		0.95		<u> </u>	<u></u>
Pretimed (P)	or Actuated (A)	Α	Α			Α	Α	Α			A		ļ	<b></b>
Start-up Los		2.0	2.0			2.0	2.0	2.0			2.0			
Extension of	Effective Green	2.0	2.0			2.0	2.0	2.0			2.0			
<del>)</del>	A.T.						3	3			3	<u> </u>	<u> </u>	<del> </del>
Arrival Type		3	3.0	-	_	3 3.0	3.0	3.0	$\dashv$		3.0			<del>                                     </del>
Unit Extension		3.0				1.000					1.000	<b></b>	<b>-</b>	<del> </del>
Filtering/Met	ering, i Demand, Q₅	1.000 0.0	0.0	_		0.0	0.0	0.0			0.0			1
	RTOR Volumes	0.0	0.0	-	10	0.0	0.0	0.0		0	220		<b>†</b>	<del> </del>
Lane Width	NTON Volumes	12.0	12.0	+-	U	12.0	12.0	12.	0	<u> </u>	12.0			<del>                                     </del>
<u> </u>	ade / Parking	12.0 N	0	- N	+	0	$\frac{172.0}{N}$	- 1' N	<del>-</del>	0	1,2.0 N	<b>-</b>	<b>†</b>	1
		1''	+		- 1''			<del>-   '`</del>		<i></i>	+	<del>                                     </del>		1
Parking Mar Buses Stopp		0	0			0	10	10			10	<b>†</b>	†	<b>†</b>
	omg, ive ir Pedestrians, G		3.2			3.2	10	1	1	3.2		<del>                                     </del>	1	<u> </u>
		hru & R		03		<u>ع. د</u> 14	NBO	nlv		06	T	<u>.</u> 07	T 7	)8
Phasing	I	$\frac{\text{nru & R}}{\text{S} = 87.3}$		UJ	G = '	· · · · · · · · · · · · · · · · · · ·	G = 3		G =		G =		G =	- ~
Timing	ł	y = 67.3	Y =		Y =		Y = 5	J. <del>T</del>	Y =		$\frac{0}{Y} =$		Ϋ́=	*****
Duration of	Analysis, $T = 0.2$	<del></del>					L - 3				ngth, C =	160.0		
	Capacity, Con		av and	LOST	)etermi	nation					J - 1 -			
Laire Group	, Japacity, COI		EB			WB		1		NB			SB	
		LT	TH	RT	LT	TH	RT	LT	$\Box$	TH	RT	LT	TH	RT
Adjusted Flo	ow Rate, v	384	1318			1629	345	358			305			***************************************
Lane Group	Capacity, c	502	3558			2664	1524	690	1		563			1
v/c Ratio, X		ļ	0.37		<b> </b>	0.61	0.23	0.52	$\dashv$		0.54	<del>                                     </del>		1
Total Green		<b></b>	0.37		<u> </u>	0.55	1.00	0.32			0.21	1		-
········		ļ				<b></b>	<b>Ļ</b>	56.2	-+		56.5			-
Uniform Del		65.1	8.1			24.8	0.0	<del> </del>	$\frac{1}{2}$		1.000	1		+-
Progression	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.000	1.000		<u> </u>	1.000	0.950	1.00			<del> </del>	1	-	-
Delay Calibr		<b>↓</b>	0.11			0.20	0.11	0.12			0.14	-		-
Incremental		6.9	0.1			0.4	0.1	0.7			1.1	<u> </u>		<del> </del>
Initial Queue		0.0	0.0			0.0	0.0	0.0			0.0			+-
Control Dela	ЗУ	72.0	8.1			25.2	0.1	56.9	1		57.5			
		E	Α		1	С	А	E			I E	İ		

Lane Group LOS				T
Approach Delay	22.5	20.8	57.2	
Approach LOS	С	С	E	
Intersection Delay	27.1	$X_{c} = 0.62$	Intersection LOS	С

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:33 PM

Number of L = - s, N 1					<i>H</i>	HCS+"	<u>DETA</u>									
Agency or Co. FIOT Date Performed 11/08/2006 Time Period    Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page																
Date Performed 11/08/2006   Time Period   Time Period   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID   Project ID								1						)		
Volume and Timing Input	-							1					IS			
Volume and Timing Input			)6					1			Herna	ando				
Volume and Timing Input	Time Period	į						1 .		ear				-		
Number of Lanes, N1			***************************************					Proje	ct ID		SPUI	Alterna	tive - 20	10		
LT	Volume and	<u>d Timing Inpu</u>	r <u>t</u>					\ <i>\\</i> /F			T	NID		r	- CD	
Number of Lanes, N1			<u>_</u>	IT		TRT	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$			T	+		RT	     T		RT
Lane Group	Number of L	anes, N ₁	<del></del>	~~~~	<del></del>							1 '''		ļ[		2
Volume, V (vph)   346   875   312   358   1124   314   340   510   311   2   2   % Heavy Vehicles, %HV   6   6   6   6   6   6   6   6   6			-								<del></del>	+				R
% Heavy Vehicles, %HV				***************************************	<u> </u>							1	<u> </u>	<u> </u>		209
Peak-Hour Factor, PHF					<del>-</del>							<b>†</b>				6
Pretimed (P) or Actuated (A)			C		0.90	0.90						1	0.95	0.90		0.90
Start-up Lost Time, In		<del></del>		***************************************	4	<del></del>						1	A	Α		A
Extension of Effective Green.  Arrival Type, AT  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3					2.0					·	<del>. ]</del>	1	2.0	2.0		2.0
Arrival Type, AT 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			en,	20	2.0	20			12	n	20		2.0	2.0		2.0
Unit Extension, UE		ΔΤ			1							-		7	<b> </b>	3
Filtering/Metering, 1			-									+		1		3.0
Initial Unmet Demand, Qb   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0												+		1	<del> </del>	1.000
Ped / Bike / RTOR Volumes					<del>_</del>		<del></del>					1				0.0
Lane Width		ed / Bike / RTOR Volumes						<del></del> -				10		. <b></b>	0	0
Parking / Grade / Parking         N         0         N         N         0         N         N         0         N         N         0         N         N         0         N         N         0         N         N         0         N         N         0         N         N         0         N         N         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td></td> <td colspan="3"></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>+</td> <td></td> <td></td> <td></td> <td>12.0</td>										-		+				12.0
Parking Mareuvers, Nm	Parking / Gr			N							<del>-  </del>	10	N	N	0	N
Buses Stopping, NB   D   D   D   D   D   D   D   D   D					1	$\top$		$\top$			1	1		1	$\vdash$	<b>†</b>
Min. Time for Pedestrians, Gp         3.2         3.2         3.2         3.2         3.2         3.2         3.2         Brasing         Excl. Left         Thru & RT         03         04         NS Perm         06         07         08           Timing         G = 29.0         G = 73.6         G = 73.6         G = 73.6         G = 30.4         G = 30.4         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 30.4         G = 30.4         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 30.4         G = 30.4         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6         G = 75.6				0	0	10	10	10	$\top$	0	0	1	0	10	<b>t</b>	0
Phasing			, Gp					1			+	3.2		1	3.2	_1
Timing   G = 29.0   G = 73.6   G =		<del></del>		& RT	T	03	1 (	)4	TNS	Per	m	06		07	T	08
Timing         Y = 5         Y = 7         Y = -         Y = -         Y = 5         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -         Y = -		<u> </u>	<u> </u>				G =						G =	:	G =	
Duration of Analysis, T = $0.25$   Substitute of Equation of Analysis, T = $0.25$   Substitute of Equation of Analysis, T = $0.25$   Substitute of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Equation of Eq	Timing												Y =		Y =	
Lane Group Capacity, Control Delay, and LOS Determination   EB	Duration of A	Analysis, T = (	0.25		1	·		**************************************	<u>.t</u>		С	ycle Le	ngth, C	= 150.0	)	
EB				l Dela	v, and	LOS E	etermi	nation								
Adjusted Flow Rate, v       384       972       347       393       1235       345       358       305       346       2         Lane Group Capacity, c       639       2396       1128       639       2396       1128       940       547       940       5         V/c Ratio, X       0.60       0.41       0.31       0.62       0.52       0.31       0.38       0.56       0.37       0.         Total Green Ratio, g/C       0.19       0.49       0.74       0.19       0.49       0.74       0.19       0.49       0.74       0.20       0.20       0.20       0.20       0.         Uniform Delay, d1       55.2       24.3       6.6       55.4       26.0       6.6       51.7       53.8       51.5       52         Progression Factor, PF       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.00					EB			WB								
Lane Group Capacity, c 639 2396 1128 639 2396 1128 940 547 940 550 51.8 55.0 128 128 128 128 128 128 128 128 128 128			<u>L</u>	<u> </u>	TH	RT	LT	TH	RT		LT	TH	RT	LT	TH	RT
v/c Ratio, X       0.60       0.41       0.31       0.62       0.52       0.31       0.38       0.56       0.37       0.         Total Green Ratio, g/C       0.19       0.49       0.74       0.19       0.49       0.74       0.19       0.20       0.20       0.20       0.20       0.         Uniform Delay, d1       55.2       24.3       6.6       55.4       26.0       6.6       51.7       53.8       51.5       52         Progression Factor, PF       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000	Adjusted Flo	ow Rate, v	38	14 9	972	347	393	1235	345	;	358		305	346		232
Total Green Ratio, g/C         0.19         0.49         0.74         0.19         0.49         0.74         0.19         0.49         0.74         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.20         0.11         0.20         0.11         0.20         0.11         0.11         0.15         0.11         0.1         0.11         0.15         0.11         0.11         0.11         0.11         0.15         0.11         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1	Lane Group	Capacity, c	63	9 2	396	1128	639	2396	112	8	940		547	940		547
Total Green Ratio, g/C       0.19       0.49       0.74       0.19       0.49       0.74       0.20       0.20       0.20       0.20       0.20         Uniform Delay, d1       55.2       24.3       6.6       55.4       26.0       6.6       51.7       53.8       51.5       52         Progression Factor, PF       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.0	v/c Ratio, X		0.6	o o.	41	0.31	0.62	0.52	0.31	C	0.38		0.56	0.37		0.42
Uniform Delay, d1       55.2       24.3       6.6       55.4       26.0       6.6       51.7       53.8       51.5       52.2         Progression Factor, PF       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000	Total Green	Ratio, g/C	0.1			0.74	0.19	0.49	0.74	C	0.20		0.20	0.20		0.20
Progression Factor, PF       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.000       1.0							ļ	<b></b>	<del></del>				<u> </u>		<u> </u>	52.2
Delay Calibration, k       0.19       0.11       0.20       0.12       0.11       0.11       0.15       0.11       0.1         Incremental Delay, d2       1.6       0.1       0.2       1.8       0.2       0.2       0.3       1.3       0.2       0.0         Initial Queue Delay, d3       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0							<b></b>	<del> </del>	╂				<del></del>	<del></del>		1.000
Incremental Delay, d2       1.6       0.1       0.2       1.8       0.2       0.2       0.3       1.3       0.2       0.0         Initial Queue Delay, d3       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0			+-			<b></b>		<del> </del>					<del> </del>		<del> </del>	0.11
Initial Queue Delay, d ₃ 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.								<b> </b>					<b>.</b>		<del> </del>	0.5
Control Delay 56.8 24.4 6.7 57.2 26.2 6.7 51.9 55.0 51.8 5	Incremental					<u> </u>		<del></del>				<u> </u>	<b>_</b>		<del> </del>	0.0
		Delay, d _a	0.0	) [(	<i>! []</i>	1 1.7. (7										
Earle Group 200 E C A E C A D L D	Initial Queue					<del> </del>	ļ	<del> </del>	<del> </del>	-+			<del> </del>	_	†	
	Initial Queue Control Dela	эу	56.	.8 2	?4.4	6.7	57.2	26.2	6.7	-+	51.9		55.0	51.8		52.7 D

Approach Delay	28.1	29.0	53.4	52.1
Approach LOS	С	С	D	D
Intersection Delay	34.7	$X_c = 0.55$	Intersection LOS	С

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 6:43 PM

				ŀ	ICS+™	DET	AILI	ED F	 ₹EI	POF	RT						
General Informa	tion	······································						ite In									
Analyst J	'AS						In	iterse rea T	ctio	n	1-7		3 Ramp er areas	_	₹ 50	-	
Agency or Co. F	DOT						1	urisdi				rnai					
Date Performed 1	1/09/200	06					- 1	nalys									
Time Period							I	rojec			Alt	erna	SB Loc ative (W IB=FF		p Only)	-	
Volume and Tim	ina Ina	. f	<del></del>									101	4D11				
voidine and init	my mpo	/ L		EE	<u></u>			WB			T		NB	·····	T .	SB	
			LT	TH		+	T	TH	7	RT	1	r -	TH	RT	LT	TH	RT
Number of Lanes	, N1		2	3		<del>                                     </del>	_	3	十		3					<del>                                     </del>	<del>                                     </del>
Lane Group			L	17			$\neg \dagger$	T	十		$+\tau$	******		<u> </u>			<b>—</b>
Volume, V (vph)			346	118	6		一十	1124	十		34	0		<u> </u>		<b>†</b>	<b> </b>
% Heavy Vehicles	s, %HV	***************************************	6	6	1	1		6	7		6		<b></b>			T	T
Peak-Hour Factor			0.90	0.90			(	0.91	1		0.9	5					
Pretimed (P) or A	ctuated (	(A)	Α	Α				Α	T		Α						
Start-up Lost Time			2.0	2.0				2.0			2.0	)					
Extension of Effect	ctive Gre	en, e	2.0	2.0				2.0	I		2.0	)					
Arrival Type, AT			3	3				3	$\Box$		3						
Unit Extension, U	***************************************		3.0	3.0				3.0			3.0				<u> </u>		
Filtering/Metering			1.000 0.0		0			1.000	2		1.0			ļ			
	tial Unmet Demand, Qb			0.0				0.0	_		0.0			<u> </u>	<u> </u>		
	ed / Bike / RTOR Volumes			0		0		0	_		0		0	<u> </u>			<u> </u>
Lane Width			12.0	12.0	<del></del>	_		12.0	_		12.		<u> </u>	<u> </u>	ļ	<b>_</b>	<u> </u>
Parking / Grade /			N	0	N	N		0	_	Ν	N	····	0	N			<b></b>
Parking Maneuve									_			·····	ļ				<u> </u>
Buses Stopping, I			0	0				0				)	<u>L</u>	<u></u>	ļ		<u> </u>
Min. Time for Ped			<u> </u>	3.2				3.2					3.2		<u> </u>		
	Only		ı Only		03		04			В Ог			06		07	1	08
Timing b	27.3		72.3			G =				= 15	. 4	G :		G =		<u>G =</u>	
γ =		Y =	5	Y =		Y =			Υ =	= 5		Y =		Y =		$\frac{1}{X} = \frac{1}{X}$	
Duration of Analys						~~.						Сy	cie Len	gin, C	= 130.	U	
Lane Group Cap	acity, C	ontro	l Del		LOS D	eterm							KIE)		1		······································
		<b> </b>	.T	EB TH	RT	LT		<u>NB</u> H		T	LT	T	NB TH	RT	LT	SB TH	RT
Adjusted Flow Ra	te. v		- ! 84	1318	111	<u> </u>	<del></del>	235		'	358	$\dashv$	1 ( 1	1 1 1	-	1 '''	<del>  '``</del>
Lane Group Capa			94	3929			┪	716	-		550	$\dashv$					
v/c Ratio, X		0.5	55	0.34			0.4	45			0.65						
Total Green Ratio	, g/C	0.2	21	0.80			0.5	56			0.12						
Uniform Delay, d ₁		45	9	3.4			17	. 1			54.7						
Progression Facto	or, PF	1.0	000	1.000			1.0	000			1.000	)					
Delay Calibration,	ĸ	0.1	15	0.11			0.1	11			0.23						
Incremental Delay	ν, d ₂	1	.0	0.1			0	), 1			2.7						
Initial Queue Dela	y, d ₃	0.	0	0.0			0.	0			0.0						
Control Delay		46	5,9	3.4			17	7.3			57.5						
	THE COLLY			Α			E	3			Ε	T					

Lane Group LOS		***************************************				a.t. malanolations			
Approach Delay	13.2	······································	17.3	······	57	.5			
Approach LOS	В		В		Ε				
Intersection Delay	19.6		$X_c = 0.50$		Intersec	tion LOS		В	

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 6:52 PM

General Inf	formation	·····			.,,	<u> </u>		- 17	ILED Site I				*****************	······································				<del></del>
General ini	ormation									************	***************************************		5 N/E	Pomr	s @ Si	2.50		
Analyst	JAS								Inters Area					r ramp er area:		1 00		
Agency or C									Juriso				rnan		3			
	med 11/09/200	6							ı			пе	Hall	uo				
Time Period		_							Analy	SIS	rear	M/E	to:	SRIon	p Ram	ח		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-								Projec	t IC	)				/B Lane			
									' ' '					Only)-				
Volume an	d Timing Inpu	t			***************************************													
	X		Ī		EB	***************************************	П		WE	3		T		NB			SB	
			LT	T	TH	RT	7	LT	TH	Т	RT	L	r	TH	RT	LT	TH	RT
Number of l	anes, N ₁		2	T		<b> </b>	7		1	十	1	1				1	1	
Lane Group	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		L	1		İ	1	<del></del>	T	一	R	1					<b>†</b>	1
Volume, V (		·	346	$\top$		<b>†</b>	7		358	寸	314	1			<b>†</b>		1	
	ehicles, %HV		6	$\top$	········	<del>                                     </del>	1		6	1	6	┪			<u> </u>		1	1
	Factor, PHF		0.90	T	·····		1		0.91	1	0.91	1			<b>†</b>		1	<b>T</b>
	) or Actuated (	A)	Α	+		<b>†</b>	寸		A	一	Α	1			1	<b>T</b>	1	
Start-up Los		-7	2.0	十			7		2.0	_	2.0	1			<b>†</b>		1	1
	f Effective Gre	en. e		T	<del></del>	<b>i</b>	_	******	2.0		2.0	1			<b>†</b>		1	1
Arrival Type			3	十	***************************************		7		3	寸	3	_			-		***************************************	1
Unit Extens		***************************************	3.0	T	· · · · · · · · · · · · · · · · · · ·	<del>                                     </del>	┪		3.0	一	3.0	1						1
Filtering/Me			1.000	+		<b>†</b>	7	***************************************	1.00	0	1.000	1						
	t Demand, Qb	·····	0.0				┪		0.0		0.0	1				1		
	ed / Bike / RTOR Volumes				0	<b>†</b>	ヿ	0	0	_	0	1			1			1
Lane Width					<del></del>	<del>                                     </del>	7		12.0	7	12.0	1						1
Parking / Gr	ade / Parking	***************************************	N	T	0	N	_	N	0		N	1			1	1	1	1
	neuvers, Nm		<b>†</b>	$\dashv$		<u> </u>				$\neg \dagger$		<del></del>			1	1	1	1
Buses Stop			10	+		<del>                                     </del>			$+_{o}$		0	-			1	1	<del> </del>	+-
	or Pedestrians,	Gn	Ť		3.2	1			3.2	L		+		<u> </u>	.1			
Phasing	EB Only		3 Only	T	03	₹	ヿ	Λ	4	Ī	05			06	l l	07	1 .	08
rnasny	G = 27.3		92.7	+	G =	<i></i>	+	G =	- <del>-</del>	G			G=		G :		G =	~~
Timing	Y = 5	Y≅			Y =			<u>γ</u> =		Ÿ			<u>Y</u> =		Ϋ́		Y=	····
Duration of	Analysis, $T = 0$			$\dashv$			L_		·····	<u> </u>						= 130.		
	o Capacity, Co	***************************************	al Dala		2041	00.0	la fe	rmi	antion				<u> </u>	310	9			
Lane Grou	o capacity, co	<u> </u>	JI Dela	EI		<u> </u>	1	71 (1111	WB		T			NB		T	SB	
		-	LT	TH		रा	$\vdash_{\tau}$	T	TH	TF	<del>रा  </del>	LT	T	TH	RT	LT	TH	RT
Adjusted Flo	ow Rate. v		384				╅		393		45		十					
	Capacity, c	$-\!\!\!\!+\!\!\!\!\!-$					<b> </b>			╂—			-		<del> </del>		<del> </del>	+
			694				ļ		1278	┼	87		_		<u> </u>	-		-
v/c Ratio, X		0.	55						0.31	0.0	32						<u> </u>	<u> </u>
Total Green	Ratio, g/C	0.	21						0.71	0.7	71							<u> </u>
Uniform Del	ay, d ₁	45	5.9						6.9	6.	9							
Progression	Factor, PF	1.	000						1.000	1.0	000							
Delay Calib	ration, k	0.	15			**************************************	T		0.11	0.	11		$\dashv$					
Incremental	Delay, d ₂	<u> </u>	1.0	**********		**********	T		0.1	0	.2	·····	1					
Initial Queue	e Delay, d ₃	0	.0		$\neg \vdash$		T		0.0	0.	0		1					
Control Dela	***************************************	4	6.9				ĺ	*************	7.0	7	7.1	_,	1		<u> </u>			
							<b>Ļ</b>		ļ	<del>-}</del>					<del> </del>		<del></del>	+

Lane Group LOS							-		
Approach Delay	46.9		7.	0	l		······		***************************************
Approach LOS	D	***************************************	1	\					
Intersection Delay	20.7		X _c = (	0.37	In	tersection	LOS	С	· · · · · · · · · · · · · · · · · · ·

HCS+TM Version 5.2

Generated: 11/9/2006 6:55 PM

General In	formation				100	· L	· • · · · · ·		<del>~~~~~~</del>	REPOI format							······································			
Analyst Agency or 0 Date Perfor	<i>JAS</i> Co. <i>FDOT</i> med 11/08/200	76			<del></del>			In: Ar Ju	iterse rea T urisdi	ction ype ction	1. 	I-75 NB Ramps @ SR 50 All other areas Hernando								
Time Period	d							1	rojec	is Year I ID	V	WB to SB Flyover Alternative - 2010								
Volume an	d Timing Inpu	t					***************************************				<del> </del>									
				E	3				WB		T		NB			SB				
			LT	TH	1	RT	LT		TH	RT		LT	TH	RT	LT	TH	RT			
Number of I			2	3					3	1		3		<u> </u>						
Lane Group			L	T			<u> </u>	$\bot$	T	R		L		ļ		<u> </u>				
Volume, V (			346	118	36			1	1124	314		340			<u> </u>		<u> </u>			
	ehicles, %HV		6	6		··········	<u> </u>	$\bot$	6	6		6		<b></b>		ļ	ļ			
	Factor, PHF	/ # X	0.90				<b></b>	—∔	0.90	0.90		.90	<u> </u>	<del>                                     </del>		<u> </u>	<b> </b>			
	) or Actuated (	(A)	A	$\frac{A}{200}$			<b> </b>		<u>A</u>	A		<u>A</u>	<b></b>	<b> </b>		<b></b>	<b></b>			
Start-up Los			2.0	2.0		······································	<del> </del>	2.0		2.0		2.0	<b> </b>	<del> </del>	ļ	<del> </del>	╂			
	of Effective Gre	en, e	3	2.0 3			<del> </del>		2.0	2.0 3		2. <i>0</i> 3	<b>_</b>	<b>-</b>	<b></b>	<u> </u>	<b> </b>			
Arrival Type Unit Extens			3.0	3.0			+	-	3 3.0	3.0		3.0	<del> </del>	<del> </del>	-	╂	+			
Filtering/Me		·····	1.000	1.00		······································	╂		3.0 1.000		1_	.000	<del> </del>	<del> </del>		<b>-</b>	<del> </del>			
			0.0	0.0			╂		0.0	0.0	0.0			<del> </del>	<del> </del>	<b>-</b>	+-			
	itial Unmet Demand, Qb ed / Bike / RTOR Volumes			10.0			10		0	0.0		0	0	┪			╁			
Lane Width			0 12.0	12.0	<del>7</del>		Ť		12.0	12.0		2.0	† -		<del>                                     </del>	<b>†</b>	1			
	rade / Parking		N	0		N	N	Ť	0	N		N	0	N						
	neuvers, Nm			1				$\dashv$			十		<del>                                     </del>		1	1	1			
Buses Stop			0	0		····	<del>                                     </del>	0		0	$\dashv$	0	<b> </b>	<u> </u>	1	<del>                                     </del>	1			
	or Pedestrians,	, Gp		3.2	?		1		3.2		$\dashv$		3.2	_1						
Phasing	EB Only	Thru	ı & RT	T	03	I	C	4	T	NB O	nlv	T	06		07		80			
	G = 27.1		78.2	G	<del></del>	1	G =			G = 29	_ <u></u>	G :	-	G =	:	G =				
Timing	Y = 5	Y =	5	Υ:	=		Y =	·····	1	Y = 5		Υ =	E	Y =		Y =				
Duration of	Analysis, $T = 0$	0.25										Су	cle Len	gth, C	= 150.	0				
Lane Grou _l	p Capacity, Ce	ontro	l Dela	y, an	d LO	S De	termi	nati	ion	·										
				EB					VΒ				NB	<del></del>		SB				
			<u>.</u> T	TH	RT		LT	TI	H	RT	L	T	TH	RT	LT_	TH	R			
Adjusted Flo	ow Rate, v	3	84	1318				124	49	349	37	78								
Lane Group	Capacity, c	5	97 3	3591				25	46	1147	91	19	***************************************							
v/c Ratio, X		0.0	54 (	.37				0.4	19	0.30	0.4	1								
Total Green	Ratio, g/C	0.	18 (	74				0.5	52	0.75	0.2	20								
Uniform Del	lay, d ₁	57	.0	7.2		T		23.	.1	6.0	52.	5								
D	n Factor, PF	1.0	000 1	.000				1.0	000	1.000	1.0	000								
Progression	ration, k	0.2	22 (	11				0.1	1	0.11	0.1	1								
				0.1		1		0.	. 1	0.2	0.	.3								
Delay Calib	l Delay, d ₂	_ 2	.4		<b></b> .						-			1	T	1	T			
Delay Calib Incremental	l Delay, d ₂ e Delay, d ₃	0.		0.0				0.0	0	0.0	0.0	0		l		<u>l</u>				
Delay Calib Incremental	e Delay, d ₃	0.	0					0.0 23		0.0 6.1	╂	0 2.8	·····				1			

Approach Delay	19.0	19.5	52.8	
Approach LOS	В	В	D	
Intersection Delay	22.7	$X_c = 0.50$	Intersection LOS	С

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 6:54 PM

······				HCS	<u>) + </u>	<u>DET/</u>			REPOF								
General Inf	ormation			***************************************		······································			formati								
Analyst	JAS						l l		ection			3 Ramp		₹ 50			
Agency or C	co. FDOT								уре			er areas	S				
	med 11/08/200	26					Ju	ırisdi	ction	Hernando							
Time Period							Ar	halys	is Year								
							Рг	ojec	t ID	NB to WB Flyover Alternative - 2010							
Volume and	d Timing Inpu	ıt		EB .		1		WB				NB			SB		
		L7		-U TH	RT	Lī	r T	TH	RT	$\dashv$	.T	TH	RT	LT	TH	RT	
Number of L	ance Ni	2	3		13.1	<del>-   -  </del>		3	1	+	_ [		1	<u> </u>	1 111		
		<u> </u>	7						R	+			<del>                                     </del>	<del> </del>	<del> </del>		
Lane Group		L						T		-		<u> </u>	<u> </u>		<del> </del>		
Volume, V (		34		86				1124		+		<b>}</b>	<u> </u>	<del> </del>	<del> </del>	ļ	
	hicles, %HV	6						6	6	4		<u> </u>		<del> </del>	<b>_</b>	<b>ļ</b>	
Peak-Hour F		0.90		90				).90	0.90			<u> </u>	<u> </u>	<u> </u>	<b> </b>	<b> </b>	
	) or Actuated				······			<u> </u>	A		w	ļ	<u> </u>	<u> </u>	<u> </u>		
Start-up Los		2.0					<del>-</del>	2.0	2.0				<u> </u>		<u> </u>	<u> </u>	
	f Effective Gre							2.0	2.0				<u> </u>				
Arrival Type		3	ć	3				3	3								
Unit Extensi	on, UE	3.0	3.	0				3. <i>0</i>	3.0								
Filtering/Met	tering, l	1.00	00 1.	000			1	.000	1.000	)							
Initial Unme	tial Unmet Demand, Qb			0.0				0.0	0.0	T							
Ped / Bike /	RTOR Volum	es 0	7	7		0		0	0				1				
Lane Width	······	12.0	) 12	.0			1	12.0	12.0	_					1	<b> </b>	
Parkino / Gr	ade / Parking	N	- (	<del>-</del>	Ν	N	十	0	N	_			†			1	
	neuvers, Nm									+		<b>†</b>	<del> </del>	†	<b>†</b>	<del>                                     </del>	
Buses Stopp		0		,				0	0			<del> </del>	<del> </del>	<b>-</b>	1	<del> </del>	
	r Pedestrians	Ť		.2			L	3.2				<u> </u>	1	<del> </del>	1		
		<u> </u>				<del></del>	0.6	3.2	~ ~ ~		T	AC		<u> </u>		`^	
Phasing	EB Only	Thru & F	I	03			04		05		<del> </del>	06		07		80	
Timing	G = 32.0	G = 108	. <i>U</i> G	; =		G =			G =		G:	<del>-</del>	G =	:	G =		
типину	Y = 5	Y = 5	V	=		<del> </del> ∀ ≡			Y =		Y :	=	Y =		Y =		
Duration of	Analysis, T = (		-+:				·	1	1 -					= 150.			
											LOY	CIG CGII	gui, O	100.			
Lane Group	Capacity, C	οπτοι με	e <i>lay, a.</i> EB	na LU	<u>13 D</u>	eterm				F		NB		1	SB		
		LT			<del>-</del>	I T		VB	דמ	LT		TH	RT	LT	TH	RT	
1 divada -1 51-	nu Boto		TH		T	LT	TI	*********	RT 0.40	<b> -</b>	╅	117	3/1		<del>  '^-</del>	+``'	
Adjusted Flo	w Kate, v	384	1318				124	49	349			·					
Lane Group	Capacity, c	705	4883				351	16	1097		T						
v/c Ratio, X	<u> </u>	0.54	0.27	1			0.3	6	0.32							1	
Total Green	Ratio, g/C	0.21	1.00	$\top$			0.7.	2	0.72		1			İ	İ		
Uniform Del	ay, d ₁	52.5	0.0	$\top$			7.5	9	7.6		1						
Progression	Factor, PF	1.000	0.950	7			1.0	00	1.000					İ			
Delay Calibr	ation, k	0.14	0.11	$\top$			0.1	1	0.11		1					1	
Incremental	Delay, d ₂	0.9	0.0				0.	1	0.2		1					1	
Initial Queue	Delay, d ₃	0.0	0.0				0.0	)	0.0								
Control Dela		53.4	0.0				8.	0	7.8		$\neg$						
		ŧ	1						I	j			Į		<del></del>		

11/9/2006

Lane Group LOS			***************************************		- LANGERS	!		
Approach Delay	12.1	7.9						
Approach LOS	В	А						
Intersection Delay	10.1	 $X_{c} = 0.40$		Intersed	ction LOS	3	В	

HCS+TM Version 5.2

Generated: 11/9/2006 11:04 AM

							DETA			***************************************									
General Inf	ormation									forma	tio								
Analyst	JAS									ction			SB Ran		@ SF	₹ 50			
Agency or C								1	rea T				her are	as					
	med 11/08/200	26						Ju	ırisdi	ction		Hern	ando						
Time Period								Ai	nalys	is Yea	ir								
								P	rojec	t ID		Lane Improvement Alternative - 2010							
Volume and	d Timing Inpu	it			EB		1		WB			I	NB				SB		
			LT	T	TH	RT	<del>- L</del> T	T	TH	T R	Γ	LT	TH	ΤF	र ।	LT I	TH	RT	
Number of L	anes Na				3	17	$\frac{1}{2}$	$\dashv$	3	+;`		<del>                                     </del>	1	╅	<del>`</del>	2		2	
					J T	R		$\dashv$		_		├		╁		L		$\frac{L}{R}$	
Lane Group						<del></del>		_		_		<del> </del>		-		311		209	
Volume, V (	····		<b> </b>	+	221	312	358		1464			<del> </del>		+		6		<u> </u>	
	hicles, %HV			4	6	6	6		6			-	_					6	
Peak-Hour f		(4)	<u> </u>		.88	0.88	0.95		0.95			<b> </b>	-	- -		0.89		0.89	
	) or Actuated	(A)	<u> </u>		<u>A</u>	$\frac{A}{2}$	$\frac{A}{2}$		<u>A</u>			<b> </b>		-		A 2.0		A	
Start-up Los			<b></b>	4	2.0	2.0	2.0		2.0			<b> </b>				2.0		2.0	
Extension of □	f Effective Gre	en,		12	2.0	2.0	2.0		2.0							2.0		2.0	
Arrival Type	AT		<b></b>	-	3	3	3		3	-		<del> </del>	_	+		3		3	
Unit Extensi					3.0	3.0	3.0	$\dashv$	3.0			╁───	_	╫		3.0		3.0	
Filtering/Met		· · · · · · · · · · · · · · · · · · ·			.000	1.000			1.000	,   -		<del> </del>	-	+		1.000		1.000	
	t Demand, Qb		<del>                                     </del>		2.0	0.0	0.0		0.0	<del>'   -</del>		+		+		0.0	<b> </b>	0.0	
	RTOR Volum		0	+	0	250	0.0		0.0	-		<del> </del>	_	$\dashv$	J	0.0	0	70	
Lane Width	TATOR VOIGH	US	U	1	2.0	12.0	12.0	,	12.0			+	_	$\dashv$		12.0	Ľ	12.0	
	ade / Parking		N		0	12.0 N	12.0 N		0	$-\frac{1}{N}$		<b>-</b>		-	·	N	0	N	
Parking Mar			<del>  ''</del>	-	-	1'	<del>  '`</del>	$\dashv$	<u> </u>	- 1'		-	+	+		<del>                                     </del>	<del>Ľ</del>	+~	
			<b> </b>		0	0	$+_{o}$		0			<del> </del>		-		0	<u> </u>	0	
Buses Stopp	or Pedestrians		<del> </del>			10	10		3.2			+				<u>'</u>	3.2	U	
			<u> </u>		3.2				3.2			<u> </u>			T	<u> </u>		~~	
Phasing	EW Perm	<u> </u>	1 & R			03		04		SB (			06		<u> </u>	07		08	
Timing	G = 21.0	1	90.2	2	G=		G =	·····		G = .			3 =		G =		G =		
-	Y = 5	Y =	5		Y =		Y =			Y = (	)		<b>√</b> =		Y =		Y =		
	Analysis, T =											(	Jycle L	engt	n, C	= 160.0	<i>)</i>		
Lane Group	Capacity, C	ontro	ol De		·····	LOS E	etermi	~~~~							····	T	~~		
		<u> </u>			B				VB		_	. —	NB	<b></b>	-1-T-	<del>                                     </del>	SB	T DT	
		1-	_T	TH		RT	LT	1	H	RT	+	LT	TH	+	रा	LT	TH	RT	
Adjusted Flo	ow Rate, v			138	8	70	377	15	41							349		156	
Lane Group	Capacity, c			275	3 1	1524	434	35	46							699		570	
v/c Ratio, X				0.50	o	).05	0.87	0.4	43							0.50		0.27	
Total Green	Ratio, g/C			0.56	5 7	.00	0.13	0.7	73							0.21		0.21	
Uniform Del	ay, d ₁			21.3	3	0.0	68.1	8.	8							55.6		52.8	
Progression	Factor, PF			1.00	00 0	).950	1.000	1.0	000						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.000		1.00	
Delay Calibr	ation, k			0.1	1 0	).11	0.40	0.1	11							0.11	<u> </u>	0.11	
Incremental				0.2	2	0.0	17.0	0	). 1		I					0.6		0.3	
Initial Queue			·~~	0.0		0.0	0.0	0.	0		_					0.0		0.0	
Control Dela	зу			21.	4	0.0	85.1	8	8.8							56.2		53. 1	
							<del>-</del>	<del></del>		<del>7</del>						E		D	

Lane Group LOS				
Approach Delay	20.4	23.8		55.2
Approach LOS	С	С		E
Intersection Delay	26.6	$X_{c} = 0.56$	Intersection LOS	С

HCS+TM Version 5.2

Generaled: 11/8/2006 7:05 PM

0	RT 2 R 209 6 0.89 A 2.0 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
TH 0	2 R 209 6 0.89 A 2.0
0	2 R 209 6 0.89 A 2.0
0	R 209 6 0.89 A 2.0
0	209 6 0.89 A 2.0
	6 0.89 A 2.0
	0.89 A 2.0
	A 2.0
2	2.0
2	
	20
	2.0
	3
	3.0
	1.000
	0.0
	70
1	12.0
	Ν
-	0
3.2	
	.0
	0
	***************************************
	···········
	***************************************
SD.	
	RT
	156
	639
1	0.24
ľ	0.24
,	40.2
	1.000
(	0.11
	0.2
	0.0
	40.4
	D
	0 0 3.2 0 G = Y =

Approach Delay	8.6	9.5		42.0
Approach LOS	А	Α		D
Intersection Delay	13.8	$X_c = 0.46$	Intersection LOS	В

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 6:57 PM

		***************************************			HCS	+" [	DETA	ILEC	R	EPO	RT	<del></del>						
General Inf	ormation			·····						ormai					······································			·
Analyst Agency or C			***************************************					Inte Area	rsec a Ty	tion pe	I-	ll oth	B Ram ner area	-	@ S	R 50		
ì	med 11/08/200	6						Juri				terna	inao					
Time Period								Ana Proj		s Year ID	V	VB to 2010	-	γονε	er Al	ternativ	9	
Volume and	d Timing Inpu	f												<u></u>				······
				E	В			Λ	/B				NB				SB	
			LT	TH	1	RT	LT	TI	-	RT	l	_T	TH	F	?T	LT	TH	RT
Number of L	anes, N ₁			3			<u> </u>	3		<u> </u>			<u> </u>	<u> </u>		3		2
Lane Group				<i>T</i>			<u> </u>	T		<u> </u>				<u> </u>		L		R
Volume, V (	<del> </del>		ļ	87	5		<u> </u>	146	54	ļ				<u> </u>		311		209
% Heavy ve Peak-Hour F	hicles, %HV			6	<del>,  </del>		<del> </del>	6		ļ	_		<u> </u>	╂		6		6
	or Actuated (	Δ)	<b>-</b>	0.88 A	,		╂	0.9 A	<u> </u>	<del>                                     </del>	- -		<b></b>	-		0.89 A		0.89 A
Start-up Los	· · · · · · · · · · · · · · · · · · ·	' ' '	<u> </u>	2.0			<del> </del>	2.0	)	<del>                                     </del>	-		<u>                                     </u>	╫		2.0		2.0
	Effective Gree	en, e	<del> </del>	2.0			+-	2.0		<del>                                     </del>	+		<b> </b>	+		2.0		2.0
Arrival Type	····		<b> </b>	3	_		†	3		<b>†</b>	十		<u> </u>	†		3	<b> </b>	3
Unit Extensi				3.0			1	3.0	)	1	1		<b> </b>	T		3.0		3.0
Filtering/Met	ering, l			1.00	00	***************************************		1.0	00	<b>1</b>	1		<u> </u>	1		1.000	<u> </u>	1.000
	Demand, Qb			0.0				0.0	)							0.0		0.0
	RTOR Volume	s	0	0			0	0								0	0	70
Lane Width				12.0			<u> </u>	12.	0	<u> </u>			<b> </b>	<u> </u>		12.0	<u> </u>	12.0
	ade / Parking		Ν	0		N	N N	0		N				1		N	0	N
Parking Man									***************************************	<u> </u>				<u> </u>		<u> </u>		
Buses Stopp				0	L		╂	10			_		<u> </u>			0		0
	r Pedestrians,			3.2			<u> </u>	3.			<u>.</u>				T	0.7	3.2	~~
Phasing	Thru Only G = 97.3	G =	)2	-G	03			)4		SB O		$\perp$	06 -		G =	07	G =	08
Timing	$\begin{array}{c} G = 97.3 \\ Y = 5 \end{array}$	<u>G -</u> Y =	·	$\frac{1}{Y}$			G = Y =	·		6 = 42 $6 = 5$	2, /	G Y			Y =		Y =	
Duration of A	Analysis, T = 0			-   '- '			<u> </u>			ں				nath	<u> </u>	= 150.0		
	Capacity, Co		l Del	av an	d I O:	S Do	tormi	natior				10	VOIC LCI	igu	i, C	750,0	.,	
	00,000,00	1	, , ,	EB		T	(CIIIII	WB			·····		NB		·····		SB	
		L	Т.	TH	RT		LT	TH	Т	RT	LT	T	TH	R	T	LT	TH	RT
Adjusted Flo	w Rate, v			994				1541								349		156
Lane Group	Capacity, c			3167				3167	1							1321		768
v/c Ratio, X				0.31				0.49	1			1				0.26		0.20
Total Green	Ratio, g/C			0.65				0.65	T			1				0.28		0.28
Uniform Dela	ay, d ₁			11.6				13.5								41.5		40.7
Progression	Factor, PF			1.000				1.000	$\prod$							1.000		1.000
Delay Calibra	ation, k			0.11				0.11								0.11		0.11
Incremental	·			0.1				0.1								0.1		0.1
Initial Queue	Delay, d ₃			0.0				0.0								0.0		0.0
Control Dela	·			11.7				13.6								41.6		40.9
Lane Group	LOS		Taraban San	В	1			В	П			T			-	D		D

Approach Delay	11.7	13.6		41.4
Approach LOS	В	В		D
Intersection Delay	17.6	$X_{c} = 0.42$	Intersection LOS	В

HCS+TM Version 5.2

Generated: 11/8/2006 7:16 PM

					HC	<u>S+"</u>	DI	ETA	ILE	ED I	RE	POF	<u> </u>							
General Inf	formation							***********	·-			rmat								
Analyst	JAS								1	ters					SB Ram		@ S	R 50		
Agency or C										геа 🧎					her area	35				
	med 11/08/20	06								ırisd				ern	ando					
Time Perioc	j								i	•		Year		R to	WR FI	VOV	or Al	ternativ	Δ.	
		****			····				Pr	rojec	:1 IC	)		201		, O v	61 AI	ternativi		
Volume and	d Timing Inp	ut	Т	E	D		<del>- T</del>	***************************************		1A/D			<del></del>		A I CO					
			Lī			RT	-	LT	Т	WB TH	T	RT		. T	NB TH	1 6	RT	LT	SB TH	T RT
Number of L	anes. N1		1-	3	-	1		2	+	3	┪	1/1	+	, 1	1 '''	╁	\ 1	3	117	2
Lane Group	<del></del>	***************************************	1	ΗŤ		R	十		┰	T	╅		-	***************************************	1	╁		L		$\frac{1}{R}$
Volume, V (			<del>                                     </del>	87	5	312	$\dashv$	358	+	<u>.</u> 1124		<del></del>	_		╅	╁╌		311		209
	hicles, %HV		<b>†</b>	6	$\dashv$	6	十	0	-	6	-		-		<b>-</b>	-		6		6
Peak-Hour F			t	0.80	} (	0.88	1	0.90	0	).95	1		+-		1	╁╌		0.89		0.89
· · · · · · · · · · · · · · · · · · ·	) or Actuated	(A)	1	A	_	A	Ť	A		A	┪			***********		<del>†</del>	······································	A		A A
Start-up Los	·	<del></del>	1	2.0		2.0	十	2.0		2.0	┪		$\top$		1	十		2.0		2.0
	f Effective Gre	en,		2.0	1	2.0		2.0	-	2.0	寸	***********						2.0		2.0
e Arrival Type	. AT	····	├─	3	-+	3	$\dashv$	3	$\dashv$	3	$\dashv$		+		<del>                                     </del>	+		3		3
Unit Extensi			┢	3.0	一十	3.0	-	3.0	-	3.0	┪		╅			╁		3.0		3.0
Filtering/Met			<del>                                     </del>	1.00		1.00		1.000		1.000	7		_		1	╁	<del></del> .	1.000		1.000
	t Demand, Qb		┢	0.0	Ł	0.0		0.0		0.0		······································	_		1	╁		0.0	<b></b>	0.0
Ped / Bike /	RTOR Volum	es	0	0		250	十	0	+	0	+		+			╁		0	a	70
Lane Width				12.0	)	12.0	+	12.0	1	12.0	1		1			†		12.0		12.0
Parking / Gr	ade / Parking		Ν	0		Ν	1	Ν	十	0	1	N	$\top$			†		N	0	N
Parking Mar	neuvers, N _m					**********	寸		十		1				<u> </u>	┪		<b>1</b>	<b></b>	<b>-</b>
Buses Stopp	oing, Na			0	_	0	十	0	十	0	T				1	十		0		0
Min. Time fo	r Pedestrians	, G _P		3.	2		1	***************************************		3.2		····	_	********					3.2	_L
Phasing	WB Only	Thru	1 & F	T.	03		T	04	4		S	B On	ìγ	Π	06	-		07		08
Timina	G = 34.3	G =	71.	1 G	==	•	0	3 =				= 29		G	=		G =	=	G =	
Timing	Y = 5	Y =	5	Υ	=		Υ	<b>/</b> =	<del></del>		Υ:	= 5		Υ			Y =		Y =	***
Duration of A	Analysis, T = 0	0.25												С	ycle Ler	ngth	1, C	= 150.0	)	
Lane Group	Capacity, C	ontro	l De		d LO	OS L	)ete	rmin												
		-	т 1	EB	1 -		<u> </u>	<del>- T</del>	W						NB	I =		ļ. <u>.</u>	SB	
Adjusted Flo	w Pate w	┵	. !	TH	R		F.		Tł		R	-	LT		TH	<u> </u>	T	LT	TH	RT
				994	70		39		118					_		<u> </u>		349		156
Lane Group	Capacity, c	_		2315	10	74	80	1	359	94				_		ļ		915		532
v/c Ratio, X				0.43	0.0	7	0.5	0	0.3	3				_				0.38		0.29
Total Green				0.47	0.7		0.2		0.74									0.20		0.20
Uniform Dela				26.1	6.9	}	50.	3	6.9	}			······					52.3		51.3
Progression				1.000	1.0	00	1.0	00	1.00	00								1.000		1.000
Delay Calibra				0.11	0.1	1	0.1	1	0.1	1								0.11		0.11
Incremental I	Delay, d ₂			0.1	0.	0	0.:	5	0.	1						Γ		0.3		0.3
Initial Queue	Delay, d ₃			0.0	0.0	)	0.0	)	0.0	)								0.0		0.0
Control Dela	У			26.2	6.:	9	50.	.8	7.0	0							,	52.5		51.6
				С	A		D	1	A					T	<del></del>	Г		D	<u> </u>	D

Lane Group LOS				
Approach Delay	24.9	18.0		52.2
Approach LOS	С	В		D
Intersection Delay	25.8	$X_{c} = 0.44$	Intersection LOS	С

HCS+TM Version 5.2

Generaled: 11/8/2006 7:12 PM

## APPENDIX 'M' INTERIM YEAR (2020) BUILD INTERSECTION LOS

				<u> </u>	<u> </u>	<u>DET/</u>	MLED										
General Info	ormation								rmati								
Analyst	JAS						Inters					B Ram _l	-	) CF	₹ 41		
Agency or C	o. FDOT						Area					er area					
Date Perform	ned 11/08/200	6					1				co	County	/				
Time Period							Analy	/SIS	Year			D	1	#	antium		
							Proje	ct II	D			op Kan WBT=:			native - =2)		
Volume and	d Timing Inpu	t															
				EB			W		,			NB				SB	
		L		TH	RT	LT			RT	LT		TH	R	<u> </u>	LT	TH	RT
Number of L	anes, N ₁	1		2			2						ļ		2		2
Lane Group		L		T			Τ				_				L		R
Volume, V (		25		177			493	3			_				372		488
	hicles, %HV	10		5			4				_				9	<del></del>	6
Peak-Hour F		0.8		0.85			0.85				_				0.91		0.91
	or Actuated (			A		4-	A						<del> </del> -		A		A
Start-up Los	·····	2.		2.0			2.0						├		2.0		2.0
	Effective Gre			2.0	_	_	2.0						_		3		3
Arrival Type Unit Extensi		3. 3.		3.0			3.0			_			╂		3.0		3.0
Filtering/Met			000	1.000		_	1.00	70	<b>-</b>	_			-		1.000		1.000
	Demand, Qb	0.		0.0	_		0.0		-	+-			╂─		0.0		0.0
	RTOR Volume			0.0	_	10	0.0		<b></b>	╅		<u></u>	<b>†</b>		0	0	0.0
Lane Width		12		12.0	1	٦Ť	12.0	)	<b> </b>				T		12.0		12.0
	ade / Parking			0	N	$T_N$	0		N	1			╁		N	0	N
Parking Mar													T				
Buses Slopp			*******************	0			0		<b></b>	_			T		0		10
	r Pedestrians,	G _p	······································	3.2	L	_	3, 2	2	<u> </u>	+		1				3.2	<del></del>
Phasing	EB Only	EW Pe	ιw	1	03	<u> </u>	)4	T	SB Or	ılv lı		06	Ī		07		08
	G = 12.5	G = 17		G =		G =			= 14		G:	<del></del>	一	G =	······································	G =	
Timing	Y = 5	Y = 5		Y =	······································	Y =	***************************************	İΥ	= 5		Υ:		7	Y =		Y =	
Duration of A	Analysis, T = 0	0.25									Су	cle Lei	ngth	, C :	= 60. <i>0</i>		
Lane Group	Capacity, Co	ontrol D	elay	, and	LOS D	eterm	nation										
				EB			WB					NB				SB	
		LT		ГН	RT	LT	TH	<u> </u>	RT	LT	4	TH	R.	T	LT	TH	RT
Adjusted Flo	w Rate, v	342	2	08			580								409		536
Lane Group	Capacity, c	521	20	033			1038	T							783		1443
v/c Ratio, X		0.66	0.	10			0.56	T			十				0.52		0.37
Total Green	Ratio, g/C	0.59	0.	59			0.30	-			$\dagger$			······································	0.24		0.53
Uniform Dela	ay, d ₁	7.5	<b>1</b> 5	.4	***************************************		17.7	T			$\dagger$				19.7	<b>†</b>	8.1
Progression	····	1.000	1.	000			1.000	T			$\top$				1.000		1.000
Delay Calibr	ation, k	0.23	0.	11			0.16	T			$\dagger$				0.13		0.11
Incremental	Delay, d ₂	3.0	1	0.0			0.7	$\dagger$			T				0.6		0.2
	Delay d.	0.0	10	.0			0.0	1			1	***********			0.0		0.0
Initial Queue	, 20,4, 43	1 ***	- 1	1		)											
Initial Queue Control Dela	<u>~</u>	10.5		5.4	*******		18.4				1				20.3		8.3

Approach Delay	8.6	18.4		13.5
Approach LOS	А	В		В
Intersection Delay	13.6	$X_{c} = 0.67$	Intersection LOS	В

HCS+TM Version 5.2

Generaled: 11/9/2006 5:04 PM

				HU	<u>\daggertarrow+</u>	DEIA	VILED			<del></del>	***************************************			·····		
General Int	formation								matic					D 1/		
Analyst	JAS						Inters				NB Rar	•	@ C	R 41		
Agency or C	Co. FDOT						1	,	9		other are					
Date Perfor	med 11/08/200	26					1			Pas	co Cour	ity				
Time Period	<u> </u>						Analy	/sis \	rear					- 4		
				~	***************************************		Proje	ct ID			Loop Ra 0 (WBT			rnative - [=1]		
Volume an	d Timing Inpu	<u>it</u>		EB		T	W	R		1	NB				SB	
		<u> </u>		TTH	RT	T LT			RT	t IT	TH	l F	RT	LT	TH	RT
Number of I	lanes Ni	1		2	1	╅	2	-	1()	<del>  - :</del>	<del>-   '''                                </del>	+		1		2
Lane Group				Ιź	<b>-</b>		1 2 T			<del> </del>		╫		Ĺ		<del>  _</del>
Volume, V (		29		177	-			<del>,  </del>		╁		╫		372		488
	<u> </u>			· <del></del>	<b> </b>		493	<u> </u>		<del> </del>		-		9		- <u>}</u>
	ehicles, %HV	10		5	<del> </del>		4			-		4		<u> </u>		6
	Factor, PHF	0.8		0.85	-		0.85			<b> </b>		4		0.91		0.91
	) or Actuated			Α	<b> </b>		A			1		4		A		A
Start-up Los		2.0		2.0	<u> </u>		2.0			<b>.</b>				2.0		2.0
	f Effective Gre			2.0			2.0					_		2.0		2.0
Arrival Type		3		3			3							3		3
Unit Extensi		3.0	)	3.0			3.0							3.0		3.0
Filtering/Me	tering, I	1.0	00	1.000			1.00	0						1.000		1.000
Initial Unme	t Demand, Qb	0.0	)	0.0			0.0							0.0		0.0
Ped / Bike /	ed / Bike / RTOR Volumes		*********	0		0	0		***************************************			T		0	0	0
Lane Width			0	12.0			12.0							12.0		12.0
Parking / Gr	rade / Parking	N		0	N	N	0		N		1	T		N	0	N
	neuvers, Nm			†	1	1		一十		$\dagger$	<del>                                     </del>	┪				1
Buses Stop		10	***********	0	+		0	-	··············	+	_	┪		10	<b>†</b>	0
	or Pedestrians			3.2	<u> </u>		3.2	<del></del>		1		E		<del>                                     </del>	3.2	
Phasing	EB Only	EW Pe	rm\	T 03	······································		)4		B Onl	<u> </u>	06		T	07		08
rnasing	G = 18.2	G = 44		G =	<del>)</del>	G =	J++		= 42.		G =		G =		G =	00
Timing	Y = 5	Y = 5	. 1	Y =		Y =		<u>.Į</u>	- 42. = 5		Y =	···	Y =		Y =	CONTROL DE SANTO
Dung Gan of	<u> </u>	L		<del>                                     </del>		Υ		<u> </u>	- 0							
	Analysis, T = (	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									Cycle Le	ngı	11, C	= 120.0	<i>}</i>	
Lane Group	o Capacity, C	ontrol D			os D	etermi								т		***************************************
		<u> </u>		EB			WB	T ==			NB	Т=		<del>                                     </del>	SB	T
		LT	_		RT	LT	TH	R	1	LT	TH	<del>  f</del>	₹T	LT	TH	RT
Adjusted Flo	ow Rate, v	342	2	808			580							409		536
Lane Group	Capacity, c	459	1	932			1278							589		148
v/c Ratio, X		0.75	0.	11			0.45	T						0.69		0.36
Total Green	Ratio, g/C	0.56	0.	56			0.37							0.36		0.55
	<del></del>	16.4	12	2.3			28.8							33.1		15.2
	Factor, PF	1.000	1.	000			1.000							1.000		1.00
		10.00	0.	11			0.11							0.26		0.11
Progression	ration, k	0.30					0.3		T					3.5	1	0.2
Uniform Del Progression Delay Calibr Incremental	<del></del>	6.5		0.0			0.3					_			<b>ļ</b>	
Progression Delay Calibr	Delay, d ₂			0.0			0.0							0.0		0.0
Progression Delay Calibr Incremental	Delay, d ₂ ⊋ Delay, d ₃	6.5	0				<b></b>							_		0.0 15.4

Approach Delay	19.0	29.1		24.6
Approach LOS	В	С		С
Intersection Delay	24.3	$X_c = 0.63$	Intersection LOS	С

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/9/2006 5:12 PM

<u> </u>		<del></del>			<u> </u>	UE I A	ILED						···		~~~
General Inf	ormation						Site I						ND 44	······································	
Analyst	JAS						Inters				NB Ram	_	CR 41		
Agency or C							Area				ther area				
	med 11/08/20	06					Juriso			Pas	co Count	y			
Time Period		00					Analy	sis Ye	ar		D + D		u		
Time r enoc							Proje	ct ID		- 20	3 Loop R 20 (WBT: RT=FF)		temative LT=1,		
Volume and	d Timing Inpu	ıt			·										
				EB		Ī	W	3	·		NB			SB	
			LT	TH	RT	LT	TH	F	T?	LT	TH	RT	LT	ТН	RT
Number of L	.anes, N1		1	1			1						1	<del>                                     </del>	
Lane Group			L	7			17	$\dashv$		<b>†</b>			L		1
Volume, V (			291	177	_		493					<b>†</b>	372		<b>†</b>
	hicles, %HV		10	5	_	_	4	1				<b>†</b>	9		
Peak-Hour f			.85	0.85		_	0.85	1		t	<u> </u>	1	0.91	<b>†</b>	1
	) or Actuated		A	A	1	$\dashv$	A	$\dashv$		t	_	1	A	<b>†</b>	<b>†</b>
Start-up Los	<u></u>	·	2.0	2.0	+	$\top$	2.0	$\dashv$			1	1	2.0	<del>                                     </del>	1
	Effective Gre		2.0	2.0			2.0	_		<b>†</b>		1	2.0	<b>†</b>	
Arrival Type			3	3	+	$\dashv$	3	$\dashv$		<b>†</b>		1	3	<b>†</b>	1
Unit Extensi	·		3.0	3.0	_		3.0	$\dashv$	······································	<b>†</b>		1	3.0	<b>†</b>	<b>†</b>
Filtering/Me			.000	1.000	,	_	1.00	0		<del>                                     </del>		<b>†</b>	1.000	<b>†</b>	1
	l Demand, Qb		0.0	0.0	<b>-</b>	_	0.0	_	,	<b>†</b>			0.0	<b>†</b>	1
	RTOR Volum		0	0		10	0.0	-				†	0	0	
Lane Width			2.0	12.0		Ť	12.0			†	_	1	12.0	<del>                                     </del>	1
	ade / Parking		N	0	N	1 _N	0	<del> </del>	;	<del> </del>	<del></del>	1	I N	0	N
Parking Mar				<del>  `</del>	+					<del>                                     </del>		<del> </del>	<del>                                     </del>	<del>l</del> —	
Buses Stopp			O.	0	-		0			╂		<del> </del>	10	<del> </del>	-
	r Pedestrians		<u> </u>	3.2			3.2			╂		1	+	3.2	
		<del></del>								<u> </u>		T			00
Phasing	EB Only	EW P			D3		)4		Only		06		07		08
Timing	G = 35.1 Y = 5	G = 5		G =		G =		G =			G =	_G ∵		G =	
	1	Y = 5		Y =		Y =		Y =	5		Y =	<u> </u>		Y =	
	Analysis, T = (	*****		<u></u>							Cycle Lei	ngth, C	= 150.0	)	
Lane Group	Capacity, C	<u>ontrol</u>			<u>LOS D</u>	etermi	· · · · · · · · · · · · · · · · · · ·								.,
		<u> </u>		EB	DT .	1 77	WB	1 07	_	t 7°	NB	OT.	LT	SB	
Adjusted Flo	w Rate v	LT		TH	RT	LT	TH	RT	_	LT	TH	RT		TH	RT
		342		08			580	-	_			<b></b>	409	1	<u> </u>
Lane Group	Capacity, c	550	) 1.	207			730						442		
v/c Ratio, X		0.62	0.	17			0.79						0.93		
Total Green	Ratio, g/C	0.67	<i>O</i> .	67			0.40						0.27		
Uniform Dela	ay, d ₁	16.9	9	.4	*****		39.6	1	T			1	53.5	1	
Progression	Factor, PF	1.00	0 1.	000			1.000	<del></del>	1				1.000	<b>†</b>	
Delay Calibr	ation, k	0.21		11			0.34	1	$\dashv$	·····	1		0.44		
Incremental		2.2		). 1			6.1	+-	_				25.4	<del>                                     </del>	
Initial Queue		0.0		.0			0.0	<del> </del>	$\dashv$			<b> </b>	0.0	<b> </b>	
		19.		9.5			45.7	<b>†</b>	$\dashv$				78.9	1	
Control Dela			. 1 ~	1		I	1	Ě	Į.		1	I	1	I .	ı

Lane Group LOS		Constanting	00		ti ili		
Approach Delay	15.5	45.7					78.9
Approach LOS	В	D					Е
Intersection Delay	43,7	$X_c = 0.86$		Inters	ection L(	DS .	D

HCS+TM Version 5.2

Generated: 11/8/2006 7:29 PM

			***************************************		HC	S+"	D	ETA	ILF	ED F	REPO	RT								·····
General Inf	ormation	***************************************	************	·					~~~~		forma					·				
Analyst Agency or C	JAS								Ini Ar	terse rea T	ction ype		I-75 All c	othe	Ramp r areas	5	CR	41		
	med 11/08/200	)6							1		ction		Pas	со	County	•				
Time Period	I								1	naiys rojeci	is Yea UD	r	NB 202		Ramp	Alteri	nat	ive -		
Volume and	d Timing Inpu	ıt							<u> </u>					-	···::					***************************************
					EB					WB					NB				SB	
			LT		TH	RT		LT		TH	RT		LT		TH	RT		LT	TH	RT
Number of L		***************************************	1		2	L		ļ	_	2	1		2			<u> </u>	4			
Lane Group		·	L 204		T				_	<i>T</i>	$\frac{R}{70}$		L			<u> </u>	+	·		
Volume, V (	vpn) hicles, %HV	·····	291 10		177 5	<del> </del>		<u> </u>		493 4	79 10		488 6	5		<del> </del>	-			<b>-</b>
Peak-Hour F			0.85		.85					).85	0.85		0.90	)		<del> </del>	$\dashv$	·····		<del> </del>
	) or Actuated (	(A)	A		A	<del> </del>		<b></b>		A.	0.63 A		0.90 A			lacktree	$\dashv$		<u> </u>	<del> </del>
Start-up Los		`	2.0		2.0			<b> </b> -		2.0	2.0		2.0			<b>†</b>	十			
Extension of	tension of Effective Green, e 2.0 2.0								2.0 2.0			2.0			t	1				
	rival Type, AT 3 3								_	3	3		3				1			1
Unit Extensi			3.0		3.0					3.0	3.0		3.0							
Filtering/Met			1.00		.000					.000		0	1.00	0		<u> </u>				
	t Demand, Qb		0.0 0		0.0					0.0	0.0		0.0			<del>                                     </del>	4		<u></u>	<b>-</b>
Lane Width	d / Bike / RTOR Volumes				0 2.0			0		0 2.0	0 12.0		0 12.0	)	0	┼	-		<u> </u>	<del> </del>
	ade / Parking		12.0 N		2.U 0	N		N		0	12.0 N		12.C N	<u></u>	0	$\frac{1}{N}$	$\dashv$		<u> </u>	<del> </del>
Parking Man		***************************************	<del>                                     </del>	$\dashv$		<del>ان</del>		<del>  ''</del>	+		<del>  '`</del>		<del>  ``</del>		<del>ا</del>	1 ''	+		<u> </u>	+
Buses Stopp			0	$\dashv$	0	<del> </del>			+	0	10	***********	0		<u> </u>	<del> </del>	$\dashv$	<del></del>	<b></b>	<b>-</b>
	r Pedestrians.	, Gp		L	3.2	1				3.2			Ť		3.2		1		I	
Phasing	EB Only	EW	Pern	n	03	}	T	0.	4	Ī	NB C	nly	Ī		06	Ī	0	7	(	D8
Timing	G = 12.4		16.5		G =			G =			G = 1	6.1		G=		G			G =	
	Y = 5	Y =	5		Y =			Υ =		$\prod$	Y = 5			Y =		Υ:			Y =	
···	Analysis, T = (													Сус	le Len	gth, C	=	60.0		
Lane Group	Capacity, Co	ontro	l Del	ay, a EE		OS D	et	ermin		on VB					NB	<del></del>	Т		SB	
		H	T	TH		श	-	тТ	V\ TH		RT	+	LT		TH	RT	$\dashv$	LT	TH	RT
Adjusted Flo			42	208				-	58		93	-	542	1			1	·	,	101
Lane Group	Capacity, c	4	97	194	6				95	6	920	[ε	387					. —		
v/c Ratio, X		0.6	69	0.11					0.6	1	0.10	0.	61	1						
Total Green	Ratio, g/C	0.5	56	0.56					0.28	8	0.63	0.	27							
Uniform Dela	<u> </u>	8.	4	6.0					18.5	9	4.5	19	9.2							
Progression	Factor, PF	1.0	000	1.00	0				1.00	00	1.000	1.	000							
Delay Calibra	ation, k	0.2	26	0.11					0.19	9	0.11	0.	20							
Incremental	Delay, d ₂	4	.0	0.0					1.	1	0.0	I	1.2							
Initial Queue	Delay, d ₃	0.	0	0.0					0.0	)	0.0	0	0.0	1			1			
Control Dela	У	12	2.4	6.1					20.	.0	4.5	2	20.5				1			
				·					С			1		—∱⊸		<del>                                     </del>			1	<del></del>

Approach Delay	10.0	17.9	20.5	
Approach LOS	А	В	С	
Intersection Delay	16.2	$X_c = 0.72$	Intersection LOS	В

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 7:38 PM

					HC.	S+"	DETA	۱L	ED I	RE	POF	₹T							
General Inf									Site li			ion							
Analyst	JAS	-						1	nters					3 Ram _i		-	241		
Agency or C								1	Area `	Гур	е	All		er area					
	med 11/08/200	06						- 1					SCO	Count	У				
Time Period	ſ							- 1	Analy							_			
								<u> </u>  F	^o rojed	ot II.	)	SE	Ra	mps	202	U			
Volume and	d Timing Inpu	it	1	r	0	***************************************			MID			<del>-</del>		ND				60	
			LT	E TH		RT	H _L T		WB TH	Т	RT		r 1	NB TH	TE	iT	LT	SB TH	RT
Number of L	anes. Nı		<u> </u>	2	<del>'</del>	111	1		2	╅	1/1	1	'	111	1			<del>  '''</del>	11/1
Lane Group			<u> </u>	<del>  -</del>			1		- T	十		$\pm i$			F			<b>-</b>	╁──
Volume, V (				33	4	-	338		642	十		15	6		.j	34		<b> </b>	
······································	hicles, %HV		<b>-</b>	4		***************************************	3		6	1		10			71			<u> </u>	<del> </del>
Peak-Hour F			<b></b>	0.88	3		0.95	$\neg$	0.95	十		0.8			0.8				
Pretimed (P	) or Actuated	(A)		A	$\neg \uparrow$	***************************************	A		Α	ヿ	···	A			7	······		1	1
Start-up Los	t Time, Iı			2.0			2.0		2.0			2.0	)		2.	0			
Extension of	f Effective Gre	en, e		2.0			2.0		2.0			2.0	)		2.				
Arrival Type				3			3		3			3			3				
Unit Extensi				3.0			3.0		3.0	$oldsymbol{\perp}$		3.0			3.				
Filtering/Met			<u> </u>	1.00			1.00	0	1.000	) [		1.0				000			
	t Demand, Qb		ļ	0.0			0.0		0.0	4		0.0	)		0.		ļ	<b>_</b>	
	RTOR Volum	es	0	0			0		0	_		0		0	1		ļ	<del> </del>	<b>-</b>
Lane Width		<del></del>	<u> </u>	12.0			12.0		12.0	_		12.			12				<b>_</b>
	ade / Parking		Ν	0		Ν	N		0	_	Ν	N		0		Į		<u> </u>	
Parking Mar			<b> </b>			··········				_			.,	<u> </u>	<del> </del>		ļ	<del> </del>	
Buses Stopp		_		0	$\perp$		0		0			0	·	L		0			
	r Pedestrians		<u> </u>	3.2			1		3.2			<u>.                                    </u>		3.2			<u> </u>		00
Phasing	WB Only G = 5.5		Perr 29.5		03 	$\frac{3}{G} = \frac{04}{6}$		)4	***************************************		B Or = 10		G=	06		G =	07	G =	08
Timing	Y = 5	Y =	····	Y			Y =				= 10 = 5	.0	9 - Y =			<u>G -</u> Y =		Y =	
Duration of A	Analysis, T = (	<u> </u>	J				1				- J				\		60.0		
	Capacity, C		ΙDο	lav an	dic	0.S.D	otormi	nsi	tion				<u> Uy</u>	OIC CEI	19111				
Lanc Oroup	, Japan, , o	T		EB	<u> </u>	Ť	CICIAII		NB		T		<del>,</del>	NB		···		SB	
			.T	TH	R	ET.	LT		ГН	F	₹T	LT	T	TH	R	Τ	LT	TH	RT
Adjusted Flo	w Rate, v			380	Ī		356	6	76			175	T	0.11	13	}4			
Lane Group	Capacity, c			1710	1		658	22	275	<del> </del>		274	$\dagger$		50	)2			1
v/c Ratio, X				0.22	1		0.54	┼	30	<del> </del>		0.64	$\dashv$		0.2		<b> </b>	1	$\top$
Total Green	Ratio, g/C	-		0.49	1		0.67	╂	67	$\vdash$		0.17	$\dashv$		0.3		<b> </b>	<del>                                     </del>	-
Uniform Dela		_		8.7	1		4.4	╄—	.2	<u> </u>		23.3	$\dashv$		14.		<b>!</b>	1	<del> </del>
Progression		+		1.000	$\dagger$		1.000	+	000	<u> </u>		1.000	<del>,                                    </del>		┼──	000		1	+
Delay Calibr		+		0.11	+		0.14		11			0.22	-		0.1			1	
Incremental		+	***************************************	0.1	1-		0.9	╃—	). 1	-		4.9	-		ļ	. <u>.</u> .3		-	-
Initial Queue	······································	1		0.0	<del> </del>		0.0	ـ	.0	<del> -</del>		0.0	$\dashv$		0.		<del>                                     </del>	1	
Control Dela				8.8	T		5.3	┿	1.2			28.2	$\dashv$		╂	1.6			<b>†</b>
Lane Group	LOS	$\top$		A	+		A	┿	4	enomente de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la		С			E			1	
rene aroub		5		,	ŀ			1 '					I.		1		i		i

Approach Delay				
Approach LOS	А	А	С	
Intersection Delay	8.7	$X_c = 0.51$	Intersection LOS	Α

HCS+TM Version 5.2

Generated 11/8/2006 8:24 PM

					<u>HC</u>	<u>S+'"</u>	DE	TA	ILED									
General Int	formation								Site I									
Analyst	JAS								Inters						os @ SI	₹ 50		
Agency or C	Co. FDOT								Area					er area	s			
Date Perfor	med 11/08/20	06							Jurisd				ernai	ndo				•
Time Period	i i								Analy	sis `	Year							
									Projec	ct IC	)			mprove ative - 2				
Volume an	d Timing Inpl	ıt			<del></del>						<del></del>		(CITIC	11176 - 2	-040		<del></del>	
TWICE CITY	G villing impe		T	F	В		T	·	WE	<u></u>		<b>—</b>	***************************************	NB		T	ŞB	<u></u>
			LT		H	RT	+	LT	TH	Ť	RT	+-	.T	TH	RT	LT	TH	RT
Number of I	Lanes, Nı		2	$\frac{1}{3}$		1	$\neg$		3	+	1			1	2		<del>  '''</del>	<del>  '``</del>
Lane Group		<del></del>	1	$+\bar{\tau}$	***************************************		十		<del>                                     </del>	╅	R	$\pm i$			$\frac{1}{R}$		<b>-</b>	
Volume, V (		····	560				┪		2362		500		04		756	<del>                                     </del>		┪
	ehicles, %HV		6	6			+		6	-	6	1		╁	6			
Peak-Hour I			0.90	0.9	0		+		0.91		0.91	0.	-	<b>†</b>	0.95		1	1
Pretimed (P	) or Actuated	(A)	A	TA			十	··········	A		Α	7		1	Α		1	1
Start-up Los			2.0	2.0	)		+		2.0		2.0	2.	0	1	2.0	1	1	
Extension o	f Effective Gre	en,	2.0	2.0	)				2.0	1	2.0	2.	0		2.0			
Arrival Type	, AT	<del>/////////////////////////////////////</del>	3				T		3	十	3	+ 3	3	<b></b>	3		1	<del>                                     </del>
Unit Extensi			3.0	3.0	)		T		3.0	寸.	3.0	3.			3.0		1	
Filtering/Me	tering, I		1.000	0 1.0	00		十	***********	1.000	) 1	1.000		200		1.000			
Initial Unme	al Unmet Demand, Qb		0.0	0.0	)		十		0.0	1	0.0	0.	0		0.0		1	
Ped / Bike /	Bike / RTOR Volumes		0	0			$\top$	0	0	T	0	1	)	0	220		1	
Lane Width		<del></del>	12.0	12.	0				12.0	7	12.0	12	2.0		12.0		1	
Parking / Gr	rade / Parking		N	0		Ν		N	0	П	N	7	1	0	N			
Parking Mar	neuvers, Nm									Ī								
Buses Stop	ping, NB.		0	0					0		0		0		0			
Min. Time fo	or Pedestrians	, Gp		3.	2				3.2					3.2				
Phasing	EW Perm	Thr	1 & R	T	03	,	T	04	1	N	B Or	าly	Ī	06	[	07		38
Timing	G = 24.3	G =	87.3	G	=	************	G	=	***************************************	G	= 33	3.4	G :	_	G =	-	G =	······································
<del>-</del>	Y = 5	Y =	5	Υ	=		Y	=		Υ:	= 5		Υ:		Υ =		Y =	
	Analysis, T = 1								*****				Су	de Ler	igth, C	= 160.	0	
Lane Group	o Capacity, C	ontro	ol Del		id L	OS D	eter	min										
		<u> </u>		EB					WB	·				NB			SB	
Adjusted Flo	w Ooto v		_T	TH	<u> </u>	रा	LT		TH	R		LT		TH	RT	LT	TH.	RT
			22	2091					2596	54	19	531			564		<u> </u>	
Lane Group	Capacity, c	5	02	3558	$\bot$				2664	15	24	690	)		563	<u> </u>	<u> </u>	<u> </u>
v/c Ratio, X		1.2	24	0.59					0.97	0.3	6	0.77			1.00		<u> </u>	
Total Green		0.	15	0.73					0.55	1.0	00	0.21			0.21			
Uniform Del		67	7.8	10.3				ļ	35.3	0.0	0	59.7			63.3			
Progression		1.0	000	1.000				-	1.000	0.9	50	1.00	0		1.000			
Delay Calibr	ration, k	0.3	50	0.18				$\int d$	0.48	0.1	1	0.32			0.50			
Incremental	Delay, d ₂	12	3.7	0.3					12.1	0.	1	5.3			38.4			
Initial Queue	e Delay, d ₃	0.	0	0.0					0.0	0.4	0	0.0			0.0			
Control Dela	ay	19	1.6	10.6					47.3	0.	. 1	65.	0		101.7			
		F	=	В			Ī		D	A		Ε			F			T

Lane Group LOS				
Approach Delay	52.1	39.1	83.9	
Approach LOS	D	D	F	
Intersection Delay	51.2	$X_c = 1.02$	Intersection LOS	D D

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/8/2006 8:28 PM

		<del></del>		I	HCS+	" DE	ETAI	LED	RE	EPOF	₹T							
General Info	ormation			······································			Ť			ormati			······································			·····	******	
Analyst	JAS		·····					Inters				75 R	amps (	<u>බ</u> S	R 50		······	
Agency or C								Area '	Туј	pe	A	ll oth	er area	s				
Date Perform	ned 11/08/200	06					ļ	Jurisd	lict	ion	Н	erna	ndo					
Time Period								Analy	sis	Year								
				****		4.5		Projec	ct I	D	S	PUI,	Alterna	tive	- 20	20		
Volume and	l Timing Inpu	ıt ,													,			
				EB				WB			<u> </u>		NB	T =		1 -	SB	T
N	11.		LT	TH	RT	$\perp$	LT	TH	4	RT		.T	TH	R		LT	TH	RT
Number of L	anes, N1		2	3	1 1		2	3	-	1	3			2		3		2
Lane Group			L	T	R		L	T	_	R				R		L 407		R
Volume, V (v	**************************************		560	1385			492	1870	_	500		)4		75		497 6		333
% Heavy Ve	<del></del>		6	6	6		6	6	-	6	6			6		6		6
Peak-Hour F			0.90	0.90	0.90		0.91	0.91		0.91	0.9		<u> </u>	0.9		0.90 A		0.90
Start-up Lost	or Actuated		<u>A</u> 2.0	2.0	2.0		<u>A</u> 2.0	2.0	-	A 2.0	2.		<del> </del>	2.0		2.0		A 2.0
	Effective Gre		***************************************		<del>- </del>			1			_		<b></b>	╅				<b></b>
8		Ŭ, I,	2.0	2.0	2.0	1	2.0	2.0		2.0	2.	0		2.0	)	2.0		2.0
Arrival Type,			3	3	3		3	3		3	3			3		3		3
Unit Extension			3.0	3.0	3.0		3.0	3.0		3.0	3.	0		3.0	)	3.0		3.0
Filtering/Met			1.000	1.000		0 1	.000	1.000	)	1.000		000			000	1.000		1.000
	Demand, Qb		0.0	0.0	0.0	(	0.0	0.0		0.0	0.			0.		0.0		0.0
	RTOR Volum		0	0	0		0	0		Q	(		0	22		0	0	0
Lane Width			12.0	12.0	12.0		2.0	12.0		12.0	12		ļ	12.	·	12.0		12.0
<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	ade / Parking		Ν	0	N		Ν	0		Ν	^	/	0	<u> </u>		Ν	0	N
Parking Man				<u> </u>		_		<b>_</b>		<u> </u>	_							<u> </u>
Buses Stopp			0	0	0		0	0		0		0			)	0		0
	r Pedestrians			3.2				3.2					3.2			<u></u>	3.2	***************************************
Phasing	Excl. Left		1 & RT		03		04		4	VS Pe		1_	06			07		08
Timing	G = 29.0		73.6	G :			G =			S = 30	), 4	G			G =	Mary Concession of Consumer	G =	
	Y = 5	Υ=	7	Y =	=		Y =		IY	= 5		Y :			Y =	450.6	<u> </u>	
***************************************	Analysis, T = (											Су	cle Ler	ngth	, C =	150.0	) 	
Lane Group	Capacity, C	ontro	ol Dela		LOS	Dete	rmin			<u>E</u>			NO		······		<u> </u>	
		<del>  </del>	<del>T 1</del>	EB TH	RT	+	T T	WB TH	1	RT	LT	<del></del>	NB TH	R	T	LT	SB TH	RT
Adjusted Flor	w Rate v	<del>- j</del>				· <del> </del>		······································	t			_	117	i			117	<del></del>
Lane Group		62 63		539 396	543 1128	54 63		2055 2396	┿	128	531 940			56 54		552 940		370 547
v/c Ratio, X		0.9			0.48	0.8		.86	Ͱ		0.56			1.0	3	0.59		0.68
Total Green I	Ratio, g/C	0.1			0.74	0.1		.49	┝		0.20			0.2		0.20		0.20
Uniform Dela	ay, d ₁	60.	1 2	8.4	7.9	58.	4 3	3.6	7	.9	53.8			59.	8	54.1		55.3
Progression	Factor, PF	1.0	00 1	.000	1.000	1.0	00 1	.000	1.	000	1.00	0		1.0	00	1.000		1.000
Delay Calibra	ation, k	0.4	8 0	.22	0.11	0.3	8 0	.39	0.	11	0.16			0.5	0	0.18		0.25
	Delay, d ₂	28	.9	0.6	0.3	10.	.3	3.3	0	0.3	0.8			46	.7	1.0		3.3
Incremental I					0.0	0.0	, 7	0.0		). <i>0</i>	0.0	T		0.0	)	0.0		0.0
Incremental I Initial Queue	Delay, d ₃	0.0	) (	0.0	0.0	10.0	/ I'	J. U	ľ	<i></i>	U.U	- 1		0.0			1	
		0.0 89		29.0	8.2	68.		36.9	╁	6.3	54.1			┼	5.5	55.1		58.6

Approach Delay	38.6	37.4	81.3	56.5
Approach LOS	D	D	F	E
Intersection Delay	46.2	$X_{c} = 0.92$	Intersection LOS	D

Copyright © 2005 University of Florida, All Rights Reserved

HGS+TM Version 5.2

Generated: 11/8/2006 8:31 PM

			*****	Н	CS+"	DE	ETA	ILED	RE	POF	RT_							
General In	formation							Site II	nfo	rmati								
	***							Interse	ect	ion	1-7	5 NE	3 Ramp	s (0	) SF	? <i>50</i>		
Analyst	JAS							Area 7			All	othe	er areas	S				
Agency or C		00						Jurisd	icti	on	He	rnar	1do					
	med 11/09/20	UD						Analy:	sis	Year								
Time Period	3							Projec	et II	D	Alt	erna	SB Loo tive (W IB-FF				<b>.</b>	
Volume an	d Timing Inp	· · · ·		······································		·····		<u> </u>		·····	20.	201	10-111			·····		
VOIGITIE att	a rinning inpi	J.L	T	EB		-т		WE	1		1	***********	NB				SB	<del></del>
			LT	TTH	RT	-+	LT	TH	_	RT		Γ	TH	R	Ŧ	LT	TTH	RT
Number of I	anes Ni		2	3	- 1	$\dashv$	<u>~ ,                                     </u>	3	-	101	3		117	HÌ			<del>  '''</del>	<del>  '``</del>
Lane Group		***********	ī	T		$\dashv$		$+\tau$			L			┢			<del> </del>	┼
Volume, V (	***************************************		560	1882	,	$\dashv$		1870	,		50	4		-			+	┼
	ehicles, %HV		6	6	·	╅		6	-		6	-1		├				╂──
	Factor, PHF		0.90	0.90		$\dashv$		0.91	-		0.9	5		<del> </del>		<b></b>	<del> </del>	<del>                                     </del>
	) or Actuated		A	A		$\dashv$		A			A			<del>                                     </del>		<u> </u>	<del> </del>	╁┈┈
Start-up Los		<u>v. v.</u>	2.0	2.0	+-	$\dashv$		2.0			2.0	)	<del>                                     </del>	$\vdash$		<b></b>	<b>-</b>	+
	f Effective Gre	en. e	L	2.0	_	$\dashv$		2.0		***************************************	2.0			$\vdash$		<b></b>	<b>-</b>	<del> </del>
Arrival Type		, -	3	3		┪		3	$\dashv$		3			╁			<del>                                     </del>	1-
Unit Extensi			3.0	3.0	_	$\dashv$	****	3.0			3.0			$\vdash$		<b></b>	<b>-</b>	<del> </del>
Filtering/Me			1.000	1.000	7	$\dashv$		1.000	2		1.0			┢─			<del> </del>	╂
	ial Unmet Demand, Q _b			0.0		$\dashv$		0.0	_		0.0	···		╁	***************************************	<b></b>	<b>†</b>	<del>                                     </del>
	RTOR Volum		0.0 0	0		$\dashv$	0	0.0			0.0		0	┢		<b> </b>	<b></b>	<del>                                     </del>
Lane Width			12.0	12.0	_	$\dashv$		12.0			12.	0	<b> </b>	t		<del>                                     </del>	<u> </u>	<del>                                     </del>
	ade / Parking		N	0	N	-	N	0		N	N N		0	N		<u> </u>	<b>—</b>	<b>-</b>
<del></del>	neuvers, Nm		. *	<del>                                     </del>		-	1 A			1.4	- 1'4		<u> </u>	<del>  '</del> '		<del> </del>	<b></b>	<del> </del>
Buses Stop		····	n	0		+		0			0		<b> </b>	-		<del> </del>	<del> </del>	-
	or Pedestrians	G.	<i>-</i>	3.2		$-\!\!\!\!+$	····	3.2			1.0		<u>3.2</u>	<u></u>		<b> </b>	<u> </u>	1
			L		Λ?	$\dashv^{\perp}$	^			ID ^	<u> </u>			<del>-</del>		<u> </u>	<u> </u>	
Phasing	EB Only G = 27.3		i Only 72.3	G =	03	+_	04 } =	<u>+</u>		IB On			06	-	G =	07	<del></del>	)8
Timing				Y =						= 15	.4	G =					G =	
Duration of	Y = 5 Analysis, T = (	Y =	J	<b>-</b>		I Y	<u> </u>		Y	= 5		Y =			Y =	120	Y =	***************************************
			10		100 -		-					Cyc	le Len	μn,	υ=	130.	U	
Lane Group	Capacity, C	ontro	ı vela		LUS D	ete	rmin			T		***********	KID.			I	<u></u>	
		1	.T T	EB TH	RT	L.	<del>,</del> 1	WB TH	T -	रा	LT		NB TH	R	T	LT	SB TH	RT
Adjusted Flo	w Rate v				13.1	<u> </u>			<del>  </del>	` '		$\dashv$	117	Γ.		<u> </u>	1 ''	17(1
-		02	22 2	091				2055	_		531					<u> </u>	<u> </u>	
Lane Group	Capacity, c	69	94 3	929				2716			550							
v/c Ratio, X		0.9	0 0	.53			(	0.76			0.97	T	1					
Total Green	Ratio, g/C	0.2	21 0	.80			(	0.56			0.12	1						
Uniform Del	ay, d ₁	50.	.0 4	.3				22.1			57.0							
Progression	Factor, PF	1.0	000 1	.000				1.000			1.000							
Delay Calibr	ation, k	0.4	12 0	14			(	0.31			0.47							
Incremental		14	1.4	0.1				1.3			29.7							
Initial Queue	Delay, d ₃	0.0	0 0	0.0			T	0.0	_		0.0							
	· · · · · · · · · · · · · · · · · · ·					t	-†	00.4	t							†	1	1
Control Dela	ıy	64	1.3	4.5			l	23.4	l	- 1	86.8					l	1	I

Lane Group LOS			4449488	***************************************		Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Compan			
Approach Delay	18.2		23.4			86.8			I.
Approach LOS	В	**************************************	С	·		E			
Intersection Delay	27.1	· · · · · · · · · · · · · · · · · · ·	$X_{c} = 0.82$		Inters	ection L	os	С	

HCS+TM Version 5.2

Generated: 11/9/2006 7:04 PM

	·····	***************************************		<u> </u>	<u>'CS+"</u>	DET	AILED					·			
General Inf	ormation						Site	Informa							
Analyst	JAS		·					section Type			B Ramp er area.	_	SR 50		
Agency or C							Juris	diction	ŀ	-lerna	ndo				
	med 11/09/20	06					Analy	/sis Yea	r						
Time Period							Proje	ct ID	A	Alterna	SB Loc ative (W Only)-	ÌB Lan			
Volume and	d Timing Inpu	Jί	······································	***************************************						***************************************			-		
	,			EB	***************************************		W	В	Т		NB			SB	·····
			LT	TH	RT		T TH	RT	T	LT	TH	RT	LT	TH	RT
Number of L	.anes, N ₁		2	1			1	1						1	
Lane Group			L	Ī			T	R	T						
Volume, V (	vph)		560				492	2 500							
% Heavy Ve	hicles, %HV		6				6	6						l	
Peak-Hour f	actor, PHF		0.90				0.91	0.91							
	timed (P) or Actuated (A) A							Α	Π						
	ert-up Lost Time, I1 2.0							2.0							
	Effective Gre	en, e	2.0 3				2.0	2.0							
Arrival Type					3	3	$\Box$	***							
Unit Extensi			3.0				3.0	3.0							
Filtering/Met			1.000	<u> </u>			1.00		0			<u> </u>		<u> </u>	<u> </u>
	Demand, Qb		0.0 0	1			0.0	0.0	$\bot$	*********		<u> </u>			
	ed / Bike / RTOR Volumes			0		0	0	0							
Lane Width			12.0	ļ			12.0		$\perp$		ļ	<u> </u>		ļ	
<del>,</del>	ade / Parking		Ν	0	N	N	0	N	$\bot$			<u> </u>		<u> </u>	<u> </u>
Parking Mar															
Buses Stopp			0	<u></u>			0	0			1	<u> </u>			
Min. Time fo	r Pedestrians			3.2			3.2	2							
Phasing	EB Only	WB			03		04	05			06		07	<del></del>	80
Timing	G = 27.3	G = :	·····	G =		G =		G =		G:		G		G =	
-	Y = 5	Y = 3	5	Y =		Y =		Y =		Υ:		Y		Y =	
	Analysis, T =									Су	cle Len	gth, C	= 130.	0	
Lane Group	Capacity, C	ontrol			LOS E	eterm)	ination							~~~~~	
		<u> </u>		EB		<u> </u>	WB	T	<u> </u>		NB			SB	1 ===
A 7:		L`		ΓH	RT	LT	TH	RT	L.	<u> </u>	TH	RT	LT	TH	RT
Adjusted Flo	w Rate, v	62	2				541	549							
Lane Group	Capacity, c	69	14				1278	1087							
v/c Ratio, X		0.9					0.42	0.51	-					<u> </u>	<u> </u>
Total Green		0.2					0.71	0.71							<u> </u>
Uniform Dela Progression		50.			···		7.7	8.4	<u> </u>						<del> </del>
Progression Delay Calibra	<del> </del>	1.0					1.000	1.000	<u> </u>						-
Incremental		0.4.			**************************************		0,11	0.11	<b> </b>						<u> </u>
Initial Queue		0.0					0.0	0.4	-		······				-
Control Dela		64.			***************************************		7.9	8.7	<del> </del>					XX	1
G G C . G . G . G . G						E	E .	1	1	1		I	1		

Lane Group LOS		<b>C</b>						
Approach Delay	64.3		8.3					
Approach LOS	E		A					
Intersection Delay	28.7		$X_c = 0.59$	Intersed	tion LO	S	С	

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 7:06 PM

		***************************************		H	<u> </u>	UEI			<u>REPO</u>			····	·····			
General Inf	ormation	·			·		-		nforma							
Analyst	JAS						9		ection				os @ SA	₹ 50		
Agency or C	Co. FDOT						E		Туре		All oth	er area.	S			
Date Perform	med 11/08/20	06					١	Jurisd	liction	1	Herna	ndo				
Time Period								Analy	sis Yea	r						
							ا	Projec	et ID		WB to - 2020		over All	ernativ	9	
Volume and	d Timing Inpe	ıt ,	······································													
		_		EB				WE				NB		<u> </u>	SB	
<u> </u>			LT	TH	RT	L	T	TH	RT		LT	TH	RT	LT	TH	RT
Number of L	anes, N ₁		2	3			-	3	1		3					
Lane Group			L	T		T		T	R		L					1
Volume, V (v	vph)		560	1882			***************************************	1870	500		504					
% Heavy Ve	hicles, %HV		6	6		_		6	6		6	1	1			1
Peak-Hour F	actor, PHF	C	.90	0.90		_		0.90	0.90	C	0.90	1	<b>1</b>		<b>!</b>	1
	) or Actuated		A	A	<u> </u>	$\dashv$	***************************************	A	A	_	A	1	<del>                                     </del>	1	<b></b>	t
	I-up Lost Time, I1 2.0 2.0					-1-		2.0	2.0		2.0		<b>†</b>			<del> </del>
<u> </u>	Effective Gre		2.0	2.0		┪		2.0	2.0		2.0	╁┈┈	1	<u> </u>	<del> </del>	-
Arrival Type			3	3	<del></del>	+-		3	3		3	+	<del> </del>	<del>                                     </del>	<del>                                     </del>	1
				3.0	_	$\dashv$		3.0	3.0	-	3.0	1	<del> </del>		<b>}</b>	╂──
	nit Extension, UE 3.0 3.0							4					╂	ļ	<u> </u>	-
	itial Unmet Demand, Qb				<u> </u>			1.000			000		<u> </u>		<u> </u>	╀
				0.0		<u> </u>		0.0	0.0		0.0		.		<u> </u>	ļ
	ed / Bike / RTOR Volumes			0		0		0	0	-	0	0	<del> </del>	<del> </del>	<del> </del>	
Lane Width			2.0	12.0				12.0	12.0	1	12.0	<b></b>	<b>_</b>	<b>_</b>	<b></b>	<b>.</b>
	ade / Parking		N	0	N	^		0	N	[	N	0	N		<u> </u>	
Parking Man												<u> </u>	<u> </u>	1	<u> </u>	
Buses Stopp			0	0			······	0	0		0		<u> </u>			
Min. Time fo	r Pedestrians	, G _P		3.2				3.2				3.2		<u> </u>		
Phasing	EB Only	Thru a	& RT		)3		04		NB O	nly		06		07	(	)8
Timina	G = 27.1	G = 7	78.2	G =		G =		***************************************	G = 2	9.7	G	=	G =		G =	
Timing	Y = 5	Y = 5	·	Y =		Υ =			Y = 5	***************************************	Υ:	=	Y =	······································	Y =	*************
Duration of A	Analysis, T = (	0.25					·				Cv	cle Len	gth, C =	150.0	)	***************************************
***************************************	Capacity, C		Dela	v. and	LOS D	etern	nina	tion					<u> </u>			
		T		EB				WB		T		NB		T	SB	<del></del>
		Lī	: T	TH	RT	LT		TH	RT	T	тТ	TH	RT	LT	TH	R1
Adjusted Flo	w Rate, v	622	2 2	2091				078	556	56					1	
Lane Group	Capacity, c	597	7 3	3591			2:	546	1147	91	19					
v/c Ratio, X		1.04	0	.58				82	0.48	0.6						
Total Green	Ratio, g/C	0.18		.74				52	0.75	0.2					<u> </u>	
Uniform Dela		61.5		9.2				9.9	7.2	54.				1	<del>                                     </del>	<b> </b>
Progression	······································	1.00		.000		***************************************	+-	000	1.000	+	000	<del></del>			<del>                                     </del>	T
Delay Calibra	ation, k	0.50		.17				36	0.11	0.2		***************************************		1		<del>                                     </del>
Incremental	Delay, d,	48.		0.2				2.2	0.3	<del></del>	2				<u> </u>	
Initial Queue		0.0		0.0				0.0	0.0	0.0				<del>                                     </del>		<b>†</b>
		<del></del>	$\overline{}$	9.4				12.1	7.5	+	5.0		<u> </u>	1	<del>                                     </del>	
Control Dela	У	109.	.0	3.4	l		10	12.7	1.5	100	,.U I		1		1	- 1

Approach Delay	32,4	26.9	56.0	
Approach LOS	С	С	Е	
Intersection Delay	32.2	$X_c = 0.82$	Intersection LOS	С

HCS+TM Version 5.2

Generated: 11/8/2006 8:35 PM

			···		HCS+	<u>" D</u>	ETA						·			<del></del>		
General In	formation							-4		matic								
Analyst	JAS							Inters					3 Ramp		R 50			
Agency or 0								Area					er area	S				
	med 11/08/20	06						Juriso			Hen	nan	100					
Time Period	1							Analy			MR	to l	NR EIV	over A	Iternat	مرا آ		
								Proje	ct ID		- 20		v L i iy	OVEFA	nombe	VC		
Volume an	d Timing Inp	ıt																
			<u> </u>		В		<u> </u>	W					NB				SB	······
			LT	T	H R	T	LT	Tŀ		RT	LT		TH	RT	LT		TH	RT
Number of I			2	3			<b> </b>	3		1	<del> </del>			ļ				
Lane Group			L	T			<del>                                     </del>	T		R	-	_						
Volume, V (	vpn) ehicles, %HV		560 6	<u>-</u>	82		<u> </u>	187		500	╀—	_		<del> </del>	-			
	Factor, PHF		0.90	0.9	0		<del> </del>	6 0.90		6 9.90	-			<del> </del>		-		<del> </del>
	) or Actuated	(A)	0.90 A	0.9 A	<u>'</u>	······································	<del> </del>	0.90 A		A.	+-			<del> </del>	-	+		<b> </b>
Start-up Los								2.0		2.0	+			<del> </del>	1	+	***************************************	<del> </del>
	ension of Effective Green, e 2.0 2.0						<del> </del>	2.0		2.0	1-			1	<del></del>	+		<b> </b>
Arrival Type			3	3			<del>                                     </del>	3		3	┪			<del> </del>	<del>                                     </del>	$\dashv$		
	it Extension, UE 3.0 3.0					***************************************	<b>†</b>	3.0		3.0	1			1	1	十		<del>                                     </del>
Filtering/Me	ering/Metering, I 1.				00		<b>†</b>	1.00		.000	1			1	<u> </u>	十		
Initial Unme	t Demand, Qb		0.0	0.0	)		1	0.0	- 1	0.0						十		
Ped / Bike /	d / Bike / RTOR Volumes			0			0	0		0	1					丁		
Lane Width			12.0	12.	0			12.0	1	2.0								
Parking / Gr	ade / Parking		Ν	0	N	ſ	N	0		N								
Parking Mar	neuvers, Nm																	
Buses Stop			0	0				0		0								
Min. Time fo	or Pedestrians	, G _p		3	2			3.2	2									
Phasing	EB Only		&R		03		0	4		05		*********	06		07		0	8
Tìming	G = 32.0	G =	108.	0 G	==	]	G =		G =	=	(	G =	:	G	=		G =	
ramag	Y = 5	Y =	5	$\neg \mid_{Y}$			Y =		\ Y =			Y =		Y :	=		Y =	······································
Duration of	Analysis, T =			- <del> </del>			***************************************		1						= 150		×	
	Capacity, C		l Del	<u>.</u> av. an	d LOS	Det	ermir	nation						3-1-	***************************************			
		L		EB		T		WB					NB			***************************************	SB	
			T	TH	RT		LT	TH	R	ī	LT	I	TH	RT	LT	I	TH	RT
Adjusted Flo	ow Rate, v	62	22	2091				2078	55	6			-					
Lane Group	Capacity, c	70	05	4883	T	T		3516	109	7		T				T		
v/c Ratio, X		0.6	38	0.43		T		0.59	0.51	1	<del></del>	$\dagger$	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>			十	<del></del>	<b> </b>
Total Green	Ratio, g/C	0.2		1.00	1	╁		0.72	0.72			+			<u> </u>	+		<b> </b>
Uniform Del		57.		0.0		┪		10.2	9.3		····	+	·····	<b> </b>	<b>-</b>	+		<b></b>
Progression				0.950	<del> </del>	┪		1.000	1.00			+				十		
Delay Calibr		0.4		0.11		1		0.18	0.12			+	·	-	+	-	<del></del>	
-			2.6	0.1	1	+		0.3	0.4			十		<b></b>	_	-	····	
incremental	- 2			······	<b>-</b>	┿						+	····	<b></b>		+		<b>-</b>
Incremental Initial Queue	Delay, d ₂	0.0	0 1	0.0	1	1	1	u.u	1 (7.17	/ 1						4		
Incremental Initial Queue Control Dela		0.0 69		0.0		+		10.5	9.6		Kkomatidisenatütelemetiset	+			***************************************		## <u></u>	

Lane Group LOS				
Approach Delay	16.0	10.3		
Approach LOS	В	В		***************************************
Intersection Delay	13.2	$X_c = 0.66$	Intersection LOS	8

HCS+TM Version 5.2

Generated: 11/9/2006 11:06 AM

			<del></del>	<i>†</i>	ICS+"	DEI			***************************************	*********				······				
General Inf	formation							Site In										
Analyst	JAS						- 1	Interse					B Ramp		SF	₹ 50		
Agency or C	Co. FDOT							Area T					er area	S				
Date Perfor	med 11/08/20	26					- 1	Jurisdi •			He	rnai	ndo					
Time Period	i						- 1	Analys	SIS '	Year		1			٤.			
								Projec	t IC	)			mprove ative - 2		L			
Volume an	d Timing Inpu	ıt	T	EE				WB			T		NB				SB	
			LT	TH	RT	$+_{L}$		TH	<b>-</b> T	RT	1	Г	TH	RT		LT	TH	RT
Number of L	anes Ni			3	1 1	2		3	$\dashv$	171	+-	'	111	133		2	111	2
Lane Group		···	<del> </del>	$\frac{1}{T}$	$+\frac{'}{R}$			$\frac{1}{7}$	┪	***************************************					_	L		R
Volume, V (			<del> </del>	1945		<u>-</u>	2	2374	$\dashv$		1					497		333
	hicles, %HV		<u> </u>	6	6	6		6	$\dashv$	·····	+-		<u> </u>			6		6
	Factor, PHF		<u> </u>	0.88	0.88	0.9		0.95	╅	***************************************	╫		<b> </b>	├		0.89		0.89
***************************************	) or Actuated	/Δ1	<del> </del>	0.88 A	10.00 A	A A		0.95 A	$\dashv$		-	******	<del> </del>			A		A
Start-up Los	<del></del>	· · · /	<del> </del>	2.0	2.0	2.0		2.0	$\dashv$		+		<u> </u>	1	····	2.0		2.0
	f Effective Gre	en	<del>                                     </del>	<b>—</b>				<del> </del>	$\dashv$		+-		<b></b>	<del>                                     </del>				1
<u></u> 3		r t,		2.0	2.0	2.0	)	2.0						1		2.0		2.0
Arrival Type	, AT		1	3	3	3		3	7		1		<b>†</b>	T		3	·	3
Unit Extensi			T	3.0	3.0	3.0		3.0	寸		T		<u> </u>			3.0		3.0
Filtering/Me			T	1.000			00	1.000	7		T				*********	1.000		1.000
	t Demand, Qb		T	0.0	0.0	0.0		0.0	7		1					0.0		0.0
	RTOR Volum		0	0	250	0		0	7		1		<b>†</b>		·····	0	0	70
Lane Width				12.0	12.0	12.	0	12.0	7		1					12.0		12.0
Parking / Gr	ade / Parking	·····	N	0	N	N	***************************************	0	1	Ν	1		<u> </u>			N	0	N
	neuvers, Nm	the market of the factor of	1	NAMES OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWN		_		1	$\dashv$		+	-	<b>1</b>	n Comercian	uecurue.			1
Buses Stop			<b>t</b>	10	10	0		0	$\dashv$		1		<b>†</b>	1		0		10
	or Pedestrians	. G _D	1	3.2		1		3.2			+			.I		<b>†</b>	3.2	
Phasing	EW Perm	<del></del>	u & R		03	1	04	<u></u>	2	B On	lv		06	T		07		08
	G = 21.0	\$ <u> </u>	90.2	<u>I</u>	_	G =				= 33		G			G =		G =	
Timing	Y = 5	Y =		Y =		Y =				= 5		γ:			Y =		Y =	
Duration of	Analysis, T = (								<u>.                                    </u>							= 160.0		
	Capacity, C		al Do	lav and	HOST	later	nin -	tion				<u> </u>	JIU LU!	, A , , ,		, 50.0	-	
Lane Group	Japacity, C	<u> </u>	., <u>., C</u> ,	EB		2010111		WB		T			NB			<u> </u>	SB	
			T	TH	RT	LT		TH	F	₹T	LT	T	TH	RT	**********	LT	TH	RT
Adjusted Flo	ow Rate, v			2210	272	518	_	499	<u> </u>			1				558		296
Lane Group	Capacity, c			2753	1524	434	3	546								699		570
v/c Ratio, X				0.80	0.18	1.19	0.	.70								0.80		0.52
Total Green	Ratio, g/C			0.56	1.00	0.13	0.	.73								0.21		0.21
Uniform Del				27.8	0.0	69.5	1.	2.3								59.9		55.9
Progression				1.000	0.950	1.000	1.	.000								1.000	<u> </u>	1.000
Delay Calibr				0.35	0.11	0.50		.27								0.34	ļ	0.13
Incremental		_		1.8	0.1	107.8		0.7	<u> </u>			$\bot$		ļ		6.5		0.8
Initial Queue	Delay, d ₃			0.0	0.0	0.0	C	0.0								0.0		0.0
Control Dela	ЗУ			29.6	0.1	177.3	1	2.9								66.4		56.8
				С	Α	F	_	B	<b></b>			_		1		E	1	E

Lane Group LOS								
Approach Delay	26.4	 41,1				i	63. <i>0</i>	I
Approach LOS	C	D		********			E	
Intersection Delay	38.3	X _c = 0.86	Interse	ection LO	S		D	

HCS+TM Version 5.2

Generaled: 11/8/2006 8:44 PM

					HC	`S+`` I	JE1.									····	······································		
General In	formation				***********				Site II										
Analyst	JAS								Inters					B Ram		@ S.	R 50		
	Co. FDOT								Area T					er area	38				
Date Perfo	rmed 11/09/20	06						ł	Jurisd			He	erna	ndo					
Time Perio	d							- 1	Analy:	sis '	Year	* 4 *	<b>.</b>	00.		~			
			****					1	Projed	ol IC	)			SB Lo ative -			ηρ 		
Volume ar	nd Timing Inp	ut	T		В		T		WE	)		1		NB			l	SB	
						RT	+		TH	, T	RT	╂	·	TH	To	T	LT	TH	T ==
Number of	Lanes Na		'	3	1	1	╁┶	1	3	$\dashv$	KI	+-	l	In	<del>                                     </del>	. 1	2	IR	RT
Lane Grou			┼	$\frac{3}{7}$	*********	R	╂		<del>   </del>	$\dashv$	***************************************				├		L		2 R
Volume, V		······································	╂	194	15	489			2374	+	···	-			╀		497		1
	ehicles, %HV		╂	6	£ J	6	-		6	-	······	-			╀		6		333
	Factor, PHF		╁—	0.8	Ω	0.88	+		0.95	$\dashv$	····				╁┈		0.89		6
	) or Actuated	(A)	<del> </del>	10.8 A	·	0.00 A		********	0.95 A	$\dashv$		+			╂		0.69 A		0.89 A
Start-up Lo		77	<del> </del>	2.0	)	2.0	+		2.0	$\dashv$		+		<b></b>	$\vdash$		2.0	<del> </del>	2.0
	of Effective Gre	een e	1	2.0		2.0	+		2.0	$\dashv$		+-			╁		2.0	<b></b>	2.0
Arrival Type			1-	3		3	+-		3	+	······	+			$\vdash$		3		3
Unit Extens			t	3.0	)	3.0	<del> </del>	·····	3.0	+		+		<u> </u>	1-	······································	3.0	<b></b>	3.0
Filtering/Me	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		t	1.0		1.000	+-		1.000	$\frac{1}{2}$		+		<b></b>	╁	·····	1.000	<del> </del>	1.000
	et Demand, Qt	)	I	0.0		0.0	+		0.0	-	***************************************	+		<b></b>	+		0.0	<del>                                     </del>	0.0
	RTOR Volum		0	0.0		250	0		0.0	$\dashv$		+		<del> </del>	╁		0	0	70
Lane Width			Ť	12.	0	12.0	Ť		12.0	$\dashv$		+			+		12.0	Ť	12.0
	rade / Parking		N	0		N	$\frac{1}{N}$		0	$\dashv$	Ν	1		<b></b>	1	······································	N	0	1 N
	neuvers, Nm		<del> </del>			ļ	+		١Ť	$\dashv$		-			+				+ :-
Buses Stop		······································	<del>                                     </del>	10		0	+		0	$\dashv$		+		<b> </b>	╫	·····	T 0		10
	or Pedestrians	i. Gn	<del> </del>	3.	2	<u> </u>	+		3.2	L	***************************************	+-		<u> </u>			<u> </u>	3.2	<u> </u>
Phasing	Thru & RT	<del></del>	02	T	0:	3	T	04		٥	B On	dv	Ī	06			07		08
	G = 89.2	G =		G			G =	U-1			= 30		G			G =		G =	00
Timing	Y = 5	Y =		-		·	Y =		***************************************		- 50 - 5		Y			Y =		Y =	
Duration of	Analysis, T =				٠,	***************************************	<u> </u>		·····						noth		= 130.6		
	p Capacity, C		ıl De	lav ar	rd I	OS De	form	ina	tion				<u> </u>	010 200	.9	., .			
	,,_,,			EB					WB	**********	Т		·····	NB				SB	
			T	TH	F	रा	LT		TH	R	T	LT	Т	TH	R	T	l LT	TH	RT
Adjusted Fl	ow Rate, v			2210		72		+	199				1				558	<u> </u>	296
	Capacity, c	$\top$		3350	┿	524		╂	350	_	_		+				784	<del>                                     </del>	639
v/c Ratio, X				0.66		18	<del></del>	╂	75		+		+		_		0.71		0.46
Total Greer	Ratio, g/C	$\blacksquare$		0.69		00		╄	69	-	_	<del></del>	╁				0.24		0.24
Uniform De	lay, d ₁			11.7	0.	.0		-	3. 1		$\neg \dagger$		$\neg$		ļ		45.5		42.5
Progression	Factor, PF			1.000	0.9	950		+	000		$\dashv$		$\dagger$				1.000		1.000
Delay Calib	ration, k	1		0.23	0.	11		0.	30				$\dagger$				0.28		0.11
Incrementa	l Delay, d ₂			0.5	0	), 1		1	).9		$\neg$		1				3.0		0.5
	a Delay d			0.0	0.	0		To.	.0				T				0.0		0.0
Initial Queu	e beiny, ag			L															
Initial Queu Control Del				12.2	0	). 1		1.	4.1								48.6		43.0

Approach Delay	10.9	14.1		46.7
Approach LOS	В	В		D
Intersection Delay	17.5	$X_c = 0.74$	Intersection LOS	В

HCS+TM Version 5.2

Generated: 11/9/2006 7:08 PM

^ × ·					ICS+	יט	_ 1 / 1									······································		
General Inf	ormation							Site I						~		D 60		
Analyst	JAS							Inters					B Ram	•	@ 8	R 50		
Agency or C								Area					er area	35				
	med 11/08/20	06						Jurisc				rna	indo					
Time Period								Analy	SIS	Year		מילים	. eo ei		a A i	taraatii.	_	
								Proje	ct II	D		020		/UV	ei Ai	ternativ	e 	
Volume and	d Timing Inpu	ıt																
				EE				WE	}				NB	, .			SB	
			LT	TH	RT		LT	TH	_	RT	LT	<u> </u>	TH	L F	₹T	LT	TH	RT
Number of L	anes, N ₁		<u> </u>	3				3	_					<u> </u>		3	<u> </u>	2
Lane Group				T				T	$\perp$							L		R
Volume, V (				1385	5			2374						<u> </u>		497	<u> </u>	333
	hicles, %HV		ļ	6			****	6	$\perp$					<u> </u>		6		6
Peak-Hour F		··········		0.88		_		0.95	$\bot$					<u> </u>		0.89	<b></b>	0.89
	or Actuated	(A)	<u> </u>	<u> </u>		_		A	$\bot$					1_		A	<u> </u>	Α
Start-up Los			<u> </u>	2.0		$\perp$		2.0	_					1_		2.0	<u> </u>	2.0
	Effective Gre	en, e		2.0				2.0	$\dashv$							2.0		2.0
Arrival Type			<u> </u>	3		_		3	_	~~~~			<u> </u>	<u> </u>		3	<b></b>	3
Unit Extensi				3.0				3.0	_					_		3.0		3.0
Filtering/Met				1.000	)			1.000	)		1		<u> </u>	_		1.000	<u> </u>	1.000
	Demand, Qb			0.0				0.0	_				ļ	ļ		0.0	<u> </u>	0.0
	RTOR Volum	es	0	0			0	0	_					<u> </u>		0	0	70
Lane Width		······································		12.0			···	12.0	[				ļ	↓_		12.0	ļ	12.0
	ade / Parking		Ν	0	Ν		Ν	0		Ν				<u> </u>		N	0	N
Parking Man		·····											<u> </u>					
Buses Stopp				0				0.								0		0
Min. Time fo	r Pedestrians	, Gp		3.2				3.2									3.2	
Phasing	Thru Only		02		03		04	1	5	SB Or	ıly		06			07		08
Timing	G = 97.3	G =		G≔		C	3 =		G	= 42	.7	G	=		G =	=	G =	
	Y = 5	Y =		Y =		Y	<b>/</b> =		Υ	= 5		Y			Υ =		Υ=	
Duration of A	Analysis, T =	0.25	***************************************									Су	rcle Lei	ngth	1, C	= 150.	)	
Lane Group	Capacity, C	ontro	l Dela		LOS	)ete	rmin											
		<u> </u>	T	EB				WB					NB			<u> </u>	SB	
		_   L	т.	TH	RT	L.	T	TH	F	रा	LT	4	TH	R	1	LT	TH	RT
Adjusted Flo	w Rate, v			1574			2	2499								558		296
Lane Group	Capacity, c			3167			3	3167								1321		768
v/c Ratio, X			(	0.50			C	0.79			***************************************					0.42		0.39
Total Green	Ratio, g/C		(	0.65			C	0.65	<u> </u>			1				0.28		0.28
Uniform Dela	ay, d ₁	$\top$		13.7			1	9.0	<del> </del>	1		T		<u> </u>		43.6	<b> </b>	43.1
Progression	Factor, PF	1		1.000			1	.000				1				1.000		1.000
Delay Calibra	ation, k	1		0.11		<del>                                     </del>	C	).34	<u> </u>			T		<del>                                     </del>		0.11		0.11
Incremental	Delay, d ₂			0.1	·····		1	1.4	<u> </u>			十		<b>†</b>		0.2		0.3
Initial Queue	Delay, d ₃		$\dashv$	0.0	<del>v</del>		1	0.0	T			1				0.0		0.0
Control Dela	У	1	1	13.8			1	20.4				$\top$				43.8		43.4
						ľ	L_		5					<u> </u>			<b></b>	

Approach Delay	13.8	20.4		43.7
Approach LOS	В	С		D
Intersection Delay	22.3	$X_{c} = 0.68$	Intersection LOS	С

HCS+TM Version 5.2

Generated: 11/8/2006 8:48 PM

				1	HCS+	DE	TAI	LED	RE	POF	₹T							
General Ini	formation						Ť	Site II				····				************		***************************************
Analyst	JAS	***************************************						Inters	ecti	on	1-7	5 S	B Ramp	os @	SR 5	0		
Agency or C							l	Area ⁻	Тур	е			ier area	s				
	med 11/08/20	06					I	Jurisd	ictio	on	He	rna	indo					
Time Period	t						I	Analy	sis '	Үеаг								
								Projec	ot IC	)		3 to 1020	WB Fly	over ,	Alterr	native	9	
Volume an	d Timing Inpl	ıt	T								<del></del>				· ·			
			LT	EE T TH	RT	_	LT	WB TH	- T	RT	1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NB TH	RT	+	<del>-</del> -	SB TH	Lor
Number of L	anes Ni			3	1		2	3	$\dashv$	rti	╂┺	I	10	KI	3		IH	RT 2
Lane Group				T	$\frac{1}{R}$		L	$\frac{1}{7}$	$\dashv$		+							R
Volume, V (			<del> </del>	1383			<u>4</u> 92	1870	_		+				49			<del></del>
	ehicles, %HV		<b> </b>	6	6		492 0	6	-				<del> </del>	<del> </del>	$\frac{48}{6}$		<u> </u>	333 6
<del> </del>	Factor, PHF	,,,-,-,-,-,-,-,-,-,-,-,-,-,-,		0.88	0.88		.90	0.95	$\dashv$		+-			<b> </b>	0.8			0.89
	) or Actuated	(A)	<del>                                     </del>	A	A		<u>.30</u> A	0.33 A	$\dashv$		+		<u> </u>	<b>-</b>	A			0.89 A
Start-up Los		` /		2.0	2.0		2.0	2.0	$\dashv$		╁		<b> </b>	<b></b>	2.			2.0
	f Effective Gre	en,		+-	_			<del>- </del>	十		+		<b> </b>	<b>†</b>	-			1
e	***************************************	-		2.0	2.0		2.0	2.0						<u> </u>	2.			2.0
Arrival Type				3	3		3	3							3			3
Unit Extensi			ļ	3.0	3.0		3.0	3.0	_				<u> </u>	<u> </u>	3.			3.0
Filtering/Me		*******		1.00			.000	1.00	0				<u> </u>	ļ		000		1.000
	t Demand, Qb RTOR Volum		0	0.0	0.0		0.0	0.0	_	··				<b> </b>	0.			0.0
Lane Width	KTOK VOIUM	es	10	12.0	250 12.0		0 2.0	0 12.0	$\dashv$		-		<del> </del>	<u> </u>	12		0	70
	ade / Parking		N	0	12.0 N		2.0 N	12.0			+			<del> </del>	12 N		0	12.0
<del></del>	neuvers, Nm		1 14	1-			14	+"		Ν	+		<u> </u>	<b> </b>	+^	<i></i>	<i>'</i>	N
Buses Stopp				0	10	-		+-	_		-		<del> </del>	<u> </u>			<u> </u>	<del> </del>
	or Pedestrians	C		3.2			0	3.2			+		<u> </u>	<u> </u>		0	3.2	0
Phasing	WB Only		J & RT			_	~ ~			D C	1	T	ΛC	<del>- 1</del>	<u> </u>			00
rnasiny	G = 34.3	ž	71.1	G =	03	+-	04			B Or = 29		G	06 -		07 ; =	***************************************	G =	80
Timing	Y = 5	Y =		Y =		<del></del>	=			= 29 = 5	. 0	Y			, = · =		G =  Y =	······································
Duration of A	Analysis, T = (		· ·	+-		<u> </u>			<u> </u>	ں ۔۔			- /cle Len			150 (		
	Capacity, C		ol Dela	V and	11001	)ete:	min	ation	***************************************			<u> </u>	OIC ECI	Sur C		,		
	- Japanny, O	<del></del>		EB		) - (e)	*******	WB		<del></del> 1			NB	~	T		SB	······································
			T	TH	RT	LT	- T	TH	R	T	LT	T	TH	RT	I	<u>.</u> T	TH	RT
Adjusted Flo	ow Rate, v		1	57 <i>4</i>	272	547	7 1	968				1			5	58		296
Lane Group	Capacity, c		2	315	1074	80	1 3	3594		İ				<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	9	15		532
v/c Ratio, X			0	.68	0.25	0.68	3 0	.55				1			0.0	61		0.56
Total Green	Ratio, g/C		0	.47	0.70	0.23	3 0	.74				十			O	20		0.20
Uniform Dela	ay, d ₁		3	0.6	8. <i>0</i>	52.9	) {	3.8	Γ			$\top$			54	.9		54.3
Progression	Factor, PF		1	.000	1.000	1.00	00 1	.000		İ	***************************************	T			1.0	000		1.000
Delay Calibr	ation, k		0.	.25	0.11	0.25	5 0	.15				1			0.	20		0.15
Incremental	Delay, d ₂			0.8	0.1	2.4	1	0.2							1	.2		1.3
Initial Queus	e Delay, d ₃		(	0.0	0.0	0.0	(	0.0							0.	.0		0.0
Control Dela	iy .		3	31.4	8.1	55	3	8.9							5	6.1		55.6
		T		С	Α	E		Α	T			7				=	T T	E

Lane Group LOS			***************************************					
Approach Delay	28.0	19.0					55.9	1
Approach LOS	С	В	·····				E	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>
Intersection Delay	28.2	$X_{c} = 0.67$		Interse	ction LO	S	С	

HCS+TM Version 5.2

Generaled: 11/8/2006 8:54 PM

## APPENDIX 'N' DESIGN YEAR (2030) BUILD INTERSECTION LOS

	······································		<del></del>	***************************************	HC	S+"	D	ETA	ILE	DF	REPO	RT	•					***************************************	
General In	formation								~~~~	~~~~	forma								
Analyst	CRH						*******		Int	erse	ction		<i>I-75</i>	NB Ra	mps	@ C	R 41	******************	<del></del>
	Co. FDOT								ł		ype			ther ai					
Date Perfor	med 1 1/03/20	06							1		ction		Pasc	o Coi	inty				
Time Period	di .								An	alys	is Yea			_		A 11.			
									Pro	oject	. ID		2030 2030	.oop F ) (WB	(amp T=2,	SBL7	native - ^r =2)		
Volume an	d Timing Inp	ut	1		ED	<del></del>				14/0				\$ 1 <i>1</i>	3		ı	00	
			LT		EB TH	RT		LT		WB TH	T RT	_	LT	NE TH		RT	LT	SB TH	RT
Number of L	anes. Nı		1	$\dashv$	2	<del>  '``</del>		l I		2	11/1	$\dashv$	<u> </u>	+''		111	2	111	2
Lane Group			L		- 7	┼				<del>Z</del> T		-	·····	+-	$\dashv$		<u> </u>	ļ	<del>  _</del>
Volume, V (			436	5	246	<b>†</b>				713	╅	$\dashv$	<del></del>	┪	十		546		714
	shicles, %HV		10	7	5.	<del>                                     </del>				4	1	十	······	1	_		9		6
Peak-Hour I	Factor, PHF		0.85	1	0.85				0.	85		十		1			0.91	ļ	0.91
Pretimed (P	) or Actuated	(A)	Α		Α	<u> </u>			1	4	1	$\dashv$		1	1		Α		A
Start-up Los	st Time, I1		2.0		2.0				_ 2	.0							2.0		2.0
	f Effective Gr	een, e	2.0		2.0				2	.0							2.0		2.0
Arrival Type			3		3					3							3		3
Unit Extensi			3.0		3.0					.0							3.0		3.0
Filtering/Me	<del></del>	·····	1.00		1.000	<u> </u>	_			000							1.000		1.000
	t Demand, Qu		0.0		0.0	<u> </u>	_			.0		_					0.0		0.0
<del>, , , , , , , , , , , , , , , , , , , </del>	RTOR Volum	ies	0	4	0	<u> </u>	_	0		0		$\dashv$					0	0	0
Lane Width	mala / Dankin n	<del></del>	12.0		12.0	<b>-</b>				2.0	<del></del>				_		12.0		12.0
<del></del>	ade / Parking		N		0	N	$\dashv$	N		0	N	-		-	-		N	0	N
Buses Stopp	neuvers, Nm	····	0		0	<b> </b>	_		_						-		0		<del>                    _     _     _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _   _</del>
	or Pedestrians	: Go	-	<u>I</u>	3.2	<u> </u>		·····		0 3.2				<u> </u>	L	···········		3.2	0
Phasing	EB Only		Pern	n	03	₹		04		<u> </u>	SB O	nlv	<del>-  </del>	06		I	<u>1</u> 07		08
	G = 15.9		16.4		G =	, 	+	G =	<del>'</del>		G = 1			} =		dG ≡		G =	
Timing	Y = 5	Y =			Y =		<del></del>	 Y =	****		Y = 5			=		Y=		Y =	
Duration of A	Analysis, T =	0.25					L	····					C	ycle L	.eng	th, C	= 60.0		
Lane Group	Capacity, C	ontro	l Del	lay,	and L	os d	ete	ermin	atio	on	~~~~	*******							
				E	В				W	В				NB				SB	
		L	Τ	T	- I	रा	L	Τ.	TH		RT	L	T	TH		RT	LT	TH	RT
Adjusted Flo	ow Rate, v	5	13	28	9				839								600		785
Lane Group	Capacity, c	5	55	214	12				951								681		1510
v/c Ratio, X		0.9	92	0.1.	3			0	0.88								0.88		0.52
Total Green	Ratio, g/C	0.6	52	0.6.	2			1	0.27			T	***************************************		$\top$		0.21		0.56
Uniform Dela	ay, d ₁	13	.8	4.7	7			- 1	20.9	1		T			1		22.9	<u> </u>	8.2
Progression	Factor, PF	1.0	000	1.0	00	1		1	1.00	0		Π					1.000		1.000
Delay Calibr	ation, k	0.4	14	0.1	1				0.41	1		T	·····			·····	0.41		0.13
Incremental	Delay, d ₂	21	1.4	0.1	0			$\neg \dagger$	9.8	1	~~~~						12.9	1	0.3
Initial Queue	Delay, d ₃	0.	0	0.0	)				0.0								0.0		0.0
Control Dela	У	35	5.3	4.	7				30.6	5							35.8		8.5
Lane Group	LOS	D	)	А					С						T		D		А
		1			······································	1		A.	······································	E		T					1	<del>^</del>	

Approach Delay	24.3	30.6		20.3
Approach LOS	С	С		С
Intersection Delay	24.2	$X_c = 0.83$	Intersection LOS	С

HCS+TM Version 5.2

Generated: 11/9/2006 4:07 PM

				<u>HC</u>	<u>S+"</u>	DET		LED I									·····	
General Inf	formation							Site II										***************************************
Analyst	CRH							Interse					B Ram	•	@ C	R 41		
Agency or C	Co. FDOT							Area					er area					
Date Perfor	med 11/03/2000	5					- 1				Pa	sco	Count	У				
Time Period	ŀ							Analy	sis Y	ear			-					
								Projec	dl t				op Kar (WBT=:			native - `=1)		
Volume an	d Timing Input								.,									
				EB	·			WE					NB				SB	
		L		TH	RT	<u> </u>	Τ	TH		RT	LT	ſ	TH	F	T	LT	TH	RT
Number of L				2		—		2	_		<b>↓</b>			<u> </u>		1		2_
Lane Group		L		T				T						<u> </u>		L		R
Volume, V (		43		246				713			<b>↓</b>			<u> </u>	····	546		714
	ehicles, %HV	10		5				4						<u> </u>		9		6
Peak-Hour I		0.83	5	0.85	ļ	-	***************	0.85			<del> </del>			<u> </u>		0.91	<u> </u>	0.91
Pretimed (P Start-up Los	) or Actuated (A	A) A 2.0		A 2.0	<del>                                     </del>	+	***************************************	A 2.0	+		-			-		A 2.0	<u> </u>	A
	f Effective Gree		1	2.0 2.0	<del> </del>	+-		2.0			-		<b></b>	╀		2.0		2.0
Arrival Type		3		3			***************************************	3	$\dashv$					╂─		3		3
Unit Extensi		3.0		3.0	<del> </del>	-		3.0	-		╁		<b></b>	╁		3.0		3.0
Filtering/Me		1.00		1.000	<del> </del>	+	······	1.000	<del>,  </del>		+-		<b></b>	╁		1.000		1.000
	t Demand, Qb	0.0		0.0	<del> </del>			0.0	╅		┪			╂-		0.0		0.0
	RTOR Volume			0	<b></b>	10		0.0	-		+			╁	······	0	.0	0
Lane Width		12.0	0	12.0		╅		12.0	十		1			✝		12.0		12.0
Parking / Gr	ade / Parking	N		0	N	1	 (	0	1	N		*********	<b></b>	⇈		N	0	N
	neuvers, Nm					$\top$		<b>†</b>	$\top$	······	<b>†</b>		<u> </u>	†	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1
Buses Stop		0		0		_		0	1		1		<b></b>	T		0		0
	or Pedestrians,	G _P	I	3.2		1		3.2									3.2	k
Phasing	EB Only	EW Per	m	03	}	T	04		SE	Onl	lγ		06			07		08
-r:	G = 29.3	G = 37.	9	G =	***************************************	G =	<del></del>	***************************************		37.		G			G =	=	G =	* * * * * * * * * * * * * * * * * * * *
Timing	Y = 5	Y = 5	***************************************	Y =		Y =	:		Y =	5		Υ:	=		Υ =	*	Y =	
Duration of	Analysis, $T = 0$ .	25					***************************************					Су	cle Ler	ngtl	1, C	= 120.0	)	
Lane Group	o Capacity, Co	ntrol De	elay,	and L	OS D	etern	ina	ation										
			E	EB				WB					NB				SB	
		LT	I	H F	रा	LT	_	TH	RI		LT	_[	TH	R	T.	LT	TH	RT
Adjusted Flo	ow Rate, v	513	28	39				839								600		785
Lane Group	Capacity, c	480	20	73			1	098				T				522		1620
v/c Ratio, X		1.07	0.1	4			0	.76		<u> </u>		十				1.15		0.48
Total Green	Ratio, g/C	0.60	0.6	io			0	.32	<b>†</b>	T		1		<del>                                     </del>		0.31		0.60
Uniform Del	ay, d ₁	33.7	10.	4			3	7.0	<b></b>	$\dashv$		T		<u> </u>		41.1	<u> </u>	13.5
Progression	Factor, PF	1.000	1.0	000		***************************************	1	.000	<u> </u>	十		$\dagger$		1		1.000		1.00
Delay Calibr	ration, k	0.50	0.1	7			lo	.32	<b>†</b>	$\neg$		-		<del>                                     </del>		0.50	<b>†</b>	0.11
	Delay, d ₂	60.7	0.	.0			T	3.3	<del>                                     </del>			T		T		87.6	<b>†</b>	0.2
Incremental			+			~~~	+7	D, <i>O</i>	<del>                                     </del>	$\neg \dagger$		T		T		0.0	<b>†</b>	0.0
Incremental Initial Queue	e Delay, d ₃	0.0	0.0	0	l		1,	J. U	1			ł		ł		1 ~.~	1	1
		0.0 94.4		0).4				10.3		$\dashv$		$\dashv$		<u> </u>	······································	128.7		13.7

Approach Delay	64.1	40.3	•	63.5
Approach LOS	E	D		E
Intersection Delay	57.2	$X_c = 1.21$	Intersection LOS	E

HCS+TM Version 5.2

Generated: 11/9/2006 4:19 PM

Detailed Report Page 1 of 2

	×	·····		nu	37 L	JE I A	ILED I		<del>~~~~~</del>						·····
General In	tormation						<u> </u>	forma		C 110	0		CD 44	·	
Analyst	CRH						Interse				Ramp area:		CR 41		
	Co. FDOT							ype iction			areas County				
	med 11/03/200	6					I	sis Year		SEO C	ounty				
Time Period	d						Allaly:	313 1 601		3 Looi	n Ram	n Alte	ernative -		
							Projec	t ID	20		/BT=1				
Volume an	d Timing Inpu	t					1					*		***************************************	
		T		ЕВ		T	WE	}			NB			SB	
		<u> </u>	LT	TH	RT	LT	TH	RT	L	T	TH	RT	LT	TH	RT
Number of	Lanes, N ₁		1	1			1						1		T
Lane Group	)		L	T	1	1	T						L.		
Volume, V	(vph)		436	246			713						546		
	ehicles, %HV		10	5			4						9		
	Factor, PHF			0.85			0.85						0.91		
Pretimed (F	) or Actuated (		Α	Α			Α						Α		
Start-up Lo:		1	2.0	2.0			2.0						2.0		
	of Effective Gree			2.0			2.0						2.0		
Arrival Type			3	3			3					<u> </u>	3	<u> </u>	
Unit Extens			3. <i>0</i>	3.0			3.0						3.0	<u> </u>	
Filtering/Me			.000	1.000			1.00	2			<del>,</del>		1.000	<u> </u>	1
	itial Unmet Demand, Qb ed / Bike / RTOR Volumes		0.0	0.0	1		0.0					<u> </u>	0.0		4
	ed / Bike / RTOR Volumes		0 2.0	0	<b></b>	0	0					<u> </u>	0	0	-
	ane Width			12.0	ļ	<u> </u>	12.0				····	<u> </u>	12.0	ļ	<del> </del>
	rade / Parking		N	0	N	N	0	N				<u> </u>	N	0	N
	neuvers, Nm											<u> </u>			<u> </u>
Buses Stop			0	0	<u> </u>		0					<u> </u>	0	<u> </u>	
Min. Time f	or Pedestrians,			3.2			3.2		L					3.2	
Phasing	EB Only	EW F		0:	3	0	4	SB O	-		06		07		08
Timing	G = 35.1	G = 5		G=		G =		G = 4		G =			=	G =	
	Y = 5		· ·	Y =	···	Y =		Y = 5		Y ==		IY	=	· Y =	
	Analysis, $T = 0$									Cycl	le Ler	glh, (	C = 150.0	) 	
Lane Grou	p Capacity, Co	ontrol			<u>OS De</u>	termii			T		NO.				
				EB	<del>DT</del>	1 7	WB	DT	LT		NB	RT	LT	SB TH	R
Adjusted Fl	ow Rate, v	513		H 89	RT	LT	TH 839	RT	<u>  L!</u>		ГН	ΛI	600	117	+
	Capacity, c	47		207			730			$\top$			442		1
v/c Ratio, X		1.09		24			1.15		-				1.36		1
Total Green	Ratio, g/C	0.67	7 0.	57	<del>-</del>	·····	0.40		1	1			0.27		1
Uniform De	lay, d ₁	42.9	9.	9			45.0						55.0		
Progressior	n Factor, PF	1.00	00 1.	000			1.000						1.000		
Delay Calib	ration, k	0.50	0.	11			0.50						0.50		
Incrementa	l Delay, d ₂	66.	9 0	), 1			82.6						175.1		
Initial Queu	e Delay, d ₃	0.0	0.	0			0.0						0.0		
Control Del	ay	109	.8 1	0.0			127.7						230.1		
							4	··	-£		******	*			

Lane Group LOS	***************************************			
Approach Delay	73.9	127.7		230.1
Approach LOS	E	F		F
Intersection Delay	135.8	$X_c = 1.32$	Intersection LOS	F

HCS+TM Version 5.2

Generated: 11/9/2006 11:46 AM

<u>.</u>					HC	<u>S+"</u>	DE	TA	ILED	***************************************		····						
General In	formation										ormat							
Analyst	CRH								Inters					B Ramp	-	R 41		
Agency or (	Co. FDOT								Area					er area.				
Date Perfor	med 11/03/20	06									ion		asco	County	1			
Time Period	Ė								Analy	/sis	Year			_				
									Proje	ct I	D		IB SII 030	p Ramp	Altern	ative -		
Volume an	d Timing Inp	ut	T		m													
			<u> </u>		EB	<del></del>	_		W		r ===			NB	T	<u> </u>	SB	<del></del>
			LT		TH	RT	_	LT	TH		RT		LT	TH	RT	LT	TH	RT
	<del></del>		1		2	ļ	_		2		1		2		ļ	ļ	ļ	<u> </u>
Lane Group			L		<u>r                                      </u>		_		$\perp T$		R		<u>L</u>	ļ	<u> </u>	<u> </u>		
		·	436		46		_		713	3	114		14			<b>↓</b>	<u> </u>	ļ
		·	10		5	<u> </u>	_		4		10		6	<u> </u>	1	ļ		
			0.85		85	<b> </b>	4		0.85		0.85		90				<u> </u>	<u> </u>
		(A)	A	1		<b> </b>	_		A		Α		4	<u> </u>	<b></b>		<u> </u>	<b> </b>
			2.0		.0	<b></b>	_		2.0		2.0		.0	<b></b>	<b></b>	<b></b>	<b></b>	<b>_</b>
	ne, V (vph) avy Vehicles, %HV Hour Factor, PHF ned (P) or Actuated (Aup Lost Time, Insion of Effective Greek I Type, AT extension, UE ng/Metering, I Unmet Demand, Qb Bike / RTOR Volume Width ng / Grade / Parking ng Maneuvers, Nm a Stopping, Na ime for Pedestrians, ng EB Only G = 12.4 Y = 5 on of Analysis, T = 0 Group Capacity, Co led Flow Rate, v Group Capacity, c				.0	<u> </u>	_		2.0		2.0		.0	<b>_</b>	<b></b>	<b>_</b>	<b></b>	<b></b>
	Group me, V (vph) eavy Vehicles, %HV -Hour Factor, PHF med (P) or Actuated up Lost Time, I1 nsion of Effective Gra al Type, AT Extension, UE ing/Metering, I Unmet Demand, Qu Bike / RTOR Volum Width mg / Grade / Parking mg Maneuvers, Nm s Stopping, Na Time for Pedestrians ing EB Only G = 12.4 Y = 5 ion of Analysis, T = Group Capacity, Co ted Flow Rate, v		3		3	<b> </b>	_		3		3		3		<del> </del>	<u> </u>	<b></b>	
			3.0		.0	<b></b>	$\bot$		3.0		3.0		.0	<b>_</b>	<b></b>		<b></b>	<u> </u>
			1.000		000		_	<del></del>	1.00	0	1.000		000	ļ	<u> </u>		<u> </u>	<u> </u>
			0.0		.0	<b> </b>	_		0.0		0.0		.0		ļ	<u> </u>	<u> </u>	<b>_</b>
	RIOR Volum	ies	0		)	<b> </b>	_	0	0		0		0	0	<u> </u>	<del>                                     </del>	ļ	
Lane Width			12.0		2.0	<u> </u>	_	·····	12.0	·	12.0		2.0	ļ	ļ	<u> </u>	ļ	ļ
			Ν		)	Ν	_	N	0		Ν		V	0	N		<u> </u>	<u> </u>
		·····	<u> </u>											<u> </u>	ļ		<u> </u>	
			0			<u> </u>		······	0		0		0	<u> </u>	<u> </u>		<u> </u>	<u> </u>
					2.2				3.2					3.2				
Phasing	·\$		Perm		03			04	1		VB Or			06		07		08
Timing			16.5		<del>} =</del>		<u>_</u>	<u>}</u> =			= 16	5. 1	G:		G =		G =	
	<u> </u>	Y =	5	Y	′=	·····	ΙY	' ==		ΙΥ	= 5		Υ:		Y =		Y =	
	····			L									Су	cle Len	gth, C :	= 60.0		
Lane Group	Capacity, C	ontro	l Del			OS D	ete	rmin										
		<u> </u>	<del>-</del> 1	EB		~			WB	1 .	<del></del>	<u> </u>		NB		<del></del>	SB	T ==
Adioded Cla	Determination		Τ	TH		रा	L.	┷┼	TH	+	RT	ᄓ		TH	RT	LT	TH	RT
		5	13	289					839	1	34	79.						<u> </u>
	Capacity, c	4.	59	1946					956	9	20	88	7					
v/c Ratio, X		1.		0.15					0.88	0.	15	0.89	,					
	·	0.5	56	0.56					0.28	0.	63	0.27				<u> </u>		
	· 1	14	.8	6.2					20.8	4	.6	21.						
Progression	Factor, PF	1.0	000	1.000	)				1.000	1.	000	1.00	00					
Delay Calibr	ation, k	0.5	50	0.11					0.40	0.	11	0.42	?					
Incremental	Delay, d ₂	78	3.2	0.0					9.3	0	). 1	11.	5					
Initial Queue	e Delay, d ₃	0.	0	0.0					0.0	0.	.0	0.0						
		T						T	~~ ~	T		1 ~~	_					
Control Dela	iy	93	3.0	6.2				Ì	30.1	14	1.7	32.	0					

Detailed Report Page 2 of 2

Approach Delay	61.7	26.6	32.6	**************************************
Approach LOS	Е	С	С	
Intersection Delay	39.4	$X_c = 1.19$	Intersection LOS	D

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 11:48 AM

	·····	·····			Н	CS+	~	)ETA	11	ED I	RE	PO	RT			····					
General Inf	formation			******************					<del></del>	Site I					~						
Analyst	CRH					······································				nlers	***********			-75	SE	3 Ramp	os @ (	CR	2 41		······································
Agency or C	Co. FDOT								1	Area ⁻	Тур	oe -				er area	-				
Date Perfor	med 11/03/20	06								Jurisd				aso	o	County	/				
Time Period	i									Analy:						•					
										Projec				SB F	₹aı	mps - 2	2030				
Volume and	d Timing Inpu	ıt																			
			<u> </u>	T	EB			<u> </u>		WB			_		<u> </u>	NB	T	4		SB	
Number of L	anec Ni		LT	-	TH 2	R		LT		TH 2	_	RT		LT	4	TH	RT	4	LT	TH	RT
Lane Group		····	<del> </del>	$\dashv$	$\frac{2}{T}$	+		1 L	-	T		<del></del>		<u>1</u> L	+	····	1 R			<u> </u>	<b></b>
Volume, V (			<del> </del>		484			510		918				232	$\dashv$		<del> </del>	-			<del> </del>
	vpn) ehicles, %HV		<del> </del>		4			3		6	-	**********			$\dashv$		198 10	-		ļ	ļ
Peak-Hour F			<del> </del>		0.88			0.95		0.95		***************************************		89	┥		0.89				<b></b>
	) or Actuated	(A)	-		A	-		0.93 A	_	0.95 A				09 4	$\dashv$		0.09 A		<u> </u>		<del> </del>
Start-up Los	<del>`~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	(, ,)			2.0	+		2.0		2.0		-		.0	+		2.0	-		<del> </del>	-
	f Effective Gre	en, e		$\dashv$	2.0	1		2.0		2.0		<u></u>		.0	$\forall$		2.0	$\dashv$		<b>-</b>	<del> </del>
Arrival Type	<del></del>	······································	T		3	1		3		3	_		<del></del>	3	1		3	7		†	1
Unit Extensi	on, UE				3.0			3.0		3.0	_		3	.0	1		3.0				1
Filtering/Met				一	1.000		*********	1.000	)	1.000	5	****		000			1.000	7		1	1
Initial Unme	t Demand, Qb				0.0		***************************************	0.0		0.0			(	0.0	7		0.0			1	1
Ped / Bike /	RTOR Volum	es	0		0			0		0			T	0		0	15				
Lane Width					12.0			12.0		12.0			1	2.0			12.0				
Parking / Gr	ade / Parking		Ν		0	N		N		0		Ν		N	T	0	N			1	
Parking Mar	neuvers, Nm														1						
Buses Stopp				Ī	0			0		0			1	0	T	······································	0				
Min. Time fo	r Pedestrians	, Gp			3.2					3.2						3.2					
Phasing	WB Only	EW	Perr	m	] (	03	T	0	4		1	1B O	nly	Т		06		(	)7	(	08
Timing	G = 16.5	G =		9	G =			G =			G	= 1	1.6	C	; =		G	=		G =	
_	Y = 5	Y =	5		Y =			Y =			Υ	= 5		Υ	=		Y	=		Y =	
Duration of A	Analysis, T = (	0.25												C	yc	le Len	gth, C	=	60.0		
Lane Group	Capacity, C	ontro	l De			LOS I	Det	termii													
		<b>-</b>	T	***************************************	B	h>T	<del> </del>	, 1		NB T	r	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u> </u>			NB				SB	T ===
Adjusted Flo	w Pate v	+-	<u>.</u> I	1	H	RT	+	LT		ΓH	┵	रा	L		╀	TH	RT	-	LT	TH	RT
·				<del> </del>	50	***************************************	┼	37		66	_		26				206	_		<u> </u>	ļ
Lane Group	Сарасіту, с			98	30	······································	6	70	2	184	_	·	31	7	L		810				
v/c Ratio, X				0.5	6		0.	80	0.	44			0.8	5			0.25				
Total Green	Ratio, g/C			0.2	28 T		0.	64	0.	64			0.1	9			0.55				
Uniform Dela	ay, d ₁			18.	4		7.	.7	5.	.4	Γ		23,.	2	T		7.0				
Progression	Factor, PF			1.0	000		1.	000	1.	000			1.0	20	Ī		1.000				
Delay Calibr	ation, k			0.1	6		0.	35	0.	11	Γ		0.3	5	T		0.11			1	
Incremental	Delay, d ₂			0.	7		6	ĵ.9	C	). 1	T		16.	0	T		0.2				
Initial Queue	Delay, d ₃			0.0	0		0	.0	0.	.0	Γ		0.0	)	T		0.0				
Control Dela	У			19	),1		1.	4.7	- 5	5.6	$\vdash$		39.		T		7.2				
Lane Group	LOS			В		**************	T E	В	,	4			D		T		Α				
	·············		1.9	), 1	I		t	 Я	.8		<u>L</u>		<del>                                     </del>	2	<u> </u>	,				<u>I</u>	<u>.l</u>
		Į	, 0				l	J.						4.	٠. ١				1		

Approach Delay				
Approach LOS	В	Α	С	
Intersection Delay	14.1	$X_c = 0.79$	Intersection LOS	В

HCS+TM Version 5.2

Generated: 11/9/2006 11:51 AM

					HC	<u>`S+`</u> "	DI	ETA	ILED			***********		<b>,,,,,,</b>						
General Ini	formation								Site	Inf	ormai				~~~					
Analyst	CRH								Inter				I-75 N			_	) SR	50		
Agency or C	Co. FDOT								Area	-	•		All of	нег	area:	S				
Date Perfor	med 10/26/20	06							Juris				Herna	ando	D					
Time Period	1								Anal	/sis	: Year									
									Proje	ct	ID		Lane							
1/-1	-/ Tii I							·	<u>l</u> '				Alterr	ativ	/e - 2	036	l ————————————————————————————————————			
volume and	d Timing Inp	ut	T	····	EB				W						NB				00	
			LT		TH	RT		LT			RT	-	1 +		TH	R	<del>-</del>	LT	SB	T 67
Number of L	anec Ni		2	<del></del>	3	T T	$\dashv$	L. I	TH 3		1	$\dashv$	LT 2	+	1 171	2		L!	TH	RT
Lane Group			Ĺ		<u>.</u> Т	<del> </del>	$\dashv$	<del></del>	$\frac{1}{T}$		R	$\dashv$	L	╫		R			╂	<del></del> -
Volume, V (			774		, 584	<b></b>	-+		324	~	686	-	672	+			08		╂	
	ehicles, %HV		6		6		$\dashv$		6		6	$\dashv$	6	╫		6			<del> </del>	-
	Factor, PHF	*****	0.90	1	.90	<del> </del>	$\dashv$	***************************************	0.91		0.91		0.95			0.9			<b> </b>	-
	) or Actuated	(A)	0.30 A		A	<del>                                     </del>	$\dashv$		10.97 A		0.91 A	╬	A.93	+		A			<del> </del>	1
Start-up Los		<u>, ,,                                 </u>	2.0		2.0	<del> </del>	$\dashv$	***************************************	2.0		2.0	ᆉ	2.0	+	<del></del>	2.0			1	1
	f Effective Gre	en,	<b> </b>	一十		I	$\dashv$				<del> </del>			+		+		<b> </b> -	<b>†</b>	+
е			2.0		2.0	L.			2.0		2.0	]	2.0			2.	J			
Arrival Type			3		3				3		3		3	I		3				
Unit Extensi		······	3.0	3	.0				3.0		3.0		3.0			3.1	)			
Filtering/Met		:	1.00		.000				1.00	0	1.000		1.000			1	00			
	t Demand, Qb		0.0		0.0	<u> </u>			0.0		0.0		0.0			0.			<u> </u>	
	RTOR Volum	es	0		0		_	0	0		0	_	0	_	0	22				
Lane Width			12.0		2.0	<u> </u>	$\dashv$		12.0		12.0	_	12.0			12	***************************************			
	king / Grade / Parking		Ν	_	0	Ν	_	Ν	0		N	_	Ν	(	0	1	!		<u> </u>	
	neuvers, Nm				<del></del>	ļ	_				<u> </u>	_							ļ	
Buses Stopp			0	t	0		_		0		0	_	.0			1 '	)		<u> </u>	<u> </u>
	r Pedestrians		<u> </u>		3.2				3.2	.,					3.2					
Phasing	EW Perm	<u> </u>	1 & R		03	3			4	·-	NB O				6	_		07		08
Timing	G = 24.3	.E	87.3		G =			<u> </u>		B	3 = 33			=	<del></del>		<u>G =</u>		G =	·····
D	Y = 5	Y =	5		Y =			<i>/ =</i>		IY	' = 5		<u></u>	=			Y =	400	Y =	
	Analysis, T =									-	<del></del>		10	ycle	Len	gin.	C =	160.	)	
Lane Group	Capacity, C	ontro	u Dei	<i>ay, a</i> EE		<u> </u>	ete	rmii	nation WB			Τ		A.	IB				SB	
		<b>-</b>	.T	TH		RT	L	<del>T</del> T	TH	Т	RT	-		T		R	T	LT	TH	RT
Adjusted Flo	w Rate v	<del></del>	50	287			-	-	3563	╅	754	<del>                                     </del>	07	┢		82			<del>  ```</del>	1
						***************************************	<u> </u>		·····	╁		╄		<u> </u>		<del> </del>			<u> </u>	
Lane Group	Capacity, c	50	02	355	В				2664	1	524	6	90			56	3			
v/c Ratio, X		1.7	71	0.81	T				1.34	0.	49	1.0	22			1.4	7		1	
Total Green	Ratio, g/C	0.1		0.73					0.55	╀	00	0.2			****	0.2			<u> </u>	
Uniform Dela	ay, d ₁	67.	.8	14.3	-				36.3	┺	). <i>O</i>	63				63.	3		1	
Progression	Factor, PF	1.0	000	1.00	0			t	1.000	O.	950	1.0	000	Γ		1.0	00		1	
Delay Calibr	ation, k	0.5	50	0.35					0.50	Jo.	11	0.5	50			0.5	0			
Incremental	Delay, d ₂	32	9.3	1.5					154.5		0.3	4(	0.7			222	2.1			
Initial Queue	: Delay, d ₃	0.0	0	0.0					0.0	10	). <i>O</i>	0.	0			0.0	)			
Control Dela	У	39	7.2	15.	7	***************************************			190.8		0.3	10	04.0	T	-0	285	5.4	İ	Ì	
		F		В			<b></b>		F	╈	A	F		1		F		1	1	1

Lane Group LOS	***			
Approach Delay	103.7	157.6	201.9	
Approach LOS	F	F	F	
Intersection Delay	143.7	$X_c = 1.43$	Intersection LOS	F

HCS+TM Version 5.2

Generated: 11/9/2006 11:53 AM

Detailed Report Page 1 of 2

		************			HCS+	DE	TAII	LED I	RE	POF	₹T					,		
General Info								Site li										
Analyst	CRH							Interse					amps (		₹ 50			***************************************
Agency or C								Area ⁻					er area	S				
-	med 10/26/200	96						Jurisd			He	rnai	ndo					ļ
Time Period							ı	Analy:										
								Projec	:t 10	D	SF	UI A	Alterna	ive	- 203	30	····	
Volume and	l Timing Inpu	ıt				1					_	· · · · ·	A 170				~~	
			LT	EB		_	LT	WB TH		RT	1	- 1	NB TH	R	<del>-  </del>	LT	SB TH	RT
Number of L	anes Ni		2	3	1		2	3	+	1	3		117	2	<del>'</del> -	3	111	2
Lane Group	.011C3, TV1			$+\frac{3}{T}$	R		Z L	7	+	R	Ηž			R		L		R
Volume, V (	/ph)		774	189			527	2615	$\dashv$	686	67.	2		100	8	689		461
	hicles, %HV		6	6	6		6	6	十	6	6			6		6		6
Peak-Hour F			0.90	0.90	0.90	0.	91	0.91	1	0.91	0.93	5		0.9	5	0.90		0.90
Pretimed (P)	or Actuated	(A)	А	A	A	7	A	Α	1	Α	A			Α		A		Α
Start-up Los	t Time, lı		2.0	2.0	2.0	2	2.0	2.0		2.0	2.0			2.0	)	2.0		2.0
Extension of	Effective Gre	en,	2.0	2.0	2.0	2	2.0	2.0	1	2.0	2.0	,		2.0	)	2.0		2.0
Arrival Type	, AT		3	3	3	1	3	3	+	3	3			3		3		3
Unit Extensi		***********	3.0	3.0	3.0	3	.0	3.0	7	3.0	3.0			3.0	)	3.0		3.0
Filtering/Met	ering, I		1.000	1.00	0 1.00	0 1.	000	1.000	)	1.000	1.0	20		1.0	00	1.000		1.000
Initial Unmet	Demand, Qb		0.0	0.0	0.0	0	0.0	0.0		0.0	0.0	)		0.0	)	0.0		0.0
Ped / Bike /	RTOR Volum	es	0	0	0		0	0	I	0	0		0	220	)	0	0	0
Lane Width			12.0	12.0	12.0	12	2.0	12.0		12.0	12.	0		12.	0	12.0		12.0
Parking / Gr	ade / Parking		N	0	N		N	0		Ν	N		0	N		N	0	N
Parking Man	ieuvers, Nm					T												
Buses Stopp	ing, Nв		0	0	0		0	0	1	0	0			C	)	0		0
Min. Time fo	r Pedestrians	, Gp		3.2				3.2					3.2				3.2	
Phasing	Excl. Left	Thr	น & F	Т	03	T	04		٨	IS Pe	rm		06			07	(	D8
Timina	G = 29.0	G =	= 73. <i>6</i>	6 G		G	<del>)</del> =		G	= 30	). 4	G:	-		G =		G =	
Timing	Y = 5	<u> </u>	: 7	Y	=	Y	· =		Υ	= 5		Υ:			Y =		Y =	
Duration of A	Analysis, $T = 0$	0.25		. ]								Су	cle Ler	ngth	, C =	= 150.0	)	
Lane Group	Capacity, C	ontr	ol De		d LOS	Dete										T		
		<u> </u>		EB	T DE	<u> </u>		WB	1 -	<del>, -  </del>	1		NB		<del></del>	l	SB	Tor
Adjustad Fits	u Data ··		_T	TH	RT	LT		TH	<del> </del>	₹T	LT	+	TH	R'		LT	TH	RT 540
Adjusted Flo			60	2106	759	689	9 2	874	├	54	707	_		82		766	<b>_</b>	512
Lane Group	Capacity, c		39	2396	1128	639		396	├	128	940	_		54		940	ļ	547
v/c Ratio, X				0.88	0.67	1.08		.20	0.0		0.75	1		1.5.		0.81	ļ	0.94
Total Green				0.49	0.74	0.19		.49	0.		0.20			0.2		0.20		0.20
Uniform Dela		60	).5	34.2	10.1	60.5	5 3	8.2	10	0.0	56.3	_		59.		57.1		58.8
Progression	Factor, PF	1.	000	1.000	1.000	1.00	00 1	.000	1.1	000	1.000		······································	1.0	00	1.000		1.000
Delay Calibr	ation, k	0.	50	0.41	0.24	0.50	0 0	0.50	0.	24	0.31			0.5	0	0.36		0.45
Incremental	Delay, d ₂	16	55.9	4.1	1.6	58.	6 9	94.1	1	1.5	3.5			241	1.3	5.6		23.7
Initial Queue	Delay, d ₃	0.	.0	0.0	0.0	0.0	) (	0.0	0.	.0	0.0			0.0	)	0.0		0.0
Control Dela	У	22	26.4	38.3	11.7	119	.1 1	32.3	1	1.6	59.7			30	1.1	62.7		82.6
Lane Group	LOS		5	D	В	F		F	L	8	E	-		F		E		<u> F</u>
		T				1					¥					1		

Detailed Report Page 2 of 2

Approach Delay	76.3	109.1	190.0	70.7
Approach LOS	E	F	F	Ε
Intersection Delay	104.8	$X_{c} = 1.30$	Intersection LOS	F

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 11:54 AM

				<u> </u>	<u>3+</u>	DEIA	ILED						~	······································		······································
General Inf	ormation						Site I									
Analyst	JAS						Inters					Ramp		R 50		
Analyst Agency or C							Area					r areas	;			
	med 11/09/200	).e					Jurisd			Hei	rnar	do				
Time Period		,0					Analy	sis \	⁄ear	1 4 7	. ,	o m .	_			
Time renoc							Projec	ol ID	ŧ	Alte	erna	SB Loo tive (W 'B=FF		p Only) -		
Volume and	d Timing Inpu	t														
				ΕB			WE	3			***********	NB			SB	<del></del>
			LT	TH	RT	LT	TH		RT	LI		TH	RT	LT	TH	RT
Number of L	anes, Nı		2	3	1		3			3						
Lane Group			L	T	1		T			L						
Volume, V (	vph)	7	774	2584			261	5	·····	67.	2					
% Heavy Vε	ehicles, %HV		5	6	1		6	十		6						T
Peak-Hour I	actor, PHF	0.	90	0.90			0.91	一十	************	0.9	5					
Pretimed (P	) or Actuated (	A) /	4	Α	1		A	1		A				1		1
Start-up Los	·		0	2.0		$\top$	2.0	十		2.0				1		1
Extension of	f Effective Gre	en, e 2	.0	2.0	1		2.0	1		2.0				1	1	1
Arrival Type	, AT		3	3	1		3	寸		3						
Unit Extensi	on, UE	3	.0	3.0	I		3.0	$\top$		3.0		_	I			T
Filtering/Met	tering, I	1.	000	1.000			1.00	0	•	1.0	20	_	1			
Initial Unme	t Demand, Qь	0	.0	0.0			0.0			0.0	}					
Ped / Bike /	RTOR Volume	es i	0	0		0	0	7		0		0				
Lane Width		12	2.0	12.0			12.0			12.	0					
Parking / Gr	ade / Parking	1	V	0	N	N	0		N	N		0	N			
Parking Mar	<del></del>		•••••••••••	<b>T</b>	1	1	<b>-</b>	<b>-</b> -t		_	***********		1	1	1	1
Buses Stopp			)	0	1		0	$\dashv$		10	1				1	1
	r Pedestrians,		<del></del>	3.2			3.2	I		<u> </u>		3.2	.t			- <del></del>
Phasing	EB Only	Thru C	)nlv	0	3	1	14		B Or	ılv T		06	I	07	(	08
	G = 27.3	G = 7.	<del></del>	G =		G =	· · · · · · · ·		= 15		G =		G =		G =	···
Timing	Y = 5	Y = 5		Y =	***************************************	Y =	<del></del>		= 5		<u>Y</u> =		Y =		Y =	
Duration of A	Analysis, $T = C$			<b></b>	····	<u>. f</u>		L						= 130.		
	Capacity, Co		)elav	. and I	os n	etermi	nation				- / -		<u> </u>		······································	
		T		EB			WB					NB			SB	
		LT			RT	LT	TH	F	Т	LT	Т	TH	RT	LT	TH	R
Adjusted Flo	w Rate, v	860	2/	371		***************************************	2874	1		707	T					
Lane Group	·	694		929			2716	$\vdash$		550	1			<b>-</b>		-
v/c Ratio, X		1.24		73			1.06	<del> </del>		1.29						1
Total Green	Ratio, g/C	0.21	0.	80			0.56	T		0.12	1					
Uniform Dela	ay, d ₁	51.4	6	0			28.8	T		57.3	T					1
Progression	Factor, PF	1.00	0 1.	000	***************************************		1.000	I		1.000	, <b>†</b>					
Delay Calibr	ation, k	0.50	0.	29			0.50			0.50						
Incremental		119.	7 (	).7			35.2			141.8	3					
Initial Queue	Delay, d ₃	0.0	0	.0		-	0.0			0.0						
Control Dela	y	171.	1 6	6.7			64.0	Ī		199. 1	7					
						<b> </b>	<u></u>	<u>-</u>		<u> </u>	I		<del> </del>		<del></del>	+

Detailed Report Page 2 of 2

Lane Group LOS	**************************************			
Approach Delay	44.6	64.0	199.1	
Approach LOS	D	E	F	
Intersection Delay	67.2	$X_c = 1.13$	Intersection LOS	E

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/9/2006 6:35 PM

					НС	S+"	D	ETA	ILED	RE	EPOR	RT	************					·····		
General In	formation					·					ormati									***************************************
									Inters				75 N	B Ramı	s (c	) SF	₹ 50	····		
Analyst	CRH								Area	Тур	oe -	ΑI	l oth	er area	s					
Agency or 0									Juriso	lict	ion	He	erna	ndo						
	med 10/26/20	06							Analy	sis	Year									
Time Period	j								Proje			Al	tern	SB Locative (M	İΒ L	.ane				
												R	amp	Only)-	203	0				
Volume an	d Timing Inpu	ıt					******	***************************************			······································								***************************************	
				E	В				WE	3				NB					SB	
			LT	T	Н	RT		LT	TH		RT	Ł	Τ.	TH	R	T	LT		TH	RT
Number of l	_anes, N ₁		2						1		1						<u> </u>			
Lane Group			L						T		R						]			
Volume, V (			774						627		686									
	ehicles, %HV		6						6		6									
	Factor, PHF		0.90						0.91		0.91	$oldsymbol{L}$								
	) or Actuated	(A)	Α						Α		Α									
Start-up Los			2.0						2.0		2.0									
	f Effective Gre	en, e	<del></del>						2.0		2.0									
Arrival Type			3						3		3							]		
Unit Extensi			3.0						3.0		3.0									
Filtering/Me			1.000						1.00	0	1.000									
	tial Unmet Demand, Qb								0.0		0.0	$oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}$								
	ed / Bike / RTOR Volumes			0				0	0		0									
Lane Width			12.0						12.0		12.0									
Parking / Gr	ade / Parking		Ν	0		Ν		Ν	0		Ν									
Parking Mar	neuvers, Nm											T								
Buses Stop	ping, Nв		0	1					0		0	1					Π			T
Min. Time fo	or Pedestrians	, Gρ		3.	2				3.2		***************************************	$\top$								
Phasing	EB Only	WB	Only	T	03		T	0	4	Π	05		T	06	T		07		T	08
<del>, ,</del>	G = 27.3	<del></del>	92.7	G	=		1	G =	·····	G	<del>-</del>		G	<del>-</del>	1	G =		**********	G =	***************************************
Timing	Y = 5	Y =	5	Υ	=		1,	Y =		Y	=		Y	=	十	Y =		***************************************	Y =	
Duration of a	Analysis, T =	0.25							***************************************	·	***************************************		Су	cle Len	gth,	, C =	= 13	30.0	· · · · · · · · · · · · · · · · · · ·	
Lane Group	Capacity, C	ontro	l Dela	ay, an	d L	os D	ete	ermir	nation						<u></u>					
<u></u>		T		EΒ					WB		T			NB			I		SB	
			Т.	TH	F	रा	L	т.	TH	I	RT	LT		TH	R	T	L.		ТН	RT
Adjusted Flo		8	60						689	7	54									
Lane Group	Capacity, c	6:	94		<u> </u>	***********			1278	10	087						<u> </u>		************************	
v/c Ratio, X		1.2			_				0.54	┼	69									<b></b>
Total Green		0.2			-				0.71	╁	71						_			
Uniform Del		51			4				8.7	╁	0.6				ļ	···	ļ			
Progression			000		4				1.000	╀	000									
Delay Calibr		0.5			_		_		0.14	┿	26				ļ		-			
Incremental			9.7		_		<u> </u>		0.5	╂	1.9				_					
Initial Queue		0.			_		_		0.0	┿	.0									
Control Dela	iy	17	1.1				<u> </u>		9.2	1	2.5					,,				
		F						I	Α	1	В									

Lane Group LOS		***************************************				1	
Approach Delay	171.1	10.9		<u> </u>			<u> </u>
Approach LOS	F	В					
Intersection Delay	70.7	X _c = 0.82	Interse	ction LO	S	E	

HCS+TM Version 5.2

Generated: 11/9/2006 6:39 PM

			*********		HC	S+"	D	ETA	ILED	RI	EPO.	RT							
General In	formation								Site I	nfo	rmai								
Analyst	JAS								Inters					B Ram		@ SF	7 50		***************************************
	Co. FDOT								Area					er area	s				
Date Perfor	med 10/26/20	06							Juriso				erna	ndo					
Time Period	t								Analy	sis	Year								
									Proje	ct I	D		'B to 2030	SB Fly	OVE	er Alte	ernativ	e	
Volume an	d Timing Inpu	ıt	1																
			<b>-</b>		EB	1	4		WI					NB	<b>-</b>			SB	· · · · · · · · · · · · · · · · · · ·
8 t			LT		TH	RT		LT	TH		RT		<u>.T</u>	TH		RT	LT	TH_	RT
Number of I			2		3				3		1	1	***********	ļ	$\bot$			ļ	<u> </u>
Lane Group			L		T	<u> </u>	_		T		R	<u> </u>			_			<u> </u>	ļ
Volume, V (			774	1	2584	<u> </u>			2613	5	686		72	<b> </b>	1			<b> </b>	
	ehicles, %HV		6	_	6	<u> </u>			6		6	100		<u> </u>	1		<u> </u>	ļ	
	Factor, PHF	/ ^ ^	0.90	E	0.90	<b> </b>	_		0.90		0.90	0.9			1		<b> </b>	<b></b>	<b>_</b>
	) or Actuated	(A)	A		<u>A</u>	<u> </u>	_	<u> </u>	A		A	1		<u> </u>	4			<u> </u>	<del> </del>
Start-up Los	~~~~~~~~~~~		2.0		2.0	<b></b>	_		2.0		2.0	2.		<u> </u>	_				
	f Effective Gre	en, e		_	2.0	<b></b>	_		2.0		2.0	2.		<u> </u>	4			1	
Arrival Type			3	_	3	<b> </b>	_		3		3	3		<b>_</b>	1		<b> </b>	<u> </u>	<del> </del>
Unit Extens	***************************************		3.0	<u>-</u>	3.0	<b></b>	_		3.0	~	3.0	3.	************	<b>_</b>	4			<del> </del>	<b>_</b>
Filtering/Me			1.00		.000				1.00	0	1.000		200		$\bot$		ļ	<u> </u>	
	t Demand, Qb RTOR Volum		0.0		0.0	ļ	-		0.0		0.0	0.		<del></del>	+			<b>-</b>	
Ped / Bike / Lane Width	KTUK VOIUM	୯Տ	0		0	<del> </del>	_	0	0		0	(		0	_				<b></b>
	odo / Dadisa		12.0		2.0	<b></b> -			12.0		12.0		2.0	<del> </del>	+	* 1	ļ		
	ade / Parking		N	$\dashv$	0	N	_	N	0		Ν	^	<b>V</b>	0	1	N		<u> </u>	<del> </del>
	neuvers, Nm			$\bot$	·	<u> </u>					ļ			<b></b>	1			<u> </u>	<u> </u>
Buses Stop			0		0	<u> </u>			0		0		0	1	1			<u> </u>	
	r Pedestrians		<u> </u>		3.2				3.2				·	3.2			<u> </u>		
Phasing	EB Only		& R		03		1	04	4		AB O		<u> </u>	06			07		08
Timing	G = 27.1	L	78.2		G =		Ł	G =		Ļ	= 29	9. 7	G:			G =		G =	·····
	Y = 5	Y =	5	_	Υ =		Ľ	Y =	***************************************	Y	= 5	***************************************	Υ:			Y =		Y =	
	Analysis, T = (												Су	cle Len	gth	1, C =	150.	0	
Lane Group	Capacity, C	ontro	l Del			OS De	ete	ermin						b 1 00			<u> </u>		
		<b>-</b>	T 1	E		<del>, -</del>		<del>-</del> -	WB	Т :		<del> </del>	<del></del>	NB	T -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<del></del>	SB	<b>-</b>
Adjusted Fla	w Pote v		.T	Th		रा	L	_T	TH	1-	रा	LT		TH	╀	रा	LT	TH	RT
Adjusted Flo		8	50	287	1				2906	7	62	747			<u> </u>		<u> </u>	<u> </u>	<u> </u>
Lane Group	Capacity, c	55	97	359	1				2546	1	147	919							
v/c Ratio, X		1.4	14	0.80					1.14	0.	66	0.81							
Total Green	Ratio, g/C	0.1	8	0.74	7	ĺ		(	0.52	0.	75	0.20							
Uniform Del	ay, d ₁	61.	.5	12.7	7		**********		35.9	9	.2	57.5	7		T			1	
Progression	Factor, PF	1.0	000	1.00	00				1.000	7.	000	1.00	0		Γ				
Delay Calibr	ation, k	0.5	iO	0.34	7			7	0. <i>50</i>	O.	24	0.35			1			1	1
ncremental	Delay, d ₂	20	7.7	1.4	7	1		$\neg \dagger$	68.9	T	1.5	5.6			T			1	
Initial Queue	: Delay, d ₃	0.	0	0.0				$\neg \uparrow$	0.0	0	.0	0.0	$\dashv$		T				
Control Dela	у	26	9.1	14.	1				104.8	1	0.6	63.	1		T				
Lane Group	LOS	F		В					F	1	 B	E			t		<b>1</b>	<del> </del>	-
					1	1			,						ž		9	1	l l

Detailed Report Page 2 of 2

Approach Delay	72.9	85.2	63.1	
Approach LOS	E	F	E	
Intersection Delay	77.6	$X_c = 1.13$	Intersection LOS	E

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 11:56 AM

				F	ICS+"	DE	TAI	LED	REPO	RI	-		,			
General Inf	formation		***************************************		·	***		Site I	nform	atio	n				······································	
Analyst	CRH	***************************************	***************************************	***************************************				1	ection			VB Ram	_	R 50		
Agency or C	Co. FDOT							Area '				her area	S			
Date Perfor	med 10/26/20	06						I	liction		Hern	ando				
Time Períoc	j							Analy	sis Yea	ar	ND to	. IA/D EL	.a.a. 1	lenenneti .		
								Projed	ct ID		- 203		over Ai	ternativ	e	
Volume and	d Timing Inpl	ıt														
				EE				WE				NB	- <del>y</del>		SB	
N	NI.		LT	TH	R		LT	TH	R	Γ	LT	TH	RT	LT	TH	RT
Number of L			2	3 T				3	1				ļ	<del> </del>	<u> </u>	<del> </del>
Lane Group Volume, V (			L 774	258			<del></del>	T 2613	R	c	ļ					<del> </del>
	ehicles, %HV		6	6	<del>-</del>	$\dashv$		6	5 68 6	0	<b></b>					<del> </del>
Peak-Hour I			0.90	0.90		$\dashv$		0.90	0.9	<b>ว</b>	<b></b>			<del> </del>	<b>.</b>	╂──
<del> </del>	) or Actuated	(A)	A	A	_	-		A	0.3 A						<b>1</b>	<del> </del>
Start-up Los	<del></del>	····	2.0	2.0		$\neg \dagger$	********	2.0	2.0	)	<b></b>	1	1	<del>                                     </del>	<b>1</b>	1
<del></del>	f Effective Gre	en, e	2.0	2.0				2.0	2.0				<b>†</b>			<del>                                     </del>
Arrival Type			3	3		1		3	3					1		<b>†</b>
Unit Extensi			3.0	3.0				3.0	3.0	) 						
Filtering/Me			1.000	1.00	0			1.00	0 1.0	00						
	t Demand, Qb		0.0	0.0				0.0	0.0	)						
	RTOR Volum	es	0	0			0	0	0		<u> </u>					<u> </u>
Lane Width			12.0	12.0		_		12.0	12.	······································		<del>-</del>		<del></del>		<u> </u>
	ade / Parking		N	0	N	$\dashv$	N	10	N					<del> </del>		<del> </del>
Parking Mar Buses Stopp			0	0	_	_								<del></del>		<u> </u>
	or Pedestrians	Go	0	3.2		-		0 3.2						-		
Phasing	EB Only		1 <u> </u>		03	$\frac{\perp}{1}$	04		0	5	<u> </u>	06		_ <b></b> 07	1 7	08
3	G = 32.0		108.0			+	=	r	G =		1	=	G =		G =	
Timing		V -											ı		1	
Duration of	<u>TT = 5</u> Analysis, T = ∈	Y =	<u> </u>	Y =		Υ	=	·····	Y =		$\frac{1}{2}$	=	Y =	= 150. ₁	Y =	
	Capacity, C		I Dal	1 200	1000	loto-	mi-	ation			<u> </u>	ycie Ler	igill, C	– 10U.I	<i>J</i>	
Lane Group	, оврасну, с		· L'CIC	EB	<u> </u>	erel	nn	WB		Т		NB			SB	
		I	.T	TH	RT	Lī	T	TH	RT	+	LT	TH	RT	LT	TH	RT
Adjusted Flo	ow Rate, v	8	60	2871				2906	762	T						
Lane Group	Capacity, c	7.	05	4883			1	3516	1097	1				1	1	
v/c Ratio, X		1.2	22	0.59			1	D. 83	0.69	$\top$			<b>†</b>		1	1
Total Green	Ratio, g/C	0.2	21	1.00			1	0.72	0.72	T				<u> </u>		1
Uniform Dela	ay, d ₁	59	.0	0.0		$\vdash$	Ť	14.5	11.8	1						1
Progression	Factor, PF	1.0	000	0.950			Ī	1.000	1,000	1				T		1
Delay Calibr	ation, k	0.5	50	0.18				2.36	0.26	T			İ			
Incremental	Delay, d ₂	11	1.5	0.2				1.7	1.9							
Initial Queue	e Delay, d ₃	О.	0	0.0				0.0	0.0	T						
Control Dela	ıy	17	0.5	0.2	<del></del>	<b>*</b>	**	16.3	13.7	T			<u> </u>	***************************************		
	······································		- 1	А	<del></del>	<del> </del>		В	В	<del></del>		<del>}</del>	+	<del></del>	<del></del>	<del>                                     </del>

Lane Group LOS		***************************************	A section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the sect	
Approach Delay	39.4	15.7		
Approach LOS	D	В		
Intersection Delay	27.7	$X_{c} = 0.92$	Intersection LOS	С

HCS+TM Version 5.2

Generated: 11/9/2006 11:07 AM

					HCS+	DEI					***************************************					····	***********	
General Int	ormation							ite Ir			~~~~							
Analyst	CRH							nterse					Ramı	_	SR	50		
Agency or C	Co. FDOT						- 1	rea 1					er area	S				
Date Perfor	med 10/26/20	06					1	urisdi			Her	nan	ido					
Time Period	ı						Α	nalys	sis Y	'ear								
							P	rojec	t ID				nprove tive - 2		í 			
Volume and	d Timing Inpu	ıt		E	2	ı		WB			1		NB				SB	
			LT	TH	~~~~~	- <del> </del>	- 1	TH		RT	+	<del>-</del> T	TH	RT	╅	LT I	TH	RT
Number of L	ance Na	***************************************	<u> </u>	3	1	2		3	+	1 \ 1	<b></b>	$\dashv$	111	1	十	2	111	2
	<del></del>	***************************************	ļ	$\frac{1}{T}$				T	_					<del>                                     </del>		L		R
Lane Group					R 0000	L	<del>-</del>		,		-							
Volume, V (		···	ļ	266				3287			-	_			+	689		461
	hicles, %HV		ļ	6	6	6		6	_		-	_		<b> </b>	4	6		6
Peak-Hour I	·····		<u> </u>	0.88				0.95	_		<b>_</b>			ļ		.89		0.89
	) or Actuated	(A)	<u></u>	A	A	A		Α			<del> </del>			<b>ļ</b>		<u>A</u>		A
Start-up Los		····		2.0	2.0	2.0		2.0						ļ	_	2.0		2.0
Extension o	f Effective Gre	en,		2.0	2.0	2.0		2.0						1		2.0		2.0
e ^	^ T		<b> </b>					<u> </u>	-		<del> </del>			<del> </del>	<b>-</b>	2		
Arrival Type			<u> </u>	3	3	3		3	_					<b> </b>	-	3		3
Unit Extensi			<u> </u>	3.0	3.0	3.0		3.0	_					ļ		3.0		3.0
Filtering/Me				1.00				1.000	2		_	_		ļ		1.000		1.000
	t Demand, Qb			0.0	0.0	0.0		0.0				_	·	<u> </u>	_	0.0		0.0
	RTOR Volum	es	0	0	250			0						<u> </u>		0	0	70
Lane Width				12.0	12.0	12.0	)	12.0					·····			12.0		12.0
Parking / Gr	ade / Parking		Ν	0	N	N		0		Ν						Ν	0	Ν
Parking Mar	neuvers, Nm								T									
Buses Stopp	oing, NB			0	0	0		0			1				$\neg$	0		0
Min. Time fo	r Pedestrians	, Gρ		3.2	<u> </u>	1		3.2			Ì			···········			3.2	
Phasing	EW Perm		. & F	ΤĪ	03	1	04		SI	B On	lv		06	T	(	07	T	08
	G = 21.0		90.2			G =				= 33.		G =		-ta	) =		G =	
Timing		Y =		Y		Y =				= 5		Y =		-			Y =	
Duration of	Analysis, T =		<del> </del>													160.0		
				<u></u>	4100	N - 4	:				1	O y i	SIC ECI	igur,		100,0		
Lane Group	Capacity, C	ontro	u ve	EB	a LUS I	Jeterm T		VB		T			NB				SB	· · · · · · · · · · · · · · · · · · ·
		-	.T	TH	RT	LT		H	R	<del>-</del>	LT	-T-	TH	RT		LT	TH	RT
A attract and Cla	Data	- -	. !	***************************************	<del> </del>	<del>                                     </del>			<u> </u>	<del>'  </del>	LI	$\dashv$	111	1 1	$\dashv$		111	
Adjusted Flo	w Rate, v			3033	492	660	34	160								774		439
Lane Group	Capacity, c			2753	1524	434	35	46				1.				699		570
v/c Ratio, X				1.10	0.32	1.52	0.9	98	<u> </u>							1.11		0.77
Total Green				0.56	1.00	0.13	0. 7		<u> </u>			_		ļ		0.21	<u> </u>	0.21
Uniform Del				34.9	0.0	69.5		).6			······	_	······································			63.1		59. <i>4</i>
Progression				1.000	0.950	1.000		000	<u> </u>			_		<b> </b>		1.000		1.000
Delay Calibr				0.50	0.11	0.50	0.4		<u> </u>			_	····			0.50	<u> </u>	0.32
Incremental	Delay, d ₂			52.0	0.1	245.9	10	0.2								67.3	<u> </u>	6.4
Initial Queue	e Delay, d ₃			0.0	0.0	0.0	0.	.0				Ţ				0.0	ļ	0.0
Control Dela	ıy	***************************************		86.9	0.1	315.4	30	0.7								130.4		65.8
		<del>-</del>		F	A	F	10		1				<u> </u>	1		F	T	E

Lane Group LOS				
Approach Delay	74.8	76.3		107.1
Approach LOS	Ε	Ε		F
Intersection Delay	79.9	$X_{c} = 1.16$	Intersection LOS	Е

HCS+TM Version 5.2

Generated: 11/9/2006 12:00 PM

Detailed Report Page 1 of 2

				<u> </u>	105	+ L	EIA	<u> LED</u>										
General Inf	ormation							Site I										
Analyst	CRH							Inters					B Ram _l	_	SF	₹ 50		
Agency or C	Co. FDOT							Area					ner area	S				
_	med 10/26/200	6						Juriso				erna	ındo					
Time Period	I							Analy	sis	Year								
								Proje	ct 10	D			SB Lo			D		
								<u> </u>			Al	tern	ative - :	2030	·			
Volume and	d Timing Inpu	<u>E</u>		EE	3		1	W	<b>.</b>		<u> </u>		NB		1		SB	<del> </del>
			LT	TH		RT	t LT	TH	<u></u>	RT	1	T	TH	RI	- 1	LT I	TH	RT
Number of L	anes. N ₁			3		1	<del> </del>	3	一						一十	2		2
Lane Group				T		<del>.</del> R	╅	T	-		┪		1		寸	L.		R
Volume, V (				266		83	1	328	7		1					689		461
	hicles, %HV	·····		6		6	†	6			_		1	<b>1</b>	一	6		6
	actor, PHF		<del>                                     </del>	0.88		88	T	0.95	$\dashv$		$\top$			<del>                                     </del>	一	0.89		0.89
	) or Actuated (	A)		A	- J.	·	<b>†</b>	A			1		<del> </del>	<b>†</b>	$\neg \dagger$	Α		A
Start-up Los	<u> </u>			2.0		.0		2.0			1				7	2.0		2.0
	f Effective Gre	en, e	<b> </b>	2.0		.0	1	2.0			1		1			2.0		2.0
Arrival Type				3	1:	3	1	3								3		3
Unit Extensi				3.0	3.	.0	1	3.0								3.0		3.0
Fillering/Me	tering, I			1.00	0 1.	000		1.00	0		7	···				1.000		1.000
Initial Unme	t Demand, Qb	***************************************		0.0	0	.0		0.0								0.0		0.0
Ped / Bike /	RTOR Volume	<del>2</del> S	0	0	23	50	0	0								0	0	70
Lane Width				12.0	12	2.0		12.0								12.0		12.0
Parking / Gr	ade / Parking	***************************************	N	0	7	V	N	0		Ν						N	0	N
Parking Mar	neuvers, Nm					<del></del>												
Buses Stop	oing, Na			0	(	0	1	0			T					0		0
Min. Time fo	r Pedestrians,	Gρ		3.2	<del></del>	·····	1	3.2									3.2	
Phasing	Thru & RT		02		03		0	4	T	SB Or	าโy	T	06			07		08
	G = 89.2	G =		G:	····		G ==		G	= 30	).8	G	=		G =		G =	
Timing	Y = 5	Y =		Υ:	=		Y =	***************************************	Υ	= 5		Y	=		Y =		Y =	
Duration of	Analysis, T = 0	).25										C	ycle Lei	ngth,	C :	= 130.0	)	
Lane Group	Capacity, Co	ontro	l Del	ay, and	d LOS	S De	termii	nation	********									
				EB				WB					NB			<u> </u>	SB	
			Τ.	TH	RT		LT	TH		RT	LT	$\Box$	TH	R٦		LT	TH	RT
Adjusted Flo	ow Rate, v			3033	492			3460								774		439
Lane Group	Capacity, c	$\top$		3350	1524	4		3350	T			$\dashv$				784		639
v/c Ratio, X		1		0,91	0.32	_		1.03	T							0.99		0.69
Total Green		$\top$		0.69	1.00		,	0.69	╁			$\dashv$				0.24	<b> </b>	0.24
Uniform Del		+		16.9	0.0			20.4	$\dagger$			$\dashv$		-		49.4	<u> </u>	45.2
Progression	<del></del>	$\top$		1.000	0.95			1.000	$\dagger$							1.000		1.000
Delay Calib		+		0.43	0.11			0.50	+							0.49	1	0.26
Incremental	<del> </del>	-		4.0	0.1			24.8	+							28.9		3.1
Initial Queur		-		0.0	0.0			0.0	+					$\vdash$		0.0		0.0
Control Dela		-		20.9	0.1			45.2	T							78.3		48.3
	-			C	A	$\dashv$		D	+					$\vdash$		E	1	D
Lane Group	108	F																

Approach Delay	18.0	45.2		67.4
Approach LOS	В	D		Е
Intersection Delay	36.8	$X_{c} = 1.02$	Intersection LOS	D

HCS+TM Version 5.2

Generated: 11/9/2006 6:42 PM

					nu	·5+	DET	AI											
General Int	formation							_	Site I										
Analysl	JAS								Inters					B Ram		@ S	R 50		
Agency or C									Area '					er area	38				
Date Perfor	med 10/26/20	06							Jurisd				rna	ndo					
Time Period	i i								Analy	SIS	Year		D da	. CD EI		ar 11	tornotiv	~	
									Projec	t I	D		030		γυνι	el Al	ternativ	3	
Volume an	d Timing Inp	ıt	T		EB				WB			ı		NB				SB	
			LT		<u>-Б</u> -	RT	1		T TH	<u> </u>	RT	1		TH	T	RT	LT	TH	RT
Number of I	anes Ni	······································	<u> </u>	3		17.1	<u> </u>	!	3	-	17.1	<del>                                     </del>		111	╂-	\ I	3	171	2
Lane Group		·		-   -		<del> </del>			$\frac{1}{T}$		***************************************				╁		l L	<b></b>	$\frac{1}{R}$
Volume, V (			<del>                                     </del>		395	<del>                                     </del>	+		3287	-		+			╁	·····	689		461
	ehicles, %HV	·····	<b></b>	$-\frac{1}{\epsilon}$		<del> </del>	_		6					<u> </u>	╁		6		16
	Factor, PHF		<del> </del>	0.0		<del> </del>	-		0.95	$\dashv$		+		<u> </u>	╁		0.89	<del> </del>	0.89
	) or Actuated	(A)	ļ	<u> </u>		<b> </b>	+		A	┪		+			╁		A		A A
Start-up Los		· · · · · · ·		2.		<b>†</b>	<del>                                     </del>		2.0	-		1		<b></b>	T		2.0	<b></b>	2.0
	f Effective Gre	en, e		2.		<b>1</b>			2.0	ㅓ		1			T		2.0	<u> </u>	2.0
Arrival Type				3		T	$\top$		3	7		1			T		3	<b>†</b>	3
Unit Extensi		·····		3.		1	$\top$		3.0	_		1			†		3.0		3.0
Filtering/Me			Ī	1.6	000	<b>T</b>	1		1.000	,					1		1.000	1	1.000
Initial Unme	t Demand, Qե			0.	0				0.0								0.0		0.0
Ped / Bike /	RTOR Volum	es	0	(	)		0	*********	0								0	0	70
Lane Width				12	.0				12.0								12.0		12.0
Parking / Gr	ade / Parking		N	(	)	Ν	N		0		Ν						N	0	N
Parking Mar	neuvers, Nm																		
Buses Stopp				0	)				0								0		0
Min. Time fo	or Pedestrians	, Gp		3	.2				3.2									3.2	
Phasing	Thru Only		02		03	3		04			SB Or	ıly		06			07		80
Timing	G = 97.3	G =		(	} =		G =			G	= 42	. 7	G	=		G:	=	G≃	
	Y = 5	Y =		Y	· =		Υ =			Υ	= 5		Υ			Υ =		Y =	
Duration of	Analysis, T =	0.25											C	/cle Le	ngtl	<u> </u>	= 150.	9	
Lane Group	o Capacity, C	ontro	l De			OS D	eterm	ina	ation										
		ļ		EB					WB					NB	T			SB	
		-   [	<u>.T</u>	TH		₹T	LT	_	TH	L.F	रा	LT	$\bot$	TH	F	T	LT	TH	RT
Adjusted Flo				2153					460	_			1		_		774		439
····	Capacity, c			3167			***************************************	╀	167				4		<u> </u>		1321		768
v/c Ratio, X		_		0.68	_		***************************************	╁	.09	_			_		_		0.59		0.57
Total Green				0.65				-	.65	_			_		<u> </u>		0.28		0.28
Uniform Del	<del></del>	-		16.6	+			┿	6.3	_			4		_		46.1		45.8
Progression		_		1.000	4				.000	_			$\bot$		_		1.000		1.000
Delay Calibr				0.25	_				.50	_		······	-		_	·····	0.18		0.17
Incremental				0.6	-			┽~	17.5	_			4		<u> </u>		0.7	<b> </b>	1.0
Initial Queue				0.0	$\bot$			10	0.0	L			$\perp$		_		0.0	<u> </u>	0.0
Control Dela	·			17.2				17	73,9								46.7	<u> </u>	46.9
Lane Group		ı		В	1	1		1	E	l	T		T	· <u> </u>	1		D	1	D

Approach Delay	17.2	73.9		46.8
Approach LOS	В	E		D
Intersection Delay	51.2	$X_c = 0.94$	Intersection LOS	D

HCS+TM Version 5.2

Generated: 11/9/2006 12:01 PM

		***************************************		<del></del>	HCS-	-" <u>[</u>	DETA	ILE	) R	EPO	RT						<del></del>	
General Inf	ormation	***************************************		<del></del>						ormat								<del></del>
Analyst	CRH				***************************************				rsec			5 S	B Ramj	os (d	D SI	R 50		
Agency or C								E .	а Ту				er area					
	med 10/26/20	06						Juri	sdic	tion	He	rna	ndo					
Time Period								Ana	alysis	s Year								
								Project ID				to 030		ove	r Al	temative	9	
Volume and	d Timing Inpi	ut	1				1										~_	
			LT	E			<del> </del>		VB	T 57			NB	<del></del>		1 1	SB	T
Number of I	anan Mi		LI	1 TH			LT		<u>H</u>	RT	L.	-	TH	R'	<u> </u>	LT	TH	RT
Number of L Lane Group		·	<del>                                     </del>	3 T	1   R		2	3		<b>-</b>	_			<b> </b> -		3 L		2
Volume, V (			<b></b>	189			627		315	<del> </del>				<u> </u>		689		R 464
	hicles, %HV		ļ	6	6		027	6		╂				-		6		461 6
Peak-Hour F				0.88			0.90	0.9		╂──						0.89		0.89
	) or Actuated	<i>(</i> Δ\	<u> </u>	A	A	0	A	D.S		┼				<b></b>		0.03 A		0.69 A
Start-up Los	<del></del>	1/7)	<u> </u>	2.0	2.0	<u> </u>	2.0	2.		╂				-		2.0		2.0
	f Effective Gre	en.	$\vdash$	<del>- </del>			1	+		-	+		<del></del>	<del> </del>				<del> </del>
е		~~,.,		2.0	2.0	)	2.0	2.	0	1						2.0		2.0
Arrival Type				3	3		3	3	}	1						3		3
Unit Extensi	on, UE			3.0	3.0	)	3.0	3.	0	1						3.0		3.0
Filtering/Met				1.00	0 1.0	00	1.000	1.0	000							1.000		1.000
Initial Unmet Demand, Qb			0.0	0.1		0.0	0.								0.0		0.0	
	RTOR Volum	es	0	0	25		0	C								0	0	70
Lane Width			<u></u>	12.0			12.0	12		<u> </u>						12.0		12.0
	ade / Parking	······································	Ν	0	N		N	C	)	N			imininina kaina amminista	<u> </u>		N	0	N
Parking Man																		
Buses Stopp				0	0		0		0							0		0
Min. Time fo	r Pedestrians	, Gp	<u> </u>	3.2	<del>}</del>			3.	.2	,						<u> </u>	3.2	
Phasing	WB Only		ı& R`		03		0	4 SB Onl		٦ly					07 08			
Timing	G = 34.3		71.1	G			G =	G = 29.		9.6				G =				
_	Y = 5	Y =	5	Υ:	=		Y = Y = 5			Y = Y =					Y =			
	Analysis, T'= (				·							Су	cle Ler	gth,	, C	= 150.0	)	
Lane Group	Capacity, C	ontro	ol Del		d LOS	De	termir											
		<u> </u>	.T	EB	l DT	_	T T	WB	-	n T	1 T	-т	NB	<u> </u>		LT	SB	I ra
Adjusted Flo	w Rate v	<del>                                     </del>		TH 2153	RT 492		LT 597	TH 2753		RT	LT	+	TH	R	i	774	TH	RT 439
Lane Group		-			<del> </del>						·	+				ļ		<del></del> -
	оарасцу, с	_		2315	1074		301	3594	_		······································	4			····	915		532
v/c Ratio, X	Fig. 1/2	-		).93	0.46			0.77	_			-				0.85		0.83
Total Green		_		).47	0.70			0.74				_				0.20		0.20
Uniform Dela			3	37.1	9.7	5:	5.7	12.0								58.0		57.7
Progression				.000	1.000	1.	000	1.000	)							1.000		1.000
Delay Calibra	ation, k			.45	0.11	0.	40	0.32				$\int$				0.38		0.36
Incremental I	·			7.4	0.3	1	0.2	1.0								7.4		10.3
Initial Queue	Delay, d ₃		Ţ	0.0	0.0	0	.0	0.0							WELDWAY TO THE	0.0		0.0
Control Dela	У			44.6	10.0	6	5.9	13.0								65.4		68.0
					·													***************************************

Lane Group LOS		***************************************		**************************************
Approach Delay	38.1	23.7		66.3
Approach LOS	D	С		E
Intersection Delay	36. <i>0</i>	$X_c = 0.90$	Intersection LOS	D

HCS+TM Version 5.2

Generated: 11/9/2006 12:01 PM

## APPENDIX 'O' OPENING YEAR (2010) BUILD FREEWAY SEGMENT AND RAMP LOS

BASIC FREEWAY WOR	KSHEEI					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WORK	SHEET		
So   Free-How Speed   FTS = 75 minh   70 minh   70 minh   70 minh   65 minh   60 minh   55 minh   55 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 minh   60 min	By C	1600 2000	Open Desig Desig Plant Plant	ication ational (LOS) gn (N) gn (v _p ) ning (LOS) ning (N)	Input FFS, M, Vp FFS, LOS, V FFS, LOS, M FFS, M, AAI FFS, LOS, A FFS, LOS, M	.j v _p , S, D DT LOS, S, D NADT N, S, D
General Information		,	Site Information			
Analyst	CRH		Highway/Direction of		1-75 Northbe	ound
Agency or Company	HW Lochner, I	nc.	From/To		South of CF	₹ 41
Date Performed	10/26/06		Jurisdiction		Pasco Cour	nty
Analysis Time Period	DHV		Analysis Year		2010	
	)&E - 2010 NB So	uth of CR 41 (I-	75 = 6 Lanes)			
F Oper.(LOS)		Г	Des.(N)		□ Planni	ng Data
Flow Inputs						
Volume, V	3370	veh/h	Peak-Hour Factor, I		0.94	
AADT		veh/day	%Trucks and Buses	i, P _T	14	
Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D			%RVs, P _R		1	
DDHV = AADT x K x D		veh/h	General Terrain: Grade % Ler	ngth	Level mi	
Oriver type adjustment	0.95	V 0.1./11	Up/Do	~	****	
Calculate Flow Adjustr	nents					
f _p	0.95		E _R		1.2	
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + F_T(E_T - 1)]$	³ p(Ep - 1)]	0.933	
Speed Inputs	THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE COLOR OF THE C		Calc Speed Ad		S	<u></u>
Lane Width	12.0	ft				- 41
Rt-Shoulder Lat. Clearance	6.0	ft	f _L w		0.0	mi/h
Interchange Density	0.50	I/mi	fuc		0.0	mi/h
Number of Lanes, N	3	,,,,,	f _{io}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0		FFS		75.0	mi/h
		mi/h		militardens aris district (militare) and ambumbus (Malitare) a	<u> </u>	W-W-16+44-
LOS and Performance	weasures		Design (N)	····		
Operational (LOS)			Design (N)			
$v_D = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x		Design LOS			
(p)	1349	pc/h/ln	$v_p = (V \text{ or DDHV}) /$	(PHF x N x	∢f _{HV} x	pc/h
S	74.8	mi/h	( _p )			i
D = v _p / S	18.0	pc/mi/ln	S			mi/h
LOS	C	po/mmi	D = v _p / S			pc/mi/ln
			Required Number of	of Lanes, N	l	
Glossary			Factor Locatio	n		
1 - Number of lanes	S - Speed		E ELLING-00 0 0	33.40		Eveletion
V - Hourly volume	D - Density		E _R - Exhibits23-8, 2		-	- Exhibit 23-4
v _o - Flow rate	FFS - Free-flow	speed	E _T - Exhibits 23-8,	23-10, 23-1	•	.c - Exhibit 23-5
LOS - Level of service	BFFS - Base fre	ee-flow speed	f _ρ - Page 23-12		•	_v - Exhibit 23-6
			E			

LOS, S, FFS,  $v_p$  - Exhibits 23-2, 23-3  $f_{1D}$  - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:31 PM

DASIC FREEWAT WORK	COILLEI				Page 1 of .
	BASIC F	REEWAY SE	GMENTS WORKSHE	ET	
10   10   10   10   10   10   10   10	B. C	1600 2600	Application Operational Design (N) Design (v _p ) Planning (Le Planning (v _p ) Planning (v _p )	FFS, LOS FFS, LOS OS) FFS, N. A ) FFS, LOS	N.S.D N.N.V _{p.} S.D LADT LOS.S.D J. AADT N.S.D
General Information	Flow Rate (poth/la	1)	Site Information		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, 10/26/06 DHV		Highway/Direction of Tra From/To Jurisdiction Analysis Year	vel I-75 North CR 41 to Hernando 2010	SR 50
Project Description I-75 PD8	&E - 2010 NB CF	****	-75 = 6 Lanes) Des.(N)		
Flow Inputs		1	Des.(N)	ı Plati	ning Data
Volume, V AADT Peak-Hr Prop. of AADT, K	3090	veh/h veh/day	Peak-Hour Factor, PHF %Trucks and Buses, P _T %RVs, P _R	0.93 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	General Terrain: Grade % Length Up/Down %	Level mi	
Calculate Flow Adjustm	<u>0.95</u>			4.5	
f _p E _T	1.5		$E_R$ $f_{HV} = 1/(1+P_T(E_T - 1) + P_R(E_R - 1)$	1.2 - 1)] 0.931	
Speed Inputs			Calc Speed Adj and	1 FFS	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density	12.0 6.0 0.50	ft ft I/mi	f _{LW}	0.0 0.0	mi/h mi/h
Number of Lanes, N	3	1/1/17	$f_{ID}$	0.0	mi/h
FFS (measured)		mi/h	f _N	0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
LOS and Performance N	Measures		Design (N)		
Operational (LOS) v _p = (V or DDHV) / (PHF x N x f _p )	f _{HV} x 1252	pc/h/ln	Design (N) Design LOS  v _p = (V or DDHV) / (PHF	x N x f _{HV} x	pc/h
S D = v _p / S LOS	75.0 16.7 B	mi/h pc/mi/ln	' _p ) S D = v _p / S Required Number of Lar	nes. N	mi/h pc/mi/ln
Glossary			Factor Location		
N - Number of lanes  V - Hourly volume  v _p - Flow rate  LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	·	E _R - Exhibits23-8, 23-10 E _T - Exhibits 23-8, 23-10 f _p - Page 23-12		f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:31 PM

							age 1 01
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET			
Warning Processor Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss Street Loss	R. C.	1450 (690 1750		Application Operational (LOS) Design (N) Design (v _p ) Planning (LOS) Planning (M) Planning (v _p )	Input FFS. N. v FFS. LOS FFS. LOS FFS. LOS FFS. LOS	, y _p , n làdt , aadt	Output LOS, S, U N, S, D v _p , S, D LOS, S, U N, S, D v _p , S, D
0 400 800	0 1200 Flow Rate (pc/h/l	1000 2000	2400				
General Information	rece nac spenia		Site Inform	nation	<u></u>		
Analyst	CRH			ction of Travel	I-75 North	hound	<del></del>
Agency or Company	HW Lochner,	Inc	From/To	CHOILOL LIAVEL	North of S		
Date Performed	10/26/06	me.	Jurisdiction		Hernando		
Analysis Time Period	DHV		Analysis Yea	г	2010	County	
	&E - 2010 NB No	orth of SR 50 (I-				<del></del>	<del></del>
F Oper.(LOS)			Des.(N)		☐ Plan	ning Data	 а
Flow Inputs							
Volume, V	2900	veh/h	Peak-Hour Fa	actor, PHF	0.94		
AADT		veh/day	%Trucks and	Buses, P _T	14		
Peak-Hr Prop. of AADT, K			%RVs, P _R		2		
Peak-Hr Direction Prop, D			General Terra	ain:	Level		
DDHV = AADT x K x D	6.05	veh/h	Grade %	Length	mi		
Driver type adjustment Calculate Flow Adjustr	0.95			Up/Down %			w
	0.95						
f _p			E _R		1.2		
E _T	1.5			T-1) + P _R (E _R + 1))	0.931		
Speed Inputs			Calc Spee	d Adj and FFS	<u>S</u>	-	
Lane Width	12.0	ft	$f_{\text{LW}}$		0.0		mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	1		0.0		mi/h
Interchange Density	0.50	l/mi	f _{LC}				
Number of Lanes, N	3		fiD		0.0		mi/h
FFS (measured)		mi/h	f _N		0.0		mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0		mi/h
LOS and Performance	Measures		Design (N	1			
			Design (N)	<u> </u>	<u> </u>	<del></del>	
Operational (LOS)			Design LOS				
$v_p = (V \text{ or DDHV}) / (PHF \times N)$	x f _{HV} x 1163	pc/h/ln		)HV) / (PHF x N >	cfx		
f _p ) S	7.00	penini	1 5	2(14)7 (6 111 2 14 2	, ,HA ,,		pc/h
S	75.0	mi/h	(p)				on (He
$D = v_{\rho} / S$	15.5	pc/mi/In	S				mi/h
LOS	В		D = v _p / S				pc/mi/ln
		~~~		mber of Lanes, N	<u> </u>		
<u>Glossary</u>			Factor Lo	cation	***************************************		
N - Number of lanes	S - Speed		E _R - Exhibits	23-8, 23-10		f Fy	hibit 23-4
V - Hourly volume	D - Density		1 ''	23-8, 23-10 23-8, 23-10, 23-	11		nibit 23-5
v _p - Flow rate	FFS - Free-flov	w speed	1 '		* 1	f _N - Exhi	
LOS - Level of service	BFFS - Base fr	ree-flow speed	ք _թ - Page 23-	16		N - EXH	1011 Z3*O

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:36 PM

						1 4	ige i or.
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET			
Weight Paral Information	B. C.	1150 (600) (1750) (1750) (1750) (1750)	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS. N, v _p FFS, LOS, FFS, LOS, FFS, N, AI FFS, LOS, FFS, LOS,	Y _p N A DT AADT	Output LOS, S, I N, S, D V _p . S, D LOS, S, I N, S, D V _p . S, D
			Site Inforn				
Analyst	CRH			ction of Travel	I-75 South		
Agency or Company	HW Lochner,	Inc.	From/To		North of S		
Date Performed	10/26/06		Jurisdiction		Hernando	County	
Analysis Time Period	DHV		Analysis Yea	Г	2010	***************************************	····
	0&E - 2010 SB No						······································
▽ Oper.(LOS)	į		Des.(N)		l Planr	ning Data	
<i>Flow Inputs</i> Volume, V	2240		D. J. H		0.00		
AADT	2240	veh/h	Peak-Hour Fa		0.93		
		veh/day	%Trucks and	Buses, P _T	14		
Peak-Hr Prop. of AADT, K			%RVs, P _R		2		
Peak-Hr Direction Prop, D DDHV = AADT x K x D		1 11	General Terra		Level		
Driver type adjustment	0.95	veh/h	Grade %	Length Up/Down %	mi		
Calculate Flow Adjusti	·	·····	****	Oproduit 70	**************************************	···	
f _p	0.95	**************************************	E _R		1.2	PARTICIPATION OF THE PROPERTY OF THE PARTICIPATION	***************************************
E _T	1.5			T - 1) + P _R (E _R - 1)}	0.931		
Speed Inputs			~~~	d Adj and FF			
ane Width	12.0	ft		u Auj anu i i s			
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	ī	mi/h
			f _{LC}		0.0	í	mi/h
nterchange Density	0.50	I/mi	f _{ID}		0.0	,	mi/h
Number of Lanes, N	3		f _N		0.0		mi/h
FFS (measured)		mi/h	1				
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0		mi/h
LOS and Performance	Measures		Design (N)		···	
Operational (LOS)			Design (N)				
Operational (LOS)			Design LOS				
$V_p = (V \text{ or DDHV}) / (PHF \times N)$	х т _{НV} х 908	pc/h/in	_)HV) / (PHF x N x	: f _{uv} x		
(p)		L. sarring	l +	· / · 💎 · · · · · · · · · · · · · · · · ·	HV .	1	pc/h
5	75.0	mi/h	(p)				milh
$D = v_0 / S$	12.1	pc/mi/ln	3				mi/h
_os [*]	В		D = v _p / S			I	pc/mi/ln
	***************************************		Required Nu	mber of Lanes, N		***************************************	
Blossary	M	T-100	Factor Lo	cation			
N - Number of lanes	S - Speed		E Evhihita	22 B 22 10		f Cub	ihit na 🔻
/ - Hourly volume	D - Density		E _R - Exhibits		4.4	f _{LW} - Exh	
r - Flow rate	FFS - Free-flow	v speed	B '	23-8, 23-10, 23-	11	f _{LC} - Exhi	
OS - Level of service	BFFS - Base fr	•	(_p - Page 23-	12		f _N - Exhib	oit 23-6
and the second s	we surface of the	upood	1				

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:32 PM

DASIC FREEWAY WOR	VOLIEEI					Page I of
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
\$ 60 60 mid) 55 mid) 55 mid) 56 60 mid) 55 mid) 56 60 mid) 57 mid) 58 mid)	Br Stranger	1450 1750 1750 1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N
General Information			Site Inform	ation		<u>waa u</u>
Analyst Agency or Company Date Performed Analysis Time Period Project Description 1-75 PD	CRH HW Lochner, 1 10/26/06 DHV		From/To Jurisdiction Analysis Year	ction of Travel	I-75 South£ CR 41 to S Hernando (2010	R 50
Project Description 1-73 PD Poper.(LOS)	&E - 2010 SB CF		-/5 = 6 Lanes) Des.(N)		☐ Plann	ica Dota
Flow Inputs	***************************************	ŧ [~~.(I¥)		1 101111	nig vala
Volume, V AADT Peak-Hr Prop. of AADT, K	2390	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	General Terra Grade %	in: Length Jp/Down %	Level mi	
Calculate Flow Adjustn	nents					
f _p	0.95		E _R		1.2	
E _T	1.5		$f_{HV} = 1/1 + P_T(E_T)$	$(-1) + P_{R}(E_{R} - 1)$	0.933	
Speed Inputs			Calc Speed	d Adj and FFS	3	
Lane Width	12.0	ft	f_{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{ID}		0.0	mi/h
Number of Lanes, N	3		1		0.0	mi/h
FFS (measured)		mi/h	f _N			
Base free-flow Speed, BFFS	75.0	mi/h	FFS	PA	75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) v _p = (V or DDHV) / (PHF x N) ⁽ p)	x f _{HV} x 956	pc/h/in	Design (N) Design LOS v _p = (V or DDI	HV)/(PHF x N x	: f _{HV} x	pc/h
S	75.0	mi/h	f_p)			poni
D = v _p / S LOS	12.7 B	pc/mi/ln	S D = v _p / S Required Nur	mber of Lanes, N	I	mi/h pc/mi/In
Glossary		***************************************	Factor Loc	······································		
N - Number of lanes	S - Speed					F. 512000 4
V - Hourly volume v _p - Flow rate	D - Density FFS - Free-flow		E_R - Exhibits2 E_T - Exhibits 2 f_D - Page 23-1	23-8, 23-10, 23-1	11 f	_{LW} - Exhibit 23-4 _{LC} - Exhibit 23-5 _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fro	ee-flow speed	p -3		•	Marie and the second se

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:33 PM

DASIC PREEWAT WOR	NOTICE				Page 1 of 2
	BASIC F	REEWAY SI	EGMENTS WORKSHEET		
GO mid G	By C	1600 200	Application Operational (LO Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	FFS, LOS FFS, LOS	, W _p N, S, D , N V _p S, D , A DT LOS, S, C , A A DT N, S, D
General Information	**	······································	Site Information		
Analyst	CRH		Highway/Direction of Travel	I-75 Souti	nbound
Agency or Company	HW Lochner,	Inc.	From/To	South of (
Date Performed	10/26/06		Jurisdiction	Pasco Co	unty
Analysis Time Period	DHV		Analysis Year	2010	
5)&E - 2010 SB Sc			·	
ি Oper.(LOS)		1 :	Des.(N)	i Plan	ning Data
Flow Inputs Volume, V	2610	veh/h	Peak-Hour Factor, PHF	0.94	
AADT	2010	veh/day	%Trucks and Buses, P _T	14	
Peak-Hr Prop. of AADT, K		Tomacy	%RVs, P _R	1	
Peak-Hr Direction Prop, D			General Terrain:	Level	
DDHV = AADT x K x D		veh/h	Grade % Length	mi	
Oriver type adjustment	<i>0</i> .95	·	Up/Down %		****
Calculate Flow Adjustr		~~~~			·
f_p	0.95		E _R	1.2	
E _T	1.5		f _{HV} = 1/(1+P _T (E _T - 1) + P _R (E _R - 1))	0.933	
Speed Inputs			Calc Speed Adj and F	FS	***************************************
Lane Width	12.0	ft		0.0	illa
Rt-Shoulder Lat. Clearance	6.0	ft	f _{tw}		mi/h
Interchange Density	0.50	I/mi	fic	0.0	mi/h
Number of Lanes, N	3		f _{ID}	0.0	mi/h
FFS (measured)		mi/h	f _N	0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
LOS and Performance		***************************************	Design (N)		***************************************
	1110434163		Design (N)		
Operational (LOS)			*		
$v_p = (V \text{ or DDHV}) / (PHF \times N)$	x f _{HV} x		Design LOS	6 E E	
f_{p})	1044	pc/h/ln	$v_p = (V \text{ or DDHV}) / (PHF x)$	M X I _{HV} X	pc/h
S	75.0	mi/h	(p)		·
D = v _p / S	13.9	pc/mi/ln	S		mi/h
LOS	В	•	D = v _p / S		pc/mi/ln
			Required Number of Lanes	. N	
Glossary			Factor Location		
Number of lanes	S - Speed	-	E _ Evhibite22_8 22 10		f . Evhihit 22 4
V - Hourly volume	D - Density		E _R - Exhibits 23-8, 23-10	12 11	f _{LW} - Exhibit 23-4
v _p - Flow rate	FFS - Free-flov	v speed	E _T - Exhibits 23-8, 23-10, 2	.3-11	f _{LC} - Exhibit 23-5
LOS - Level of service	BFFS - Base fr	ree-flow speed	f _p - Page 23-12		f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 4:33 PM

	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		1 450 1 01 2
Weight Hassenger Pass Spread PLS = 75 migh 70 might 65 mi	By C	1450 (500) 1750 1 (500) 1 (500)		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (f) Planning (v _p)	Input FFS, N. V _p FFS, LOS, N FFS, LOS, N FFS, M. AAI FFS, LOS, F	V _p , S, D DT LOS, S, D VADT N, S, D
General Information			Site Inforn	nation		
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD	CRH HW Lochner, 10/26/06 DHV D&E Study - 2010		From/To Jurisdiction Analysis Year		I-75 Northbo South of CF Pasco Cour 2010	R 41
P Oper.(LOS)			Des.(N)		[Planni	no Data
<i>Flow Inputs</i> Volume, V AADT Peak-Hr Prop. of AADT, K	3370	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjust	0.95	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
f _p	0.95		E		1.2	***************************************
E _T	1.5		E _R f _{101/} = 1/[1+P ₇ (E.	_T - 1) + P _R (E _R - 1)]	0.933	
Speed Inputs				d Adj and FFS		
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N	12.0 6.0 0.50 4	ft ft I/mi	f _{LW} f _{LC} f _{ID}		0.0 0.0 0.0	mi/h mi/h mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) v _p = (V or DDHV) / (PHF x N f _p) S D = v _p / S LOS	x f _{HV} x 1011 75.0 13.5 B	pc/h/ln mi/h pc/mi/ln	f _p) S D = v _p / S Required Nu	mber of Lanes, N		pc/h mi/h pc/mi/In
Glossary Number of lanes	S - Speed		Factor Loc	cation		
V - Hourly volume v _p - Flow rate LOS - Level of service	D - Density FFS - Free-flov BFFS - Base fr	·	E_R - Exhibits: E_T - Exhibits f_p - Page 23-	23-8, 23-10, 23-1	ii f _L	w - Exhibit 23-4 _C - Exhibit 23-5 ₁ - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f₁₀ - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 8:43 AM

BASIC FREEWAY WOR.	V9LEE1					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WO	ORKSHEET		
Warring So Fire-Flox Speed FTS - 75 minh 70 minh 70 minh 70 minh 65 minh 65 minh 55 minh 55 minh 60 minh 55 minh 60 mi	By C	1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, vp FFS, LOS, FFS, LOS, FFS, LOS, FFS, LOS, FFS, LOS,	Vp N, S, D M Vp, S, D LOS, S, D AADT N, S, D N, S, D
General Information	The state of the s	* 7	Site Inform	ation		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, 1 10/26/06 DHV		Highway/Direct From/To Jurisdiction Analysis Year		I-75 Northb CR 41 to S Hernando 2010	SR 50
Project Description 1-75 PD ☑ Oper.(LOS))&E - 2010 NB CF					in a Data
Flow Inputs		1 1	Des.(N)		i Planti	iing Data
Volume, V AADT Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustr	0.95	veh/h veh/day veh/h	Peak-Hour Fac %Trucks and I %RVs, P _R General Terral Grade %	Buses, P _T	0.93 14 2 Level mi	
fp fp	0.95		E _R		1.2	
`p E _T	1.5		F _{HV} = 1/{1+P _T (E _T	- 1) + Pn(En - 1)	0.931	
Speed Inputs				Adj and FF		
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 4 75.0	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	Measures		Design (N)		***************************************	
Operational (LOS) v _p = (V or DDHV) / (PHF x N f _p) S D = v _p / S LOS		pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DDB} f_p)$ S $D = v_p / S$	HV) / (PHF x N x		pc/h mi/h pc/mi/In
Glossary			Factor Loc	ation		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flov BFFS - Base fr	•	E_R - Exhibits2 E_T - Exhibits 2 f_p - Page 23-1	23-8, 23-10, 23-		f_{LW} - Exhibit 23-4 f_{LC} - Exhibit 23-5 f_N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 8:47 AM

BASIC FREEWAY WUR	K5HEE1					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WOI	RKSHEET		
	Er Stormer	1600 2000		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, M. Vp FFS, LOS, V FFS, LOS, M FFS, N, AAC FFS, LOS, A FFS, LOS, M	V _p , S, D OT LOS, S, D ADT N, S, D
General Information			Site Informa	tion		
Analyst	CRH		Highway/Direction		I-75 Northbo	ound
Agency or Company	HW Lochner,	Inc.	From/To		North of SR	
Date Performed	10/26/06		Jurisdiction		Hernando C	ounty
Analysis Time Period	DHV		Analysis Year		2010	
	%E - 2010 NB No					
Flow Inputs			Des.(N)	***************************************	Plannir	ng Data
<i>Flow Inputs</i> Volume, V	2900	veh/h	Peak-Hour Fact	or PHE	0.94	
AADT	2000	veh/day	%Trucks and Bu		14	
Peak-Hr Prop. of AADT, K		,	%RVs, P _R		2	
Peak-Hr Direction Prop, D			General Terrain		Level	
DDHV = AADT x K x D	0.05	veħ/h	Grade %	Length	mi	
Triver type adjustment Calculate Flow Adjustr	0.95		Ор	/Down %		***************************************
f _p	0.95		E _R		1.2	
E _T	1.5			() (C () (1)	0.931	
Speed Inputs	1.0		$f_{HV} = 1/[1+P_T(E_T)]$			· · · · · · · · · · · · · · · · · · ·
Lane Width	12.0	ft	Calc Speed	Auj aliu Fr	······································	***************************************
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	4	F/ E1 E1	f_{1D}		0.0	mi/h
FFS (measured)	-1	mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance		111/11	Desire (NI)			
LOS and renormance	Measures		Design (N)			
Operational (LOS)			Design (N)			
$v_p = (V \text{ or DDHV}) / (PHF x N :$	x f _{HV} x 872	m m the tten	Design LOS	A / / DUE AL.		
f _p)	072	pc/h/ln	$v_p = (V \text{ or DDH})$	V)/(PFFXNX	: I ^{HA} x	pc/h
S	75.0	mi/h	p)			* D
D=v _p /S	11.6	pc/mi/ln	D = / C			mi/h
LOS	В		$D = v_p / S$		•	pc/mi/In
<u> </u>	***************************************		Required Numb			
Glossary	<u> </u>		Factor Loca	tion		
N - Number of lanes	S - Speed		E _R - Exhibits23	-8, 23-10	f,	w - Exhibit 23-4
V - Hourly volume	D - Density		E _T - Exhibits 23			_C - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	,	f _n - Page 23-12		-	, - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	1 j2		1/	•

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 12:23 PM

BASIC FREEWAT WORF						1 450 1 01 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
### Free-Flow Speed F15 = 75 mids 70 m	Br C	1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (V _p)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N
	Flow Rate (pollula	î j				
General Information			Site Inforn			
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, 10/26/06 DHV		From/To Jurisdiction Analysis Year		I-75 SouthI North of SF Hernando 2010	₹ 50
Project Description I-75 PD	SE Study - 2010			nes)	I Diana	in a Data
✓ Oper.(LOS)		1 L	Des.(N)		ı Piann	ing Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K	2240	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R	Buses, P _T	0.93 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D 'river type adjustment Calculate Flow Adjustn	0.95	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
	0.95		E		1.2	
f _p E _T	1.5		E _R f _{HV} = 1/[1+P _T (E	₇ - 1) + P _R (E _R - 1))	0.931	
Speed Inputs		**************************************		d Adj and FF	3	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density	12.0 6.0 0.50	ft ft I/mi	f _{LW} f _{LC}		0.0 0.0 0.0	mi/h mi/h mi/h
Number of Lanes, N	4		f _N		0.0	mi/h
FFS (measured)	75.0	mi/h	FFS		75.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h		\		
LOS and Performance I Operational (LOS) v _p = (V or DDHV) / (PHF x N x			Design (N) Design (N) Design LOS)		
f _p)	681	pc/h/ln	$v_p = (V \text{ or DD})$ f_p)HV) / (PHF x N >	(f _{HV} x	pc/h
S D=v _p /S LOS	75.0 9.1 A	mi/h pc/mi/ln	S D = v _p / S	mber of Lanes, N	I	mi/h pc/mi/In
Glossary			Factor Lo	cation		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flov BFFS - Base fr		E _R - Exhibits	23-8, 23-10 23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated, 11/9/2006 8:53 AM

BASIC FREEWAT WOR	KOHEET				Page I of 1
	BASIC FI	REEWAY SE	GMENTS WORKSH	EET	
S0 Free-Flow Speed FFS = 275 mids 70 mid	By C	1690 2000	Application Operation Design (N Design (v Planning Planning	al (LOS)	S. v _p N, S, D S, N v _p , S, D AA DT LOS, S, I S, AADT N, S, D
General Information	row was formal		Site Information		
Analyst	CRH		Highway/Direction of Tr	ravel <i>I-75 Sou</i> i	hbound
Agency or Company	HW Lochner, I	nc.	From/To	CR 41 to	
Date Performed	10/26/06		Jurisdiction		o County
Analysis Time Period	DHV		Analysis Year	2010	,
Project Description I-75 PD	&E Study - 2010 \$	SB CR 41 to SF	R 50 (I-75 = 8 Lanes)		
F Oper.(LOS)		Г	Des.(N)	□ Pla	nning Data
Flow Inputs					
Volume, V	2390	veh/h	Peak-Hour Factor, PHF	0.94	
AADT		veh/day	%Trucks and Buses, P	T 14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	1	
Peak-Hr Direction Prop, D			General Terrain:	Level	
DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	Grade % Length		
Calculate Flow Adjustr			Up/Down	<u> 7a </u>	
fp	0.95	······································	E _R	1.2	
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_T)]$		
Speed Inputs			Calc Speed Adj ar		
Lane Width	12.0	ft		······································	
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}	0.0	mi/h
Interchange Density	0.50	l/mi	f _{LC}	0.0	mi/h
Number of Lanes, N	4	17 (5 1)	f_{ID}	0.0	mi/h
FFS (measured)	~ 1	mith	f _N	0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
	75.0	mi/h			******
LOS and Performance	weasures		Design (N)		
Operational (LOS)			Design (N)		
$v_p = (V \text{ or DDHV}) / (PHF \times N)$	x f _{uv} x		Design LOS		
f_p)	^{nv} 717	pc/h/in	$v_p = (V \text{ or DDHV}) / (PH)$	IF x N x f _{HV} x	pc/h
S .	75.0	mi/h	f_p)		POII
D = v _p / S	9.6	pc/mi/ln	S		mi/h
LOS		релипли	D = v _p / S		pc/mi/ln
 ∨ ∪	A		Required Number of L	anes, N	
Glossary			Factor Location		
N - Number of lanes	S - Speed			_	
V - Hourly volume	D - Density		E _R - Exhibits23-8, 23-		f _{LW} - Exhibit 23-4
v _p - Flow rate	FFS - Free-flow	speed	E _T - Exhibits 23-8, 23-	10, 23-11	f _{LC} - Exhibit 23-5
LOS - Level of service	BFFS - Base fre	•	f _թ - Page 23-12		f _N - Exhibit 23-6
	~	~ now sheen	1		

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{ID} - Exhibit 23-7

Copyright © 2005 University of Fforida, All Rights Reserved

HCS+TM Version 5.2

Generated 11/9/2006 8:54 AM

BASIC FREEWAY WUR	KSHEET				Page 1 of 2
	BASIC FI	REEWAY SE	GMENTS WORKSHEE	T.	
Fig. Flor Speed FfS = 75 min 70 m	Br. C. S. State of the state of	150 (600) 1750 I	Application Operational (I Design (N) Design (v _p) Planning (LO) Planning (N) Planning (v _p)	FFS, LOS FFS, LOS S) FFS, N. <i>I</i> FFS, LOS	S. V _p N, S, D S, M V _p , S, D AADT LOS, S, D S, AADT N, S, D
General Information	Flow Rate (pc/h/ln)	·	Site Information		
Analyst	CRH	· · · · · · · · · · · · · · · · · · ·	Highway/Direction of Trav	el <i>I-75</i> Sout	bhaund
Agency or Company	HW Lochner, I	nc.	From/To	South of	
Date Performed	10/26/06		Jurisdiction	Pasco Co	
Analysis Time Period	DHV		Analysis Year	2010	•
Project Description I-75 PD)&E - 2010 SB So	uth of CR 41 (I-	75 = 8 Lanes)		
☑ Oper.(LOS)	i	F	Des.(N)	☐ Plar	ning Data
Flow Inputs					
Volume, V	2610	veh/h	Peak-Hour Factor, PHF	0.94	
AADT		veh/day	%Trucks and Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D		veh/h	General Terrain: Grade % Length	Level mi	
Oriver type adjustment	0.95	VEII/II	Up/Down %	ш	
Calculate Flow Adjusti		***************************************			
f _p	0.95	······································	E _R	1.2	***************************************
E _T	1.5		$f_{HV} = 1/(1+P_T(E_T-1)+P_R(E_R-1)$		
Speed Inputs			Calc Speed Adj and		
Lane Width	12.0	ft			PARTICLE
Rt-Shoulder Lat. Clearance	6.0		f _{LW}	0.0	mi/h
		ft	f _{LC}	0.0	mi/h
Interchange Density	0.50	I/mi	f _{ID}	0.0	mi/h
Number of Lanes, N	4		f _N	0.0	mi/h
FFS (measured)		mi/h	FFS	75.0	mi/h
Base free-flow Speed, BFFS		mi/h	I I O	70.0	111/11
LOS and Performance	Measures		Design (N)		
Operational (LOS)			Design (N)		
$v_{D} = (V \text{ or DDHV}) / (PHF \times N)$	x f x		Design LOS		
· '	783	pc/h/ln	$v_p = (V \text{ or DDHV}) / (PHF)$	x N x f _{HV} x	nc/h
f _p)	75.0	ours i the	f_{ρ})		pc/h
S D=v /S	75.0	mi/h	S		mi/h
$D = v_p / S$	10.4	pc/mi/ln	$D = v_0 / S$		pc/mi/ln
LOS	Α		Required Number of Land	es, N	
Glossary			Factor Location		
N - Number of lanes	S - Speed				
V - Hourly volume	D - Density		E _R - Exhibits23-8, 23-10		f _{LW} - Exhibit 23-4
v _n - Flow rate	FFS - Free-flow	sneed	E _T - Exhibits 23-8, 23-10,	, 23-11	f _{LC} - Exhibit 23-5
LOS - Level of service	BFFS - Base fre	·	f _p - Page 23-12		f _N - Exhibit 23-6
LOS - LEVELOI SELVICE	mi i o - Dase II6	se-now speed	ľ		

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 8:55 AM

Conner	Info		2 MIND	RAMP JUI				***************************************							
	Informat		······································		Site In										
Analyst		CRH			Freeway/Dir of Travel I-75 Northbound										
Agency or Co		HW Loch			Junction CR 41/Blanton Road Off-Ramp						-Ramp				
Date Perform		7/28/200	5		Jurisdiction Pasco County										
Analysis Time		DHV	2010 ND 0		Analysis Yea			2010			 -				
	iption 1-75 f	-D&E SIDDY -	2010 NB O	ff Ramp at CR	1 (1-75 = b L	.anes)									
Inputs Upstream Adj	Ramp	Terrain: Lev	el						Dov	vnstre	am Adj				
□ Yes	□ On								Rar		√ On				
l√ No	□ Off							- 1		r on □ off					
Lup ==	ft		70						L _{dow}	n =	620 ft				
V _u =	veh/h		S _{FF} = 70.0		$S_{FR} = 35.0 \text{ mph}$ $V_D = 100000000000000000000000000000000000$						180 veh/				
ru	VCII/II		5	Sketch (show la	nes, L _A , L _D ,V	(R,V_i)			I D		100 4617				
Conversi	ion to pc	/h Under	Base C	Conditions											
(pc/h)	V (Veh/hr)	PHF	Terra	ain %Truc	⅓Rv		f _H ∨	f	l l	V/PHI x f _p	Fx				
Freeway	3370	0.94	Leve	! 14	1	0.	933	0.95		4046					
Ramp	460	0.91	Level 10		1		951	0.95	5	560					
UpStream															
DownStream	180	0.91	Leve	1 10	1	0.	951	0.95	5	219					
	b	Merge Area						Diverge	Areas						
Estimatio	on of V ₁₂				Estima	ation	ofv								
		₁₂ = V _F (P _{FM}	1						+ (V _F - V _R	\D					
- (F			,							/ΓFD					
_{-EQ} = (Equ					L _{EO} = (E										
o _{FM} = using		(Exhibit 25-5)		1			quation	(Exhibit 25	-11)					
/ ₁₂ = pc/h		····			$V_{12} = 276$	67 pc	:/h								
Capacity	Checks	Whitehope suppressions with the con-		WOODS WAS A STATE OF THE STATE	Capac	ity C	Check	(S							
	Actu	al Ma	ximum	LOS F?			Actu	al	Maximun	1	LOS F?				
					V _{F1} =	٧ _٤	4040	3	7200		No				
V_{FO}					V ₁₂		276	7	4400:All	一十	No				
					V _{FO} = 1						-				
V					1	1	348	3	7200	1	No				
V_{R12}					V _R										
J44. 1		<u> </u>			V _R		560		2000		No				
_evel of S	Service L	<u>Determin</u>	ation (ii	f not F)	Level	of S	ervic	e Dete	rminati	on (ii	f not F)				
$D_R = 5.475$	5 + 0.00734	4 v _R + 0.00)78 V ₁₂ -	0.00627 L _A		D _B :	= 4.252	2 + 0.00	186 V ₁₂ - 0	0.0009	Ln				
) _E = (F	c/mi/ln)			,,	D _R =	26.2.1	(pc/mi/	in)	12		~				
••	Exhibit 25-4	11			1 ''		xhibit 2								
·		·													
Speed Es		? ·	······································	***************************************	Speed					********	······································				
	ibit 25-19)				D _s = 0.478 (Exhibit 25-19)										
$d_{\rm S} = (Ex$			= mph (Exhibit 25-19)							S _R ≃ 56.6 mph (Exhibit 25-19)					
	(Exhibit 2	5-19)			1 '`		, .								
\hat{S}_{R} = mph	(Exhibit 25 (Exhibit 25	•			1		nph (E	xhibit 25							
$R = mph$ $C_0 = mph$		5-19)			S ₀ =	75.7 г	•	xhibit 25 xhibit 25	5-19)						

Copyrigh

0:52 AM

	1		S AND	KANIF	JUNG						***************************************	
	<u>Informat</u>		***************************************			Site In	***************************************					
Analyst		CRH			Fr	Freeway/Dir of Travel I-75 Northbound						
Agency or Co	-	HW Loch			Ju	Junction CR 41/Blanton Road Off-Ramp						
Date Perform		7/28/200	5		Ju	Jurisdiction Pasco County						
Analysis Time		DHV				alysis Year			2010			
	ription 1-75 F	D&E Study -	2010 NB C	off Ramp	at CR 41	(1-75 = 8 La)	anes)		······			
Inputs												
Upstream Adj		Terrain: Lev	el							Downstre Ramp	am Adj	
	□ On										F On	
₽ No										Coff		
L _{up} =	ft	ļ			***************************************					Ldown =	620 ft	
./ -	veh/h		$S_{FF} = 70.6$					35.0 m	ph	V _D =	400	
√ _u =	venni		5	Sketch (s	how lane	s, L _A , L _D ,V	$_{R}$, V_{i})			D _	180 veh/	
Conversi	ion to pc	/h Under	Base (Condit	ions		***************************************					
	V			Ī			Π.			v = V/PH	Fχ	
(pc/h)	(Veh/hr)	PHF	Terra	ain	%Truck	%Rv	'	н∨	f_{p}	$f_{HV} \times f_p$		
Freeway	3370	0.94	Leve	ş	14	1	no	333	0.95	4046		
Ramp	460	0.91	Leve		10	1	ŧ	351	0.95	560		
UpStream		0.01			10	t	1 0.0	,u;	0.33	300	······································	
DownStream	180	0.91	Leve	al	10	1	no	951	0.95	219		
	1	Merge Areas	<u> </u>	I	.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	L	341	Diverge Are			
Estimatio	on of v ₁₂		<u></u>			Estima	tion	ofv		,00		
						LJUIIIA	11011	· · · · · · · · · · · · · · · · · · ·				
		$_{12} = V_F (P_{FM})$)					V ₁	₂ = V _R + (\	$V_F - V_R)P_{FD}$		
_{-EQ} = (Equ	uation 25-2	or 25-3)				L _{EQ} = (E	quati	on 25-	8 or 25-9)			
o _{FM} = using	g Equation	(Exhibit 25-5)			$P_{ED} = 0.43$	36 и	sing E	quation (E:	xhibit 25-11)		
/ ₁₂ = pc/h						V ₁₂ = 2080 pc/h						
Capacity						Capacity Checks						
	Actua	al la	kimum	LOS	2 E 7	Actual Maximum LOS F						
	Actu	ai ivida	(IEEE)III	203) F !	16 1	<u>, </u>					
V_{FO}		ļ				V _{FI} = \	V _F	4046		9600	No	
						V ₁₂		2080		4400:All	No	
V _{R12}						V _{FO} = \ V _R		3486		9600	No	
1314						V _R		560		2000	No	
				<u> </u>		*						
	Service L					Level o				<u>nination (i</u>	·····	
$D_{R} = 5.479$	5 + 0.00734	4 v _R + 0.00)78 V ₁₂ -	0.00627	7 L _A		D _R =	4.252	+ 0.0086	$V_{12} - 0.0009$	L _D	
) ^K = (t	oc/mi/ln)					D _R =	11.3 (pc/mi/l	n)			
.OS = (E	Exhibit 25-4)					R (Fy	hibit 2	5-41			
Sneed Fo	SULLIGIO					Speed Estimation						
Speed Es						D _s = 0.478 (Exhibit 25-19)						
Λ _s = (Ex	dibit 25-19)					S _R = 56.6 mph (Exhibit 25-19)						
Λ _s = (E×	ribit 25-19) n (Exhibit 2	5-19)				S _R =	56.6 n	nph (上>	chibit 25-1	9)		
$M_{\rm S} = (E \times B_{\rm R} = mph$		-							thibit 25-1 thibit 25-1			
$A_S = (E \times S_R = mph$ $S_0 = mph$	(Exhibit 2	5-19)				S ₀ =	76.8 n	nph (Ex		9)		

		RAMP	SAND	RAMI	P JUN(CTIONS	WO	RKS	HEET			····
General	Informati	ion				Site Inf	form	ation				
Analyst Agency or Co Date Perform Analysis Time Project Descr	ed e Period	CRH HW Lochi 7/28/2005 DHV		n Ramo	ut Ju Ar	Freeway/Dir of Travel I-75 Northbound Junction CR 41/Blanton Rd On-Ramp Jurisdiction Pasco County Analysis Year 2010						amp
Inputs	iption 1-101	Duc Gludy -	2010 ND C	лихапр	at CIX 41	(1-73 - 0 E	20162)					······································
mpuro		Terrain: Leve	e							Т		
Upstream Adj	,											n Adj Ramp
✓ Yes	□ On										Yes	
□ No	I Off									- 1	down ==	ft
L _{up} =	620 ft					,					JOWII.	
Vυ = .	460 veh/h	ξ	S _{FF} = 70.		show lane	s, L _A , L _D ,V	,	35.0 mp	h	<u> </u>	_ =	veh/h
Convers	ion to pc	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	ť	нv	f_p	1.	= V/PHF : _{tv} x f _p	(
Freeway	2910	0.94	Lev		14	1	0.9		0,95		3493	
Ramp	180	0.91	Leve		10	1	0.9		0.95		219	······································
UpStream	460	0.91	Levi	el	10	1	0.9	51	0.95		560	
DownStream		Merge Areas	:		<u> </u>		<u> </u>		Diverge	Δτρος		<u> </u>
Estimatio	on of V ₁₂	morgo / noue		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·····	Estima	tion	of v.		rucas		
		₁₂ = V _E (P _{EM}	·	***************************************						- /V - V	/D	
L _{EO} = 444.57	' (Equation 2	25-2 or 25-3)				$V_{12} = V_R + (V_F - V_R)P_{FD}$ $V_{EO} = (Equation 25-8 \text{ or } 25-9)$						
$P_{FM} = 0.591$ $V_{12} = 2066$		on (Exhibit 2	5-5)			P_{FD} = using Equation (Exhibit 25-11) V_{12} = pc/h						
Capacity				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Capacity Checks						
	Actua	el Max	imum	0.1	SF?			Actu		Maxim	num	LOS F?
٧	3712		hibit 25-7		lo	V _{F1} = \	√ _F	,,,,,,		(4)		
V _{FO}	2112	Dee Ex	HIDIL ZJ-1	1/		V ₁₂						······································
V _{R12}	2285	460	00:All	1	lo	$V_{FO} = V_{F}$ V_{R}						***************************************
						V_R						
	Service L				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Level						f not F)
	5.475 + 0.007	34 v _R + 0.007	′8 V ₁₂ - 0.(00627 L _A	i		D	$_{R} = 4.25$	52 + 0.00	86 V ₁₂ -	0.0009 L _D	ı
D _R = 2	20.1 (pc/mi/ln)		D _R =	(pc/mi/	ſIn)							
LOS= C	Exhibit 25-4		LOS =	(Exhib	it 25-4)							
Speed Es	stimation		Speed	Esti	mati	on						
M _S = 0.33	24 (Exibit 25-	19)				D _s = (Exhibit 25-19)						
· ·	9 mph (Exhibi	t 25-19)				S _R = mph (Exhibit 25-19)						
	7 mph (Exhibi	•				S ₀ = mph (Exhibit 25-19)						
	0 mph (Exhibi	•				S =	mph (I	Exhibit :	25-15)			
L. 5 5565 11-5					······································							

		RAMP	S AND	RAMI	P JUN	CTIONS	WORK	SHE	ET		······································
General	Informati				***************************************	formatio					
Analyst Agency or Co Date Perform Analysis Timo Proiect Descr	ned e Period	CRH HW Loch 7/28/2005 DHV D&E Study -		On Ramn	Ju Ju Ar	Freeway/Dir of Travel Junction Jurisdiction Analysis Year 41 (I-75 = 8 Lanes) I-75 Northbound CR 41/Blanton Rd On-Ramp Pasco County 2010					₹amp
Inputs	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	our olde,	20.0110	2111181111	or Ort 41	(1-13 - 0 22	anes)				······································
Upstream Ad		Terrain: Lev	el		***					Downstrea	ım Adj Ramp
√ Yes	Г On									☐ Yes	
□ No	IZ Off									F No =	□ Off
L _{up} =	620 ft		~							L _{down} =	112
***************************************	460 veh/h			Sketch (es, L _a , L _D ,V	S _{FR} = 35.0 _R ,V _I)	mph		V _D =	veh/h
Conversi	ion to pc/	h Under	Base	Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Ten	rain	%Truck	%Rv	f _{HV}		f _p	v = V/PHF f _{HV} x f _p	X
Freeway	2910	0.94	Lev	el	14	1	0.933		0.95	3493	
Ramp	180	0.91	Lev		10	1	0.951		0.95	219	
UpStream DownStream	460	0.91	Lev	el	10	1	0.951		0.95	560	
DOMINICALL	<u> </u>	Merge Areas			<u> </u>			Divo	rge Areas	<u> </u>	
Estimatio				***************************************		Fstima	tion of		19078003	······	
L _{EO} = (Equa P _{FM} = 0.350 V ₁₂ = 1222	V _{1:} ation 25-2 or 25 using Equation			illerkeide allerere menere erste desset		$V_{12} = V_R + (V_F - V_R)P_{FD}$ $L_{EQ} = \text{ (Equation 25-8 or 25-9)}$ $P_{FD} = \text{ using Equation (Exhibit 25-11)}$ $V_{12} = \text{ pc/h}$					
Capacity		***************************************			· · · · · · · · · · · · · · · · · · ·		ty Chec	·ks			
	Actual	Max	imum	10	SF?	Joapac.	- Commence	tual	May	imum	LOS F?
V _{FO}	3712		híbit 25-7	N		V _{F1} = V					2007;
V _{R12}	1441	460	00:All	N	0	V _{FO} = V _F V _R V _R	-				
Level of S	Service D	etermin	ation (i	f not i	5)	Level	of Servi	ce De	etermir	nation (i	f not F)
$D_R = 5$.475 + 0.00734	4 v _R + 0.007	'8 V ₁₂ - 0.()0627 L _A			D _R = 4	252 + (0.0086 V ₁₂	- 0.000 9 L	()
	3.5 (pc/mi/ln)			,		D _R =	(pc/mi/ln)		12		~
	(Exhibit 25-4)					1 ''	., (Exhibit 25-	4)			
Speed Es	stimation					Speed	Estima	tion			
M _S = 0.30)2 (Exibit 25-19	9)				D _s = (Exhibit 25-19)					
	mph (Exhibit :	•				S _R = mph (Exhibit 25-19)					
-	mph (Exhibit :					S ₀ = mph (Exhibit 25-19)					
	mph (Exhibit		***************************************			1 "	mph (Exhib	t 25-15)		

CICIICIIII	nformati			RAMP		Site Inf							
Analyst		EJB				eway/Dir c			I-75 Sout	bhound			
Agency or Cor	mpany	HW Loch	ner, Inc			nction	n Hall	त्र		noound anton Rd Off-F	Ramn		
Date Performe		7/28/200				risdiction			Pasco Co		чанир		
Analysis Tìme	Period					alysis Year			2030				
Project Descri	ption I-75 P	D&E Sludy -	2030 SB (Off Ramp at (CR 41 ((1-75 = 6 La	nes)			<u> </u>	······		
Inputs					•	}							
Jpstream Adj	·	Terrain: Lev	el							Downstro Ramp	eam Adj		
	□ On										[₹ On		
	Off									1	□ Off		
up =	ft			· · · · · · · · · · · · · · · · · · ·				····		Lqown =	700 ft		
/ _U =	veh/h		S _{FF} = 70.	•			FR =	V _D =	360 veh/h				
				Sketch (sho		s, L _A , L _D ,V _I	_ξ ,V _t)		D	oo ven/n			
Conversi	on to pc	h Under	Base (Conditio	ns		,						
(pc/h)	V (Veh/hr)	PHF	Terr	ain %	Truck	%Rv	1	н∨	fp	$v = V/PH$ $f_{HV} \times f_{p}$	łF x		
Freeway	2390	0.94	Leve	el 1	14	1	0.9	33	0.95	2869			
Ramp	140	0.89	Leve	el 1	10	1	0.9)51	0.95	174			
JpStream													
DownStream	360	0.89	Leve	el 1	10	1	0.9) 51	448				
	······································	Merge Areas	<u> </u>						Diverge Are	as			
Estimatio	n of V ₁₂					Estima	tion	of v ₁	2				
	V,	2 = V _F (P _{FM})		l			V ₁₅	= V _R + (V	- V _R)P _{FD}			
ro = (Equi	ation 25-2	or 25-3)				L _{EO} = (Eo	quati			. 10 10			
EO (-1-			١.			L_{EO} = (Equation 25-8 or 25-9) P_{ED} = 0.680 using Equation (Exhibit 25-11)							
	Equation	(Exhibit 25-5)		ı	H _{erv} = ().68	SU LI						
_{FM} = using	Equation	(Exhibit 25-5)		1			/h	4500.511 (2)	,			
_{FM} = using ₁₂ = pc/h		(Exhibit 25-5)			V ₁₂ = 200	7 рс			,			
f _{FM} = using / ₁₂ = pc/h Capacity	Checks			I I OCE			7 рс	heck	S		Loces		
r _{FM} = using r ₁₂ = pc/h) kimum	LOSF		V ₁₂ = 200 Capaci	7 рс ty С	heck Actua	s al M	aximum	LOS F?		
r _{FM} = using r ₁₂ = pc/h	Checks			LOSF		V ₁₂ = 200 Capaci V _{FI} = \	7 pc	Actua 2869	s al M	aximum 7200	No		
r _M ≖ using (₁₂ = pc/h Capacity	Checks			LOSF		V ₁₂ = 200 Capaci V _{F1} = \ V ₁₂	7 pc	heck Actua	s al M	aximum			
r _M ≖ using (₁₂ = pc/h Capacity	Checks			LOSF		V ₁₂ = 200 Capaci V _{FI} = \	7 pc	Actua 2869	s al M	aximum 7200	No		
t _{FM} = using t ₁₂ = pc/h Capacity V _{FO}	Checks			LOSF		V ₁₂ = 200 Capaci V _{F1} = V V ₁₂ = V	7 pc	Actua 2869 2007	s al M	aximum 7200 I400:All	No No		
V _{R12} using	Checks Actua	il Ma	kimum		?	V ₁₂ = 200 Capaci V _{FI} = \	7 pc	Actual 2869 2007 2695	S Al M	7200 1400:All 7200	No No No No		
V _{FO} v _{R12} vsing	Checks Actua	il Ma	kimum ation (i	f not F)	?	V ₁₂ = 200 Capaci V _{FI} = V V ₁₂ V _{FO} = V V _R Level o	f Se	Actual 2869 2007 2695 174	s al M	laximum 7200 1400:All 7200 2000 ination (a	No No No No if not F)		
V_{FO} V_{R12} V_{R12}	Checks Actual Ac	il Ma	kimum ation (i	f not F)	?	V ₁₂ = 200 Capaci V _{FI} = V V ₁₂ V _R V _R Level o	f Se	2869 2007 2695 174 ervice 4.252	s M	7200 1400:All 7200	No No No No if not F)		
V_{FO} = using V_{12} = pc/h V_{FO} V_{R12} V_{FO} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12}	Checks Actual Ac	Determin	kimum ation (i	f not F)	?	$V_{12} = 200$ Capaci $V_{FI} = V_{12}$ $V_{FO} = V_{R}$ V_{R} Level of	7 pc 7 pc	2869 2007 2695 174 ervice 4 .252 pc/mi/li	e Determ + 0.0086	laximum 7200 1400:All 7200 2000 ination (a	No No No No if not F)		
$V_{\rm FO}$ using V_{12} pc/h $V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm R2}$ $V_{\rm R3}$ $V_{\rm R4}$ $V_{\rm R4}$ $V_{\rm R5}$	Checks Actual Service D + 0.00734 c/mi/ln) xhibit 25-4	Determin	kimum ation (i	f not F)	?	$V_{12} = 200$ Capaci $V_{FI} = V_{12}$ $V_{FO} = V_{R}$ V_{R} Level of V_{R}	7 pc 7 pc 7 pc 7 pc 7 pc 7 pc 8 pc	2869 2007 2695 174 ervice 4.252 pc/mi/li	s M al M 2 e Determ + 0.0086	laximum 7200 1400:All 7200 2000 ination (a	No No No No if not F)		
V_{FO} = using V_{12} = pc/h V_{FO} V_{R12} V_{FO} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12} V_{R12}	Checks Actual Service D + 0.00734 c/mi/ln) xhibit 25-4	Determin	kimum ation (i	f not F)	?	$V_{12} = 200$ Capaci $V_{FI} = V_{12}$ $V_{FO} = V_{R}$ V_{R} Level of $V_{R} = V_{R}$ $V_$	7 pc 7 pc 7 pc 7 pc 7 pc 7 pc 8 pc	2869 2007 2695 174 ervice 4.252 pc/mi/li	s M al M 2 e Determ + 0.0086	laximum 7200 1400:All 7200 2000 ination (a	No No No No if not F)		
V_{FO} V_{FO} V_{R12} V_{FO} V_{R12} V_{R2} V_{R3} V_{R4}	Checks Actual Service D + 0.00734 c/mi/ln) xhibit 25-4	Determin	kimum ation (i	f not F)	?	V ₁₂ = 200 Capaci V _{FI} = \ V ₁₂ V _{FO} = \ V _R V _R Level of the content of the conten	7 pc 7 pc 7 pc 7 pc 7 pc 8 pc 9 pc 10	2869 2007 2695 174 ervice: 4.252 pc/mi/li	s M al M 2 e Determ + 0.0086	laximum 7200 1400:All 7200 2000 ination (a	No No No No if not F)		
V_{FO} V_{FO} V_{FO} V_{R12} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO} V_{FO}	Checks Actual Service D + 0.00734 c/mi/ln) xhibit 25-4 timation	Determin	kimum ation (i	f not F)	? *A	V ₁₂ = 200 Capaci V _{FI} = \(\text{V}_{12} \) V _{FO} = \(\text{V}_{R} \) Level o D _R = \(2 \) LOS = \((\text{Speed} \)	7 pc 7 pc 7 pc 7 pc 7 pc 7 pc 8 pc 8 pc 9 pc 10 p	2869 2007 2695 174 ervice 4.252 pc/mi/li chibit 29 imatic (Exhib	e Determ + 0.0086	aximum 7200 1400:All 7200 2000 iination (I	No No No No if not F)		
V _{FO} Level of S D _R = 5.475 R = (pc OS = (E: Speed Est R = mph	Checks Actual Ac	Determin V R + 0.00	kimum ation (i	f not F)	?	V ₁₂ = 200 Capaci V _{FI} = \ V ₁₂ V _{FO} = \ V _R V _R Level of the contro	7 pc 7 pc 7 pc 7 pc 7 pc 8 pc 8 pc 8 pc 9 pc 10 p	Actual 2869 2007 2695 174 ervice 4.252 pc/mi/lishibit 25 imatic (Exhibit ph (E	s M al M c Determ + 0.0086 n) 5-4) on it 25-19)	aximum 7200 1400:All 7200 2000 iination (AV) 12 - 0.000	No No No No if not F)		

I and East and a second		OAND	RAMP JU			***************************************		<u> </u>		***************************************
Informati						nation				***************************************
				•	Dir of Tra	vel				
				Junction			CR	41/Blant	lon Rd Off-F	Ramp
	7/28/2005	5		Jurisdictio	ስ		Pas	со Соил	ity	
	DHV						201	0		
iption I-75 P	D&E Study -	2010 SB O	off Ramp at Cf	R 41 (I-75 =	8 Lanes)	····				
Ramp	Terrain: Lev	el							Downstre Ramp	eam Adj
「On									1	[On
									1	□ Off
ft									L _{down} =	700 ft
	9	S _{FF} = 70.0	0 mph		S _{FR} =	35.0 m	ph		L	
veh/h		ç	Sketch (show	lanes, L ₄ , L	$(V_{\rm p},V_{\rm p})$				V _D =	360 veh/
on to pc	/h Under				D 1(F				1	
	07.00.	1	20/10/10/1	1					v = V/PH	Fy
(Veh/hr)	PHF	Terra				f _{HV}			f _{HV} x f _p	
2390	0.94	Leve	14	1	0.	933	0,	95	2869	
140	0.89	Leve	el 10	1	0.	951	0.	95	174	
									<u> </u>	
360	0.89	Leve	el 10	1	0.	951	0.	95	448	
	Merge Areas	3						e Areas		
on of V ₁₂				Estil	natio	of v	12			
	=V /P)						+ (\/	- V \P	
		,					· ·		R/ FD	
				. h _						
				ļ						
Equation)		ļ					bit 25-11)	
)		P _{FD} =		using E			bit 25-11)	
Equation)		P _{FD} = V ₁₂ =	0.436 i 1349 pa	using E	quatio		bit 25-11)	
Equation	(Exhibit 25-5	ximum	LOS F?	P _{FD} = V ₁₂ =	0.436 i 1349 pa	using E	quatio s	n (Exhil	oit 25-11)	LOS F?
Equation Checks	(Exhibit 25-5		LOS F?	P _{FD} = V ₁₂ = Cap	0.436 t 1349 pc acity (using E- c/h Check Actu	quatio	n (Exhil	kimum	
Equation Checks	(Exhibit 25-5		LOS F?	P _{FD} = V ₁₂ = Cap	0.436 t 1349 po a <i>city</i> (= V _F	using Eduction Check Actu 2869	quatio s al	n (Exhil Max	timum 600	No
Equation Checks	(Exhibit 25-5		LOS F?	P _{FD} = V ₁₂ = Cap	0.436 t 1349 pc acity 0 = V _F	using E- c/h Check Actu	quatio s al	n (Exhil Max	kimum	
Equation Checks	(Exhibit 25-5		LOS F?	P _{FD} = V ₁₂ = Cap	0.436 t 1349 pc acity (= V _F / ₁₂ = V _F -	using Eduction Check Actu 2869	s al	Max 9-	timum 600	No
Equation Checks	(Exhibit 25-5		LOS F?	P _{FD} = V ₁₂ = Cap : V _F V _{FO}	0.436 t 1349 po acity (= V _F / ₁₂ = V _F -	2695	s al	Max 99 440	kimum 600 00:All	No No No
Checks Actua	(Exhibit 25-5	ximum		P _{FD} = V ₁₂ = Cap	0.436 t 1349 pc 1349 p	2695	quations.	Max 99 440	kimum 600 00:All 600	No No No No
Checks Actual	(Exhibit 25-5	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R V _R	2695 174	s al l	Max 99 440 96 20 Fermin	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Checks Actual Service L 5 + 0.00734	(Exhibit 25-5	ximum ation (i		P _{FD} = V ₁₂ = Cap	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R V _R D _R	2695 174 ervice	s al control of the c	Max 99 440 96 20 Fermin	kimum 600 00:All 600	No No No No f not F)
Checks Actual Service L 5 + 0.00734 ac/mi/ln)	Exhibit 25-5 Al Max Determin V R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R V _R D _R	2695 174	s al control of the c	Max 99 440 96 20 Fermin	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Checks Actual Service L 5 + 0.00734	Exhibit 25-5 Al Max Determin V R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R V _R D _R 14.7	2695 174 ervice	e Det	Max 99 440 96 20 Fermin	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Checks Actual Service L 5 + 0.00734 ac/mi/ln)	(Exhibit 25-5 Al Mar Determin 4 v R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R V _R D _R 14.7 B (E	2695 174 (pc/mi/l	e Det (2 + 0.0 (n))	Max 99 440 96 20 Fermin	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Service Loc/mi/ln) Exhibit 25-4	(Exhibit 25-5 Al Mar Determin 4 v R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap V _{FO} V _{FO} Leve D _R = LOS = Spe	0.436 to 1349 point of 1349 po	2869 2695 174 ervice = 4,252 (pc/mi/l xhibit 2	e Det 2 + 0.0	Max 96 440 96 20 ermir 986 V	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Service L 5 + 0.00734 oc/mi/ln) Exhibit 25-4 stimation ibit 25-19)	(Exhibit 25-5 Al Man Determin 1 v _R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap V _{FO} V _{FO} V _{FO} D _R = LOS = Spe D _S =	0.436 to 1349 po acity (= V _F /12 = V _F - V _R V _R 14.7 B (E ad Est 0.444	2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695	e Det 2 + 0.0 (in) 5-4)	Max 96 440 96 20 ermin 0086 V	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Service I 5 + 0.00734 oc/mi/ln) Exhibit 25-4 stimation ibit 25-19)	Determin V R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap. V _{FO} V _{FO} D _R = LOS = Spe. D _S = S _R = S _R =	0.436 t 1349 po acity (= V _F / ₁₂ = V _F - V _R D _R 14.7 B (E ed Est 0.444 57.6	2869 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695	e Det 2 + 0.0 (n) 5-4) on	Max 96 440 96 20 ermin 19) 25-19)	cimum 600 00:All 600 000 nation (i	No No No No f not F)
Service L 5 + 0.00734 oc/mi/ln) Exhibit 25-4 stimation ibit 25-19)	Determin 4 v _R + 0.00	ximum ation (i	f not F)	P _{FD} = V ₁₂ = Cap V _{FO} V _{FO} V _{FO} D _R = LOS = Spe D _S =	0.436 to 1349 po acity (= V _F / 12 = V _F - V _R V _R 14.7 B (E ed Est	2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695 174 2695	e Det 2 + 0.0 (in) 5-4) on hit 25- chibit 3	Max 96 20 2ermir 0086 V	cimum 600 00:All 600 000 nation (i	No No No No f not F)
	Ramp Con Off ft veh/h on to pc (Veh/hr) 2390 140 360 on of v ₁₂ V	ed 7/28/2005 Period DHV Period DHV plion I-75 PD&E Study - Ramp Terrain: Lev Con Off ft Such/h Veh/h (Veh/hr) PHF 2390 0.94 140 0.89 Merge Areas On Of V ₁₂ V ₁₂ = V _F (P _{FM}	mpany HW Lochner, Inc. ed 7/28/2005 Period DHV iption I-75 PD&E Study - 2010 SB C Ramp Terrain: Level □ On □ Off ft veh/h veh/h con to pc/h Under Base C (Veh/hr) PHF Terra 2390 0.94 Level 140 0.89 Level Merge Areas on of V ₁₂ V ₁₂ = V _F (P _{FM})	mpany HW Lochner, Inc. ed 7/28/2005 Period DHV iption I-75 PD&E Study - 2010 SB Off Ramp at CF Ramp Terrain: Level Con September 100 For to pc/h Under Base Condition V (Veh/hr) PHF Terrain %Tr 2390 0.94 Level 14 140 0.89 Level 10 Merge Areas On of V_{12} $V_{12} = V_F (P_{FM})$	mpany HW Lochner, Inc. ed 7/28/2005 Jurisdictio Period DHV Analysis Y iption I-75 PD&E Study - 2010 SB Off Ramp at CR 41 (I-75 = i) Ramp Terrain: Level F On F Off ft $S_{FF} = 70.0 \text{ mph}$ Sketch (show lanes, L _A , L fon to pc/h Under Base Conditions V (Veh/hr) PHF Terrain %Truck %Rv 2390 0.94 Level 14 1 140 0.89 Level 10 1 Merge Areas On of V_{12} $V_{12} = V_F (P_{FM})$ Estir	mpany HW Lochner, Inc. Junction ed 7/28/2005 Jurisdiction Period DHV Analysis Year iption 1-75 PD&E Study - 2010 SB Off Ramp at CR 41 (I-75 = 8 Lanes) Ramp Terrain: Level F On F Off ft $S_{FF} = 70.0 \text{ mph}$ $S_{FR} = 70.0 \text{ mph}$ Sketch (show lanes, L_A , L_D , V_R , V_I) Fon to pc/h Under Base Conditions V (Veh/hr) PHF Terrain %Truck %Rv 2390 0.94 Level 14 1 0. 140 0.89 Level 10 1 0. Merge Areas On of V_{12} $V_{12} = V_F (P_{FM})$	Impany HW Lochner, Inc. Junction ed $7/28/2005$ Jurisdiction Period DHV Analysis Year iption I-75 PD&E Study - 2010 SB Off Ramp at CR 41 (I-75 = 8 Lanes) Ramp Terrain: Level FOO Ferrain: Level Sept = 70.0 mph Sept = 35.0 m Sketch (show lanes, La, LD, VR, Vt) Son to pc/h Under Base Conditions V(Veh/hr) PHF Terrain %Truck %Rv fHV 2390 0.94 Level 14 1 0.933 140 0.89 Level 10 1 0.951 Merge Areas Merge Areas Estimation of V On of V_{12} V12 Estimation of V	Impany HW Lochner, Inc. Junction CR ed $7/28/2005$ Jurisdiction Pas Period DHV Analysis Year 201 iption I-75 PD&E Study - 2010 SB Off Ramp at CR 41 (I-75 = 8 Lanes) Ramp Terrain: Level FOO S _{FR} = 70.0 mph S _{FR} = 35.0 mph Veh/h Sketch (show lanes, L _A , L _D , V _R , V _t) FOO to pc/h Under Base Conditions V(Veh/hr) PHF Terrain %Truck %Rv f _{HV} 2390 0.94 Level 14 1 0.933 0.9 140 0.89 Level 10 1 0.951 0.9 360 0.89 Level 10 1 0.951 0.9 Merge Areas Diverg Estimation of v_{12} $v_{12} = v_F (P_{FM})$	Impany HW Lochner, Inc. Junction CR 41/Blant ed 7/28/2005 Jurisdiction Pasco Cour Period DHV Analysis Year 2010 iption I-75 PD&E Study - 2010 SB Off Ramp at CR 41 (I-75 = 8 Lanes) Ramp Terrain: Level Terrain: Level FON S _{FF} = 70.0 mph S _{FR} = 35.0 mph Sketch (show lanes, L _A , L _D , V _R , V _I) Sketch (show lanes, L _A , L _D , V _R , V _I) FON TO pc/h Under Base Conditions V(Veh/hr) PHF Terrain %Truck %Rv f _{HV} f _P 2390 0.94 Level 14 1 0.933 0.95 140 0.89 Level 10 1 0.951 0.95 360 0.89 Level 10 1 0.951 0.95 Merge Areas Diverge Areas Diverge Areas On of V_{12} $V_{12} = V_F (P_{FM})$ $V_{12} = V_R + (V_F (P_{FM})$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

RAMPS AND RAMP JUNCTIONS WORKSHEET General Information Site Information						
Analyst CRH Freeway/Dir of Travel I-75 Southbound Agency or Company HW Lochner, Inc. Junction CR 41/Blanton Rd On-I Date Performed 7/28/2005 Jurisdiction Pasco County Analysis Time Period DHV Analysis Year 2010	Ramp					
Project Description I-75 PD&E Study - 2010 SB On Ramp at CR 41 (I-75 = 6 Lanes)						
Inputs						
Terrain: Level	am Adj Ramp					
F Yes □ Con □ Yes	□ On					
I NO 17 Off	L Ott					
$L_{\rm up} = 700 \text{ ft}$	ft					
$V_u = 140 \text{ veh/h}$ $S_{FF} = 70.0 \text{ mph}$ $S_{FR} = 35.0 \text{ mph}$ $V_D = Sketch (show lanes, L_A, L_D, V_R, V_I)$	veh/h					
Conversion to pc/h Under Base Conditions						
(pc/h) V PHF Terrain %Truck %Rv f_{HV} f_{P} $f_{HV} \times f_{D}$	X					
Freeway 2250 0.94 Level 14 1 0.933 0.95 2701						
Ramp 360 0.89 Level 10 1 0.951 0.95 448						
UpStream 140 0.89 Level 10 1 0.951 0.95 174						
DownStream						
Merge Areas Diverge Areas						
Estimation of v ₁₂ Estimation of v ₁₂						
$V_{12} = V_F (P_{FM})$ $V_{12} = V_R + (V_F - V_R)P_{FD}$ $L_{EQ} = 457.29$ (Equation 25-2 or 25-3) $L_{EO} = $ (Equation 25-8 or 25-9) $P_{FM} = 0.600$ using Equation (Exhibit 25-11)						
$V_{12} = 1620 \text{ pc/h}$ $V_{12} = \text{pc/h}$						
Capacity Checks Capacity Checks						
Actual Maximum LOS F? Actual Maximum	LOS F?					
V_{FO} 3149 See Exhibit 25-7 No $\frac{V_{FI} = V_{F}}{V_{12}}$						
V_{R12} 2068 4600:All No V_{R} V_{R}						
Level of Service Determination (if not F) Level of Service Determination (if	if not F)					
$D_R = 5.475 + 0.00734 \text{ v}_R + 0.0078 \text{ V}_{12} - 0.00627 \text{ L}_A$ $D_R = 4.252 + 0.0086 \text{ V}_{12} - 0.0009 \text{ L}_A$	······································					
$D_R = 16.4 \text{ (pc/mi/ln)}$ $D_R = \text{ (pc/mi/ln)}$	o .					
LOS = B (Exhibit 25-4) LOS = (Exhibit 25-4)						
Speed Estimation Speed Estimation	Speed Estimation					
$M_S = 0.296 \text{ (Exibit 25-19)}$ $D_S = \text{ (Exhibit 25-19)}$						
$S_R^{=} = 61.7 \text{ mph (Exhibit 25-19)}$ $S_R^{=} = \text{mph (Exhibit 25-19)}$ $S_0^{=} = 67.9 \text{ mph (Exhibit 25-19)}$	S ₀ = mph (Exhibit 25-19)					
S = 63.7 mph (Exhibit 25-14) $S = mph (Exhibit 25-15)$						

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 11:19 AM

		RAMP	S AND	RAM	P JUN	CTIONS	s wc	RKSI	HEET		······································		
General	Informati					Site In:			1 100 100 1				
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	CRH HW Loch 7/28/2005 DHV D&E Study -	Š	On Ramp	JL JL Ar	eeway/Dir on inction insdiction nalysis Year	of Trav	***************************************	CR 41	outhbound Blanton I County	d Rd On-Ra	ımp	
Inputs				······································									
Upstream Ad		Terrain: Lev	el							Do	wnstream	Adj Ramp	
√ Yes	□ On									l	Yes		
Γ No	I≅ Off									- 1	No wn =	l Off ft	
Lup =	700 fi												
Vu =	140 veh/h	3	S _{FF} = 70		show lane	s, L _A , L _D ,V	111	35.0 mpl	ì	Vo		veh/h	
Convers	ion to pc/	h Under	Base	Condi	tions				***************************************				
(pc/h)	V (Veh/hr)	PHF	Terr	rain	%Truck	%Rv		ΗV	fp	I.	: V/PHF x , x f _p		
Freeway	2250	0.94	Lev		14	1		33	0.95		2701		
Ramp UpStream	360 140	0.89 0.89	Lev Lev		10 10	1		951	0.95		448 174		
DownStream		0.05	FCA	CI	10		1 0.3	951	0.95		1/4		
		Merge Areas					- I		Diverge A	reas			
Estimation	on of v ₁₂					Estima	ition	of v ₁	2				
	ation 25-2 or 25 using Equation					L _{EO} = (Eo P _{FD} = us V ₁₂ = pc/	ing Eq	1 25-8 or	•		P _{FD}		
Capacity	Checks					Capaci	ity C	hecks	;				
	Actual	Max	imum	LO	SF?			Actua		Maximu	m	LOS F?	
V_{FO}	3149	See Ex	nibit 25-7	И	0	V _{FI} = V	F						
V _{R12}	1573	460	O:All	N	0	$V_{FO} = V_{F}$ V_{R}	-						
Level of	Service D	etermin	ation (i	f not i	F)	Level	of Se	rvice	Deter	minat	ion (if	not F)	
	.475 + 0.0073				·····			_R = 4.25;		*			
D _R = 1	2.5 (pc/mi/ln)					D _R =	(pc/mi/			12	b		
LOS = B	(Exhibit 25-4)						••	it 25-4)					
Speed Es	stimation	······································		····		Speed	Esti	matio	n				
$M_{\rm S} = 0.28$	34 (Exibit 25-19				it 25-19)	····							
•	mph (Exhibit			mph (E	Exhibit 25	i-19)							
	mph (Exhibit			mph (E	Exhibit 25	5-19)							
S = 65.3	3 mph (Exhibit	25-14)				S = mph (Exhibit 25-15)							

			O AND	MAM		CTIONS				1		<u> </u>
	Informati	ion				Site In:	form	nation				***************************************
Analysi		CRH			Fre	eeway/Dir o	of Trav	/el	1-75	Northb	ound	
Agency or Co		HW Loch	ner, Inc.		Ju	nction			SR	50/Corl	lez Blvd. Off-F	₹amp
Date Perform	ed	10/26/06			Ju	risdiction			Hei	nando (County	
Analysis Time	e Period	DHV			An	alysis Yea	r		201	0		
Project Descr	iption I-75 F	D&E Study -	2010 NB C	Off Ramp								
Inputs						*						
Upstream Adj	Ramp	Terrain: Levi	el								Downstre	am Adj
	□ On										Ramp F Yes	☑ On
I No	C Off										□ No	
L _{up} =	ft		S _{FF} = 70.	∩ mch			: =	35.0 m	nh		L _{down} =	2360 ft
V ₁₁ =	veh/h	•	• •		. 1			55.0 11	ıpıı		V _D =	660 veh/l
		<u> </u>				s, L _A , L _D ,V	(R, N_f)					***
Convers	ion to pc	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Теп	ain	%Truck	%Rv		f _{HV}		f_p	$V = V/PH$ $f_{HV} \times f_{p}$	Fx
Freeway	3090	0.93	Leve	el	14	2	0.9	931	0	.95	3756	"
Ramp	850	0.95	Leve		19	2		910		.95	1035	***************************************
UpStream		V.00		~! 			···	010			+ 1000	
DownStream	660	0.95	Leve	n)	19	2	0.0	910	0	.95	804	····
DOMISCICALI	000	Merge Areas	<u> </u>	31	13		0.:	310	<u> </u>			***************************************
Entimatio	on of V ₁₂)							ge Area	3	***************************************
Lauman	12		***************************************			Estima	iliOi:	I OI V	12			
	V	$_{12} = V_F (P_{FM})$)					٧,	2 = V	2 + (N	- V _R)P _{FD}	
- _{FO} = (Equ	ation 25-2	ог 25-3)				L _{EQ} = (E	auati	ion 25-	- 8 or 2	25-9)		
		(Exhibit 25-5	3			l ""					JEROE 44V	
		(EXHIDIT 20-0	7			l ' -			quan	ווע באו	nibit 25-11)	
√ ₁₂ = pc/h						$V_{12} = 225$	59 pc	:/h				
Capacity	Checks					Capac	ity C	Check	S			
	Actu	al Ma:	kimum	LC)S F?			Actu	al	Ma	eximum	LOS F?
						V _{F!} =	٧ _٤	375	3		7200	No
V_{FO}						V ₁₂		225		4.	400:All	No
				<u> </u>				220	<u></u>		100,7 41	110
V _{R12}						$V_{FO} = V_{R}$	- 1	272	1	7	'200	No
						V _p	***************************************	103	5		3800	No
evel of	 Service I	<u>l</u> Determin	ation (i	if not	<i>F</i>)						ination (i	
		4 v _R + 0.00					***********			***************************************	/ ₁₂ - 0.0009	***************************************
		1 + R - 0.00	12	0.0002	-' -A		- 13			0000	12 0.000	, <u>-</u> D
$D_{R} = (p$	oc/mi/ln)					D _R =	5.7 (p	oc/mi/li	٦)			
.OS = (E	Exhibit 25-4	1)				LOS =	A (Ex	xhibit 2	5-4)			
Speed Es	stimation		Speed Estimation									
	(ibit 25-19)		***************************************	***************************************	***************************************	D _s = 0.521 (Exhibit 25-19)						
-	n (Exhibit 2	5-191				S _R = 55.4 mph (Exhibit 25-19)						
	-	·				S ₀ =						
	n (Exhibit 2		1 7									
6 = mpt	(Exhibit 2	5-14)				S = 61.8 mph (Exhibit 25-15)						
t © 2005 Unive	ersity of Florida	a, All Rights Re	served			HCS+ TM Version 5.2 Generated 11/9/20						

Copyright @ 2005 University of Florida, All Rights Reserved

Generated 11/9/2006 9:04 AM

RAMPS AND RAMP JUNCTIONS WORKSHEET														
General	Informati		IVII O	TIND	1 (VIAII	20140	Site In:				<u> </u>			
Analyst		CRH				Fr	eeway/Dir		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~	5 Northbo	und		
Agency or Co	mpany		Lochner,	Inc			nction	J: 1161	701			z Blvd. Off-f	Ramn	
Date Perform		10/26		, ATQ.			risdiction				rnando C		чатр	
Analysis Time							alysis Yea	r		20				
Project Descr				0 NB C	ff Ramp								***************************************	
Inputs														
Upstream Ad	j Ramp	Terrain:	Level				······································					Downstre Ramp	am Ad	j
☐ Yes	□ On											ア Yes	F C	יח
I No	□ Off											ΓNο	Гс	rff
L _տ =	ft		≈ 70.	n meh		0	· _	25 /\ r	nh		L _{down} =	2360	ft	
V _u =	veh/h						35.0 m	ihu		V _D =	660	zeh/h		
		<u> </u>			***************************************		s, L _A , L _D , V	R'V()				<u> </u>		
Convers	1	/h Und	der B	ase (Condi	tions	·····					1 1/011	<u></u>	
(pc/h)	V (Veh/hr)	PHF		Terra	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PH f _{HV} x f _p	- х	
Freeway	3090	0.93		Leve	:	14	2	0.9	931	().95	3756		
Ramp	850	0.95		Leve		19	2	0.9	910	().95	1035		
UpStream														
DownStream	660	0.95		Leve	,	19	2 0.910 0.95				804			
		Merge A	∖reas				Diverge Areas							
Estimati	on of v ₁₂						Estimation of v ₁₂							
	٧	₁₂ = V _F (P ₅₄)			· · · · · · · · · · · · · · · · · · ·			V,	, = V	- + (V _E	- V _R)P _{FD}	*********	
L _{EO} = (Equ			, ,,,,				L _{EO} = (E	ouat				1() ()		
P _{FM} = using							$P_{ED} = 0.2$					nit 25,11\		
$V_{12} = pc/h$		(Emmon	20 0,				V ₁₂ = 174			quu	מוו נבאוונ	JR 20 11;		
							<u> </u>						···········	
Capacity		_1	h (marine		i . ^	Λ ΓΩ	Capac	ILY C					100	r->
	Actua	1 1	Maxim	UITI	LO	SF?	 		Actu			imum	LOS	
V_{FO}							V _{FI} =		3756			500	No	
, -						***************************************	V ₁₂		174	2	44(1LA:00	No	
V _{R12}							$V_{FO} = V_{R}$	-	272	1	96	600	No	
							V _R		103	5	38	00	No	
Level of	Service L)etern	ninati	ion (i	f not i	F)	Level	of S	ervic	e De	termir	nation (i	f not	F)
$D_{R} = 5.47$	5 + 0.00734	4 v R +	0.0078	V ₁₂ -	0.0062	17 L _A		D _R	= 4.25	2 + 0.	.0086 V	12 - 0.0009	L _D	
$D_R = (I$	oc/mi/ln)						D _R =	1.2 (oc/mi/lr	า)				
LOS = (I	Exhibit 25-4)					LOS =	A (E:	xhibit 2	(5-4)				
Speed Es	stimation						Speed	Est	imati	on				
M _s = (Ε)	(ibit 25-19)	***************************************		***************************************			D _s =	0.521	(Exhil	oit 25	-19)		***********	
· ·		S _R =		•		25-19)								
	n (Exhibit 25 n (Exhibit 25	·					S ₀ =							
,	i (Exhibit 2: i (Exhibit 2:	•					1 " · · · · · · · · · · · · · · · · · ·							
	ersity of Florida		In Page	ucici			S = 65.1 mph (Exhibit 25-15) HCS-TM Vertico 5.2 Generated: 11/9/2006						3/200c	

Copyrigh

9:04 AM

		RAMP	S AND	RAMF	JUN	CTIONS	W	DRKSI	HEET					
General	Informati	on			***************************************	Site Inf	orn	nation			***************************************			
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	CRH HW Loch 10/26/06 DHV		Ya Pama	Ju Ju Ar	eeway/Dir onction Inction Insdiction Inalysis Year		vel		hbound ortez Blvd. On-l o County	Ramp			
Inputs	npuon eraet	DAE SIDUY -	ZUTUTNO C	лі катр і	at 5R 30	(1-75 = 6 La	ines)							
iiiputs	f	Terrain: Lev	el											
Upstream Ad		70170111, 201	C)							Downstread	m Adj Ramp			
✓ Yes	厂 On									□ Yes	□ On			
ſ No	다 Off									FNo				
_up =	2360 ft					L _{down} =	ft							
•	850 veh/h		S _{FF} = 70.		how lane	s, L _A , L _D ,V		35.0 mp	ħ	V _o =	veh/h			
Convers	ion to pc/	h Under	Base (Condit	ions									
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		I _{HV}	f_p	v = V/PHF f _{HV} x f _p	X			
Freeway	2240	0.94	Leve	el	14	2	0.	931	0.95	2694				
Ramp	660	0.95	Leve		19	2		910	0.95	804				
UpStream DownStream	850	0.95	Leve	el	19	2	0.	910	0.95	1035	·			
DOWNSKEAN		Merge Areas	<u> </u>	l	····		<u> </u>		Diverge Ar	eas				
Estimati	on of v ₁₂			· · · · · · · · · · · · · · · · · · ·		Estima	tior							
<u> </u>		2 = V _F (P _{FM})					<u>'</u>	<u>z</u> ₁₂ = V _R + (\	/ _F - V _R)P _{FD}				
- _{EQ} = 452.05	5 (Equation 25	5-2 or 25-3)				L _{EQ} = (Equation 25-8 or 25-9)								
_{FM} = 0.595	using Equation	n (Exhibit 2	5-5)			P _{FD} = using Equation (Exhibit 25-11)								
/ ₁₂ = 1603	pc/h					$V_{12} = pc/$	h							
Capacity	Checks					Capaci		Check	S					
	Actual	Max	dmum	LOS	F?			Actua	·	Maximum	LOS F?			
V _{FO}	3498	See Ex	hibit 25-7	, No)	V _{F1} = \	F							
						V ₁₂								
V	2407	AG	DO:All	kt.		$V_{FO} = V_{FO}$	•			el-career				
V _{R12}	2401	400	JU.AII	No)	V _R								
evel of	 Service D	etermin	ation (i	f not F	=1	Level of Service Determination (if not F)								
***************************************	5.475 + 0.0073							~~~~~~		V ₁₂ - 0.0009 L ₁	·			
	0.0 (pc/mi/ln)	K	12	Α		D _R =	- (pc/m			. 12	J			
	 3 (Exhibit 25-4)				I		bit 25-4)							
	stimation					Speed			n .					
	21 (Exibit 25-19	91				 	······································	bit 25-19)			,,,,,			
	2 r (Exibit 25-1. 0 mph (Exhibit	•				} _		Exhibit 2						
	9 mph (Exhibit	•				ì		Exhibit 2						
	D mph (Exhibit	,				S = mph (Exhibit 25-15)								
***************************************	ersity of Florida,	*	served		···········	1		Version 5		General	ed: 11/8/2006			

		RAMP	S AND	RAME	JUN(CTIONS	WC	RKS	HEE	T			
General	Informati	on				Site Inf	form	ation					
Analyst Agency or Co Date Perform Analysis Time Project Descr	ed e Period	CRH HW Loch 10/26/06 DHV		n Domo	Ju Ju Ar	eeway/Dir onction risdiction lalysis Year	г	el	SR	nando C	ez Blvd. On-l	Ramp	
Inputs	ipuon 1270 r	Dac Study -	ZUIUIVD C	лі қапр	at on ou	(1-73 - 0 La	anesj	···					
mpats		Terrain: Lev	el	***************************************	···-··································						T		
Upstream Adj	Ramp		-									m Adj Ramp	
▼ Yes	F On										F No		
□ No	L Oll										L _{down} =	ft	
r ^{nb} =	2360 ft												
Vu =	850 veh/h	1	S _{FF} = 70.		show lane	s, L _a , L _n ,V		35.0 mj	rlc		V _D =	veh/h	
Convers	ion to pc.	h Under	Base (Condi	tions		· · · ·						
(pc/h)	V (Veh/hr)	PHF	Terr		%Truck	%Rv		f _{HV}		f _p	v = V/PHF f _{HV} x f _p	X	
Freeway	2240	0.94	Lev	el	14	2	0.9	931	0	.95	2694		
Ramp	660	0.95	Levi	el	19	2		910		.95	804		
UpStream	850	0.95	Lev	el	19	2	0.9	910	0	.95	1035		
DownStream		Merge Areas	<u> </u>		<u> </u>		<u> </u>		Diver	ge Areas	<u>. I</u>		
Estimatio	on of V.a	weige rica.	,			Estimation of v ₁₂							
	······································	- V / D				$V_{12} = V_R + (V_F - V_R)P_{FD}$							
L _{EO} = (Equa P _{FM} = 0.315 V ₁₂ = 848 p	ation 25-2 or 2 using Equatio					L _{EQ} = (Ed P _{FD} = us V ₁₂ = pc	sing Ed	n 25-8 d	r 25-9		*R/FD		
Capacity	Checks					Capac	ity C	heck	S				
	Actua	ıl Max	imum	LO	SF?			Actu	al	Мах	ximum	LOS F?	
V _{FO}	3498	See Ex	hibit 25-7	N	0	V _{FI} = \	√ _F						
V _{R12}	1652	46	DO:AII	N	lo	$V_{FO} = V_{F}$ V_{R} V_{R}	F ⁻	274					
Level of	Service L	Determin	ation (i	f not	F)	Level	of S	ervic	e De	termi	nation (i	f not F)	
	5.475 + 0.0073						·····				₂ - 0.0009 L		
	4.1 (pc/mi/ln)	10	12			D _R =	(pc/m	i/ln)		,	L	••	
,,	3 (Exhibit 25-4)				1 ''	**	oit 25-4)					
Speed Es		·				Speed	<u> </u>	······································					
·····						 		oit 25-19	***************************************			***************************************	
u	98 (Exibit 25- 7 mph (Exhibi	•				l .	•	Exhibit	•				
						l .		Exhibit					
ų.	5 mph (Exhibi 1 mph (Exhibi	•				1		Exhibit					
ht © 2005 Unive			connd	***************************************		1	·····	Voccion			Ganara	ed: 11/8/2006	

		RAMI	PS AND	RAM	P JUNCTIONS WORKSHEET								
General	Informat	ion			· · · · · · · · · · · · · · · · · · ·	Site In:	forn	natio	7				
Analyst		CRH		***************************************	Fr	eeway/Dir e	of Tra	vel	1-7	5 Southb	ound		
Agency or Co	ompany	HW Loc	hner, Inc.		Ju	nction			SF	R 50/Corte	z Blvd. Off-f	Ramp	
Date Perform	ned	10/26/06	6		Ju	risdiction				ernando C		·	
Analysis Tim		DHV				alysis Yea			20	10			
Project Desci	ription 1-75 F	PD&E Study	- 2010 SB (Off Ramp	at SR 50	(I-75 = 6 La	anes)						
Inputs										•			
Upstream Ad	j Ramp	Terrain: Le	vel								Downstre Ramp	am Adj	
	ſ On										₽ Yes	₽ On	
I∿ No	☐ Off										ΓNο	□ Off	
L _{up} =	ft		S _{FF} = 70.	n anh	······································		· –	35.0 m			L _{down} =	2360 ft	
V,, =	veh/h				-h1			JJ.U II	thi:		V _D =	670 veh/h	
	* »	<u> </u>				s, L _A , L _D ,V	۲, _۸ ۱)			······		······································	
Convers	1	/h Unde	r Base (Condi	tions				,				
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		f_p	v = V/PH f _{HV} x f _p	FX	
Freeway	2240	0.93	Leve	el	14	2	0.	931	0	.95	2723		
Ramp	520	0.89	Leve	el	19	2	0.	910		.95	676		
UpStream				***************************************			1						
DownStream	670	0.89	Leve	3	19	2	0.	910	(.95	871		
		Merge Area	S			Diverge Areas						***************************************	
Estimatio	on of v ₁₂					Estima	tior	of v	12				
	٧	12 = V _E (P _{EN}	.)			$V_{12} = V_R + (V_F - V_R)P_{FD}$							
L _{EO} = (Equ	ation 25-2		· '			I - /E	auat				'R' FD		
	Equation	•	e.			L _{EQ} = (E					1. mr. 4.41		
		(EXHIBIT 23-	ارد			$P_{FD} = 0.60$			quati	on (Exnit	nt 25-11)		
$V_{12} = pc/h$						V ₁₂ = 202							
Capacity	CANCEL CONTRACTOR OF THE PARTY			Yanania amamana		Capaci	ity (Check	S				
	Actua	al Ma	iximum	LO	SF?			Actu	al	Max	imum	LOS F?	
W						V _{FI} = \	√ _F	2723	3	72	200	No	
V _{FO}						V ₁₂		2029	9	440	i0:All	No	
V _{R12}						$V_{FO} = V_{R}$	/ _F -	2047	7	72	00	No	
						V _R		676		20	00	No	
Level of 3	Service E	etermin	ation (i	f not l	F)	Level c	of S	ervice	e De	termin	ation (if	not F)	
D _R = 5.478							~~~~~~~				₂ - 0.0009		
	ic/mi/ln)				(pc/mi/		1	2	U				
LOS = (E	xhibit 25-4		LOS =	C (E	xhibit 2	5-4)							
Speed Es	timation		Speed	Est	imati	on							
M _s = (Ex	ibit 25-19)		·····		(Exhit		-19)	***************************************					
•	(Exhibit 25	(10)								· -			
	·		S _R = 56.3 mph (Exhibit 25-19) S ₀ = 76.8 mph (Exhibit 25-19)										
,	(Exhibit 25	,				The state of the s							
	(Exhibit 25					S = 60.4 mph (Exhibit 25-15)							
t © 2005 Unive	rsity of Florida	All Rights Re	SCANNON				Thi				C	d 11/8/2006 t/	

<u>General</u>	Informat	ion			Site In	formatio	n				
Analyst		CRH	*************************************	F	reeway/Dir		······································	uthbound			
Agency or Co	ompany	HW Loch	ner, Inc.		unction		SR 50/	Cortez Blvd. Off-	-Ramp		
Date Perform	red	10/26/06		ل.	urisdiction		Hernan	do County	,		
Analysis Time		DHV			Analysis Yea		2010				
Project Descr	ription I-75 F	PD&E Study -	2010 SB O	ff Ramp at SR 5) (I-75 = 8 L	anes)					
nputs											
Jpstream Adj 		Terrain: Lev	el					Downstre Ramp	eam Adj		
	厂 On							F Yes	l√ On		
I <u>⊾</u> No	☐ Off							ΓNo	l≟ Ott		
-up =	ft							L _{down} =	2360 ft		
1	uah/h	!	S _{FF} = 70.0) mph	S	FR = 35.0	\/ =	070			
/ _u =	veh/h	<u></u>		Sketch (show lar	ies, L _A , L _D ,V	(R,V_i)	V _D =	670 veh/h			
Conversi	ion to pc	/h Under	Base C	Conditions				The state of the s			
	V					f	Ľ	v = V/PF	1F x		
(pc/h)	(Veh/hr)	PHF	Terra	ain %Trucl	⟨ %Rv	f _{HV}	fp	$f_{HV} \times f_{p}$			
Freeway	2240	0.93	Leve	14	2	0.931	0.95	2723			
Ramp	520	0.89	Leve	19	2	0.910	0.95	676			
JpStream											
DownStream	670	0.89	Leve	19	2	0.910	0.95	871			
		Merge Areas	·		<u> </u>		Diverge A	reas			
:stimatic	on of v ₁₂				Estima	tion of v	12				
	V	12 = V _F (P _{FM})			V	12 = V _P +	(V _F - V _R)P _{FD}			
_{EQ} = (Equ	uation 25-2				L _{EO} = (E	quation 25		. ,, ,,			
		(Exhibit 25-5)		1			, Exhibit 25-11)			
/ ₁₂ = pc/h		•	•		$V_{12} = 156$	=	-1				
	Checks					ity Chec	ke		" 		
	Actua	al May	kimum	LOS F?	Jeapac			Mariana	1 00 00		
	ACIU	at ivida	KIMBIII	LUSF?	 		tual	Maximum	LOS F?		
V _{FO}					V _{F1} =			9600	No		
					V ₁₂		88	4400:All	No		
M					V _{FO} =	√ _F - 204	47	9600	No		
V_{R12}					V _R						
					V _R	67	<u> </u>	2000	No		
		<u>Determin</u>			Level	······	·····	mination (······································		
		4 V _R + 0.00	178 V ₁₂ -	0.00627 L _A		$D_{R} = 4.25$	52 + 0.008	6 V ₁₂ - 0.000	9 L _D		
_R = (p	oc/mi/ln)				D _R =	13.2 (pc/m	i/ln)				
OS= (E	Exhibit 25-4	1)			LOS =	B (Exhibit	25-4)				
peed Es	stimation	ŀ			Speed Estimation						
	:ibit 25-19)	***************************************			D _s =	0.489 (Exh		;			
$I_{c} = (Ex$	•	5-19)			S _R =	56.3 mph (E	•				
	ı (Exhibit 2				* `			r			
_R = mph	i (Exhibit 25 i (Exhibit 25	,			S _n =	76.8 mnh /F	Exhibit 25-	19)			
_R = mph ₀ = mph	n (Exhibit 25 n (Exhibit 25 n (Exhibit 25	5-19)			S ₀ = S =	76.8 mph (E 63.5 mph (E					

		RAMP	S AND	RAMI	JUN	CTIONS	W	ORKS	HEE.	T		
General	Informati	ion				Site Inf	forn	ation				
Analyst Agency or Co Date Perform Analysis Time Project Descr	ied	CRH HW Loch 10/26/06 DHV PD&E Study -		n Ramp	ul Ul nA	eeway/Dir c nction risdiction alysis Year (I-75 = 6 La	r	/el	SR	nando C	ez Blvd. On-	Ramp
Inputs						,						
Upstream Adj	j Ramp	Terrain: Lev	el								Downstrea	m Adj Ramp
☞ Yes	□ On										Yes	, , , , , , , , , , , , , , , , , , ,
□ No	☑ Off										F No	
L _{up} =	2360 ft		70	Λ mah		$S_{FR} = 35.0 \text{ mph}$ $V_0 = \text{veh/h}$						
Vu =	520 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 mp)N		V _D =	veh/h
Convers	ion to pc	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PHF f _{HV} x f _p	X
Freeway	1720	0.94	Lev	····	14	2	-	931	0.		2069	
Ramp	670 520	0.89	Lev		19	2	·	910		95 06	871	***************************************
UpStream DownStream		0.89	Lev	#	19	2	U.	910	U.	95	676	
DOWNOUGH		Merge Areas		······································	L		J	1	Divera	e Areas		
Estimatio	on of V ₁₂	**************************************				Estimation of v ₁₂						
L _{EO} = 337.08 P _{FM} = 0.595 V ₁₂ = 1231	(Equation 2 using Equation					L _{EO} = (Eo	quatio	V	/ ₁₂ = V _F r 25-9)		V _R)P _{FD}	***************************************
Capacity	Checks				······································	Capaci		Check	S			
	Actua	ıl Max	imum	LO:	SF?		waterman	Actu		Max	kimum	LOS F?
V_{FO}	2940	See Ex	hibit 25-7	N	o	V _{FI} = \	/ _F					
V _{R12}	2102	460)0:All	· N	0	V _{FO} = V _F V _R						
Level of	Service L	Determin	ation (i	f not	F)	Level	of S	ervice	e Det	ermi	nation (i	f not F)
	.475 + 0.0073										₂ - 0.0009 L	
	7.5 (pc/mi/ln)	,-		.,		D _R =	(pc/m				-	•
LOS = B	(Exhibit 25-4)			LOS = (Exhibit 25-4)							
Speed Es			Speed Estimation									
	09 (Exibit 25-1	······································		······································	$D_s = \text{(Exhibit 25-19)}$						·····	
-	1 mph (Exhibit	,				S _R = mph (Exhibit 25-19)						
	i mpn (Exhibi) 3 mph (Exhibi)	•				S ₀ = mph (Exhibit 25-19)						
	s mpri (Exhibii 3 mph (Exhibii	•										
	ereity of Florida	······································				S = mph (Exhibit 25-15)						

[DAME	S AND	UNCTIONS WORKSHEET									
General	Informat	·	3 AND	IVAIVII	r JUIV	Site In:		***************************************		. 1			
Analyst	mormat	CRH		***************************************		eeway/Dir		····		5 Southb	auad		
Agency or C	ompany	HW Loch	ner. Inc.			eeway <i>ron</i> Inction	oi iiav	/61			ez Blvd. On-	Ramo	
Dale Perform		10/26/06	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			risdiction				rnando (Camp	
Analysis Tim		DHV				nalysis Yea			20	10			
•	ription I-75 F	D&E Study -	2010 SB (On Ramp	at SR 50	(1-75 = 8 La)	anes)						
Inputs													
Upstream Ac	j Ramp	Terrain: Lev	el								Downstrea	m Adj Ramp	
Г Yes	□ On										☐ Yes	□ On	
L No	[Off										I≥ No		
L _{up} =	2360 ft					L _{down} = ft							
Vu =	520 veh/h	ļ	S _{FF} = 70					35.0 mg	oh		V _D =	veh/h	
VU -	320 VCIIII			Sketch (show lane	es, L _A , L _O ,V	(R,V_i)						
Convers	ion to pc	/h Under											
(pc/h)	٧	PHF	<u></u>	:_	C. T	NO.		f	***************************************	······	v = V/PHF	X	
(роп)	(Veh/hr)	rnr	Ten	am	%Truck	%Rv		н∨		f _p	$f_{HV} \times f_p$		
Freeway	1720	0.94	Lev	el	14	2	0.9	931	0	.95	2069		
Ramp	670	0.89	Lev	el	19	2	0.9	910	0	.95	871		
UpStream	520	0.89	Lev	el	19	2	0.9	910	0	.95	676		
DownStream	<u> </u>	Marka Assa			<u> </u>		<u></u>					***************************************	
Estimati	an of u	Merge Areas		***************************************		Catina	4:			ge Areas)		
LSuman		***************************************		***************************************		Estimation of v ₁₂							
	٧	$_{12} = V_F (P_{FM})$)			$V_{12} = V_{R} + (V_{F} - V_{R})P_{FD}$							
L _{EO} = (Equa	ation 25-2 or 2	5-3)				L _{EQ} = (Ed	quation	า 25-8 อ	r 25-9)				
$P_{FM} = 0.310$	using Equation	n (Exhibit 2	6-5) ·			P _{FD} = us	ing Eq	uation (Exhibi	t 25-11)			
V ₁₂ = 641 p	oc/h					V ₁₂ = pc/							
Capacity					***************************************	Capaci	************	heck	S		······································		
	Actua	l Max	imum	10	S F?		angamanika	Actu	and the same of th	in the second	kimum	LOS F?	
	7.000	. 14147		20	<i>O1</i> :	V _{E1} = \		700	<u> </u>	(4107)	711111111	LOOT:	
V_{FO}	2940	See Ex	hibit 25-7	N	0		F	······································					
						V ₁₂							
						$V_{FO} = V_{F}$	-		İ			-	
V_{R12}	1512	460	0:All	N	o	V _R	ļ					***************************************	
						V _R						***	
l evel of	Service E)etermin	ation (fnot	 F)	ļ	<u></u> √£ Ç¢	muica		tormi	nation (i	f not F	
	.475 + 0.0073	······		·····		20001	***************************************	·····	***************************************	····	₂ - 0.0009 L _r	······································	
	2.9 (pc/mi/ln)	R - 0.00.	0 1 12 0.0	70021 LA		n		• • • • • • • • • • • • • • • • • • • •	JZ 1 U.	0000 V 1	2 - 0.0000 -[)	
	.,					' `	(pc/mi.	•					
	(Exhibit 25-4	,	·					it 25-4)					
Speed Es	stimation					Speed	Esti	mati	o <i>n</i>				
$M_S = 0.29$	95 (Exibit 25-1	9)				D _s =	(Exhib	it 25-19)				
S _R = 61.8	B mph (Exhibit	25-19)				S _R =	mph (E	Exhibit 2	25-19)				
	mph (Exhibit	•				l .	mph (f	Exhibit 2	25-19)				
	2 mph (Exhibit	,				ľ	• .						
	ersity of Florida		second.			S = mph (Exhibit 25-15) Generated 11/8/2006 1							

APPENDIX 'P'

INTERIM YEAR (2020) BUILD FREEWAY SEGMENT AND RAMP LOS

BASIC FREEWAY WOR	KOUEEI					Page 1 of 2		
	BASIC F	REEWAY SE	GMENTS WOI	RKSHEET				
Winds 60 Free-Flox Spread FFS = 75 minh 70 minh 65 minh 60 minh 55 minh 60 min	By Sudning	1600 2000		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N)	Input FFS, N. V _B FFS, LOS, V FFS, LOS, N FFS, N. AAC FFS, LOS, A FFS, LOS, N	v _p , S, D T LOS, S, D ADT N, S, D		
General Information		·	Site Informati	tion				
Analyst Agency or Company Date Performed Analysis Time Period Braingt Description 175 DD	CRH HW Lochner, 10/26/06 DHV		Highway/Direction From/To Jurisdiction Analysis Year		I-75 Northbo South of CR Pasco Cour 2020	2 41		
Project Description 1-75 PD Government Project Description 1-75 PD	&E - 2020 NB So		75 = 6 Lanes) Des.(N)		□ Plannir	an Data		
Flow Inputs		ł I	DG3.(14)		i Lightill	iy Vala		
Volume, V AADT Peak-Hr Prop. of AADT, K	4530	veh/h veh/day	Peak-Hour Facto %Trucks and Bu %RVs, P _R	ises, P _T	0.94 14 1			
Peak-Hr Direction Prop, D DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustn	0.95 nents	veh/h		: Length /Down %	Level mi			
fр	0.95		E _R		1.2			
E _T	1.5		f _{HV} = 1/(1+P _T (E _T - 1	I) + P _P (E _P - 1)]	0.933			
Speed Inputs			Calc Speed		3			
Lane Width Rt-Shoulder Lat. Clearance Interchange Density	12.0 6.0 0.50	f1 ft I/mi	f _{tw}		0.0 0.0 0.0	mi/h mi/h		
Number of Lanes, N	3		f _{ID}			mi/h		
FFS (measured)		mi/h	f _N		0.0	mi/h		
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h		
LUS and Performance	LOS and Performance Measures			Design (N)				
Operational (LOS) v _p = (V or DDHV) / (PHF x N x f _p)	« f _{HV} х 1813	pc/h/ln	Design (N) Design LOS v _p = (V or DDH)	/) / (PHF x N x	: f _{HV} x	pc/h		
S D=v _p /S LOS	70.8 25.6 C	mi/h pc/mi/ln	r_p) S $D = v_p / S$ Required Numb	er of Lanes N		mi/h pc/mi/ln		
Glossary			Factor Locat					
 Number of lanes Hourly volume Flow rate LOS - Level of service 	S - Speed D - Density FFS - Free-flow BFFS - Base fr	•	E_R - Exhibits23- E_T - Exhibits 23 f_p - Page 23-12	8, 23-10	11 f	_W - Exhibit 23-4 _C - Exhibit 23-5 _I - Exhibit 23-6		

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:47 PM

BASIC FREEWAT WORK	Nameer					Page 1 of 2
	BASIC FI	REEWAY SE	GMENTS WORI	KSHEET		
See See	B. C.	1500 (600) 1750 (750) 0 (1750)	Op De: De: Pla Pla	plication erational (LOS) sign (N) sign (v _p) nning (LOS) nning (M) nning (v _p)	Input FFS, N, v _p FFS, LOS, 1 FFS, N, AA FFS, LOS, 1 FFS, LOS, 1	V _P , S, D DT LOS, S, D N, S, D
General Information			Site Information	on	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, II 10/26/06 DHV		Highway/Direction From/To Jurisdiction Analysis Year		I-75 Northb CR 41 to S Hernando (2020	R 50
Project Description I-75 PD Oper.(LOS)	&E - 2020 NB CR					
Flow Inputs		1 [Des.(N)		☐ Plann	ing Data
Volume, V AADT Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D	4040	veh/h veh/day	Peak-Hour Factor %Trucks and Buse %RVs, P _R General Terrain:		0.93 14 2	
DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustn	0.95	veh/h	Grade % L	ength lown %	Level mi	
f _p	0.95		E _R		1.2	
E _T	1.5		$f_{HV} = 1/[1+P_{T}(E_{T}-1)+$	+ P _R (E _R - 1))	0.931	
Speed Inputs		,	Calc Speed A		3	
Lane Width Rt-Shoulder Lat. Clearance	12.0 6.0	ft ft	f _{tw}		0.0 0.0	mi/h mi/h
Interchange Density Number of Lanes, N	0.50	I/mi	f _{ID}		0.0	mi/h
FFS (measured)	3	mi/b	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h mi/h	FFS		75.0	mi/h
LOS and Performance			Design (N)		\$\$= <u></u>	
Operational (LOS) v _p = (V or DDHV) / (PHF x N >		pc/h/ln	Design (N) Design LOS v _p = (V or DDHV)	/ (PHF x N x	: f _{HV} x	n
f _p) S D = v _p / S LOS	73.1 22.4 C	mi/h pc/mi/ln	f_p) S $D = v_p / S$ Required Number	of Lanes N		pc/h mi/h pc/mi/ln
Glossary			Factor Location			
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base free	•	E_R - Exhibits23-8 E_T - Exhibits 23-8 f_p - Page 23-12	, 23-10	11 (_{LW} - Exhibit 23-4 _{LC} - Exhibit 23-5 _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

HCS+TM Version 5.2 Ge

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

Generate d: 11/8/2006 2:43 PM

BASIC FREEWAY WORL	KSHEET					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
So	By C -	1600 2000		Application Operational (LOS) Design (V _p) Planning (LOS) Planning (V _p)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N v _p , S, D .DT LOS, S, D AADT N, S, D
	Flow Rate (peth/lin					**************************************
General Information			Site Inform			
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD	CRH HW Lochner, I DHV &E - 2020 NB No		From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northb North of SF Hernando (2020	₹ 50
F Oper.(LOS)			Des (N)		□ Plann	ing Data
Flow Inputs	***************************************	1 1	(I¥/		r · r (CALIF)	9 5516
Volume, V AADT Peak-Hr Prop. of AADT, K	3830	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustn	0.95	veh/h	General Terra Grade % U	iin: Length Jp/Down %	Level mi	
	0.95				1.2	***
f _p	1.5		ER	A) - B - E - 49		
E _T	1.3			-1) + P _R (E _R -1)]	0.931	
Speed Inputs Lane Width	40 O	r.	Calc Speed	d Adj and FFS	<u> </u>	
	12.0	ft	f _{ew}		0.0	mi/h
Rt-Shoulder Lat. Clearance Interchange Density	6.0 0.50	fi Umai	f _{LC}		0.0	mi/h
Number of Lanes, N	3	l/mi	f _{ID}		0.0	mì/h
FFS (measured)	3	m i /h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75. <i>0</i>	mi/h	FFS		75.0	mi/h
		mi/h	Desire (N)			
LOS and Performance Operational (LOS) V _D = (V or DDHV) / (PHF x N x	× f, ×		Design (N) Design (N) Design LOS			
f_p)	1535	pc/h/ln	$v_p = (V \text{ or DD})$	HV) / (PHF x N x	: f _{HV} x	pc/h
s	74.0	mi/h	[p)			anus 1 12
D=v _p /S	20.7	pc/mi/ln	S D = v ₀ / S			mi/h pc/mi/ln
LOS	С		- I - F	mber of Lanes, N	•	релити
Glossary			Factor Loc			
N - Number of lanes	S - Speed					
V - Hourly volume v _o - Flow rate	D - Density FFS - Free-flow	v sneed	1 '	23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5
LOS - Level of service	BFFS - Base fr		f _p - Page 23-	12		f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:45 PM

DASIC FREEWAY WORK	ZSHEET					Page 1 of
	BASIC F	REEWAY SE	EGMENTS W	ORKSHEET		
WANDER PASSENGE FIZ = 75 mith 100 Cd Cd Cd Cd Cd Cd Cd Cd Cd Cd Cd Cd Cd	A C -	1600 2000	0 2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, Vp FFS, LOS, N FFS, LOS, N FFS, M, AAI FFS, LOS, N FFS, LOS, N	V _p . S, D DT LOS, S, I AADT N, S, D
General Information	. rott ness (ponta	**	Site Inform	ation		**************************************
Analyst Agency or Company Date Performed Analysis Time Period Project Description 1-75 PD8	CRH HW Lochner, 10/26/06 DHV &E - 2020 SB No		Highway/Direct From/To Jurisdiction Analysis Year	····	I-75 Southb North of SR Hernando C 2020	? 50
F Oper (LOS)	3L - 2020 3D 146		75 = 6 Lanes) Des.(N)	 	ि Planni	no Data
Flow Inputs					i (Citif	rig Pala
Volume, V AADT Peak-Hr Prop. of AADT, K	3040	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.93 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Oriver type adjustment Calculate Flow Adjustm	0.95	veh/h	General Terra Grade % L	in: Length Jp/Down %	Level mi	
fp	0.95				1.2	
E _T	1.5		E _R f _{HV} = 1/(1+P _T (E _T	-11+P (F -1)I	0.931	
Speed Inputs	1.0			Adj and FFS		
Lane Width	12.0	ft		Adjana i i c		
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	3		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance I	Measures		Design (N)			
Operational (LOS) $V_p = (V \text{ or DDHV}) / (PHF \times N \times \frac{1}{p})$	f _{HV} x 1232	pc/h/ln	L'.	HV) / (PHF x N x	f _{HV} x	pc/h
S D = v _p / S .OS	75.0 16.4 B	mi/h pc/mi/ln	S $D = V_p / S$	ahas after a st		mi/h pc/mi/In
Glossary			Factor Loc	nber of Lanes, N		<u>, , , , , , , , , , , , , , , , , , , </u>
N - Number of lanes	S - Speed		ractor Loc	ation		
/ - Hourly volume	D - Density FFS - Free-flow BFFS - Base fr		E_R - Exhibits2 E_T - Exhibits 2 f_p - Page 23-1	23-8, 23-10, 23-1	11 f	_{.W} - Exhibit 23-4 _{.C} - Exhibit 23-5 ₁ - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 12:18 PM

BASIC FREEWAY WOR	K2HEE1					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
S0 Fice-Flow Spred FFS = 75 mish 70 mi	Br C	150 (600) 1759 (600) 1759 (750) 1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, 4p FFS, LOS, FFS, N, Ai FFS, LOS, FFS, LOS, FFS, LOS,	Vp N, S, D N Vp. S, D ADT LOS, S, D AADT N, S, D
General Information		·	Site Inform	nation		
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD	CRH HW Lochner, I 10/26/06 DHV &E - 2020 SB CF		Highway/Dired From/To Jurisdiction Analysis Year	ction of Travel	I-75 South CR 41 to S Hernando 2020	SR 50
✓ Oper.(LOS)			Des.(N)		☐ Plann	ning Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K	3200	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _p		0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustn	0.95 nents	veh/h	General Terra Grade %	iin: Length Jp/Down %	Level mi	Mill some state of the state of
f _p E _T	0.95 1.5		E _R f _{HV} = 1/[1+P ₁ (E ₁	- 1) + P _R (E _R - 1))	1.2 0.933	***************************************
Speed Inputs			Calc Speed	d Adj and FFS	3	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 3	ft ft I/mi mi/h mi/h	f _{tw} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) v _p = (V or DDHV) / (PHF x N x f _p) S D = v _p / S LOS Glossary	x f _{HV} x 1280 74.9 17.1 B	pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DD})$ f_p S $D = v_p / S$ Required Nur	HV) / (PHF x N x mber of Lanes, N	,	pc/h mi/h pc/mi/ln
Not Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base free		Factor Loc $E_{R} - Exhibits 2$ $E_{T} - Exhibits 3$ $f_{p} - Page 23-4$	23-8, 23-10 23-8, 23-10, 23-	11	f_{LW} - Exhibit 23-4 f_{LC} - Exhibit 23-5 f_N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:49 PM

BASIC FREEWAY WOR	KSHEET					Page I of I
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
State Stat	By C.	1500 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N V _p . S, D DT LOS, S, E AADT N, S, D
	Flow Rate (pc/h/lin	j				
General Information			Site Inform			
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I 10/26/06 DHV		From/To Jurisdiction Analysis Year	ction of Travel	I-75 South! South of C Pasco Cou 2020	R 41
)&E - 2020 SB So			LCLLC OLD OLD OLD OLD OLD OLD OLD OLD OLD OLD		i
ি Oper.(LOS) Flow Inputs		J L	Des.(N)		ı Piann	ing Data
Volume, V AADT Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D DDHV = AADT x K x D	3590	veh/h veh/day veh/h	Peak-Hour Fa %Trucks and %RVs, P _R General Terra Grade %	Buses, P _T	0.94 14 1 Level mi	
Priver type adjustment Calculate Flow Adjustr	0.95			Jp/Down %		*****
fp Galculate Flow Aujusti	0.95		E _R		1.2	
E _T	1.5		• •	(-1) + P _R (E _R -1))	0.933	
Speed Inputs	7 - W			d Adj and FF		***************************************
Lane Width	12.0	f(a Auj anu i i		
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	fcc		0.0	mi/h
Number of Lanes, N	3		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	₹N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) v _p = (V or DDHV) / (PHF x N f)	× f _{HV} × 1437	pc/h/ln	Design (N) Design LOS	HV)/(PHF x N)	κ f _{HV} χ	pc/h
f _p) S	74.5	mi/h	f_p)			,
D = v _p /S LOS	19.3 C	pc/mi/in	S D = v _p / S			mi/h pc/mi/In
				mber of Lanes, N	1	
Glossary	S D		Factor Loc	ation		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base from	•	E_R - Exhibits E_T - Exhibits f_p - Page 23-	23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:54 PM

BASIC FREEWAY WORK	KSHEET					Page 1 of
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Br C Spingha 15	150 (600) 1750 (1750) 1 (1750) 1 (1750)	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, V _p FFS, LOS, V FFS, LOS, N FFS, N, AAE FFS, LOS, A FFS, LOS, A	j v _p , S, D DT LOS, S, D LADT N, S, D
General Information	rear not portun	<i>1</i>	Site Inform	ation		
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, I. 10/26/06 DHV &E Study - 2020		Highway/Directory From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northbo South of CF Pasco Cour 2020	R 41
F Oper.(LOS)	GL 3180y - 2020		Des.(N)	11503)	☐ Planni	ng Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K	4530	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Priver type adjustment Calculate Flow Adjustn	0.95 nents	veh/h	General Terra Grade % L	in: Length Up/Down %	Level mi	MM - Market - Announce - Announce - Announce - Announce - Announce - Announce - Announce - Announce - Announce
f _p E _T	0.95 1.5		E _R f _{HV} = 1/[1+P _T (E ₁	r - 1) + P _R (E _R - 1)]	1.2 0.933	
Speed Inputs			Calc Speed	d Adj and FF	S	
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 4 75.0	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) v _p = (V or DDHV) / (PHF x N : f _p) S D = v _p / S LOS		pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DD}$ $f_p)$ S. $D = v_p / S$	HV) / (PHF x N x mber of Lanes, N		pc/h mi/h pc/mi/ln
Glossary	C . C		Factor Loc	cation		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	·	E _R - Exhibits2 E _T - Exhibits f _p - Page 23-	23-8, 23-10, 23-	-11 f	_{LW} - Exhibit 23-4 _{LC} - Exhibit 23-5 _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f₁₀ - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:48 PM

DASIC PREEWAT WORD	XOHLLI				l	age I of 2
	BASIC F	REEWAY SE	GMENTS WORKS	SHEET		
₹ 0 400 200	B C	1450 (600 1750) 1600 2000 (1)	Design Design Plann Plann Plann	tional (LOS) n (N)	Input FFS, N, V _p FFS, LOS, V _p FFS, LOS, N FFS, N, AADT FFS, LOS, AADT FFS, LOS, M	Gutput LOS, S, D N, S, D V _P , S, D LOS, S, D N, S, D V _P , S, D
General Information			Site Information			
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD:	CRH HW Lochner, 10/26/06 DHV &E - 2020 NB CF		Highway/Direction of From/To Jurisdiction Analysis Year	C H	-75 Northbound CR 41 to SR 50 Hernando County 1020	
✓ Oper.(LOS)	2020 140 01		Des.(N)		□ Planning Dat	· =
Flow Inputs	***************************************	1 1	~~.(**)	·····	raintilly Dat	
Volume, V AADT Peak-Hr Prop. of AADT, K	4040	veh/h veh/day	Peak-Hour Factor, F %Trucks and Buses %RVs, P _R).93 24	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Triver type adjustment	0.95	veh/h	General Terrain: Grade % Len Up/Dov	gth <i>n</i>	.evel ni	
Calculate Flow Adjustn						
f _p E _T	0.95 1.5		E_{R} $f_{HV} = 1/[1+P_{T}(E_{T} \cdot 1) + P_{T}(E_{T} \cdot 1)]$		1.2).931	
Speed Inputs			Calc Speed Adj			
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}	ĺ	0.0	mi/h
Interchange Density	0.50	l/mi	f _{ID}	(0.0	mi/h
Number of Lanes, N	4		f _N		0.0	mi/h
FFS (measured)		mi/h	FFS		75.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h			· · · ·	118/13
LOS and Performance I	Measures		Design (N)			
Operational (LOS) $v_p = (V \text{ or DDHV}) / (PHF x N x f_p)$	(f _{HV} x 1228	pc/h/ln	Design (N) Design LOS v _p = (V or DDHV) / (PHF x N x f _e	4√ x	pc/h
S D = v _p / S LOS	75.0 16.4 B	mi/h pc/mi/ln	S $D = v_p / S$			mi/h pc/mi/In
Gloceany		······································	Required Number o	***************************************		
Glossary N - Number of lanes	S Spood		Factor Location	<u> </u>		
V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	·	E_R - Exhibits23-8, 2 E_T - Exhibits 23-8, 2 f_p - Page 23-12		f _{LC} - Ex	chibit 23-4 hibit 23-5 nibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{IO} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

Generated: 11/8/2006 2:43 PM

BASIC FREEWAT WOR	NOTICE!					Page 1 of 2
	BASIC F	FREEWAY SE	EGMENTS W	ORKSHEET		
S0 Free-Flex Space FTS = 75 mids 70 mi	By C	1600 2000	0 2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	FFS, N, v _p FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	Vp N. S. D N Vp. S. D .DT LOS, S. D AADT N. S, D
General Information			Site Inform	nation		
Analyst Agency or Company	CRH HW Lochner,	Inc		ction of Travel	I-75 Northb North of SI	
Date Performed		1170.	Jurisdiction		Hernando	·
Analysis Time Period	DHV	. II	Analysis Year		2020	-
	0&E - 2020 NB No		······································		F C	
F Oper.(LOS) Flow Inputs	j	<u> </u>	Des.(N)		ı Plann	ing Data
Volume, V	3830	veh/h	Peak-Hour Fa	actor, PHF	0.94	***************************************
AADT		veh/day	%Trucks and		14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	•	2	•
Peak-Hr Direction Prop, D DDHV = AADT x K x D			General Terra		Level	
Driver type adjustment	0.95	veh/h	Grade %	Length Up/Down %	mi	
Calculate Flow Adjustr				- p		
f _P	0.95		E _R		1.2	
Ė _T	1.5			r - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs				d Adj and FFS	3	
Lane Width	12.0	ft			0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	
Interchange Density	0.50	I/mi	f _{LC}			mi/h
Number of Lanes, N	4		ID		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS)			Design (N)			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	x f x		Design LOS			
F _p)	1152	pc/h/ln	$v_p = (V \text{ or DD})$	HV) / (PHF x N x	f _{HV} x	pc/h
S S	75.0	mi/h	f _p)			·
$D = v_p / S$	15.4	pc/mi/ln	S			mi/h
_os [*]	В	•	D = v _p / S	mharaflance N		pc/mi/ln
Glossary			Factor Loc	nber of Lanes, N		
Number of lanes	S - Speed					
√ - Hourly volume	D - Density		E _R - Exhibits2			_{LW} - Exhibit 23-4
, - Flow rate	FFS - Free-flov	v speed		23-8, 23-10, 23-1		LC - Exhibit 23-5
OS - Level of service	BFFS - Base fr	·	f _p - Page 23-	12	f	N - Exhibit 23-6
			ı			

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generateci: 11/8/2006 2:45 PM

DASIC FREEWAT WOR	KOILEL				Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WORKSHEE	ET	
S0 Fice-Flox Spread FTS = 75 mids 70 mids 70 mids 70 mids 65 mids 65 mids 65 mids 60 mids 65 mids 65 mids 60 mids 65 mid	A C	1150 (600) 1750 (750)	Application Operational (I Design (N) Design (v _p) Planning (LO Planning (N) Planning (v _p)	FFS, LO FFS, LO S) FFS, N, FFS, LO	S. v _p N. S. D S. N v _p S. D AA DI LOS. S. D S. AADT N. S. D
General Information	FROM KORE THORING	···	Site Information		
Analyst	CRH		Highway/Direction of Trav	el <i>I-75</i> Sou	
Agency or Company	HW Lochner, I	Inc.	From/To	North of	
Date Performed	10/26/06		Jurisdiction		o County
Analysis Time Period	DHV		Analysis Year	2020	,
Project Description I-75 PD		SB North of SR	50 (I-75 = 8 Lanes)		
☑ Oper.(LOS)	1		Des.(N)	☐ Pla	nning Data
Flow Inputs					
Volume, V	3040	veh/h	Peak-Hour Factor, PHF	0.93	
AADT		veh/day	%Trucks and Buses, P_{T}	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D		veh/h	General Terrain:	Level	
Driver type adjustment	0.95	Veri/H	Grade % Length Up/Down %	mi	
Calculate Flow Adjustr	ments	***************************************			***************************************
f _p	0.95	······································	E _R	1.2	
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$		
Speed Inputs					
Lane Width	12.0	£1	Calc Speed Adj and	<u>rr3</u>	
		ft	f _{LW}	0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}	0.0	mi/h
Interchange Density	0.50	I/mi	f _{ID}	0.0	mi/h
Number of Lanes, N	4		f _N	0.0	mi/h
FFS (measured)		mi/h			
Base free-flow Speed, BFFS	75.0	mi/h	FFS	75.0	mi/h
LOS and Performance	Measures		Design (N)		
Operational (LOS)			<u>Design (N)</u>		
$v_p = (V \text{ or DDHV}) / (PHF x N :$	x f x		Design LOS		
•	924	pc/h/ln	$v_p = (V \text{ or DDHV}) / (PHF)$	kN x f _{HV} x	n o (h
f _p) S	75.0		f _p)		pc/h
	75.0	mi/h	s		mi/h
$D = v_p / S$	12.3	pc/mi/ln	D = v ₀ / S		pc/mi/In
LOS	В		Required Number of Lane	es. N	,
Glossary			Factor Location		
N - Number of lanes	S - Speed		, actor Ecounter		
V - Hourly volume	D - Density		E _R - Exhibits23-8, 23-10		f _{LW} - Exhibit 23-4
v _o - Flow rate	FFS - Free-flow	v sneed	E _T - Exhibits 23-8, 23-10,	23-11	f _{LC} - Exhibit 23-5
1"		•	ք _թ - Page 23-12		f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base from	ee-now speed	The second secon		• •

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 12:13 PM

BASIC FREEWAT WORK	KUILLI					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Weight 20 100 100 100 100 100 100 100 100 100	1200	1600 2000	2408	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, As FFS, LOS, FFS, LOS,	Vp N, S, D N Vp, S, D ADT LOS, S, D AADT N, S, D
0	Flow Rate (poth/l	r)				·
General Information			Site Inform			
Analyst	CRH	•		ction of Travel	1-75 South	
Agency or Company Date Performed	HW Lochner, 10/26/06	Inc.	From/To Jurisdiction		CR 41 to S	
Analysis Time Period	10/26/06 DHV		Analysis Year		Hernando 2020	County
Project Description I-75 PD		SB CR 41 to SE			2020	<u></u>
✓ Oper.(LOS)			Des.(N)		□ Plant	ning Data
Flow Inputs		,	J-2.(14)		1 1 10111	mig vala
Volume, V	3200	veh/h	Peak-Hour Fa	ctor. PHF	0.94	
AADT		veh/day	%Trucks and		14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	•	1	
Peak-Hr Direction Prop, D			General Terra	in:	Level	
DDHV = AADT x K x D	0.05	veh/h	Grade %	Length	mi	
Driver type adjustment Calculate Flow Adjustn	0.95		<u> </u>	Jp/Down %	, , ,	
	0.95		F-		٠	
f _p			E _R		1.2	
E _T	1.5		f _{HV} = 1/(1+P _T (E _T	$-1) + P_{R}(E_{R} - 1)]$	0.933	
Speed Inputs			Calc Speed	d Adj and FFS	3	
Lane Width	12.0	ft	f_{lw}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0	mi/h
Interchange Density	0.50	I/mi	1 <u>-</u>			
Number of Lanes, N	4		1 _{ID}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75. <i>0</i>	mi/h
LOS and Performance	Measures		Design (N)			M
			Design (N)			
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF \times N)$	х f _{HV} х 960	pc/h/ln	1 -	HV) / (PHF x N x	· f x	
f _p)	300	por m.	1 "		, ,HA ,,	pc/h
S	75.0	mi/h	(f _p)			mai the
$D = v_p / S$	12.8	pc/mi/ln	0 10			mi/h
LOS	В		$D = v_p / S$			pc/mi/ln
	***************************************			nber of Lanes, N		····
Glossary			Factor Loc	ation		
N - Number of lanes	S - Speed		E _R - Exhibits2	23-8, 23-10		f _{I W} - Exhibit 23-4
V - Hourly volume	D - Density		1 '`	23-8, 23-10, 23-		f_{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov		f _o - Page 23-1			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ree-flow speed	To Luga 25.	· ·		.M = ×1.11011.52-0

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

HCS+TM Version 5.2 Ge

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

Generated: 11/8/2006 2:50 PM

DASIC FREEWAT WOR	NOTICE				Page 1 of
	BASIC I	REEWAY SE	EGMENTS WORKSHEET	-	
WARD 30 Proc. 1 few Spzed F15 = 75 midth 70 midt		1500 2001	Application Operational (LO Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, N, A FFS, LOS, FFS, LOS, FFS, LOS,	Vp N, S, D N Vp, S, D ADT LOS, S, D AADT N, S, D
General Information	rea nev puni	EL ;	Site Information		***
Analyst Agency or Company Date Performed Analysis Time Period	CRH HW Lochner, 10/26/06 DHV		Highway/Direction of Travel From/To Jurisdiction Analysis Year	I-75 South South of C Pasco Cou 2020	R 41
Project Description I-75 PE	0&E - 2020 SB So		75 = 8 Lanes) Des.(N)		ning Data
Flow Inputs	-		Des.(N)	1 - 1 - 1 - 1 - 1 - 1 - 1	ing Data
Volume, V AADT Peak-Hr Prop. of AADT, K	3590	veh/h veh/day	Peak-Hour Factor, PHF %Trucks and Buses, P _T %RVs, P _R	0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	General Terrain: Grade % Length Up/Down %	Level mi	
Calculate Flow Adjustr	ments				
f_p	0.95		E _R	1.2	
E _T	1.5		$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.933	
Speed Inputs	***************************************		Calc Speed Adj and F	FS	
ane Width	12.0	ft	f _{cw}	0.0	mi/h
Rt-Shoulder Lat, Clearance	6.0	ft	f _{LC}	0.0	mi/h
Interchange Density	0.50	l/mi	f _{ID}	0.0	mi/h
Number of Lanes, N	4		f _N	0.0	mi/h
FFS (measured)		mì/h	FFS	75.0	
Base free-flow Speed, BFFS		mí/h		/ U. V	mi/h
_OS and Performance	Measures		Design (N)		
Operational (LOS) $V_p = (V \text{ or DDHV}) / (PHF \times N)$	x f _{HV} x 1077	pc/h/ln	Design (N) Design LOS v _p = (V or DDHV) / (PHF x N	1 x f _{HV} x	pc/h
3	75.0	mi/h	p)		
D = v _p / S .OS	14.4 B	pc/mi/ln	S $D = v_p / S$ Required Number of Lanes,	Ν	mi/h pc/mi/ln
Glossary			Factor Location	1 4	
V - Number of lanes	S - Speed	***************************************			
/ - Hourly volume /p - Flow rate	D - Density FFS - Free-flov	v speed	E_R - Exhibits 23-8, 23-10 E_T - Exhibits 23-8, 23-10, 23 f_0 - Page 23-12	3-11	f_{LW} - Exhibit 23-4 f_{LC} - Exhibit 23-5 f_{N} - Exhibit 23-6
OS - Level of service	BFFS - Base fr	ree-flow speed	p - 1 age 23-12		.M - EXHIDIT 52-0

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 2:54 PM

16 = 43 C1 C3 F S f	Informer		A WIAD	IVANAL.	JUIN	CTIONS			L I		· · · · · · · · · · · · · · · · · · ·
·····	Informati					Site In	·····				***************************************
Analyst		CRH			Fr	eeway/Dir o	of Travel	ŧ-	75 Northb	oound	-
Agency or Co		HW Loch	ner, Inc.		Ju	nction		C	R 41/Blai	nton Road Off	-Ramp
Date Perform		10/26/06			Ju	Jurisdiction Pasco Co				inty	
Analysis Time		DHV				Analysis Year 2020					
Project Desci	ription I-75 P	D&E Study -	2020 NB C	Off Ramp	at CR 41	(1-75 = 6 La	anes)				
Inputs											
Upstream Ad		Terrain: Lev	el							Downstre Ramp	am Adj
	□ On									₹ Yes	☑ On
	☐ Off									□ No	
_ _{up} =	ft									_down =	620 ft
	t- ft-	(S _{FF} = 70.	0 mph		S	FR = 35	5.0 mph		L , _	075
∨_ =	veh/h		5	Sketch (s	show lane	s, L _A , L _D ,V	$_{R}$, V_{t})			V _D =	370 veh/
Convers	ion to pc	h Under									~
	V						<u> </u>	1		v = V/PH	Fx
(pc/h)	(Veh/hr)	PHF	Terra		%Truck	%Rv	f _H v		f _p	$f_{HV} \times f_p$	
Freeway	4530	0.94	Leve	el	14	1	0.933		0.95	5438	-
Ramp	860	0.91	Leve	el	10	1	0.951		0.95	1047	
UpStream							ļ				·
DownStream	370	0.91	Leve	el .	10	1	0.951	<u>.</u>	0.95	450	
		Merge Areas	5			****		Dive	rge Area	S	
Estimatio	on of V ₁₂					Estima	tion o	f V12			
	٧.	2 = V _F (P _{FM}	}					V _ = \	/_ + (V.	- V _R)P _{FD}	
= (Eni	ation 25-2		,							- 'R' FD	
-FO /dc						1 ± /E	CONTRAIN		25 01		
= using			١.		-	L _{EQ} = (E				على سوم بدير	
	Equation)		:	P _{FD} = 0.5	76 usir			ibit 25-11)	
/ ₁₂ = pc/h	Equation)				76 usir			ibit 25-11)	
/ ₁₂ = pc/h	Equation)			P _{FD} = 0.5	76 usir '6 pc/h	ng Equat		ibit 25-11)	
/ ₁₂ = pc/h	Equation	(Exhibit 25-5) cimum	LO:	S F?	P _{FD} = 0.5: V ₁₂ = 357	76 usir 6 pc/h I ty Ch	ng Equat	ion (Exh	ibit 25-11)	LOS F?
/ ₁₂ = pc/h C apacity	Equation Checks	(Exhibit 25-5		LOS	S F?	P _{FD} = 0.5: V ₁₂ = 357	76 usir 6 pc/h I ty Ch	ng Equat ecks	ion (Exh		LOS F? No
/ ₁₂ = pc/h	Equation Checks	(Exhibit 25-5		LOS	SF?	P _{FD} = 0.53 V ₁₂ = 357 Capaci V _{F1} = V	76 usir 6 pc/h f ty Ch	ng Equat ecks Actual 5438	ion (Exh	iximum 7200	No
/ ₁₂ = pc/h C apacity	Equation Checks	(Exhibit 25-5		LOS	S F?	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{FI} = V V ₁₂	76 usir 6 pc/h ity Che	ng Equat ecks Actual	ion (Exh	iximum	
/ ₁₂ = pc/h C apacity	Equation Checks	(Exhibit 25-5		LOS	SF?	P _{FD} = 0.53 V ₁₂ = 357 Capaci V _{F1} = V	76 usir 6 pc/h ty Ch	ng Equat ecks Actual 5438	Ma	iximum 7200	No
V ₁₂ = pc/h Capacity V _{FO}	Equation Checks	(Exhibit 25-5		LOS	SF?	P _{FD} = 0.53 V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R	76 usir 6 pc/h ity Ch	ecks Actual 5438 3576	Ma 44	1200 100:All 200	No No No
V ₁₂ = pc/h Capacity V _{FO} V _{R12}	Checks Actua	(Exhibit 25-5	kimum			P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R	76 usir 6 pc/h (ty Ch	ecks Actual 5438 3576 4391	Ma 44 7	1200 100:All 200 1000	No No No
V ₁₂ = pc/h Capacity V _{FO} V _{R12}	Checks Actua	(Exhibit 25-5	ation (i	f not F	-)	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{FI} = V V ₁₂ V _{FO} = V V _R Level c	76 usir 6 pc/h ity Cha V _F	ecks Actual 5438 3576 4391 1047	Ma 44 7 2 etermi	iximum 7200 100:All 200 000	No No No No f not F)
$V_{12} = \text{pc/h}$ $Capacity$ V_{FO} V_{R12} $Capacity$ $Capacity$ $Capacity$	Checks Actua Service D 5 + 0.00734	(Exhibit 25-5	ation (i	f not F	-)	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{FI} = V V ₁₂ V _{FO} = V V _R Level c	76 usir 6 pc/h ity Cha V _F	ecks Actual 5438 3576 4391 1047	Ma 44 7 2 etermi	1200 100:All 200 1000	No No No No f not F)
$V_{12} = \text{pc/h}$ V_{FO} V_{R12} Level of S $D_R = 5.475$	Checks Actua	(Exhibit 25-5	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R Level C	76 usir 6 pc/h ity Cha V _F	ecks Actual 5438 3576 4391 1047 vice Dec. 252 + 0	Ma 44 7 2 etermi	iximum 7200 100:All 200 000	No No No No f not F)
$V_{12} = pc/h$ Capacity V_{FO} V_{R12} Level of Sign in the second sign in the	Checks Actua Service D 5 + 0.00734	(Exhibit 25-5	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R Level C	76 usir 6 pc/h (ty Cho 7 _F - D D _R = 4 33.2 (pc	ecks Actual 5438 3576 4391 1047 vice Dec. 252 + 0	Ma 44 7 2 2 2 2 2 4 1.0086 V	iximum 7200 100:All 200 000	No No No No f not F)
$V_{12} = pc/h$ $Capacity$ V_{FO} V_{R12} $D_R = 5.475$ $D_R = 0$ $D_R = 0$ $D_R = 0$	Checks Actua Service E 5 + 0.00734 ac/mi/ln) Exhibit 25-4	(Exhibit 25-5	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{FI} = V V ₁₂ V _{FO} = V V _R Level C	76 usin 6 pc/h ty Characteristics y_F y	ecks Actual 5438 3576 4391 1047 Vice De .252 + 0 /mi/ln) bit 25-4)	Ma 44 7 2 2 2 2 2 4 1.0086 V	iximum 7200 100:All 200 000	No No No No f not F)
$V_{12} = pc/h$ $Capacity$ V_{FO} V_{R12} $D_R = 5.475$ $D_R = (pc)$ $OS = (pc)$ $OS = (pc)$	Checks Actua Service D 5 + 0.00734 ac/mi/ln) Exhibit 25-4	(Exhibit 25-5	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R Level of D _R = 1 LOS = 1	76 usin 6 pc/h ty Cho t_F t	ecks Actual 5438 3576 4391 1047 vice De .252 + 0 /mi/ln) bit 25-4)	Ma 44 7 2 etermi	iximum 7200 100:All 200 000	No No No No f not F)
$V_{12} = pc/h$ Capacity V_{FO} V_{R12} Level of S $D_R = 5.475$ $O_R = (pc)$ $OS = (pc)$ Speed Es	Checks Actua Service E 5 + 0.00734 oc/mi/ln) Exhibit 25-4 stimation ibit 25-19)	(Exhibit 25-5	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{FI} = V V ₁₂ V _{FO} = V V _R Level C D _R = 1 LOS = 1 Speed D _S = 1	76 usir 6 pc/h 14y Cho 15y	ecks Actual 5438 3576 4391 1047 vice De .252 + 0 /mi/ln) bit 25-4) nation	Ma 44 7 2 2 2 2 4 5-19)	iximum 7200 100:All 200 000 ination (i) 7 ₁₂ - 0.0009	No No No No f not F)
$V_{12} = pc/h$ $Capacity$ V_{FO} V_{R12} $D_R = 5.475$ $D_R = (pc)$ $D_R = (p$	Service E 5 + 0.00734 oc/mi/ln) Exhibit 25-4 atimation ibit 25-19) (Exhibit 25	Determina V R + 0.00	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{FO} = V V _R Level o D _R = 1 LOS = 1 Speed D _S = 1 S _R = 1	76 usir 6 pc/h 14y Cho 1/F - 1 10 D _R = 4 33.2 (pc 10 (Exhill 15 Estim 15 Estim 15 Estim	ecks Actual 5438 3576 4391 1047 vice De /mi/In) bit 25-4) pation xhibit 25	Ma 44 7 2 2etermi 0.0086 \	iximum 7200 100:All 200 000 ination (i) 7 ₁₂ - 0.0009	No No No No f not F)
V_{FO} V_{FO} V_{FO} V_{R12} V_{R2} V_{R3} V_{R4}	Checks Actua Service E 5 + 0.00734 oc/mi/ln) Exhibit 25-4 stimation ibit 25-19)	Determina V R + 0.00 (i-19)	ation (i	f not F	5) 7 L _A	P _{FD} = 0.5: V ₁₂ = 357 Capaci V _{F1} = V V ₁₂ V _{F0} = V V _R V _R Level of D _R = 1 LOS = 1 Speed D _S = 5 S _R = 5 S ₀ = 6	76 usir 76 pc/h 17 Ch	ecks Actual 5438 3576 4391 1047 vice De .252 + 0 /mi/ln) bit 25-4) nation	Ma 44 7 2etermi 0.0086 V	iximum 7200 100:All 200 000 ination (i	No No No No f not F)

Copyrig

9:16 AM

Can'	Infa		S AND		OON							······································
General i	intormati					Site In			***************************************			
Analyst		CRH				eeway/Dir o	of Trav	rel		Northbo		
Agency or Co		HW Loch	ner, Inc.			nction					ton Road Off	f-Ramp
Date Perform		10/26/06			าน	Jurisdiction Pasco				co Cour	nty	
Analysis Time	Period	DHV			An	alysis Year	Γ		2020)		
Project Descri	iption I-75 P	D&E Study -	2020 NB C	Off Ramp	at CR 41	(1-75 = 8 La	anes)					
Inputs												
Jpstream Adj	Ramp	Terrain: Lev	el								Downstre Ramp	am Adj
T Yes	Г On										₹ Yes	₹ On
I No	□ Off										l⊡ No	
-up =	ft		***************************************								L _{down} =	620 ft
	veh/h	!	S _{FF} = 70.	0 mph		S	FR	35.0 m	ph			070 1.0
√ _u =	show lane	s, L _A , L _D ,V	(V_i, V_i)				V _D =	370 veh/h				
Conversi	on to no	/h IInder	·····		TOTAL CONTRACTOR CONTR	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	11	***************************************	Maria (1)			
	V				<u> </u>		1				v = V/PH	Fχ
(pc/h)	(Veh/hr)	PHF	Terr	ain	%Truck	%Rv	1	f _{HV}	!	P	f _{HV} x f _p	
Cooun	4530	0.04			 		—		0.0		5438	
Freeway		0.94	Leve		14	1	-	933	0.9			
Ramp	860	0.91	Leve	≘l 	10	1	0.9	951	0.9	95	1047	
UpStream							 					
DownStream	370	0.91	Leve	<u> </u>	10	1	0.9	951	0.9		450	
·····		Merge Areas	}						Diverg	e Areas		
Estimatic	on of v ₁₂					Estima	ition	of v	12			
	٧	₁₂ = V _E (P _{EM}	}					V.	_ = V_	+ (V_	- V _R)P _{FD}	
(Eau			,			1 - /**	·			•	. KV. FD	
_{-E0} = (Equ						L _{EO} = (E						
o _{FM} = using	Equation	(Exhibit 25-5)			$P_{FD} = 0.4$	36 u	sing E	quatio	າ (Exhí	bit 25-11)	
$V_{12} = pc/h$						V ₁₂ = 296	31 pc	:/h				
Capacity	Checks	· · · · · · · · · · · · · · · · · · ·			***************************************	Capac	itv C	heck	s			
and the second second	Actua	al Ma	ximum	10	SF?			Actu		Max	kimum	LOS F?
				<u> </u>		V _{F1} = '	\overline{v}	5438			600	No
V_{FO}								3430	`			INO
						V ₁₂		296′		44	00:All	No
V _{R12}						$V_{FO} = V_{R}$	1	439		9(300	No
1112						V _R		104	,	7(000	No
											1	
	Service <u>E</u>					Level o				***************************************	nation (i	
$D_{R} = 5.475$	5 + 0.00734	$v_{R} + 0.00$)78 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.252	0.0 + 2	086 V	12 - 0.0009	€L _D
) _R = (p	c/mi/ln)					D _R =	18.9	pc/mi/	ln)			
	Exhibit 25-4	1				l '`			•			
		·		~~		ļ		khibit 2				***************************************
Speed Es	timation	······································	·····			Speed	Est	imati	on			
$N_{\rm S} = (Ex$	ibit 25-19)					D _s =	0.522	(Exhib	oit 25-1	9)		
	Exhibit 25	5-19)				S _R =	55.4 r	nph (E:	khibit 2	5-19)		
		,				1		nph (E:				
	(Exhibit 25	•						•				
6 = mph	(Exhibit 25	0-14)				S =	63.1 r	nph (E	khibit 2	(5-15)		**************************************

Copyrigi

9:19 AM

		***									w	
<u></u>			S AND	RAM	P JUN	CTIONS		***************************************		ET		
	Informat				******************************	Site In:	····		}			
Analyst Agency or Co Date Perform Analysis Timi	ned e Period	CRH HW Loch 10/26/06 DHV			JL JL 1A	eeway/Dir on Inction Insdiction Inalysis Year	r	vel	CF	sco Cou	nton Rd On-F	₹amp
	ription 1-75 F	D&E Study -	2020 NB (On Ramp	at CR 41	(1-75 = 6 L)	anes)					
Inputs		·										
Upstream Ad	j Ramp	Terrain: Lev	el								Downstrea	m Adj Ramp
F Yes	☐ On										☐ Yes	-
ſ No	☑ Off										I No	
L _{up} =	620 ft		S _{FE} = 70	A mah			` -	35.0	- I		down =	ft
Vu =	860 veh/h	,	• •					35.0 mp	ЭП		V ₀ =	veh/h
			-то-ополужинший байранд	THE PROPERTY AND ADDRESS OF THE PARTY ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF T		es, L _A , L _D ,V	R.V _f)					
Convers	ion to pc	<u>/h Under</u>	Base	<u>Condi</u>	tions							
(pc/h)	V (Veh/hr)	PHF	Ten	rain	%Truck	%Rv		f ^{HA}		f _p	v = V/PHF f _{HV} x f _p	X
Freeway	3670	0.94	Lev	el	14	1	0.	933	(.95	4406	
Ramp	370	0.91	Lev	el	10	1		951	_	.95	450	
UpStream	860	0.91	Lev	el	10	1	0.	951	().95	1047	
DownStream		Morno Arono			<u> </u>		<u> </u>		<u>~·</u>			
Estimation	on of v	Merge Areas	i	**************************************		Eatima	*io=			ge Area	5	·
LJIMAIN			***************************************			Estima	HIOI		***************************************			
L _{EQ} = 689.38 P _{FM} = 0.587	l (Equation 2 using Equation	,				L _{EO} = (Eo P _{FD} = us	ing E	n 25-8 o	г 25-9)	- V _R)P _{FO}	
$V_{12} = 2587$						$V_{12} = pc/$						
Capacity	Checks			-		Capaci	ity (check	S			
	Actua	il Max	imum	LO:	SF?			Actu	al	Ма	ximum	LOS F?
V_{FO}	4856	See Ex	hibit 25-7	N	lo	V _{FI} = V	F					
V _{R12}	3037	460	0:All	N	O	V _{FO} = V _F V _R	-					
						V _R						
Level of S						Level c	of S	ervice	e De	termi	nation (i	f not F)
D _R = 5	.475 + 0.0073	34 v _R + 0.007	8 V ₁₂ - 0.0	00627 L _A			Į.	$O_{R} = 4.25$	52 + 0	.0086 V	₁₂ - 0.0009 L _I	D
D _R = 2	5.8 (pc/mi/ln)					D _R =	(pc/m	i/ln)				
LOS = C	(Exhibit 25-4)				LOS =	(Exhit	oit 25-4)				
Speed Es	timation	***************************************	***************************************			Speed	Est	imati	0 <i>n</i>	······································	***************************************	
•	67 (Exibit 25-1					 		oit 25-19			·	····
-	mph (Exhibit	′					•	Exhibit 2	•			
		,				ŀ	, ,					
1 4	3 mph (Exhibit 7 mph (Exhibit	•				ľ	, ,	Exhibit 2				
	mph (Exhibit	***************************************			V-1-1	S =	mph (Exhibit 2	25-15)	······································		
acio 2005 Unive	esity of Florida	- All Rinhis Re	served				TAX	1 (~ ^		Canar	alad: 11/0/2006

		RAMP	S AND	RAMI	- JUN	CTIONS	. WO	RKS	HEET			**************************************
General	l Informati					Site In						
Analyst Agency or C Date Perform Analysis Tim Project Desc	med	CRH HW Loch 10/26/06 DHV		lo Domo	Ju Ju Ar	eeway/Dir onction risdiction talysis Year	٢	el	CR 4	o Cour	on Rd On-R	amp
Inputs	Jubuon 1-701	Dac Siddy -	ZUZU ND C	m reamp	at CR 41	(1-73 = 8 L	anes)					
Upstream A	di Ramp	Terrain: Lev	el		**************************************		·····	·····	***************************************		Downstrea	m Adj Ramp
,	ΓOn										┌ Yes	• •
□ No	F Off										F No	□ Off
L _{up} =	620 ft										L _{down} =	ft
Vu =	860 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V	S _{FR} = 3 (_R , V _I)	35.0 mp	∍h		V _D =	veh/h
Convers	sion to pc	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	f	ΗV	1	p	$V = V/PHF$ $f_{HV} \times f_{p}$	X
Freeway	3670	0.94	Levi	el	14	1	0.9	33	0.9)5	4406	
Ramp	370	0.91	Leve		10	1	0.9		0.9		450	
UpStream	860	0.91	Leve	3	10	1	0.9	51	0.9)5	1047	····
DownStream	11	Merge Areas	<u> </u>				<u> </u>		Diverge	. Aroac	<u> 1 </u>	
Estimati	ion of v ₁₂	MC: GC M: CGC				Estima	tion	of v		z Micas		***************************************
L _{EO} = (Equ P _{FM} = 0.321	V ₁ uation 25-2 or 2 using Equatio					L _{EO} = (Eo P _{FD} = us	quation	V 25-8 o	′ ₁₂ = V _R r 25-9)	ŕ	V _R)P _{FD}	
$V_{12} = 1414$	······				******************************	V ₁₂ = pc		h 1				***************************************
Capach	y Checks				0.50	Capac	ny C	Service Service ex				100.50
V _{FO}	4856		imum hibit 25-7	LU:	S F?	V _{F1} = \	√ _F	Actu	al	Ma)	kimum	LOS F?
V _{R12}	1864	460	00:Ali	N	0	$V_{FO} = V_{f}$ V_{R}	-					
Level of	Service D	etermin	ation (i	f not	F)	Level	of Se	rvice	e Dete	ermii	nation (i	f not F)
D _R =	5.475 + 0.0073	34 v _R + 0.007	'8 V ₁₂ - 0.0	0627 L _a			D	_R = 4.2	52 + 0.0	086 V ₁	- 0.0009 L	```
D _R =	16.7 (pc/mi/ln)		-			D _R =	(pc/mi/			•		
	B (Exhibit 25-4))				i ''	(Exhibi	it 25-4)				
Speed E	stimation	· ·			/	Speed			on			
	311 (Exibit 25-1	······································			, , , , , , , , , , , , , , , , , , , 	 		it 25-19				
-	-	•				i .	•	Exhibit 2				
• •	.3 mph (Exhibit	·					, ,	Exhibit 2				
~	.4 mph (Exhibit .3 mph (Exhibit	•										
	.a mpn (Exhibit			***************************************		<u> </u> S =	mpn (£	Exhibit :	(3-13)		<u> </u>	Mad: 11/9/2006

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 9.43 AM

		RAMP	S AND	RAMI	P JUN	CTIONS	S W	ORKS	HEE	T	.,,	
General	Informat					Site In:		·····				***************************************
Analyst Agency or Co Date Perform Analysis Tim	ned e Period	EJB HW Loch 10/26/06 DHV			Ju Ju Ar	eeway/Dir onction risdiction risdistion	of Tra	vel	1-7: CR	sco Cou	ton Rd Off-R	amp
	ription I-75 F	D&E Study -	2020 SB (Off Ramp	al CR 41	(1-75 = 6 La)	anes)					
Inputs		F		***************************************							T	
Upstream Ad Yes	•	Terrain: Leve	91								Downstre Ramp	am Adj
											ি Yes	[▽ On
₩ No											1	□ Off
L _{up} =	ft		S _{FF} = 70.	A mob	······································	s	· -	35.0 m	nh		L _{down} =	700 ft
V _u =	veh/h				show lane	s, L _A , L _D ,V		33.0 H	ihii		V _D =	670 veh/l
Convers	ion to pc.	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Теп	ain	%Truck	%Rv		f _{HV}		f_p	v = V/PH f _{HV} x f _p	Fx
Freeway	3200	0.94	Lev	el	14	1	0.	933	0	95	3841	
Ramp	290	0.89	Leve	el	10	1	0.	951	0	95	361	
UpStream				····			<u> </u>					
DownStream	670	0.89	Leve	el	10	1	0.	951		.95	834	
Fstimativ	on of v ₁₂	Merge Areas	***************************************	***************************************		Estima	· tio	1 n E 1/		ge Areas		
				·/		ESUIIIa	uoi					
	uation 25-2 g Equation					L _{EQ} = (E P _{FD} = 0.64 V ₁₂ = 261	47 ι	ion 25- sing E	8 or 2	5-9)	- V _R)P _{FD}	
 Capacity						Capaci	····		· c			
	Actua	ıl Max	imum	LO	SF?	Гарас.		Actu	and the second 	Max	kimum	LOS F?
						V _{F1} = \	٧ _E	3841		***************************************	200	No
V _{FO}						V ₁₂		2614		44	00:All	No
V _{R12}						V _{FO} = \ V _R	/ _F -	3480)	72	200	No
						V _R		361		20	000	No
	Service E					Level c	of S	ervice	e De	termi	nation (i:	f not F)
$D_{R} = 5.478$	5 + 0.00734	$v_{R} + 0.00$	78 V ₁₂ -	0.0062	7 L _A		D_R	= 4.252	.0+	0086 V	12 - 0.0009	L _D
) _R = (p	c/mi/ln)					D _R =	25.6	(pc/mi/l	n)			
OS = (E	Exhibit 25-4)				LOS =	C (E:	xhibit 2	5-4)			
Speed Es	timation					Speed	Est	imati	on			
$N_{\rm S} = (E \times$	ibit 25-19)					D _s = 1	0.460	(Exhib	it 25-	19)		
•	(Exhibit 25	5-19)					57.1 r	mph (E>	chibit :	25-19)		
	(Exhibit 25	•					75.9 i	nph (Ex	hibit	25-19)		
	(Exhibit 25	•				-		прh (Ех				
② 2005 Unive	rsity of Florida.	All Rights Res	erved					Version			Genera	led: 11/9/2006

	Infa		S AND R	NINI DOTA	***************************************		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
"	Informat					formatio			***************************************
Analyst		CRH			eeway/Dir o	of Travel		outhbound	
Agency or Co		HW Loch	ner, Inc.		inction		CR 41	/Blanton Rd Off-I	Ramp
Date Perform		10/26/06			risdiction		Pasco	County	
Analysis Time		DHV	·		nalysis Year		2020		
	iption 1-75 F	D&E Study -	2020 SB Off	Ramp at CR 41	(1-75 = 8 La)	anes)			
Inputs		·							
Upstream Adj	·	Terrain: Lev	e l					Downstr Ramp	eam Adj
☐ Yes								1 '	F On
₩ No								j	□ Off
_up =	ft	ļ			****		·····	L_down =	700 ft
		5	S _{FF} = 70.0 r	nph	S	_{FR} = 35.0 n	nph	ļ, <u> </u>	0770
√ _u =	veh/h		Ske	etch (show lane	s, L _A , L _D ,V	$_{R},V_{l}\rangle$		V _D =	670 veh/
Conversi	on to pc	/h Under		onditions	·				······································
	V							v = V/PH	IF x
(bc\p)	(Veh/hr)	PHF	Terrain	%Truck	%Rv	f _{HV}	f _p	$f_{HV} \times f_p$	
Freeway	3200	0.94	Level	14	1	0.933	0.95	3841	
Ramp	290	0.89	Level	10	1	0.951	0.95	361	
UpStream .		7.77	20101	- 10		0.001	0.00	361	
DownStream	670	0.89	Level	10	1	0.951	0.95	834	·····
		Merge Areas			<u> </u>	0.331	Diverge /	<u> </u>	······································
Estimatio	on of V.	····	***************************************		Estima	tion of v	Diverge i	11000	······································
CAMPANIAN TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM TANAM) / / C)					·····		· · · · · · · · · · · · · · · · · · ·
		$_{12} = V_F (P_{FM})$	•	:		V ₁	$_{2} = V_{R} +$	$(V_F - V_R)P_{FD}$	
_{-EO} = (Equ	ation 25-2	or 25-3)			L _{EQ} = (E	quation 25-	-8 or 25-	9)	
					P = 041	36 usino F	quation	(Exhibit 25-11)	
_{FM} = using	Equation	(Exhibit 25-5)			PFD U.4.				
	Equation	(Exhibit 25-5)						,	
/ ₁₂ = pc/h		(Exhibit 25-5			V ₁₂ = 187	8 pc/h		,	
/ ₁₂ = pc/h	Checks			IOS E2	V ₁₂ = 187	8 pc/h <i>ty Checl</i>	(S		Luces
/ ₁₂ = pc/h			imum	LOS F?	V ₁₂ = 187 Capaci	8 pc/h ity Check Actu	ís Ial	Maximum	LOS F?
/ ₁₂ = pc/h Capacity	Checks			LOS F?	V ₁₂ = 187 Capaci V _{FI} = \	8 pc/h ity Check Actu	ís Ial		LOS F? No
P _{FM} = using / ₁₂ = pc/h Capacity V _{FO}	Checks			LOS F?	V ₁₂ = 187 Capaci	8 pc/h ity Check Actu	rs pal	Maximum	
V ₁₂ = pc/h Capacity V _{FO}	Checks			LOS F?	V ₁₂ = 187 Capaci V _{F1} = \ V ₁₂ \ V _{F0} = \	8 pc/h ty Check	rs lal	Maximum 9600	No
n ₁₂ = pc/h Capacity	Checks			LOS F?	V ₁₂ = 187 Capaci V _{F1} = V V ₁₂ V _{F0} = V V _R	8 pc/h ty Check	real 1	Maximum 9600 4400:All 9600	No No No
V _{FO}	Checks Aclua	al Max	imum		V ₁₂ = 187 Capaci V _{F1} = \ V ₁₂ V _{F0} = \ V _R V _R	8 pc/h ty Check	rs val 1 3	Maximum 9600 4400:All 9600	No No No
V ₁₂ = pc/h Capacity V _{FO} V _{R12}	Checks Actua	ol Max	imum	not F)	V ₁₂ = 187 Capaci V _{F1} = V V _{F0} = V V _R Level of	8 pc/h ty Check	rial 1 1 3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4	Maximum 9600 4400:All 9600 2000	No No No No if not F)
$V_{12} = pc/h$ Capacity V_{FO} V_{R12} Level of S $D_R = 5.475$	Checks Actual Actual Service E 5 + 0.00734	ol Max	imum	not F)	V ₁₂ = 187 Capaci V _{F1} = V V _{F0} = V V _R Level of	8 pc/h ty Check	rial 1 1 3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4	Maximum 9600 4400:All 9600	No No No No if not F)
$V_{12} = pc/h$ Capacity V_{FO} V_{R12} Level of S $D_R = 5.475$	Checks Actua	ol Max	imum	not F) 00627 L _A	V ₁₂ = 187 Capaci V _{F1} = V V _{F0} = V V _R V _R Level C	8 pc/h ty Check	(S pal 1 3 3 0 e Deter 2 + 0.008	Maximum 9600 4400:All 9600 2000	No No No No if not F)
$V_{EQ} = pc/h$ Capacity V_{FO} V_{R12} Level of S $D_R = 5.475$ $C_R = C_R$	Checks Actual Actual Service E 5 + 0.00734	Determina	imum	not F) 00627 L _A	$V_{12} = 187$ Capaci $V_{F1} = V_{12}$ $V_{F0} = V_{R}$ V_{R} Level of	8 pc/h ty Check Actu f 384 1876 1876 3486 361 of Service D _R = 4.253	e Deter 2 + 0.008	Maximum 9600 4400:All 9600 2000	No No No No if not F)
$V_{EQ} = pc/h$ V_{EQ} V_{EQ} V_{R12}	Checks Actual Service E 5 + 0.00734 c/mi/ln)	Determination of the second se	imum	not F) 00627 L _A	$V_{12} = 187$ Capaci $V_{F1} = V_{12}$ $V_{F0} = V_{R}$ V_{R} Level of $D_{R} = V_{R}$	8 pc/h ty Check	e Deter 2 + 0.008	Maximum 9600 4400:All 9600 2000	No No No No if not F)
V_{FO} V_{FO} V_{R12} V_{R2} V_{R3} V_{R4}	Checks Actual Service D 5 + 0.00734 c/mi/ln) Exhibit 25-4 timation	Determination of the second se	imum	not F) 00627 L _A	V ₁₂ = 187 Capaci V _{F1} = \(\text{V}_{12} \) V _{F0} = \(\text{V}_{R} \) V _R Level c Speed	8 pc/h ty Check	(s ial 1 3 0 e Deter 2 + 0.008 in) :5-4) on	Maximum 9600 4400:All 9600 2000 rmination (No No No No if not F)
V_{FO} V_{FO} V_{R12} V_{R2} V_{R3} V_{R4}	Checks Actual Service E 5 + 0.00734 c/mi/ln) Exhibit 25-4 ctimation ibit 25-19)	Determina V R + 0.00	imum	not F) 00627 L _A	V ₁₂ = 187 Capaci V _{FO} = V V _R V _R Level C Speed D _S = (8 pc/h ty Check Actu In 384 1876 F - 3486 361 of Service DR = 4.255 19.2 (pc/mi/ B (Exhibit 2 Estimati 0.460 (Exhibit	e Deter 2 + 0.008 in) 5-4) on	Maximum 9600 4400:All 9600 2000 cmination (36 V ₁₂ - 0.000	No No No No if not F)
V_{FO} V_{FO} V_{R12	Checks Actual Service L 5 + 0.00734 c/mi/ln) Exhibit 25-4 timation ibit 25-19) (Exhibit 25	Determina V R + 0.00	imum	not F) 00627 L _A	V ₁₂ = 187 Capaci V _{F1} = \(\text{V}_{12} \) V _{F0} = \(\text{V}_{R} \) V _R Level o D _R = \(\text{LoS} \) Speed D _S = \(\text{S} \) S _R = \(\text{S} \)	8 pc/h ty Check Actu /F 384 1873 361 361 Def Service Def 19.2 (pc/mi/ B (Exhibit 2 Estimati 0.460 (Exhibit 57.1 mph (E:	(S ial 1 3 0 e Deter 2 + 0.008 in) :5-4) on oit 25-19 xhibit 25-	Maximum 9600 4400:All 9600 2000 rmination (36 V ₁₂ - 0.000	No No No No if not F)
V_{FO} V_{FO} V_{R12	Checks Actual Service E 5 + 0.00734 c/mi/ln) Exhibit 25-4 ctimation ibit 25-19)	Determina V R + 0.00 3-19)	imum	not F) 00627 L _A	$V_{12} = 187$ Capaci $V_{F1} = V_{12}$ $V_{F0} = V_{12}$ $V_{R} = V_{R}$ Level of $V_{R} = V_{R}$ V	8 pc/h ty Check Actu In 384 1876 F - 3486 361 of Service DR = 4.255 19.2 (pc/mi/ B (Exhibit 2 Estimati 0.460 (Exhibit	(S 1 1 1 1 1 1 1 1 1 1	Maximum 9600 4400:All 9600 2000 7mination (36 V ₁₂ - 0.000	No No No No if not F)

		RAMP	S AND	RAME	· JUN	CTIONS	WC	RKSI	HEET		
General	Informati					Site In	***************************************		***************************************		
Analyst Agency or Co Date Perform Analysis Time	ned e Period	CRH HW Loch 10/26/06 DHV			Ju Ju Ar	eeway/Dir onction risdiction nalysis Year	ĺ	el	I-75 Sou CR 41/B Pasco C 2020	lanton Rd On-F	Ramp
Project Desc Inputs	ription 1-75 P	D&E Study -	2020 SB (n Kamp	at CR 41	(1-/5 = 6 La	anes)			<u></u>	
mputs		Terrain: Lev	ام							T	-
Jpstream Ad	j Ramp	restain. Lev	CI.								m Adj Ramp
√ Yes	Г On									Yes	□ On
Γ No	F Off									I No	
_up =	700 ft				***************************************					-down =	ft
/u =	290 veh/h	,	S _{FF} = 70.		show lane	s, L _A , L _D ,V	111	35.0 mpl	1	V _D =	veh/h
Convers	ion to pc/	h Under				-i -Ai -Bi	K, 1,				
(pc/h)	V (Veh/hr)	PHF	Terr		%Truck	%Rv		f _{HV}	fp	v = V/PHF f _{HV} x f _p	×
Freeway	2910	0.94	Lev	el	14	1	0.9	933	0.95	3493	····
Ramp	670	0.89	Lev	el	10	1	0.9		0.95	834	
UpStream	290	0.89	Lev	el	10	1	0.9	951	0.95	361	
DownStream	**************************************						<u> </u>				***
Estimatio	on of V ₁₂	Merge Areas		*		Estima	tion		Diverge Are	eas	
·····		₂ = V _F (P _{FM})						-	/ _F - V _R)P _{FD}	
- _{EO} = 709.38	Equation 25	5-2 or 25-3)			:	L _{EO} = (Eo	quation			, .	
o.599	using Equation	n (Exhibit 2	5-5)						Exhibit 25-1	1)	
/ ₁₂ = 2093						V ₁₂ = pc/					
	Checks					Capaci		hecks		······································	
E	Actual	Мах	imum	LOS	3 F?			Actua	anna ann patrimise ann	Maximum	LOS F?
V_{FO}	4327	See Ex	hibit 25-7	N		V _{FI} = \	F				
					·	V ₁₂					
	***************************************					V _{FO} = V _F	-				
V _{R12}	2927	460	IIA:00	N	0	V _R					
X						V _R					
	Service D				5)	Level o				nination (
• •	5.475 + 0.0073	4 v _R + 0.007	'8 V ₁₂ - 0.0	00627 L _A			D	_R = 4.25	2 + 0.0086	V ₁₂ - 0.0009 L	D
_R = 2	2.9 (pc/mi/ln)					D _R =	(pc/mi	/ln)			
OS = C	(Exhibit 25-4)					LOS =	(Exhib	it 25-4)			
Speed Es	stimation					Speed	Est	imatic	n		
1 _s = 0.33	38 (Exibit 25-19	9)				D _s =	(Exhib	it 25-19)			
0	mph (Exhibit	•				i -	mph (l	Exhibit 2	5-19)		
	B mph (Exhibit					l .		Exhibit 2			
	I mph (Exhibit					ľ		Exhibit 2	•		
	ersity of Florida,		Spryad	***************************************		f		Version :		Conor	ated: 11/9/2006

			AND	KAW	L JUN	CTIONS	***************************************		EEI		
	nformatio		······································		·····	Site Inf					
Analyst Agency or Com Dale Performed		CRH HW Lochne 10/26/06	er, Inc.		Ju	eeway/Dir c nction risdiction	of Trav	el	I-75 Soutl CR 41/Bla Pasco Co	anton Rd On-R	Ramp
Analysis Time f		DHV				insdiction alysis Year	"		2020	rutty	
Project Descrip)20 SB C	n Ramp	(1-75 = 8	Lanes)	***************************************				
nputs		······································	***************************************		 		·····				
Jpstream Adj F		rain: Level	******							Downstrea	m Adj Ramp
F Yes □	On									☐ Yes	
F No F	Off									1	F Off
_{-up} = 70	00 ft	S	_{:e} = 70.	∩ moh	*****		· -	35.0 mph		L _{down} =	
	0 veh/h		Ì	Sketch (s, L _A , L _D ,V		33.0 mpn		V _D =	veh/h
Conversio	n to pc/h	<u>Under E</u>	Base (<u>Condi</u>	tions						······································
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv	f	HV	fp	v = V/PHF f _{HV} x f _p	X
Freeway	2910	0.94	Leve	el	14	1	0.9		0.95	3493	
Ramp	670	0.89	Leve	***	10	1	0.9		0.95	834	
JpStream	290	0.89	Leve	<u> </u>	10	11	0.9	151	0.95	361	
DownStream	1.66	erge Areas			<u> </u>		J		Ara		
Estimation		ige Aleas		***************************************	·····	Estima	tion		iverge Are	d5	
			***************************************			LSuma					
- _{EO} = (Equation	on 25-2 or 25-3		5)			L _{EO} = (Eo P _{FO} = us		25-8 or 2	= V _R + (V _I :5-9) chibit 25-11		
/ ₁₂ = 1287 pc		•	,			V ₁₂ = pc/		,		,	
Capacity (·····					Capaci	***************************************	hocks			
Japachy		N. A. A. A. A. A. A. A. A. A. A. A. A. A.			C	Capaci	YY		1		100 50
	Actual	Maxin	וונטוו	LO	SF?	\/ \	, 	Actual		laximum	LOS F?
V_{FO}	4327	See Exhi	oit 25-7	N	lo	V _{FI} = V V ₁₂	['] F	····			
V _{R12}	2121	4600	· A II	à.	lo	V _{FO} = V _F V _R					
* R12	2121	4000	.AH	114		V _R					
evel of S	ervice Dei	ermina	tion (i	fnot	F)	Level c	of Se	ervice	Determ	ination (i	f not F)
	75 + 0.00734 v						D	_D = 4.252	+ 0.0086 \	V ₁₂ - 0.0009 L	``
) _R = 16.0	6 (pc/mi/ln)	``	12	·			(pc/mi/	(ln)		1,6	J
	Exhibit 25-4)	······································						it 25-4)			
Speed Est	imation	***************************************	······			Speed	Esti	matio	7		
M _S = 0.298	(Exibit 25-19)					D _s =	(Exhib	if 25-19)			
_R = 61.7 n	nph (Exhibit 25	-19)				S _R =	mph (E	Exhibit 25	-19)		
	nph (Exhibit 25	•				S _o =	mph (6	Exhibit 25	·19)		
็ก= 67.8 ก	내가요 무늬 시시 나가요 스크										
•	nph (Exhibit 25 nph (Exhibit 25	•				_		Exhibit 25	-15)		

Copyright © 2005 University of Florida, All Rights Reserved

Generated: 11/9/2006 9:40 AM

			S AND	RAM	P JUN	CTIONS	S W(ORKS	HEE	T			
General	Informati					Site In:			******************				
Analyst Agency or Co Date Perform Analysis Time	ed Period	CRH HW Loch 10/26/06 DHV			Ju Ju Ar	eeway/Dir onction nction nisdiction nalysis Year	r	vel	SF	rnando (ez Blvd. Off-I	Ramp	
	iption I-75 F	D&E Study -	2020 NB C	off Ramp	at SR 50	(I-75 = 6 La	anes)						
Inputs	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	L.							·····				
Upstream Adj — Yes	Ramp □ On	Terrain: Lev	el								Downstre Ramp	am Adj	
											F Yes		
	□ Off										□ No		
Tup =	ft		S _{FF} = 70.	0 mph		S	FR =	35.0 n	nph	**************			
√ _u =	veh/h			Sketch (show lane	s, L _A , L _D ,V					V _D =	1060	veh/
Conversi	ion to pc	/h Under	· · · · · · · · · · · · · · · · · · ·						***************************************				*******
(pc/h)	V (Veh/hr)	PHF	Terri	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PH $f_{HV} \times f_p$	Fχ	
Freeway	4040	0.93	Leve	el	14	2	0.	931	0	.95	4911		
Ramp	1260	0.95	Leve	el	19	2	0.	910	0	.95	1534		
UpStream				······································			<u> </u>						
DownStream	1060	0.95	Leve	el .	19	2	0.	910		.95	1291		
Ectimatic	on of v ₁₂	Merge Areas			***************************************	Estima				ge Area:	S	······································	
						Estima	uoi						
	ation 25-2 JEquation					L _{EO} = (E P _{FD} = 0.4 V ₁₂ = 305	50 ι	ion 25. Ising E	.8 or 2	25-9)	- V _R)P _{F0}		
Capacity	Checks					Capaci	ity (Check	(S				***************************************
	Actua	ıl Max	dmum	LO	SF?		adausias sakata	Actı	ıal	Ма	ximum	LOS	= ?
V_{FO}						V _{F1} = '	V _F	491	1	-	7200	No	
*F0						V ₁₂	$\overline{}$	305	4	44	100:All	No	
V _{R12}						V _{FO} = \	- 1	337	7	7	200	No	*****
						V_R		153	4	3	800	No	
	<u>Service L</u>					Level o	of S	ervic	<u>e De</u>	termi	nation (i	f not F	<u> </u>
$D_{R} = 5.47$	5 + 0.00734	$V_R + 0.00$	78 V ₁₂ -	0.0062	27 L _A		D _R	= 4.252	2 + 0.	0086 V	1 ₁₂ - 0.0009	} L _D	
) ^K = (t	oc/mi/ln)					D _R =	12.5	(pc/mi/	ln)				
.OS = (E	Exhibit 25-4)				LOS =	B (E:	xhibit 2	(5-4)				
Speed Es	timation			······································		Speed	Est	imati	on			***	
1 _s = (Ex	ibit 25-19)							(Exhil	***************************************	·19)		······································	*************
•	(Exhibit 25	5-19)						mph (E:		-			
	(Exhibit 25	•						nph (E:					
	(Exhibit 25	•						mph (E:					
		•						- L					

f					***************************************								
<u> </u>			PS AND	RAM	P JUN					ET		·	
}	Informat					Site Inf						***************************************	
Analyst		CRH				eeway/Dir o	of Trav	vel		'5 Northbo		_	
Agency or Co Date Perform			chner, Inc.			nction					z Blvd. Off-I	Ramp	
Analysis Time		10/26/0 DHV	J6			risdiction				ernando C	ounty		
Project Descr			, 2020 NB ()ff Pamo		alysis Year			<u> </u>	120			
Inputs	ipson (101	Dae Olda	- 2020 ND (zii i tamp	at Oil Oo	(1-7-3 - 0 Ec	iiiesj					·	
Upstream Ad	i Ramp	Terrain: L	evel			······································					Downstre	am Ad	j
□ Yes	□ On										Ramp F Yes	▽ ∧	n
₽ No	[Off										l No		
L _{up} =	ft										L _{down} =	2360	ft
V,, =	veh/h		$S_{FF} = 70$					35.0 m	ìph		V _D =	1060	veh/h
	······		·			s, L _A , L _D ,V _I	$_{R},V_{I})$				D	1000	venn
Convers	ion to pc	/h Unde	er Base (Condi	tions		,						
(pc/ħ)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		f_p	v = V/PH f _{HV} x f _p	Fx	
Freeway	4040	0.93	Lev	3	14	2	0.5	931	().95	4911	*****	
Ramp	1260	0.95	Lev	el	19	2	0.	910	().95	1534		
UpStream													
DownStream	1060	0.95	Lev	31	19	2	0.	910	().95	1291	***************************************	
در سو		Merge Are	as	*******						ge Areas	·····		
Estimatio	on of V ₁₂					Estima	tior	of v	12				
	٧	12 = V _F (P _F	_M)					V ₁	₂ = V	_R + (V _F	- V _R)P _{FD}		
L _{EQ} = (Equ	ation 25-2	or 25-3)				L _{EQ} = (E	quat	ion 25-	8 or	25-9)			
P _{FM} = using	g Equation	(Exhibit 25	5-5)			P _{FD} = 0.26	60 L	ısing E	quati	on (Exhit	oit 25-11)		
V ₁₂ = pc/h						V ₁₂ = 241	2 pc	:/h					
Capacity	Checks					Capaci			S		·		·
	Actua	al N	laximum	LO	SF?			Actu	recommendation and the commendations	Max	imum	LOS	F?
. ,						V _{F1} ≐ \	/ _E	4911		96	800	No	
V _{FO}						V ₁₂	,	2412	2	440	ilA:0	No	
V _{R12}				***************************************		V _{FO} = V V _R	/ _F ~	337	7	96	00	No	
						V _R		1534	1	38	00	No	
Level of	Service L)etermi	nation (i	f not i	F)	Level c	of S	ervic	e De	termin	ation (i	f not l	=)
D _R = 5.47	5 + 0.00734	Ψ _R + 0.	0078 V ₁₂ -	0.0062	7 L _A		D _R :	= 4.252	2 + 0.	0086 V,	2 - 0.0009) L _D	
D ^B = (t	oc/mi/ln)					D _R =	7.0 (p	oc/mi/Ir	1)				
LOS = (E	Exhibit 25-4)				LOS =	4 (E)	xhibit 2	5-4)				
Speed Es	stimation					Speed	Est	imati	on				
$M_S = (Ex$	ibit 25-19)					$D_s = 0$	0.566	(Exhib	oit 25	-19)			
	(Exhibit 25	5-19)				S _R = :	54.2 r	mph (Ex	khibit	25-19)			
·	(Exhibit 25					1	75.8 r	nph (Ex	khibit	25-19)			
	(Exhibit 25	•				i		•		25-15)			
nt © 2005 Unive			Reserved			L		Varsian		/	Genera	ted: 11/9	/2006

Copyrigh

9:50 AM

		RAMP	S AND	RAMI	P JUN	CTIONS	WOF	RKSHE	ET		
General	Informati	on		***************************************		Site Im	forma	tion			
Analyst Agency or Co Date Perform Analysis Tim	ned e Period	CRH HW Loch 10/26/06 DHV			Ju Ju Ar	eeway/Dir on control of the control	ſ	S H	75 Northi R 50/Cor ernando)20	tez Blvd. On-F	Ramp
F	ription 1-75 P	D&E Study -	2020 NB (On Ramp	at SR 50	(1-75 = 6 La	anes)				
Inputs		F	- f							1	
Upstream Ad	j Ramp	Terrain: Lev	eı								n Adj Ramp
√ Yes	ΓOn									☐ Yes	
l™ No	ic Oll									L ^{dowu} =	
L _{up} =	2360 ft		S _{FF} = 70	0 mah			S _{FR} = 35	S O mph		_	
Vu =	1260 veh/h				show lane	s, L _A , L _D ,V).0 mpn		V ₀ =	veh/h
Convers	ion to pc/	<u>'h Under</u>	Base	Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Ten	rain	%Truck	%Rv	t ^{H/}	,	f_p	v = V/PHF f _{HV} x f _p	X
Freeway	2780	0.94	Lev	el	14	2	0.93	1	0.95	3343	
Ramp	1060	0.95	Lev	el	19	2	0.91	0	0.95	1291	
UpStream	1260	0.95	Lev	el	19	2	0.91	0	0.95	1534	***
DownStream			<u> </u>		<u> </u>		<u> </u>				
Ectimati		Merge Area	3			Fatima			rge Area	IS	
Estimation			***************************************	***************************************	***************************************	Estima	uon e				
	Equation 25 using Equation						ing Equ	, 2	9)	- V _R)P _{FD}	
Capacity	······				***************************************	$V_{12} = pc$					
Сарасиу						Capaci	ny Cn	ecks			
	Actua	i ima)	timum	LO	SF?	<u> </u>		Actual	Ma	aximum	LOS F?
V_FO	4634	See Ex	hibit 25-7	N	0	V _{F1} = V	[/] F				
V _{R12}	3280	460	OO:AII	И	0	V _{FO} = V _F V _R V _R	-				
Level of	Service D	etermin	ation (i	if not	F)	l evel d	of Ser	vice D	eterm.	ination (i	f not F)
	5.475 + 0.0073									₁₂ - 0.0009 L _C	**
		ĸ	12	Α		D _R =	pc/mi/lr			12 L	J
	(Exhibit 25-4)	١				1	(Exhibit	•			
	stimation	1				Speed	·				
	·	O.	***************************************		***************************************		(Exhibit				
S _R = 59.:	81 (Exibit 25-1 3 mph (Exhibit 9 mph (Exhibit	25-19)				S _R =	mph (Ex	25-19) thibit 25-19 thibit 25-19	•		
	4 mph (Exhibit	•				i .		thibit 25-15	•		were and a second with the second second second second second second second second second second second second

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/9/2006 9:52 AM

		RAMP	S AND	RAMI	P JUN	CTIONS	WC	RKS	HEE	T		· · · · · · · · · · · · · · · · · · ·
General	'Informat	ion				Site In	form	ation)			
Analyst Agency or C Date Perforr Analysis Tim	ned	CRH HW Loch 10/26/06 DHV)n Damn	Ju Ju Ar	eeway/Dir onction risdiction ralysis Year	<u> </u>	el	SR	nando (ez Bivd, On-	Ramp
Inputs	mption 14701	DRE Glody -	ZUZU IYD (лі қашр	<u> </u>	(F13 - 0 La	anes)					
mpars		Terrain: Lev	el								T	
Upstream Ad	dj Ramp										1	m Adj Ramp
I ∨ Yes	□ On										Yes	
□ No	[Off										I≥ No	
L _{up} =	2360 ft		~ ~~								L _{down} =	ft
Vu =	1260 veh/h		************************	Sketch (s, L _A , L _D ,V		35.0 mj	oh		V ₀ =	veh/h
Convers	ion to pc	<u>/h Under</u>	Base (<u>Condi</u>	tions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	1	f _{HV}		f _p	v = V/PHF	X
Freeway	2780	0.94	Lev	el	14	2	0.9	931	0	95	3343	
Ramp	1060	0.95	Lev		19	2	0.9	910	0	95	1291	
UpStream	1260	0.95	Lev	el	19	2	0.9	910	0	.95	1534	
DownStream	nj	Mosao Aspa			<u> </u>		<u> </u>		D:		<u> </u>	
Estimati	on of V ₁₂	Merge Areas	}	***************************************	***************************************	Estima	tion	ofv		je Areas	j	
		₁₂ = V _F (P _{FM}	}			J C//// Cl	LICII	······		. /\/	17 JD	
. = /Fnu	ation 25-2 or 2		,			l - /r				R * (VF *	· V _R)P _{FD}	
			E 61			L _{EQ} = (Ed				0		
,	using Equatio	ni (Exilidii∠	0-0)			P _{FD} = us		luation (Exhibi	(25-11)		
$V_{12} = 849$		···	·····			V ₁₂ = pc/			***************************************			
Capacity	/ Checks					Capaci	ity C	Assistant and the second		ettimeeettimenteeriga	***************************************	
<u> </u>	Actua	ıl Max	dmum	LO	SF?	ļ		Actu	al	Ma	ximum	LOS F?
V_{FO}	4634	See Ex	hibit 25-7	N	0	V _{FI} = V	F F			<u></u>		
			Per de la la la la la la la la la la la la la			V _{FO} = V _F						
V _{R12}	2140	460	00:All	N	O	V _R		**************************************				
Lovelof	Service L	l	ofice /		-	V _R						
						Lever					nation (i	·····
	5.475 + 0.0073 17.7 (pc/mi/ln)	74 4 R + 0.001	0 V ₁₂ = 0.0	NOZI LA		n -		• •	oz + u.	0000 V 1	₂ - 0.0009 L _t)
''	3 (Exhibit 25-4	1				l '`	(pc/mi /Eyhib	/in) it 25-4)				
	stimation			***************************************		Speed	·					
	······································	······································	·		***************************************	 	····	it 25-19	***************************************	······································	······································	
•	11 (Exibit 25-1					ľ	•	Exhibit :	•			
.,	3 mph (Exhibit	•				i ''						
	3 mph (Exhibit 4 mph (Exhibit					ľ		Exhibit 2				
	ersity of Florida		sorvari			<u> </u>		Exhibit 2			C	Sleri: 11/9/2006

<u> </u>		RAMP	OMIND	1/2/(A)	0014						
	<u>Informat</u>					Site In			1		
Analyst		CRH			Fr	eeway/Dir d	of Trav	/el		ulhbound	
Agency or Co		HW Loch	ner, Inc.		Ju	nction			SR 50/0	Cortez Blvd. Off-	Ramp
Date Perform		10/26/06			Ju	risdiction			Hernan	do County	
Analysis Time		DHV				alysis Yea			2020		
Project Descr	iption 1-75 F	D&E Study -	2020 SB (Off Ramp	at SR 50	(1-75 = 6 La	anes)				
Inputs											
Upstream Adj	Ramp	Terrain: Lev	el							Downstr Ramp	eam Adj
	□ On									1	[On
₽ No	☐ Off										□ Off
L _{up} =	ft			·						L _{down} =	2360 ft
			S _{FF} = 70	.0 mph		S	FR =	35.0 m	iph	_	000
^" =	veh/h			Sketch (show lane	s, L _A , L _D ,V	$_{R}$, V_{t})			V _D =	990 veh/l
Conversi	on to pc	h Under							······································	11	****
	V			001101			Г			v = V/PF	fχ
(pc/h)	(Veh/hr)	PHF	Teri	rain	%Truck	%Rv		f _{HV}	fp	$f_{HV} \times f_p$	
Freeway	3040	0.93	Lev	el	14	2	0.9	931	0.95	3695	
Ramp	830	0.89	Lev	ei	19	2	0.9	910	0.95	1079	**************************************
UpStream							1				
DownStream	990	0.89	Lev	el	19	2	0.9	910	0.95	1287	***************************************
··········	······································	Merge Areas	L	**	J		1		Diverge A	reas	
Estimatio	n of V.,				***************************************	Estima	tion	of v			
		- V (D	1							()	
		$_{12} = V_F (P_{FM})$)							$(V_F - V_R)P_{FD}$	
_{EO} = (Equ						L _{EO} = (E	quati	ion 25-	8 or 25-9)	
o _{FM} = using	Equation	(Exhibit 25-5)			$P_{FD} = 0.6$	18 u	ising E	quation (l	Exhibit 25-11)	
V ₁₂ = pc/h						V ₁₂ = 269)6 pc	:/h			
Capacity	Checks	······································				Capaci	itv C	heck	S		
	Actua	al Ma	kimum	1 10	S F?			Actu	elektrikanomen filmen elektrikan	Maximum	LOS F?
				1	<u> </u>	V _{FI} = \	7	3695		7200	No
V_{FO}						<u></u>					
				 		V ₁₂		2696	5	4400:All .	No
V _{R12}						V _{FO} = \ V _R	√ _F -	2616		7200	No
RIZ						V _R		1079)	2000	No
Level of S	Service L	Determin	ation (if not	F)	Level o	of S	ervice	e Deter	mination (if not F)
*********		4 v _R + 0.00								6 V ₁₂ - 0.000	
	c/mi/ln)	κ	12			n -				- 12	0
• •	·					• •		(pc/mi/l	•		
	Exhibit 25-4	·						khibit 2	· · · · · · · · · · · · · · · · · · ·		
Speed Es	timation					Speed	***************************************				····
$M_S = (Ex$	ibit 25-19)					3			it 25-19)		
S _R = mph	(Exhibit 25	5-19)				S _R =	55.3 r	nph (Ex	khibit 25-	19)	
	(Exhibit 25	5-19)				S _o =	76.8 г	nph (Ex	khibit 25-	19)	
2 <u>0</u> (11821)						. ~					
	(Exhibit 25	5-14)				S =	59 8 r	noh (Ex	chibit 25-	15)	

Copyright @ 2005 University of Florida, Ali Rights Reserved

Generaled 11/9/2006 9:55 AM

L _{up} =	mpany ed Period otion I-75 F Ramp On Off	CRH HW Loch 10/26/06 DHV	2020 SB O	ff Ramp a	Ju Ju An	Site Interest of the Interest	of Trav		I-75 S SR 50 Herna	outhbound I/Cortez Blv Indo County		₹amp
Agency or Con Date Performe Analysis Time Project Descrip Inputs Upstream Adj I Yes (No (Period Definition I-75 F Ramp On Off	HW Loch 10/26/06 DHV PD&E Study -	2020 SB O	ff Ramp a	Ju Ju An	nction risdiction nalysis Year	r	vel	SR 50 Herna	/Cortez Blv		₹amp
Project Descrip Inputs Upstream Adj I Yes [No [Lup = V	Ramp On Off	D&E Study -		ff Ramp a							1	
Inputs Upstream Adj F Yes [No [Lup = Vu = Vu	Ramp On Off			II Kamp a	al SR 50	(1-75 = 8 La			2020	····		·
Upstream Adj I Yes [No [Lup =	On Off	Terrain: Lev	el				anes)	······				
FYes [FNo [Lup = Vu = Vu	On Off		•									
L _{op} =	ft									Ran	np	am Adj
L _{op} =	ft									1		F On
V _u =										- 1	No n=	C Off 2360 ft
		3	S _{FF} = 70.0) mph		S	_{ER} =	35.0 m	ph			
Conversio	/eh/h		S	Sketch (s	how lane	s, L _A , L _D ,V				V _D :	=	990 veh/
	on to pc	h Under				A U	N (*	·····		L	······································	···
(pc/h)	V (Veh/hr)	PHF	Tena		%Truck	%Rv		f _{HV}	f _р	1	V/PHI x f _p	×
Freeway	3040	0.93	Level	ı	14	2	0.9	931	0.95		3695	***************************************
Ramp	830	0.89	Level	1	19	2		910	0.95		1079	
UpStream								***************************************				
DownStream	990	0.89	Level	<u> </u>	19	2	0.9	910	0.95		1287	
F" - 41 41-		Merge Areas							Diverge /	Areas		
Estimatio	n or v ₁₂					Estima	tion	$of v_1$	2			
_{EO} = (Equa P _{FM} = using V ₁₂ = pc/h	ation 25-2 Equation					L _{EQ} = (E ₀ P _{FD} = 0.43 V ₁₂ = 222	36 u	ion 25-lising Ed	8 or 25-	(V _E - V _R) 9) (Exhibit 25-		
Capacity (Checks					Capaci	ty C	heck	s			
	Actua	l Max	imum	LOS	SF?			Actua	31	Maximum		LOS F?
V_{FO}						V _{FI} = \	F	3695		9600		No
- 40					-	V ₁₂		2220		4400:All		No
V_{R12}						$V_{FO} = V$	/ _F -	2616		9600		No
						V _R		1079		2000		No
evel of S						Level c	of Se	∍rvic∈	Detei	rminatio	on (if	not F)
D _R = 5.475	+ 0.00734	v _R + 0.00	78 V ₁₂ - (0.00627			······	***************************************		36 V ₁₂ - 0	·····	
) _R = (pc	:/mi/ln)					D _R =	18.8 (pc/mi/li	n)			_
OS = (Ex	khibit 25-4)			1	,-		thibit 2:				
Speed Est	imation					Speed						
	oit 25-19)	***************************************			···				it 25-19	<u> </u>	······································	
u .	(Exhibit 25	19)			1			-	hibit 25	•		
	Exhibit 25	•			ŀ				hibit 25			
	Exhibit 25 Exhibit 25	•						•	hibit 25			
= mph (13)					n/ 40	JDD 41=X	EIDII Z5:	- 101		

	·····	RAMP	SAND	RAM	P JUN	CTIONS	WOR	KSHE	ET		·····	
General	Informat		······································	Site Information								
Analyst Agency or C Date Perform Analysis Tim Project Desc	ned e Period	CRH HW Loch 10/26/06 DHV		Jt Ji Ai	Freeway/Dir of Travel Junction Jurisdiction Analysis Year t SR 50 (I-75 = 6 Lanes)			I-75 Southbound SR 50/Cortez Blvd. On-Ramp Hernando County 2020				
Inputs	11pho11 1-701	Dar Sudy -	2020 SB 1	on Kanip	at or ou	(1-75 = 6 La	anes)					
	······································	Terrain: Lev	e									
Upstream Ac	lj Ramp									Downstrea	ım Adj Ramp	
₹ Yes	ſ On	On						Γ Yes Γ On				
Γ No	F Off										L Off	
L _{up} =					L _{down} =	ft						
Vu =	830 veh/h	S _{FF} = 70.0 mph				$S_{FR} = 35.0 \text{ mph}$				V _D =	veh/h	
	MARGUELMANNA MARTINIA	Sketch (show lane				es, L _A , L _D , V _R , V _I)						
Convers	ion to pc	/h Under	Base	<u>Condi</u>	tions	····						
(pc/h)	V (Veh/hr)	PHF	IF Terrain		%Truck	%Rv	f _{HV}	A + CA + A + A + A + A + A + A + A + A +	f_p	v = V/PHF f _{HV} x f _p	X	
Freeway	2210	0.94			14	2	0.931		0.95	2658		
Ramp	990	0.89			19	2	0.910		0.95	1287		
UpStream DownStream			el	19	2	0.910		0.95	1079			
Merge Areas							Diverge Areas					
Estimation of v ₁₂						Estimation of v ₁₂						
V ₁₂ = V _F (P _{FM})						$V_{12} = V_R + (V_F - V_R)P_{FD}$						
L _{EQ} = 552.15 (Equation 25-2 or 25-3)						L _{EQ} = (Equation 25-8 or 25-9)						
P _{FM} = 0.595 using Equation (Exhibit 25-5)						P _{FD} = using Equation (Exhibit 25-11)						
$V_{12} = 1582$	V ₁₂ = pc/h											
Capacity	Capacity Checks											
	Actua	Max Max	Maximum		SF?			Actual	M	aximum	LOS F?	
V_{FO}	3945	See Exhibit 25-7		No		V _{FI} = V _F V ₁₂						
V _{R12} 28		4600:All		No		$V_{FO} = V_F$ V_R	-					

Level of Service Determination (if not F)							Level of Service Determination (if not F)					
D _R = 5.475 + 0.00734 v _R + 0.0078 V ₁₂ - 0.00627 L _A						$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$						
P _R = 23.3 (pc/mi/ln)						D _R = (pc/mi/ln)						
OS = C (Exhibit 25-4)						LOS = (Exhibit 25-4)						
Speed Es	Speed Estimation											
$M_{\rm S} = 0.34$	D _s = (Exhibit 25-19)											
S _R = 60.3 mph (Exhibit 25-19)						S _R = mph (Exhibit 25-19)						
67.9 mph (Exhibit 25-19)						S ₀ = mph (Exhibit 25-19)						
= 62.2 mph (Exhibit 25-14)							S = mph (Exhibit 25-15)					
at © 2005 University of Florida, All Rights Reserved □ 2005 University of Florida, All Rights Reserved									·	Concesi	ed: 11/9/2006 1	

		RAMP	S AND	RAMI	P JUN	CTIONS	S WC	RKS	HEET			
General	Informati	~~~~	***************************************			Site In						
Analyst Agency or C Date Perforr Analysis Tin	ompany ned ne Period	CRH HW Loch 10/26/06 DHV			Ju Ju Ar	eeway/Dir onction risdiction nalysis Year	of Trav		I-75 Sc SR 50/	outhbound Cortez Blvd. On Ido County	-Ramp	
	cription 1-75 P	D&E Study -	2020 SB C	n Ramp	at SR 50	(1-75 = 8 La	anes)					
Inputs												
Upstream A	dj Ramp	Terrain: Lev	el								am Adj Ramp	
√ Yes	□ On		Tyes Ton									
∏ No	IZ Off		□ No □ Off L _{down} = ft									
L _{up} =	2360 ft											
Vu =	830 veh/h	,	$S_{FF} = 70.0 \text{ mph}$ $S_{FR} = 35.0 \text{ mph}$ $V_D = \text{veh/h}$ Sketch (show lanes, L_A , L_D , V_R , V_f)								veh/h	
Convers	sion to pc	h Under				<u> </u>	1, 1					
(pc/ħ)	V (Veh/hr)	PHF	Terr		%Truck	%Rv		н∨	fp	v = V/PHI f _{HV} x f _p	= X	
Freeway	2210	0.94	Lev	el	14	2	0.9	31	0.95	2658		
Ramp	990	0.89	Lev	el	19	2	0.9	10	0.95	1287		
UpStream	830	0.89	Lev	비	19	2	0.9	10	0.95	1079		
DownStream	n	Maraa Asaa			L				D:			
Estimati	on of v ₁₂	Merge Areas				Estima	tion	of v	Diverge A	veas		
		₁₂ = V _E (P _{FM}	,							(1/ 1/ 10)	······································	
	ation 25-2 or 2	5-3)				$V_{12} = V_R + (V_F - V_R)P_{FD}$ $V_{EQ} = \text{ (Equation 25-8 or 25-9)}$ $P_{ED} = \text{ using Equation (Exhibit 25-11)}$						
' _{FM} = 0.236 V ₁₂ = 685	using Equatio	n (Exhibit 2	o-0)			V ₁₂ = pc/	-	luanon (EXMIDIL 23	-[1]		
	/ Checks					Capaci		hook				
Capacity	Actua	l May	imum	10	SF?	Capaci	T			Mavimum	100.00	
V _{FO}	3945		hibit 25-7	LO.		V _{F1} = \	/ _F	Actu	as a second	Maximum	LOS F?	
						V ₁₂						
V _{R12}	1972	460	0:All	И	io	$V_{FO} = V_{FO}$	-					
						V_R						
Level of	Service L	etermin)	ation (i	f not	F)	Level	of Se	ervice	Deter	mination ((if not F)	
D _R =	5.475 + 0.0073	34 v _R + 0.007	'8 V ₁₂ - 0.0	0627 L _A			D	R = 4.25	52 + 0.008	6 V ₁₂ - 0.0009 I	D	
D _R =	16.3 (pc/mi/ln)					D _R =	(pc/mi	/ln)				
LOS =	B (Exhibit 25-4))				LOS =	(Exhib	it 25-4)				
Speed E	stimation	***************************************			***************************************	Speed	Esti	matic	on			
$M_{\rm S} = 0.3$	05 (Exibit 25-1	9)	~			<u> </u>		it 25-19				
	.5 mph (Exhibit	*				S _R = mph (Exhibit 25-19)						
	.3 mph (Exhibit	•				S ₀ = mph (Exhibit 25-19)						
*	.5 mph (Exhibit 7 mph (Exhibit	•				[]		Exhibit 2				
	ersity of Florida	······································	copod			£		/orgina 6		Const	aled: 11/9/2006 :	

11:33 AM

APPENDIX 'Q' DESIGN YEAR (2030) BUILD FREEWAY SEGMENT AND RAMP LOS

BASIC FREEWAY WORL	KSHEE!					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Fig. Flor Spread FFS = 75 minh 70 mish Gornish Gornish Gornish Straigh Strai	By C	1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, N, AF FFS, LOS, FFS, LOS, FFS, LOS,	V _p N, S, D N V _p , S, D RDT LOS, S, D AADT N, S, D
General Information	<u> </u>	· · · · · · · · · · · · · · · · · · ·	Site Inform	nation		
Analyst Agency or Company Date Performed Analysis Time Period Project Description 1-75 PD	EJB HW Lochner, 7/28/2005 DHV &E - 2030 NB Sc		Highway/Direct From/To Jurisdiction Analysis Year	ction of Travel	I-75 Northit South of C Pasco Cou 2030	R 41
区 Oper.(LOS)		Г	Des.(N)		ि Planr	ing Data
Flow Inputs Volume, V AADT Peak-Hr Prop. of AADT, K	5690	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R	Buses, P _T	0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D 'Driver type adjustment Calculate Flow Adjustn	0.95 nents	veh/h	General Terra Grade %	iin: Length Jp/Down %	Level mi	
f _p E _T	0.95 1.5		E _R f _{HV} = 1/(1+P _r (E ₁	- 1) + P _R (E _R - 1)]	1.2 0.933	
Speed Inputs	~~~		Calc Speed	d Adj and FFS		
Lane Width Rt-Shoulder Lat. Clearance Interchange Density Number of Lanes, N FFS (measured) Base free-flow Speed, BFFS	12.0 6.0 0.50 3	ft ft I/mi mi/h mi/h	f _{LW} f _{LC} f _{ID} f _N FFS		0.0 0.0 0.0 0.0 75.0	mi/h mi/h mi/h mi/h mi/h
LOS and Performance	Measures		Design (N)	i		
Operational (LOS) v _p = (V or DDHV) / (PHF x N x) f _p) S D = v _p / S LOS Glossary	7.44.4	pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DD})$ $f_p)$ S $D = v_p / S$ Required Nur	HV) / (PHF x N x mber of Lanes, N		pc/h mi/h pc/mi/ln
V - Number of lanes V - Hourly volume V _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	•	Factor Loc E_R - Exhibits E_T - Exhibits f_p - Page 23-	23-8, 23-10 23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:41 PM

	*******					10501012
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Page Page	B C C	1500 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N. v _p FFS, LOS, v FFS, LOS, N FFS, N. AAI FFS, LOS, A	V _p , S, D DT LOS, S, D VADT N, S, D
	Flour Raze (pc/h/lin)				
General Information			Site Inforn			
Analyst	EJB			ction of Travel	I-75 Northb	
Agency or Company Date Performed	HW Lochner, I	Inc.	From/To		CR 41 to Si	
Analysis Time Period	7/28/2005 DHV		Jurisdiction Analysis Year	r	Hernando (2030	zounty
	&E - 2030 NB CF	2 41 to SR 50 (L		1	2030	Marie 1
F Oper.(LOS)	<u> </u>		Des.(N)		□ Planni	ing Data
Flow Inputs			JOS.(14)		, , , , , , , , , , , , , , , , , , , ,	
Volume, V AADT	4980	veh/h veh/day	Peak-Hour Fa %Trucks and		0.93 14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		2	
Peak-Hr Direction Prop, D			General Terra		Level	
DDHV = AADT x K x D Priver type adjustment	0.95	veh/h	Grade %	Length Up/Down %	mi	
Calculate Flow Adjustn						~ <u> </u>
f _p	0.95		E _R		1.2	
E _T	1.5			T - 1) + P _R (E _R - 1))	0.931	
Speed Inputs				d Adj and FFS		**************************************
Lane Width	12.0	ft				- 11
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	3	171188	f _{ID}		0.0	mi/h
FFS (measured)	J	milh	f _N		0.0	mi/h
,	77 E A	mi/h	FFS		75.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h				
LOS and Performance	Measures		Design (N)		
Operational (LOS)			Design (N)			
$V_p = (V \text{ or DDHV}) / (PHF \times N)$	k f _{HV} x		Design LOS	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,	
f _D)	2018	pc/h/ln	P	OHV) / (PHF x N >	(f _{HV} X	pc/h
S	66.6	mi/h	(_p)			
D = v _p /S	30.3	pc/mi/ln	S			mi/h
LOS	D	•	D = v _p / S			pc/mi/In
			Required Nu	mber of Lanes, N	!	
Glossary		***************************************	Factor Lo	cation		
Number of lanes	S - Speed		E _R - Exhibits	23-8 23-10	•	f _{uw} - Exhibit 23-4
V - Hourly volume	D - Density		1 '`	23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	v speed	1 '			_N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	t age 23	· 1 &	:	M CVIIOU 52.0
OS - Level of service	BFFS - Base fr	ee-flow speed	f _p - Page 23-	-12	:	N - EXHIBIT 23-0

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:15 PM

DASIC FREE WATER	TAGIILL I					Page 1 of
	BASIC F	REEWAY SI	EGMENTS W	ORKSHEET		
See Free-1 (mill) Free-1	100	1500		Application Operational (LOS) Design (N)	Input FFS, N, v _p FFS, LOS, v	ŧ'
10 LOS A 55	By G			Design (v _p) Planning (LOS)	FFS, LOS, 1 FFS, N, AA	p
£ 10 .5 .5 .5		-1		Planning (N)	FFS, LOS, 1	
10 10 10 10 10 10 10 10 10 10 10 10 10 1	Printing 15	Mineda -		Planning (v _p)	FFS, LOS, 1	
30 + SY 57 50 100 20			2100	<u> </u>		
1 105 00	Flow Rate (pollula		0 2400			
General Information			Site Inform	nation		*
Analyst	EJB		····	ection of Travel	I-75 Northb	ound
Agency or Company	HW Lochner,	Inc.	From/To		North of SF	₹ 50
Date Performed	4/28/2005		Jurisdiction		Hernando (Dounty
Analysis Time Period	DHV		Analysis Yea	Г	2030	
)&E - 2030 NB No					
F Oper.(LOS)		<u>F</u>	Des.(N)		☐ Planni	ing Data
Flow Inputs Volume, V	4770	veh/h	Dook Hour F	onton DUE	0.04	
AADT	4770	ven/n veh/day	Peak-Hour Fa %Trucks and		0.94 14	
Peak-Hr Prop. of AADT, K		venioay	%RVs, P _R	Duses, I T	2	
Peak-Hr Direction Prop, D			General Terr	ain:	z Level	
DDHV = AADT x K x D		veh/h	Grade %	Length	mi	
Driver type adjustment	0.95			Up/Down %		
Calculate Flow Adjusti	<u>ments</u>					
f_p	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (E	T - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs			Calc Spee	d Adj and FFS	3	AMP
.ane Width	12.0	ft	f		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LW}			
nterchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	3		† _{ID}		0.0	mi/h
FFS (measured)		mi/h	f_N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
OS and Performance			Design (N	1		
2			Design (N)	£		
Operational (LOS)	r		Design LOS			
$V_{\rm p} = (V \text{ or DDHV}) / (PHF \times N)$	х т _{ну} х 1912	pc/h/ln	_)HV)/(PHF x N x	(f.,, x	
_p)		F	f)	, , , , , , , , , , , , , , , , , , , ,	HV	pc/h
	69.0	mi/h	p'			mi/h
$0 = v_p / S$	27.7	pc/mi/ln	D=1/2			
.OS	D		D = v _p / S	anharafta **		pc/mi/In
Glossary				mber of Lanes, N		·
I - Number of lanes	S - Speed		Factor Lo	cation		
/ - Hourly volume	•		E _R - Exhibits	23-8, 23-10	f	_{LW} - Exhibit 23-4
·	D - Density	1 pp p g = 1	$E_{\rm T}$ - Exhibits	23-8, 23-10, 23-		.c - Exhibit 23-5
p - Flow rate	FFS - Free-flow	,	f _o - Page 23-			N - Exhibit 23-6
.OS - Level of service	BFFS - Base from	ee-Ilow speed				

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:15 PM

						1 agc 1 01 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
1 10 10 10 10 10 10 10	P. C. Springer St.	1950 1759 1759 17600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, M _{IN} FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	Vp N. S. D N Vp. S. D LDT LOS, S. D AADT N. S. D
	Flour Rate (puthuli	1)				-
General Information	···		Site Inforn			
Analyst Agency or Company	EJB HW Lochner, i	lno	Highway/Dire From/To	ction of Travel	I-75 South North of SI	
Date Performed	4/20/2005	IIIC.	Jurisdiction		Hernando	
Analysis Time Period	DHV		Analysis Year	-	2030	County
	&E - 2030 SB No	orth of SR 50 (I-7				
F Oper.(LOS)		ľ-s (Des.(N)		□ Plann	ing Data
Flow Inputs						
Volume, V AADT	3780	veh/h veh/day	Peak-Hour Fa %Trucks and		0.93 14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		2	
Peak-Hr Direction Prop. D		e 15	General Terra		Level	
DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	Grade %	Length Up/Down %	mi	
Calculate Flow Adjustr				Оргоочи 70		
f _p	0.95		E _R		1.2	***************************************
É _T	1.5			1 - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs				d Adj and FF	S	
Lane Width	12.0	ft			0.0	
Rt-Shoulder Lat. Clearance	6.0	fŧ	fuw			mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	3		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N))		
Operational (LOS)			Design (N)			
$v_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x		Design LOS	UNA / / DUE v AL		
f _p) S	1532	pc/h/ln	$V_p = (V \cup DD)$	iHV) / (PHF x N)	^{C1} HV ^X	pc/h
	74.0	mi/h	S			mi/h
$D = v_p / S$	20.7	pc/mi/ln	D = v _n / S			pc/mi/ln
LOS	С		· ·	mber of Lanes, N	Į	•
Glossary			Factor Lo			
N - Number of lanes	S - Speed					
V - Hourly volume	D - Density		E _R - Exhibits			f _{LW} - Exhibit 23-4
ν _ρ - Flow rate	FFS - Free-flow	v speed	, '	23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
LOS - Level of service	BFFS - Base fr	·	f _p - Page 23-	12		f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 $f_{\rm ID}$ - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:42 PM

		_				rage rorz
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Car Car	By Stranger "	1750 1750		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	FFS, N, V _D FFS, LOS, Y FFS, LOS, Y FFS, N, AA FFS, LOS, Y FFS, LOS, Y	M v _p , S, D DT LOS, S, D AADT N, S, D
0 400 200) 1200 Flow Rate (pidh/1	1600 2000 ni	Z4O0			
General Information			Site Inform	nation		
Analyst	EJB		Highway/Dire	ection of Travel	I-75 Southt	ound
Agency or Company	HW Lochner,	Inc.	From/To		CR 41 to S	R 50
Date Performed	7/28/2005		Jurisdiction		Hernando (County
Analysis Time Period	DHV		Analysis Yea	٢	2030	
Project Description I-75 PD	&E - 2030 SB SF	R 50 to CR 41 (I-	75 = 6 Lanes)			
F Oper.(LOS)		<u> </u>	Des.(N)		□ Plann	ing Data
Flow Inputs						
Volume, V	395 <i>0</i>	veh/h	Peak-Hour F		0.94	
AADT		veh/day	%Trucks and	Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		1	
Peak-Hr Direction Prop, D			General Terra		Level	
DDHV = AADT x K x D	0.05	veh/h	Grade %	Length	mi	
Driver type adjustment Calculate Flow Adjustn	0.95			Up/Down %		·
f _p	0.95		E _R		1.2	
E _T	1.5			11 + 12 /E 11	0.933	
	7.0	***************************************		1 - 1) + P _R (E _R - 1)]		
Speed Inputs	400	<i>T</i> 1	Caic Spee	d Adj and FFS	2	
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0	mi/h
Interchange Density	0.50	I/mi	f _D		0.0	mi/h
Number of Lanes, N	3		1			
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)		
On analia mal (LOC)			Design (N)			
Operational (LOS)	,		Design LOS			
v _p = (V or DDHV) / (PHF x N)	x f _{HV} x 1581	pc/h/ln	_	OHV) / (PHF x N >	k f _{ao} x	
f _p)		p. 5711111	e \		HV	pc/h
S	73.6	mi/h	S			mi/h
D = v _p / S	21.5	pc/mi/ln	1			
LOS	С		$D = v_p / S$			pc/mi/ln
Classari				mber of Lanes, N	i	
Glossary	C C		Factor Lo	cation		
N - Number of lanes	S - Speed		E _R - Exhibits	23-8, 23-10		f _{i w} - Exhibit 23-4
V - Hourly volume	D - Density		1 '	23-8, 23-10, 23-		f _{1.0} - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	v speed	f _p - Page 23-			f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ree-flow speed	p Tage 23	t time		.N

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 f_{1D} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated, 11/8/2006 3:20 PM

DASIC FILLWAT WOR	Kandel					rage 1 of 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
Car Car	By C. Sylvings. 19	1600 2009	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (V _p)	Input FFS, N, w _p FFS, LOS, FFS, LOS, FFS, N, AA FFS, LOS, FFS, LOS,	N
General Information	Flow Rue (poth/l	1)	Site Inforn	nation		****
Analyst	EJB			ction of Travel	I-75 South	anuad
Agency or Company	HW Lochner,	loc	From/To	cuon or fraver	South of C	
Date Performed	7/28/2005	IIIG.	Jurisdiction		Pasco Cou	
Analysis Time Period	DHV		Analysis Year	r	2030	· · · · y
Project Description I-75 PD		outh of CR 41 (I-		•		
F Oper.(LOS)			Des.(N)		∏ Plann	ing Data
Flow Inputs		1 - 3 1	Des.(N)		i ridini	ту рага
Volume, V	4510	veh/h	Peak-Hour Fa	actor DHE	0.94	
AADT	4370	ven/n veh/day	%Trucks and		14	
		veriiday		buses, i T		
Peak-Hr Prop. of AADT, K Peak-Hr Direction Prop, D			%RVs, P _R General Terra	an žan -	1	
DDHV = AADT x K x D		veh/h	General remainer Grade %	ain: Length	Level mi	
Driver type adjustment	0.95	VC.1711		Up/Down %	1,,,,	
Calculate Flow Adjustr	nents		······································			***
fp	0.95		E _R		1.2	***************************************
E _T	1.5			T - 1) + P _R (E _R - 1)]	0.933	
Speed Inputs		<i>+</i> .	Caic Spee	d Adj and FF	3	
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f_{LC}		0.0	mi/h
Interchange Density	0.50	I/mi	l -		0.0	mi/h
Number of Lanes, N	3		f _{ID}			
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N	1		
			Design (N)	A	***************************************	
Operational (LOS)			Design LOS			
$V_p = (V \text{ or DDHV}) / (PHF x N)$	x f _{HV} x 1805	nolh lla		7H/// / / DHE v kl -	v f v	
f _p)	1000	pc/h/ln	L.".	OHV) / (PHF x N :	' 'HV '	pc/h
S	71.0	mi/h	_p)			
D = v ₀ / S	25.4	pc/mi/ln	S			mi/h
LOS	C C	Pommin	$D = v_p / S$			pc/mi/In
L.O3	Ç		Required Nu	mber of Lanes, N	1	
Glossary			Factor Lo	cation		
Number of lanes	S - Speed	***************************************				F
V - Hourly volume	D - Density		E _R - Exhibits			f _{LW} - Exhibit 23-4
v _o - Flow rate	FFS - Free-flov	v speed	B 7	23-8, 23-10, 23-		f _{LC} - Exhibit 23-5
LOS - Level of service		·	ք _թ - Page 23-	-12		f _N - Exhibit 23-6
FOO - FEARI OF PRIVIDE	BFFS - Base fi	ee-now speed	T*			

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:21 PM

DASIC FREEWAT WOR	NOTICET					rage (O) 2
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
S0	British Selighting	150 (590) (1750)	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, V _p FFS, LOS, V FFS, N, AA FFS, LOS, V FFS, LOS, V	V _P . S, D DT LOS, S, I AADT N, S, D
General Information	*F*****	,	Site Inforn	nation		
Analyst Agency or Company Date Performed Analysis Time Period	EJB HW Lochner, I 7/28/2005 DHV - Dec Tra	affic	Highway/Dire From/To Jurisdiction Analysis Yea	ection of Travel	I-75 Northb South of CI Pasco Cou 2030	₹ 41
	&E Study - 2030			anes)		
F Oper.(LOS)			Des.(N)		☐ Plann	ing Data
<i>Flow Inputs</i> Volume, V AADT Peak-Hr Prop. of AADT, K	5690	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R		0.94 14 1	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Oriver type adjustment Calculate Flow Adjustn	0.95 nents	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
f _p	0.95	***************************************	E _R		1.2	
E _T	1.5			T - 1) + P _R (E _R - 1)]	0.933	
Speed Inputs			Calc Spee	d Adj and FF	S	
Lane Width Rt-Shoulder Lat. Clearance	12.0 6.0	ft ft	f _{LC}		0.0 0.0	mi/h mi/h
Interchange Density Number of Lanes, N	0.50	I/mi	f_{ID}		0.0	mi/h
FFS (measured)	4	mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance		***************************************	Design (N	1		
Operational (LOS) v _p = (V or DDHV) / (PHF x N :		pc/h/ln	Design (N) Design LOS) (PHF x N x	× f _{нv} х	The Addition of the Assessment
f _p)		·	f _o)	, ,	IIV	pc/h
S D = v / S	72.3	mi/h	S			mi/h
D = v _p / S LOS	23.6 C	pc/mi/ln	$D = v_p / S$	imbor of Loops A	I	pc/mi/ln
Glossan/			Factor Lo	mber of Lanes, N	*	
Glossary N - Number of lanes	S - Speed		ractor Lo	Cation		
V - Hourly volume v_p - Flow rate	D - Density FFS - Free-flov	·	E_R - Exhibits E_T - Exhibits f_p - Page 23	23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	P			11

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 $f_{\rm ID}$ - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:16 PM

DASIC FREEWAT WORK	NUITELL					rage rorz
	BASIC F	REEWAY SE	GMENTS W	ORKSHEET		
\$ 30 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	By Subrain 15	(450) (600) (750)		Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N. v _p FFS, LOS, v _p FFS, LOS, N FFS, N, AAD FFS, LOS, AA	a _p , S, D T LOS, S, D ADT N, S, D
0 400 800) 1200 Flow Rue (pc/h/la	- 1600 - 2000 i)	0 2400			
General Information		·	Site Inform	nation		
Analyst	EJB		·····	ction of Travel	I-75 Northbo	und
Agency or Company	HW Lochner, I	Inc.	From/To		CR 41 to SR	
Date Performed	7/28/2005		Jurisdiction		Hernando C	ounty
Analysis Time Period	DHV		Analysis Year		2030	
Project Description I-75 PD		<u> </u>				
ア Oper.(LOS)			Des.(N)		☐ Plannin	ig Data
Flow Inputs					~ ^ ~	
Volume, V	4980	veh/h	Peak-Hour Fa		0.93	
AADT		veh/day	%Trucks and	Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R	,	2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D		veh/h	General Terra Grade %	iin: Length	Level mi	
Driver type adjustment	0.95	VC11/11		Jp/Down %	,,,,	
Calculate Flow Adjustr	nents					
f _p	0.95		E _R		1.2	
E _T	1.5		f _{HV} = 1/[1+P _T (E ₁	(-1) + P _R (E _R - 1)]	0.931	
Speed Inputs				d Adj and FF	<u> </u>	
Lane Width	12.0	ft				i II-
Rt-Shoulder Lat. Clearance	6.0	ft	f _{cw}	•	0.0	mi/h
Interchange Density	0.50	I/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	4		f _{iD}		0.0	mi/h
FFS (measured)	•	mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mì/h
LOS and Performance		1 ((1/) 1	Docien (N)			
LOS and renormance	Measures		Design (N) Design (N)		······	***************************************
Operational (LOS)			Design LOS			
$v_p = (V \text{ or DDHV}) / (PHF x N :$	x f _{HV} x		1 "	LNA I (DEED VAL)	z f v	
f _p)	^{HV} 1513	pc/h/ln	ν _p = (ν οι οιο	HV) / (PHF x N)	CIHV X	pc/h
S	74.1	mi/h	p)			• n
D = v _p / S	20.4	pc/mi/ln	S			mi/h
LOS	C	•	$D = v_p / S$			pc/mi/ln
	***************************************			mber of Lanes, N	· · · · · · · · · · · · · · · · · · ·	
Glossary	****		Factor Loc	cation		
N - Number of lanes	S - Speed		E _R - Exhibits:	23-8, 23-10	f	w - Exhibit 23-4
V - Hourly volume	D - Density		1 ''	23-8, 23-10, 23-	***	C - Exhibit 23-5
v _p - Flow rate	FFS - Free-flov	v speed	f _o - Page 23-			- Exhibit 23-6
LOS - Level of service	BFFS - Base fr	ee-flow speed	p rage 23) 4	'N	

LOS, S, FFS, v_p - Exhibits 23-2, 23-3 f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generaled: 11/8/2006 3:34 PM

	· W.J. I L. L. I					1 age 1 01 2
	BASIC FF	REEWAY SE	GMENTS W	ORKSHEET		
So	B. C. S. S. S. S. S. S. S. S. S. S. S. S. S.	1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N. Vp FFS, LOS, V FFS, LOS, N FFS, N, AAI FFS, LOS, A FFS, LOS, A	√ v _p , S, D D1 LOS, S, D VADT N, S, D
General Information	Flow Rue (pc/h/lis)		Site Inform	ation		
Analyst	EJB			ction of Travel	I-75 Northb	
Agency or Company	HW Lochner, Ir	1 <i>C</i>	From/To	CHOILOL FLAVES	North of SR	
Date Performed	4/28/2005	16.	Jurisdiction		Hernando C	
Analysis Time Period	DHV		Analysis Year	•	2030	
	&E - 2030 NB Nor	th of SR 50 (1-7				
ি Oper.(LOS)		Г	Des.(N)		∏ Planni	ng Data
Flow Inputs						
Volume, V	4770	veh/h	Peak-Hour Fa	actor, PHF	0.94	
AADT		veh/day	%Trucks and	Buses, P _T	14	
Peak-Hr Prop. of AADT, K			%RVs, P _R		2	
Peak-Hr Direction Prop, D			General Terra		Level	
DDHV = AADT x K x D	0.95	veh/h	Grade %	Length	mi	
Driver type adjustment Calculate Flow Adjustn	· · · · · · · · · · · · · · · · · · ·		i	Up/Down %		** * * * * * * * * * * * * * * * * * *
f _p	0.95		E _R		1.2	***************************************
				4) 5 (5 4)		
E _T	1.5			7 - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs			Calc Spee	d Adj and FF	<u>S</u>	
Lane Width	12.0	ft	f _{LW}		0.0	mi/h
Rt-Shoulder Lat. Clearance	6.0	ft	f _{LC}		0.0	mi/h
Interchange Density	0.50	l/mi	1,		0.0	mi/h
Number of Lanes, N	4		, O			
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75. <i>0</i>	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N			
Operational (LOS)			Design (N)			
Operational (LOS)			Design LOS			
v _p = (V or DDHV) / (PHF x N :	1434 ×	pc/h/ln	$v_0 = (V \text{ or } DD)$	HV) / (PHF x N)	cf _{HV} x	
(p)	_	·	f_)		* * *	pc/h
S	74.5	mi/h	S			mi/h
D = v _p / S	19.2	pc/mi/ln	$D = v_p / S$			pc/mi/ln
LOS	С		1	mber of Lanes, N	ı	ş C. / / / / / /
Glossary			Factor Loc		•	
N - Number of lanes	S - Speed		1 20101 201	Juli 1011		
V - Hourly volume	D - Density		E _R - Exhibits	23-8, 23-10		_{LW} - Exhibit 23-4
v _p - Flow rate	FFS - Free-flow	sneed	j '	23-8, 23-10, 23-		LC - Exhibit 23-5
LOS - Level of service	BFFS - Base fre		f _p - Page 23-	12	f	N - Exhibit 23-6
LOG - FEARLOL PRIVICE	DITO - DASE ITE	serilow sheed	1			

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

 f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated; 11/8/2006 3:34 PM

BASIC I KELWAT WOR	COUDE					rage ror.
	BASIC FI	REEWAY SE	GMENTS W	ORKSHEET		
S0 F100-1 [100x Speed F15 = 75 mids 70 m	A. C.	150 (600 1750 1600 2000	2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (M) Planning (v _p)	Input FFS, N, v _p FFS, LOS, FFS, N, A& FFS, LOS, FFS, LOS, FFS, LOS,	ν _p N, S, D N ν _p . S, D LOS, S, E AADT N, S, D
9 400 	Flour Rate (pc/h/lm)		7400			
General Information		***************************************	Site Inform	nation		
Analyst Agency or Company Date Performed Analysis Time Period Project Description I-75 PD	EJB HW Lochner, In 4/20/2005 DHV &E Study - 2030 5		From/To Jurisdiction Analysis Year		I-75 South North of Si Hernando 2030	R 50
F Oper.(LOS)			Des.(N)		□ Planr	ning Data
Flow Inputs			· · · · · · · · · · · · · · · · · · ·			
Volume, V AADT Peak-Hr Prop. of AADT, K	3780	veh/h veh/day	Peak-Hour Fa %Trucks and %RVs, P _R	Buses, P _T	0.93 14 2	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustr	0.95	veh/h	General Terra Grade %	ain: Length Up/Down %	Level mi	
f _p	0.95		E _R		1.2	
E _T	1.5			T - 1) + P _R (E _R - 1)]	0.931	
Speed Inputs				d Adj and FF	S	
Lane Width Rt-Shoulder Lat. Clearance	12.0 6.0	ft ft	f _{L.W}		0.0	mi/h
Interchange Density	0.50	l/mi	f _{LC}		0.0	mi/h
Number of Lanes, N	4	,,,,,,	f _{ID}		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)		
Operational (LOS) v _p = (V or DDHV) / (PHF x N		pc/h/ln	<u>Design (N)</u> Design LOS))HV) / (PHF x N :	x f x	
f_{p})	1143	ролин		2114)/ (1 1 1 A 14)	" 'HV "	pc/h
S D = v _p / S LOS	75.0 15.3 B	mi/h pc/mi/ln	f_p) S $D = v_p / S$ Required Nu	mber of Lanes, N	J	mi/h pc/mi/ln
Glossary			Factor Lo	cation		
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr	•	E_R - Exhibits E_T - Exhibits f_p - Page 23-	23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:21 PM

BASIC PREEMAT WOR						rage 1 of 2
	BASIC F	REEWAY SE	EGMENTS W	ORKSHEET		
S0 Free-flox Spreed FTS = 75 ruids 70 ruids 7	Br. Sugarin	1600 200	0 2400	Application Operational (LOS) Design (N) Design (v _p) Planning (LOS) Planning (N) Planning (v _p)	Input FFS, N, v _t FFS, LOS, FFS, N, A FFS, LOS, FFS, LOS,	, v _p N, S, D , M v _p , S, D ADT LOS, S, D , AADT N, S, D
3,0	Flow Rate (poils/li		v 2100			
General Information			Site Inforr	mation		
Analyst Agency or Company Date Performed Analysis Time Period	EJB HW Lochner, 7/28/2005 DHV		From/To Jurisdiction Analysis Yea		I-75 South CR 41 to 3 Hernando 2030	SR 50
Project Description I-75 PD F Oper.(LOS)	&E Study - 2030		R 50 (I-75 = 8 L Des.(N)	_anes)	厂 Plant	ning Data
Flow Inputs			Des.(IV)	<u> </u>	1 (2)(1	mig Data
Volume, V AADT Peak-Hr Prop. of AADT, K	3950	veh/h veh/day	Peak-Hour F %Trucks and %RVs, P _R		0.94 14 1	***************************************
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment	0.95	veh/h	General Terr Grade %	ain: Length Up/Down %	Level mi	***************************************
Calculate Flow Adjustr	0.95		E		4.2	
f _p E _T	0.95 1.5		E _R	E _T - 1) + P _R (E _R - 1)]	1.2 0.933	
Speed Inputs		7-V		ed Adj and FFS		
Lane Width	12.0	ft		. Gray and tr		ma i Na
Rt-Shoulder Lat. Clearance	6.0	ft	f.w		0.0 0.0	mi/h
Interchange Density	0.50	l/mi	rc frc			mi/h
Number of Lanes, N	4		[†] ID		0.0	mi/h
FFS (measured)		mi/h	f _N		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)		
Operational (LOS) v _p = (V or DDHV) / (PHF x N : f _p) S	75.0	pc/h/ln mi/h	Design (N) Design LOS $v_p = (V \text{ or } DC f_p)$ S	OHV)/(PHF x N >	〈f _{HV} X	pc/h mi/h
$D = v_p / S$	15.8	pc/mi/ln	$D = v_0 / S$			pc/mi/ln
LOS	В		1	umber of Lanes, N	i	P
Glossary			Factor Lo			
N - Number of lanes V - Hourly volume	S - Speed D - Density		E _R - Exhibits	523-8, 23-10 5 23-8, 23-10, 23-	11	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5
v _p - Flow rate LOS - Level of service	FFS - Free-flov BFFS - Base fr		f _p - Page 23			f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright @ 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated: 11/8/2006 3:21 PM

BASIC FREEWAY WOR	K2LEE1					Page 1 of 2
	BASIC F	REEWAY SE	GMENTS WORK	KSHEET		
10 10 10 10 10 10 10 10	By Suining	1600 2000	Ope Des Des Pla Pla Pla	plication erational (LOS) sign (N) sign (V _P) nning (LOS) nning (N) nning (V _P)	Input FFS, N, v _p FFS, LOS, FFS, LOS, FFS, N, AF FFS, LOS, FFS, LOS,	Vp N, S, D M Vp, S, D ADT LOS, S, D AADT N, S, D
General Information	The tree there	***	Site Information	o <i>n</i>		·
Analyst Agency or Company Date Performed Analysis Time Period	EJB HW Lochner, 7/28/2005 DHV &E - 2030 SB Sc		Highway/Direction From/To Jurisdiction Analysis Year		I-75 South South of C Pasco Cou 2030	R 41
F Oper.(LOS)		·····	75 - 6 Lanes) Des.(N)		□ Plant	ning Data
Flow Inputs						,g —
Volume, V AADT Peak-Hr Prop. of AADT, K	4510	veh/h veh/day	Peak-Hour Factor, %Trucks and Buse		0.94 14	
Peak-Hr Direction Prop, D DDHV = AADT x K x D Driver type adjustment Calculate Flow Adjustr	0.95	veh/h		ength Iown %	Level mi	
f _p	0.95		E _R		1.2	
E _T	1.5		$f_{HV} = 1/[1+P_{T}(E_{T}-1)+$	+ P _R (E _R - 1)]	0.933	
Speed Inputs			Calc Speed Ad		3	***************************************
Lane Width Rt-Shoulder Lat. Clearance	12.0 6.0	ft ft	f _{LW}		0.0	mi/h
Interchange Density	0.50	l/mi	fic		0.0	mi/h
Number of Lanes, N	4		f _{ID}		0.0	mi/h
FFS (measured)		mi/h	fN		0.0	mi/h
Base free-flow Speed, BFFS	75.0	mi/h	FFS		75.0	mi/h
LOS and Performance	Measures		Design (N)			
Operational (LOS) $v_p = (V \text{ or DDHV}) / (PHF \times N)$ $f_p)$ S $D = v_p / S$ LOS	x f _{HV} x 1354 74.8 18.1 C	pc/h/ln mi/h pc/mi/ln	Design (N) Design LOS $v_p = (V \text{ or DDHV})$ $f_p)$ S $D = v_p / S$ Required Number			pc/h mi/h pc/mi/ln
Glossary			Factor Location			
N - Number of lanes V - Hourly volume v _p - Flow rate LOS - Level of service	S - Speed D - Density FFS - Free-flow BFFS - Base fr		E _R - Exhibits23-8, E _T - Exhibits 23-8 f _p - Page 23-12	, 23-10	l 1	f _{LW} - Exhibit 23-4 f _{LC} - Exhibit 23-5 f _N - Exhibit 23-6

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{ID} - Exhibit 23-7

Copyright © 2005 University of Florida, All Rights Reserved

HCS+TM Version 5.2

Generated 11/8/2006 3:22 PM

<u> </u>	1£		2 AND	KAW	r JUN	CTIONS	~~~~~~~	·····	······································		****
······	Informat		······································	······································		Site In:					·····
Analyst Agency or Co Date Perform Analysis Tim	ed e Period	EJB HW Loci 7/28/200 DHV	5		Ju Ju Ar	eeway/Dir on Inction Inction Including the salysis Year	ſ	vel .	I-75 Nort CR 41/B Pasco C 2030	lanton Road Off	f-Ramp
Project Desci	ription 1-75 f	D&E Study -	2030 NB (Off Ramp	at CR 41	(I-75 = 6 L	anes)				
Inputs		-									
Upstream Ad		Terrain: Lev	/el							Downstre Ramp	am Adj
✓ Yes✓ No	□ On									√ Yes	
_nb = _140	ft									□ No □ L _{down} =	
-up	,,		S _{FF} = 70	.0 mph	·	S		35.0 m	nh da	down	020 R
√ _u =	veh/h		• • •		show lane	s, L _A , L _D ,V		00.07.		∨ _D =	550 veh/
Convers	ion to pc	h Unda				o, -A, -D, ₹	R' 1/				***************************************
JU114 C1 3.	V V	I onder	Dase	Contai	110113		Γ			v = V/PH	Fγ
(pc/h)	(Veh/hr)	PHF	Ten		%Truck	%Rv	ļ	f _{HV}	f _p	$f_{HV} \times f_p$. ^
Freeway	5690	0.94	Lev		14	1		933	0.95	6831	·
Ramp	1260	0.91	Lev	el	10	1	0.9	3 51	0.95	1533	
UpStream DownStream	550	0.64	ļ		40		<u> </u>			^^^	
Juwnoueam	330	0.91 Merge Area	<u>Lev</u>	el	10	1	0.9	951	0.95	669	
	on of v ₁₂		3	M		Estima	tion	of W	Diverge Are	592	<u> </u>
		12 = V _F (P _{FM}	`					-		V _E - V _E)P _{ED}	·
	ation 25-2	or 25-3)				L _{EQ} = (E	quati	• • •	8 or 25-9)		
P _{FM} = using / ₁₂ = pc/h	Equation	(Exhibit 25-	5)			P _{FD} ≈ 0.5 ⁻ V ₁₂ = 428			quation (E	xhibit 25-11)	
Capacity	Checks					Capaci			<u> </u>		****
anadaminen en electrica	Actua	ai Ma	ximum	1 10	SF?	T T T	7	Actu		/aximum	LOS F?
***************************************				 		V _{F1} = \	V-	6831		7200	No No
V _{FO}						V ₁₂		4281		4400:All	No
V_{R12}						V _{FO} = \	/ _F -	5298		7200	No
						V _R		1533		2000	No
evel of a	Service L)etermin	ation (i	f not i	F)]	Level	of Se	ervice	Detern	nination (i	f not F)
	5 + 0.00734						D _P =	4.252	+ 0.0086	V ₁₂ - 0.0009	L
	c/mi/ln)					D _R = :		pc/mi/l		12	U
OS = (E	Exhibit 25-4)				LOS =	E (Ex	chibit 2	5-4)		
peed Es	timation					Speed	Est	imatio	on		
l _s = (Ex	ibit 25-19)					D _s = (0.566	(Exhib	ít 25-19)		
*	(Exhibit 25	5-19)				-	54.2 n	nph (Ex	hibit 25-1	9)	
	· (Exhibit 25	·					70.7 n	nph (Ex	hibit 25-1	9)	
n= moh						~					
•	(Exhibit 25				l	S = :	59.3 n	nph (Ex	hibit 25-1	5)	

Generated: 11/8/2006 9:05 AM

	. r		O 7111D	5 (7.7311)	OOIN	CTIONS				<u> </u>		
General	intormat	·····				Site In:	forn	natior	}			***************************************
Analyst		EJB			Fr	eeway/Dir	of Trai	/el	1-75	Northb	ound	
Agency or Co		HW Lock				nction			CR ·	41/Blan	iton Road Off	-Ramp
Date Perform	ed	7/28/200	5		Ju	risdiction			Pasi	со Сои	nty	
Analysis Time		DHV				alysis Yea			2030)		
Project Descr	iption 1-75 F	PD&E Sludy -	2030 NB C	Off Ramp	at CR 41	(1-75 = 8 L	anes)					
Inputs												
Upstream Adj	Ramp	Terrain: Lev	rel				***************************************			***************************************	Downstre Ramp	am Adj
☐ Yes	□ On										F Yes	₽ On
₹ No	Off										□ No	□ Off
_up =	ft		·····								_L _{down} =	620 ft
			$S_{FF} = 70.$	0 mph		S	FR =	35.0 m	iph			
√ _u =	veh/h			Sketch (:	show lane	s, L _A , L _D ,V	(,V,o				V _D =	550 veh/
Conversi	on to no	/h Undei				А В	IV. II					
	V V	1	T	JOHO!	1		T-				v = V/PH	FV
(pc/h)	(Veh/hr)	PHF	Terr	ain ———	%Truck	%Rv		f _{HV}		f _p	f _{HV} x f _p	. ^
Freeway	5690	0.94	Leve	<u> </u>	14	1	0.	933	0.9) 5	6831	
Ramp	1260	0.91	Leve	el	10	1	0.	951	0.9) 5	1533	
JpStream												
DownStream	550	0.91	Leve	el	10	1	0.	951	0.9	35	669	
		Merge Area	S						Diverg	e Areas	3	
Estimatio	n of V ₁₂					Estima	itior	of v	<i>(</i> 2)			
		12 = V _F (P _{FM}	1		····		***************************************			+ /\/	V VD	·····
- /m-			,							•	- V _R)P _{FD}	
_{-EQ} = (Equ						L _{EQ} = (E						
{FM} = using	Equation	(Exhibit 25-	5)			$P{FD} = 0.4$	36 L	ising E	quatio	n (Exhi	ibit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 384	13 pc	:/h				
Capacity	Checks					Capac	itv (heck	S			
	Actu	al Ma	xìmum	LO	S F?			Actu	***************************************	Ma	ximum	LOS F?
***************************************						V _{F1} =	V_	6831			600	No
V_{FO}												
·····			····	<u> </u>		V ₁₂		3843		44	00:All	No
V _{R12}						$V_{FO} = V_{R}$		5298	3	96	600	No
	ĺ					V _R		1533	;	 ን፣	000	N _O
	<u></u>	<u> </u>		<u> </u>	 \						1	No
	Service L					Level					nation (ii	
$D_{R} = 5.471$	5 + 0.00734	4 v _R + 0.0	078 V ₁₂ -	0.0062	27 L _A		D _R	= 4.252	2 + 0.0	086 V	' ₁₂ - 0.0009	LD
) _R = (p	c/mi/ln)					D _R =	26.5	(pc/mi/	ln)			
.OS = (E	xhibit 25-4	Ļ)				i '`		 xhibit 2				
·····	timation					Speed						
	ibit 25-19)				***************************************			(Exhit		Q١		
. ·	•	5_10\				_		nph (E:				
	(Exhibit 2							, ,		•		
		•				S _o =	74.9 r	mph (E:	khibit 2	(5-19)		
						la						
= mph	(EXNIBIT 2		S =	61.61	mpn (E:	khibit 2	(5-15)					

9.05 AM

		RAMP	S AND	RAMI	JUN(CTIONS	WC	RKS	HEE			······································
General	Informati			***************************************		Site In		····				
Analyst Agency or C Date Perform Analysis Tim	med	EJB HW Loch 7/28/2005 DHV	5	in Pama	Ju Ju An	eeway/Dir onetion risdiction alysis Year	r	el	CR	co Cou	ton Rd On-R	lamp
Inputs	.iipaon 1-73 r	DAE SINDY -	ZUSU ND C	n Kamp	al UK 41	(1-10 - 0 La	anes)					
inputs	4	Terrain: Lev					·····	······································			<u> </u>	······
Upstream A		roman. Lov	υ 1								Į.	m Adj Ramp
F Yes	□ On										☐ Yes	□ On
□ No	년 Off										rqown =	
L _{up} =	620 ft		. 70	^ .			`	05.0	1.		-	
Vu =	1260 veh/h	,	S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 mp	n		V _o =	veh/h
Convers	sion to pc	h Under	Base (Condi	tions		***********					
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PHF f _{HV} x f _B	X
Freeway	4430	0.94	Leve	⊋l	14	1	0.	933	0.	95	5318	
Ramp	550	0.91	Leve	el	10	1	0.	951	0.	95	669	
UpStream	1260	0.91	Leve	3	10	1	0.	951	0.	95	1533	***************************************
DownStream	n	6.1					<u> </u>		~		<u> </u>	***
Ectimat	ion of v ₁₂	Merge Areas	<u> </u>			Estima	stion	of v		e Areas		·····
LSumau						LStilla	mon					
	2 (Equation 2					L _{EQ} = (E		n 25-8 o	r 25-9)		- V _R)P _{FD}	
P _{FM} = 0.572 V ₁₂ = 3041	de using Equation by the desired control of t	in (Exhibit 2	5-5)			P _{FD} = us V ₁₂ = pc		quation (Exhibit	25-11)		
	y Checks			***************************************		Capac	ity C	heck	s			***************************************
	Actua	ıl Max	kimum	LO	SF?			Actu		Ма	ximum	LOS F?
V _{FO}	5987		hibit 25-7	N	lo	V _{F1} = \	/ _F					
			·····			V ₁₂						
V _{R12}	3710	46	IIA:00	N	lo	V _{FO} = V _F	-					
						V _R						
Level of	Service L	etermin	ation (i	f not	F)	Level	of S	ervice	e Det	ermi	nation (if not F)
	5.475 + 0.0070										₂ - 0.0009 L	
	31.0 (pc/mi/ln)	ĸ	12	A		D _R =	(pc/m	• •			12	v
LOS =	D (Exhibit 25-4)				LOS =	(Exhil	oit 25-4)				
Speed E	stimation	}				Speed	Est	imati	on			
M _S = 0.4	445 (Exibit 25-1	19)				D _s =	(Exhit	oit 25-19)			
	.5 mph (Exhibi	•				S _R =	mph (Exhibit 2	25-19)			
	.6 mph (Exhibi	·				S ₀ =		Exhibit :				
	i.o mph (Exhibi I.7 mph (Exhibi	,				S =		Exhibit :	-			
	versity of Florida		earuad			<u> </u>		Voccion			Gener	ate <i>c</i> i 11/8/2006

9 09 AM

		RAMP	S AND	RAME	- JUNO	CTIONS	WC	RKSI	HEET	-		
General	Informati					Site Inf		~~~~~~~~~				
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	EJB HW Loch 7/28/200: DHV	5	in Ramo	Ju Ju An	eeway/Dir onction nction risdiction alysis Year	of Trav		CR 4	o Coun	on Rd On-R	amp
Inputs	ription 1901	DOL GIVEY -	2030 IVD C	n ixamp	at ON 41	(1-73 - 6 1.2	anes)	,				
mputs		Terrain: Lev	el	***************************************								******
Upstream Ad	ij Ramp	TOTAL ECV	. ,									n Adj Ramp
F Yes	□ On										「Yes F No	
Г No	F Off										L _{down} =	ft
L _{up} =	620 ft										gown	
Vo =	1260 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 mp	h		V _D =	veh/h
Convers	ion to pc	/h Under				A D	IX P		······		<u> </u>	
(pc/h)	V (Veh/hr)	PHF	Terr		%Truck	%Rv		f _{HV}		í _p	v = V/PHF f _{HV} x f _p	X
Freeway	4430	0.94	Leve	el	14	1	0.9	933	0.9	95	5318	
Ramp	550	0.91	Leve	***************************************	10	1		351	0.9		669	***************************************
UpStream	1260	0.91	Leve	el	10	1	0.9	351	0.9) 5	1533	
DownStream	1											
		Merge Area	<u>S</u>		***************************************					e Areas		····
Estimati	on of v ₁₂					Estima	ition	of V ₁	2			
	ation 25-2 or 2 using Equation					L _{EQ} = (E ₁ P _{FD} = us V ₁₂ = pc	sing Ed	า 25-8 or	25-9)	+ (V _F - 25-11)	V _R)P _{FD}	
Capacity	Checks					Capac	ity C	heck	 S			
	Actua	al Ma	ximum	LO	SF?			Actua	and the second 	Max	imum	LOS F?
V _{FO}	5987		khibit 25-7	N	lo	V _{F1} = \	√ _F					
						V ₁₂ V _{FO} = V ₁	· `					
V _{R12}	2230	46	IIA:00	٨	lo	V _R			_			
, , , ,				<u> </u>	—\	V _R	<i></i>				- 4! /:	· £ £ F=\
	Service L					Level	····	.,				if not F)
1.	5.475 + 0.007	13	78 V ₁₂ - 0.0	00627 L _A				11	s2 + 0.C)086 V ₁₂	₂ - 0.0009 L	D
$D_R =$	19.4 (pc/mi/ln)					D _R =	(pc/m	i/ln)				
LOS = I	B (Exhibit 25-4)				LOS ≍	(Exhil	oit 25-4)				***************************************
Speed E	stimation)				Speed	Est	imati	on			
$M_{\rm S} = 0.3$	322 (Exibit 25-	19)				D _s =	(Exhil	oit 25-19)			
4	.0 mph (Exhibi	•				S _R =	mph (Exhibit 2	25-19)			
	.0 mph (Exhibi	•				S ₀ =	mph (Exhibit 2	25-19)			
	.5 mph (Exhibi	•				S =	mph (Exhibit 2	25-15)			
	versity of Florida		eserveri			<u> </u>		Version			Gener	ated: 11/8/2006

<u> </u>			JAND	1////////	2014(CTIONS				}		
General .	informati		·			Site In						
Analyst		EJB				eeway/Dir o	of Trav	/el		Southbo		
Agency or Co		HW Loch			Ju	nction			CR 4	l 1/Blant	on Rd Off-R	amp
Date Perform		7/28/200	5		Ju	risdiction			Pasc	o Coun	ty	
Analysis Time		DHV	·			alysis Yea			2030)		
Project Descr	iption 1-75 F	D&E Sludy -	2030 SB O	ff Ramp	at CR 41	(1-75 = 6 La)	anes)					
nputs												
Jpstream Adj	Ramp	Terrain: Lev	el								Downstre Ramp	am Adj
	Г On										ি Yes	₹ On
₩ No	□ Off										□ No	
-up =	fl				·						L _{down} =	700 ft
	:		$S_{FF} = 70.0$	D mph		S	FR =	35.0 m	iph			
/ _u =	veh/h		5	Sketch (show lane	s, L _A , L _D ,V	_B ,V _i)				V _D =	990 veh/l
Conversi	on to no	/h Under				. K. U.	IV. E					
	V	,, <u>0,,ac,</u>		<i>/U</i> 11 <i>U</i> 1	170113		Τ				v = V/PH	Εv
(pc/h)	(Veh/hr)	PHF	Тепа	ain	%Truck	%Rv		f _{HV}		р	$f_{HV} \times f_p$	
Freeway	3950	0.94	Leve	:	14	1	0.9	933	0.9	15	4742	
Ramp	430	0.89	Leve	el	10	1	0.5	951	9.0)5	535	
JpStream				······								
DownStream	990	0.89	Leve	:	10	1	0.	951	0.9)5	1232	
		Merge Areas	<u> </u>				1		<u> </u>	e Areas		***************************************
Estimatio	n of V.					Estima	itior	ofv				***************************************
		_ \/ /D	***************************************	***************************************						. // /		
		$_{12} = V_F (P_{FM})$)					,	. ,		$-V_R)P_{FD}$	
_{-EQ} = (Equ						L _{EQ} = (E	quat	ion 25-	8 or 25	5-9)		
{FM} = using	Equation	(Exhibit 25-5)			$P{FD} = 0.6$	17 ι	ising E	quatio	n (Exhit	oit 25-11)	
/ ₁₂ = pc/h						V ₁₂ = 313	30 pc	:/h				
Capacity	Checks				· · · · · · · · · · · · · · · · · · ·	Capac			·			·
	Actua	al Ma	kimum)S F?			Actu	maaaaaahaa	Val	imum	LOS F?
•	7.000	1910.		£ 7.	/31:	\/ -	.,			·····		
V_{FO}		Name of the last o				V _{FI} = '		474:	<u>-</u>	1 4	200	No
						V ₁₂		3130)	440)0:All	No
V _{R12}	***************************************					V _{FO} = '	- 1	420	7	72	00	No
K12						······		C 0 E		20	^~	A I _
						V _R		535			00	No
	Service L		***************************************			Level	of S	<u>ervic</u>	e Det	ermir	nation (i	f not F)
$D_R = 5.478$	5 + 0.00734	4 v _R + 0.00)78 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.253	2 + 0.0	086 V	₁₂ - 0.0009	L _D
) _R = (p	c/mi/ln)					D _R =	30.0	(pc/mi/	ln)			
• •	Exhibit 25-4	.1				<i>'</i> '		xhibit 2				
·	timation	·			······································	Speed						
*******		· · · · · · · · · · · · · · · · · · ·	·	·····			***************************************		oit 25-1	ω\		····
	ibil 25-19) (Eybibit 2	5-101				l		-	มแ 25- เ xhibit 2	•		
	(Exhibit 25	•										
	(Exhibit 25	•				~			xhibit 2	•		
= mph	(Exhibit 25	j-14)				S =	61.7	mph (E	xhibit 2	25-15)		
						È						

			<u> 5 AND</u>	KAM	- JUN	CTIONS	***************************************		El		
General	Informati	ion		······································		Site Inf	forma	tion			
Analyst Agency or Co Date Perform Analysis Time	ed e Period	EJB HW Loch 7/28/2009 DHV			ut ut nA	eeway/Dir c nction risdiction aalysis Year		({	-75 South CR 41/Bla Pasco Co 2030	inton Rd Off-R	amp
Project Descr	iption 1-75 F	D&E Study -	2030 SB C)ff Ramp	at CR 41	(1-75 = 8 La	nes)				
Inputs									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Upstream Adj		Terrain: Lev	el							Downstre Ramp	am Adj
	□ On									F Yes	[On
₽ No										1	□ Off
_up =	ft		S _{FF} = 70.	N mah				i E O a b	····	L _{down} =	700 ft
V _u =	veh/h		,	Sketch (s, L _A , L _D ,V		35.0 mph		V _D =	990 veh/
<u>Convers</u>	ion to pc	<u>/h Under</u>	Base (Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Теп	ain	%Truck	%Rv	f _H	v	fp	v = V/PH f _{HV} x f _p	Fx
Freeway	3950	0.94	Leve	el	14	1	0.93	3	0.95	4742	
Ramp	430	0.89	Leve	el	10	1	0.95	1	0.95	535	
UpStream -							<u> </u>		······································		
DownStream	990	0.89	Leve	el	10	1	0.95		0.95	1232	
Entimatio		Merge Areas	<u> </u>						erge Area	as	
ESumano	on of v ₁₂					Estima	tion	of V ₁₂	,,		
o _{fM} = using V ₁₂ = pc/h	uation 25-2 g Equation					L _{EO} = (E P _{FD} = 0.43 V ₁₂ = 236	36 usi	n 25-8 o ng Equa	r 25-9)	F - V _R)P _{FD}	
Capacity	Checks					Capaci	ty Ch	iecks			
	Actua	al Ma	ximum	LO	SF?			Actual	М	aximum	LOS F?
V_{FO}		-				V _{F1} = \	V _F	4742		9600	No
*FO						V ₁₂		2369	4	400:Alt	No
V _{R12}						V _{FO} = \ V _R	/ _F -	4207		9600	No
						V _R		535		2000	No
_evel of	Service L)etermin	ation (i	f not	F)	Level c	of Sei	vice D	eterm	ination (i	f not F)
D _R = 5.47	5 + 0.00734	4 v _R + 0.00)78 V ₁₂ -	0.0062	7 L		D _B = -	4.252 +	0.0086	V ₁₂ - 0.0009) L _n
) _B = (t	oc/mi/ln)				• • •	D _R =		c/mi/ln)			
.0S = (f	Exhibit 25-4	.)				1		, ibit 25-4	1		
	stimation	`	***************************************			Speed					***************************************
	ibit 25-19)					 		Exhibit 2	5-19)		
5	::bit 25-19) r (Exhibit 25	5-19)				ŀ	•	h (Exhit) }	
	,	1				E .					
	(Exhibit 25	5-19)				S₁≖	76.1 mc	h (Exhib	it 25-19	3)	
S ₀ = mpt	ı (Exhibit 25 ı (Exhibit 25	•				'	,	h (Exhib h (Exhib		•	

9 29 AM

		RAMP	S AND	RAME	NUU 9	CTIONS	WC	RKSI	HEET			
General	Informati	ion				Site Inf	orm	ation				
Analyst Agency or Co Date Perform Analysis Timo Project Desco	ied	EJB HW Loch 7/28/2005 DHV D&E Sludy -	5	np at CR	ul An	eeway/Dir o nction risdiction alysis Year = 6 Lanes)		el	CR 4	Southbo 1/Blanto Count	on Rd On-R	amp
Inputs					<u> </u>			***				
Upstream Ad	j Ramp	Terrain: Lev	el						***************************************		Downstrear	n Adj Ramp
√ Yes	ΓOn										☐ Yes	
Γ No	F Off										[No	ft Off
L = up	700 ft		S _{FF} = 70.	n mah				35.0 mp	h		L _{down} =	
Vu =	430 veh/h	,	• •		abau lana		, 11	33.0 mp	{ 		V _D =	veh/h
Canvara	ion to no	/h I Indor				s, L _A , L _D ,V _I	۲۰ <i>(ا</i>				<u> </u>	
Convers	ion to pc	n Unaer	Base (Jonan	uons		r	—т			v = V/PHF	
(pc/h)	(Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}	[HV X (p	
Freeway	3520	0.94	Lev	***************************************	14	1		933	0.9		4226	
Ramp UpStream	990 430	0.89 0.89	Levi Levi		10 10	1 1		951 951	0.9		1232 535	
DownStream		0.03	FEA	31	10		0.0	231	0.5		- 000	
		Merge Areas					·		Diverge	Areas		
Estimati	on of v ₁₂					Estima	tion	of v ₁	2			
	V	₁₂ = V _F (P _{FM})		····			V	₁₂ = V _R	+ (V _F -	V _R)P _{FD}	
L _{EO} = 951.41	(Equation 2	5-2 or 25-3)				L _{EO} = (Eo	qualio	n 25-8 or	25-9)			
$P_{FM} = 0.584$	using Equation	on (Exhibit 2	5-5)			P _{FO} = us	ing Ed	quation (Exhibit 2	(5-11)		
V ₁₂ = 2468	pc/h					V ₁₂ = pc/	'h				<u> </u>	***************************************
Capacity	Checks	ar hand data to the sporter of makes a surgery ways.				Capaci	ty C	heck	S			
	Actua	ıl Max	imum	LO	SF?			Actu	al	Max	imum	LOS F?
V_{FO}	5458	See Ex	hibit 25-7	N	0	V _{FI} = V	F					
						V ₁₂						
V _{R12}	3700	460	DO:All	N	0	$V_{FO} = V_{F}$ V_{R}						
1112						V _R						
Level of	Service L	Determin	ation (I	fnot	F)	Level	of S	ervice	Dete	ermir	nation (i	f not F)
D _R = 5	5.475 + 0.0073	34 v _R + 0.007	78 V ₁₂ - 0.0	0627 L _a				$O_{R} = 4.25$	52 + 0.0	086 V ₁₂	- 0.0009 L	
"	28.8 (pc/mi/ln)					D _R =	(pc/m	i/In)				
) (Exhibit 25-4					LOS =	(Exhit	oit 25-4)	***************************************		·····	
Speed E	<u>stimation</u>				***************************************	Speed	Est	imati	o <i>n</i>			
M _S = 0.4	23 (Exibit 25-1	19)				D _s =	(Exhit	oit 25-19)			
	2 mph (Exhibi	1 25-19)				S _R =	mph (Exhibit 2	25-19)			
t	5 mph (Exhibi	1 25-19)				S ₀ =	mph (Exhibit 2	25-19)			
	3 mph (Exhibi	t 25-14)				S =	mph (Exhibit 2	25-15)			
ht © 2005 Univ	ersily of Florida	i, All Rights Re	served	***************************************		HC	S+TM	Version	5.2		Genera	ated. 11/8/2006

Copyrigi

9:32 AM

		RAMP	S AND	RAMI	² JUN(CTIONS	WC	RKS	HEET	<u> </u>		
Genera	l Informat					Site Int	_					***************************************
Analyst Agency or C Date Perfort Analysis Tin Proiect Desc	med	EJB HW Loch 7/28/2009 DHV PD&E Study -	5	on Ramo	ut ut nA	eeway/Dir onction risdiction nalysis Year Lanes)		el	CR 4	co Cour	ton Rd On-R	2amp
Inputs					1,							****
Upstream A	dj Ramp	Terrain: Lev	el					<u> </u>			Downstrea	m Adj Ramp
√ Yes	□ On										☐ Yes	
┌ No	I Off										r ^{qowu} =	□ Off ft
L _{up} =	700 ft										down	
Vu =	430 veh/h		S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 mp	h		V ₀ =	veh/h
Convers	sion to pc	/h Under	Base (Condi	tions							
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	f	HV		f _p	v = V/PHF f _{HV} x f _p	X
Freeway	3520	0.94	Lev		14	1	4	33	0.9		4226	
Ramp	990	0.89	Lev	***************************************	10	1		951	0.9		1232	
UpStream DownStream	430	0.89	Lev	el	10	1	0.9	951	0.9	<i>3</i> 5	535	·
DOWNDRIGHT	11	Merge Areas	<u>l </u>		<u> </u>		L	1	Divero	e Areas		
Estimat	ion of v ₁₂			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Estima	tion	of v				
	uation 25-2 or 2 using Equation					L _{EO} = (Eo P _{FD} = us V ₁₂ = pc/	ing Eq	1 25-8 oi	25-9)		V _R)P _{FD}	
Capacit	y Checks					Capaci	ity C	heck	S			
	Actua	al Max	kimum	LΟ	SF?			Actu		Ma	ximum	LOS F?
V _{FO}	5458	See Ex	hibit 25-7	N	О	V _{FI} = \	/ _F					
V _{R12}	2579	46	IIA:00	N	o	$V_{FO} = V_{F}$ V_{R} V_{R}	. *			· - 41		
Level of	Service L	Determin	ation (i	fnot	F)	Level	of Se	ervice	Det	ermi	nation (I	f not F)
	5.475 + 0.0073		~~~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					***************************************			₂ - 0.0009 L	
	20.0 (pc/mi/ln)		16	A		D _R =	(pc/mi	• • • • • • • • • • • • • • • • • • • •		'	4 n	-
	C (Exhibit 25-4					1 '`	"	it 25-4)				
·····	stimation			***************************************	***********	Speed	·		on			***************************************
	316 (Exibit 25-					†		it 25-19				
	.1 mph (Exhibi	'				l .	•	Exhibit 2	•			
	.6 mph (Exhibi	•				E .		Exhibit 2	,			
	.9 mph (Exhibi	,				, ,	, .	Exhibit 2				
	versity of Florida		convod			I		- Marrier			Conor	ated 11/8/2006

			SAND	RAM	P JUN	CTIONS	S WC	<u> DRKS</u>	HEET		***************************************
General	Informat	ion				Site In:	form	nation			
Analyst Agency or Co Date Perform Analysis Timo	ed	CRH HW Loch 10/26/06 DHV			Ju Ju	eeway/Dir on the control of the cont		/el		thbound ortez Blvd. Off- lo County	Ramp
Project Descr	iption I-75 F	D&E Study -	2030 NB C	off Ramp							· · · · · · · · · · · · · · · · · · ·
Inputs								***************************************			***************************************
Upstream Adj	,	Terrain: Lev	rel							Downstre Ramp	∋am Adj
	□ On									F Yes	☑ On
	□ Off										□ Off
_up =	ft		C - 70	^ <i>t</i>				A.F. A		L _{down} =	2360 ft
V _u =	veh/h	,	S _{FF} = 70.		show lane	s, L _A , L _D ,V		35.0 m	ph	V _D =	1460 veh
Convers	ion to pc	/h Under	Base (Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}	f _p	v = V/PH f _{HV} x f _p	Fx
Freeway	4980	0.93	Leve	el	14	2	0.9	931	0.95	6054	
Ramp	1680	0.95	Leve	el .	19	2	0.9	910	0.95	2046	
UpStream											
DownStream	1460	0.95	Leve	el	19	2	0.9	910	0.95	1778	
		Merge Areas	<u> </u>		·····		·····		Diverge Ar	eas	
Estimatio	on of v ₁₂					Estima	ition	of v	12		
	uation 25-2 g Equation					I	50 u	ion 25- Ising E	8 or 25-9	V _F - V _R)P _{FD}) Exhibit 25-11)	
Capacity	Checks			····		Capac			S		
	Actua	al Ma	ximum	LO	SF?			Actu		Maximum	LOS F?
						V _{F1} = '	٧ _E	6054		7200	No
V _{FO}						V ₁₂		3850		4400:All	No
V _{R12}						V _{FO} = '		4008	3	7200	No
						V _R		2046) <u> </u>	3800	No
	Service L					Level	of S	ervice	e Deteri	nination (i	f not F)
$D_R = 5.478$	5 + 0.00734	4 v _R + 0.00	078 V ₁₂ -	0.0062	27 L _A		D _R :	= 4.252	9800.0 + 2	5 V ₁₂ - 0.0009	9 L _D
) _R = (p	oc/mi/ln)					D _R =	27.5	(pc/mi/	ln)		
.OS = (E	Exhibit 25-4)				LOS =	C (E:	xhibit 2	5-4)		
Speed Es	timation	:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************		Speed	Est	imati	on		
	ibit 25-19)								oit 25-19)		
·s 1-^	(Exhibit 25	i_10\				S _R =			khibit 25-1	19)	
i_= mnh						a MY	~ · · ·	arkers & promote		· - ,	
							72 1 /		zhihit 25. 1	(9)	
$S_0 = mph$	(Exhibit 25 (Exhibit 25	5-19)				s.= S.=		mph (Ex	khibit 25-1 khibit 25-1		

<u> </u>	* *		2 AND	KAM	P JUNG	CTIONS				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Informat	ion				Site In:	<u>forn</u>	natior)		····
Analyst		CRH			Fr	eeway/Dir (of Trav	vel	I-75 Nor	thbound	
Agency or Co		HW Loch	ner, Inc.			nction				Cortez Blvd. Off-I	Ramp
Date Perform		10/26/06			Ju	risdiction			Hernand	do County	
Analysis Time		DHV	·····			ialysis Yea			2030		
Project Descr	ription 1-75 F	D&E Study -	2030 NB C	Off Ramp	at SR 50	(1-75 = 8 La	anes)				·
Inputs											
Upstream Ad	j Ramp	Terrain: Lev	el	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Downstre Ramp	am Adj
	□ On										F On
	□ Off										□ Off
L _{up} =	ft					***************************************				L _{down} =	2360 ft
	6. 11.		S _{FF} = 70.	.0 mph		S	FR	35.0 m	ph	. -	4400
V _u =	veh/h			Sketch (show lane	s, L _A , L _D ,V	(R,V_i)			V _D =	1460 veh
Convers	ion to pc	h Under	Base (Condi	tions						
	V			****	1		T			v = V/PH	Fx
(bc/h)	(Veh/hr)	PHF	Terr	ain	%Truck	%Rv		f _{HV}	f _p	$f_{HV} \times f_{p}$	
Freeway	4980	0.93	Leve	el el	14	2	0.1	931	0.95	6054	·
Ramp	1680	0.95	Leve		19	2	+	910	0.95	2046	
UpStream		0.00	2011	J1	10		0,	010	0.00		
DownStream	1460	0.95	Leve		19	2	n	910	0.95	1778	·
		Merge Areas	·		1		1 0.		Diverge Ar		
Estimatio	on of V ₁₂				******	Estima	tion	ofv			T
		$_{12} = V_F (P_{FM})$)						,	$V_F - V_R)P_{FD}$	
	ation 25-2					L _{EQ} = (E	quat	ion 25-	8 or 25-9))	
P _{FM} = using	Equation	(Exhibit 25-5)			$P_{FD} = 0.2$	60 L	ısing E	quation (E	exhibit 25-11)	
V ₁₂ = pc/h						V ₁₂ = 308	38 pc	:/h			
Capacity						Capac	·····		'S		
	Actua	ei Max	dmum	10	SF?			Actu		Maximum	LOS F?
						V _{F1} = '	V	6054		9600	No
V_{FO}						~					
						V ₁₂		3088	<u> </u>	4400:Ali	No
V _{R12}						V _{FO} = \ V _R		4008	3	9600	No
1/12						V _R		2048		3800	No
	<u> </u>	<u> </u>	ation (i	f not	F)		of S			nination (i	
_evel of :										5 V ₁₂ - 0.0009	· · · · · · · · · · · · · · · · · · ·
	O # U.UU/34	Κ	12			n -	1.			12 " "	U
D _R = 5.47						D _R =		(pc/mi/	·		
D _R = 5.47:	oc/mi/ln)					1					
D _R = 5.47: O _R = (p OS = (E	oc/mi/ln) Exhibit 25-4			***************************************		LOS=	B (E)	xhibit 2	5-4)		**************************************
D _R = 5.47 D _R = (p OS = (E	oc/mi/ln)					LOS = Speed			·····		WAREHAM TO THE THE THE THE THE THE THE THE THE THE
D _R = 5.47: D _R = (p .0S = (E Speed Es	oc/mi/ln) Exhibit 25-4			······································		Speed	Est	imati	·····		WA
$D_R = 5.47$ $D_R = 0$ $D_R = $	oc/mi/ln) Exhibit 25-4 s timation tibit 25-19)			***************************************	MARINA	Speed	<i>Est</i> 0.612	<i>imati</i> (Exhib	on oit 25-19)	19)	
$D_R = 5.47$ $D_R = 0$ OS = 0	oc/mi/ln) Exhibit 25-4 Stimation Libit 25-19) In (Exhibit 25	5-19)				Speed D _s = S _R =	Est 0.612 52.9 r	imati (Exhib	on oit 25-19) khibit 25-1		
$D_R = 5.47$ $D_R = 0$ 0.0S = 0 0.0	oc/mi/ln) Exhibit 25-4 s timation tibit 25-19)	5-19) 5-19)				Speed D _s = S _R = S ₀ =	Est 0.612 52.9 r 74.9 r	imati (Exhit mph (E) mph (E)	on oit 25-19)	19)	

Generated: 11/9/2006 9:03 AM

			S AND	RAM	P JUN	CTIONS					
General I	nformati					Site In:					
Analyst	maaau	EJB				eeway/Dir o	of Tra	/el	I-75 North		
Agency or Cor Date Performe		HW Loch 7/28/2005				inction				ortez Blvd. On-	Ramp
Analysis Time		772872003 DHV	3			ırisdiction nalysis Yeal	r		Hernando 2030	County	
Project Descrip			2030 NB (On Ramn	at SR 50	11-75 = 61 :	anes)		2030		
nputs				2111121111	- at 011 00	110 0 0 0 0	unco)				
		Terrain: Lev	el				······································	***************************************			
Jpstream Adj	Ramp									Downstrea	m Adj Ramp
✓ Yes I	Г On									┌ Yes	ГОп
1 100 1	, Oli									1	• • •
□No I	⊽ Off									F No	☐ Off
										L _{down} =	ft
_{up} = 2	360 ft	······································								UOWII	.,
″u = 1-		5	S _{FR} =	35.0 mp	h	V _D =	veh/h				
U I'	show lane	s, L _A , L _D ,V	,V,)								
Conversi	on to pc/	h Under					11				
	٧						T	. 1		v = V/PHF	X
(pc/h)	(Veh/hr)	PHF	Terr	ain	%Truck	%Rv		l ^{HA}	fp	$f_{HV} \times f_0$	
reeway	3310	0.94	Lev	el	14	2	0.	931	0.95	3981	
Ramp	1460	0.95	Levi	el	19	2	-	910	0.95	1778	
JpStream	1680	0.95	Lev	el	19	2	0.9	910	0.95	2046	
)ownStream							<u> </u>				
		Merge Areas							Diverge Area	as	
Estimatio	11 01 V ₁₂					Estima	tion	of v ₁	2		
	V ₁	$_2 = V_F (P_{FM})$)					V	12 = V _R + (V _F	- V _R)P _{FD}	
_{EO} = 935.91	(Equation 25	5-2 or 25-3)				L _{EO} = (Eo	qualio			<i></i>	
_{FM} = 0.595 u	ising Equalion	n (Exhibit 25	5-5)						Exhibit 25-11	11	
₁₂ = 2368 p			,			$V_{12} = pc/$	-	3(1	
Capacity (··			***************************************			hook			
Jupatry	Actual	1.40	inaura	1.0	0.50	Capaci	T T	de automorphismo			100 ==
	ACtual	xsivi	imum	LU	SF?			Actua	al M	aximum	LOS F?
V_{FO}	5759	See Ext	nibit 25-7	N	٥	V _{F1} = V	F				
ro		000 2/11	20 1	.,	0	V ₁₂	I				
				***************************************		V _{FO} = V _F	-				*
V_{R12}	4146	460	i0:All	N	n	V _R	ŀ				
17.12			0.7 4.	.,				······································			
	<u> </u>			-		V _R					
evel of S					<u> </u>	Level c			***************************************	ination (i	
	175 + 0.00734	4 v _R + 0.007	ิ R N ¹⁵ - 0'0	10627 L _A				_R = 4.25	2 + 0.0086 V	/ ₁₂ - 0.0009 L _C)
_R = 33.	.1 (pc/mi/ln)				:	D _R =	(pc/mi	/ln)			
DS = D ((Exhibit 25-4)					LOS =	(Exhib	it 25-4)			
peed Est	timation					Speed		····		· · · · · · · · · · · · · · · · · · ·	
<u> </u>	(Exibit 25-19	a'i	***************************************					it 25-19)			
~		,			:		•				
•	mph (Exhibit	•						Exhibit 2			
,	mph (Exhibit	•				Ť		Exhibit 2			
	mph (Exhibit					S = 1	mph (l	Exhibit 2	5-15)		
ව 2005 Univers	sity of Florida.	All Rights Res	served			HCS	,TM	Jersion 5	2	Generale	ed 11/8/2006

Copyrigh

		RAMP	SAND	RAMI	> JUN(CTIONS	WC	RKSI	HEET		
General	Informati					Site Int					
Analyst Agency or Co Date Perform Analysis Tim Project Desc	ned	EJB HW Loch 7/28/2009 DHV D&E Study -	5	On Ramp	Ju Ju Ar	eeway/Dir onction risdiction risdiction	of Trav			thbound ortez Bivd. On- lo County	Ramp
Inputs											
Upstream Ad	lj Ramp	Terrain: Lev	el							Downstrea	m Adj Ramp
√ Yes	Г On									☐ Yes	□ On
□ No	IZ Off									L _{down} =	ft Off
r ^{nb} =	2360 ft		S _{FF} = 70.	N mah		c	`	25 A ma			
Vυ =	1680 veh/h		, ,		show lane	s, L _A , L _D ,V	, ,,	35.0 mp		V _D =	veh/h
Convers	ion to pc	/h Under	Base (Condi	tions						
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv		(_{HV}	fp	v = V/PHF f _{HV} x f _p	X
Freeway	3310	0.94	Lev		14	2		331	0.95	3981	
Ramp	1460	0.95	Lev		19	2	+	910	0.95	1778	
UpStream DownStream	1680	0.95	Levi	el	19	2	0.1	910	0.95	2046	
DOMINICAL		Merge Areas	<u> </u>		L		<u> </u>	1	Diverge Ar	<u> </u>	
Estimati	on of v ₁₂					Estima	tion				
		₁₂ = V _F (P _{FM})		······································	L _{EO} = (Eo		V		V _F - V _R)P _{FD}	
	using Equatio		5.5\			I			Exhibit 25-1	11\	
V ₁₂ = 769 p		tr (EVIIDILE	5-0)			1 -		quauon (i	TAHIBIT ZU-	£ 1 <i>)</i>	
	Checks					V ₁₂ = pc/		·haak			
Сараспу				10	C	Capaci	ily C	and a management		Marrian	100 53
***************************************	Actua	li IVid.	ximum		SF?	\	,	Actua	11	Maximum	LOS F?
V_{FO}	5759	See Ex	chibit 25-7	N	lo	V _{FI} = V	f F				
V _{R12}	2547	46	00:Ali	Ň	lo	V _{FO} = V _F V _R	-				
l aval af	<u> </u>	<u> </u>	-4:/	· F 4	/ \	 		-	<u> </u>		:
	Service L		·····			Level				<u>mination (</u>	
	5.475 + 0.0073	94 V R + 0.00	76 V ₁₂ = U.t	30027 L _A				,,	2 + 0.0000	V ₁₂ - 0.0009 L	D
15	20.6 (pc/mi/ln)					' ''	(pc/m	•			
	C (Exhibit 25-4			***************************************		<u> </u>	····	oit 25-4)			
Speed E.	stimation					Speed					
M _S = 0.3	27 (Exibit 25-1	9)				ľ	(Exhil	oit 25-19))		
S _R = 60.	8 mph (Exhibit	(25-19)				1 "	, ,	Exhibit 2			
V	0 mph (Exhibit					S ₀ =	mph (Exhibit 2	5-19)		
S = 63.	6 mph (Exhibit	25-14)				S =	mph (Exhibit 2	5-15)		
or th 2005 Libiu	ersity of Florida	All Diabte De	round				TU		. ~	Capaca	led: 11/8/2006 1

Generated: 11/8/2006 10:03 AM

	Informat					WORKS	······································	. 1		
	unoimat		····			<u>formatio</u>				
Analyst Aganay or Co	moon	EJB			eeway/Dir c	t Fravel		Southb		_
Agency or Co Date Perform		HW Loch			inction				ez Blvd. Off-F	Ramp
		7/28/200)		risdiction			rnando C	County	
Analysis Time		DHV	00.046		alysis Year		203	30		~
	19110N 1-751	D&E Study -	SB Off Ramp	at SR 50 (1-75	= 6 Lanes)					****
Inputs		[π:	- 1					····		
Upstream Adj	,	Terrain: Lev	el						Downstre Ramp	am Adj
	□ On								ি Yes	[On
₹ No									ΓNo	
-up =	ft		-	······································			<u> </u>		L _{down} =	2360 ft
√ =	veh/h		S _{FF} = 70.0 m			_{FR} = 35.0 n	nph		V _D =	1040
v _u	venin		Ske	tch (show lane	s, L_A, L_D, V_F	_۲ ,۷ _۱)			D -	1310 veh
Conversi	on to pc	/h Under	Base Co	nditions						*************************************
	٧				0.50			£	v = V/PHI	Fx
(pc/h)	(Veh/hr)	PHF	Terrain	%Truck	%Rv	f _{HV}		f _p	$f_{HV} \times f_p$	
Freeway	3780	0.93	Level	14	2	0.931	0.	95	4595	*
Ramp	1150	0.89	Level	19	2	0.910	0.	95	1495	
UpStream										***************************************
DownStream	1310	0.89	Level	19	2	0.910	0.	95	1703	
		Merge Areas					Diverg	e Areas		
Estimatio	on of v ₁₂	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Estima	tion of v	4 7			
		12 = V _E (P _{EM}	``````````````````````````````````````					* IVI	- V _R)P _{FD}	***************************************
- (Eau			J				-		- V _R)r _{FD}	
_{-EQ} = (Equ						quation 25				
_{FM} = using	Equation	(Exhibit 25-5)			6 using E	quatic	on (Exhil	oit 25-11)	
$l_{12} = pc/h$					$V_{12} = 328$	2 pc/h				
·····		······································								
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Checks				Capaci	ty Check	(S			
Capacity	Checks Actua	el Ma:	(ÎMUM	LOS F?	Capaci	ty Check Actu	************	Max	imum	LOS F?
Capacity		el Ma	dimum	LOS F?		Actu	ıal		imum 200	LOS F? No
		el Ma	dimum dimum	LOS F?	V _{F1} = \	Actu / _F 4599	naí 5	7:	200	No
Capacity		el Max	(imum	LOS F?	V _{F1} = V	Actu / _F 4599 3282	naí 5	7:		*
V _{FO}		al Max	dmum dimum	LOS F?	$V_{F1} = V$ V_{12} $V_{FO} = V$	Actu / _F 4599 3282	nal 5	7:	200 00:All	No
Capacity		i Ma	dimum dimum	LOS F?	$V_{F1} = V$ V_{12} $V_{F0} = V$ V_{R}	Actu / _F 4599 3287 / _F 3100	1al	75 440 72	200 00:All 00	No No No
V _{FO}	Actua				V _{FI} = V V ₁₂ V _{FO} = V V _R	Actu / _F 459: 328: / _F 310: 149:	12	72 440 72 20	200 200:All 000 000	No No No
V _{FO} V _{R12}	Actual Ac	Determin	ation (if n	ot F)	V _{F1} = V V ₁₂ V _{FO} = V V _R V _R	Actu / F 459: 328: / F 310: 149: of Service	nai	73 440 72 20 fe <i>rmir</i>	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$	Actual Service L 5 + 0.00734	Determin		ot F)	V _{F1} = V V ₁₂ V _{FO} = V V _R V _R	Actu / _F 4599 3287 / _F 3100 1499 If Service D _R = 4.252	naí 55 2 2 55 2 4 0.0	73 440 72 20 fe <i>rmir</i>	200 200:All 000 000	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$	Actual Ac	Determin	ation (if n	o t F) 0627 L _A	V _{F1} = V V ₁₂ V _{FO} = V V _R V _R	Actu / F 459: 328: / F 310: 149: of Service	naí 55 2 2 55 2 4 0.0	73 440 72 20 fe <i>rmir</i>	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$	Actual Service L 5 + 0.00734	Determin 1 v _R + 0.00	ation (if n	ot F) 00627 L _A	$V_{F1} = V$ V_{12} $V_{FO} = V$ V_{R} V_{R} $Level o$ $D_{R} = 0$	Actu / _F 4599 3287 / _F 3100 1499 If Service D _R = 4.252	5 0 0 0 0 0 0 0 0 0	73 440 72 20 fe <i>rmir</i>	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$ $C_R = 0$ $C_R = 0$ $C_R = 0$	Service Los + 0.00734 c/mi/ln)	Determin 1 v _R + 0.00	ation (if n	o t F) 00627 L _A	$V_{F1} = V$ V_{12} $V_{F0} = V$ V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R} V_{R}	Acture Act	e Det (2 + 0.0)	73 440 72 20 fe <i>rmir</i>	200 00:All 00 00 00 00 nation (if	No No No No
Capacity V_{FO} V_{R12} Level of S $D_R = 5.475$ $D_R = (P)$ $OS = (E)$ Speed Es	Service Los + 0.00734 c/mi/ln) exhibit 25-4	Determin 1 v _R + 0.00	ation (if n	ot F) 00627 L _A	V _{F1} = V V ₁₂ V _{F0} = V V _R V _R Level o	Acture Act	5 2 0 5 1 1 2 2 4 0.0 (c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	7: 440 72 20 fe <i>rmir</i> 0086 V.	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$ $C_R = 0$	Actual Ac	Determin 1 v _R + 0.00	ation (if n	ot F) 00627 L _A	V _{F1} = V V ₁₂ V _{F0} = V V _R V _R Level of D _R = 3 LOS = 1 Speed	Acture Act	e Det 2 + 0.0 in) 25-4) on pit 25-	73 440 72 20 20 20086 V	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$ $D_R = (EXIST)$	Actual Service L 5 + 0.00734 c/mi/ln) Exhibit 25-4 timation bit 25-19) (Exhibit 25	Determin 1 v _R + 0.00	ation (if n	ot F) 00627 L _A	V _{FI} = V V ₁₂ V _{FO} = V V _R V _R Level o D _R = 3 LOS = 1 Speed D _S = 6 S _R = 5	Acture Ac	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	72 440 72 20 fermin 0086 V.	200 00:All 00 00 00 00 nation (if	No No No No
V_{FO} V_{R12} Level of S $D_R = 5.475$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$ $C_R = (P_R)$	Actual Ac	Determin. 1 v _R + 0.00) 5-19) 5-19)	ation (if n	ot F) 00627 L _A	$V_{F1} = V_{12}$ $V_{F0} = V_{12}$ $V_{F0} = V_{12}$ $V_{R} = V_{R}$ $V_{R} $	Acture Act	e Det 2	7: 440 72 20 fermin 0086 V.	200 00:All 00 00 00 00 nation (if	No No No No

ļ		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	S AND	KAMI	- JUN(: 1		
General	Intormat					Site In:	forn	natio	7	~~~		···
Analyst Agency or Co Date Perform Analysis Time	ed	EJB HW Loch 7/28/200 DHV			Մ Մ	eeway/Dir on nction risdiction alysis Year		vel	SF	rnando	bound tez Blvd. Off-l County	Ramp
Project Descr	iption 1-75 F	D&E Study -	2030 SB O	off Ramp	at SR 50	(I-75 = 8 La	anes)					
Inputs												
Upstream Adj	·	Terrain: Lev	el								Downstre Ramp	am Adj
	□ On										F Yes	F On
	□ Off										∏ No	
- _{up} =	~~~~	S	=	35.0 п			L _{down} =	2360 ft				
V _u = veh/h Sketch (show Conversion to pc/h Under Base Condition								33.0 11	ıpı ı		V _D =	1310 veh
Conversi	on to pc	/h Under	Base (Condit	tions							
(pc/h)	V (Veh/hr)	PHF	Terra	ain	%Truck	%Rv		f _{HV}		f _p	v = V/PH f _{HV} x f _p	Fx
Freeway	3780	0.93	Leve	el	14	2	0.	931	0	.95	4595	
Ramp	1150	0.89	Leve	el	19	2	0.	910	0	.95	1495	
UpStream	10.10						 				_	
DownStream	1310	0.89	Leve	e i	19	2	0.	910	<u> </u>	.95	1703	····
Estimatio	on of V.	Merge Area	3			Estima	tior	ofv		ge Area	S	***************************************
***************************************	·····	₁₂ = V _E (P _{EM}	\		****					+ /\/	- V _R)P _{FD}	
- _{EO} = (Equ			,			L _{FO} = (E	quati				F 'R" FD	
o _{FM} = using			i)								nibit 25-11)	
/ ₁₂ = pc/h			•			V ₁₂ = 284			,			
Capacity	Checks					Capaci			CS		······································	***************************************
medamental	Actua	ıl Ma	ximum	LO	SF?		1	Actu		Ma	ximum	LOS F?
						V _{F1} = \	٧ _ح	4595			9600	No
V_{FO}						V ₁₂		284			100:All	No
V _{R12}						V _{FO} = \	√ _F -	310	0	Ş	600	No
						V _R		149	5		2000	No
_evel of S	Service L)etermin	ation (ii	f not l	=)		of S	ervic	e De	term	ination (i	f not F)
D _R = 5.475										····	/ ₁₂ - 0.0009	
	c/mi/ln)		12.			D _R =	• • •	(pc/mi/			12	D
•	xhibit 25-4)						xhibit 2				
Speed Es						Speed			·	***************************************		······································
····	ibil 25-19)						······	(Exhit	····	19)		***************************************
C/	(Exhibit 25	5-191						nph (E:		•)	
к пфп		•										
= mnh							75 S r	nnn $i \vdash i$	YDIDIF.	25-14	1	
17	*	•						nph (E: nph (E:				

Copyrigi

0:05 AM

	formation	***************************************	O MILL	17771411	00111	CTIONS			ILL I		·····
General Ir	nvillatio					Site Int				45. b	
Analyst Agency or Com	กลทง	EJB HW Loch	nar Inc			eeway/Dir c	of Frave	91	I-75 Sou	lhbound ortez Blvd. On:	Domo
agency or com Date Performed		7/28/200				nction risdiction				onez Biva. On o County	-r-camp
Analysis Time F		DHV	,			risdiction ralysis Year			2030	o County	
Project Descrip			2030 SB C	n Ramo					2000		
nputs				, camp	01100	1110 0 22	1100)				
	T	ferrain: Lev	el								·····
Jpstream Adj R			.							Downstrea	am Adj Ramp
,										☐ Yes	Г On
▼ Yes 「	On									1 163	1 011
FNo F	- C#									F No	□ Off
1 140 1-	Oil										4
- _{up} = 23	60 ft									L _{down} =	ft
up ==	" F		S _{FF} = 70.	() moh			= 3	35.0 mpi	٠		
/u = 11	50 veh/h	•		=			ŧ 1 \	o.o mpi	•	V _D =	veh/h
	l				·····	s, L _A , L _D ,V	R, V ₍)				
Conversio	T.	n Under	Base (Condi	tions		·				
(pc/h)	V	PHF	Теп	ain	%Truck	%Rv	f.	4V	fp	v = V/PHF	X
	(Veh/hr)		, , , ,							HV X I _p	***
Freeway	2640	0.94	Leve		14	2	0.93		0.95	3175	
Ramp	1310	0.89	Leve		19	2	0.9		0.95	1703	····
JpStream	1150	0.89	Levi	<u> </u>	19	2	0.9	10	0.95	1495	···
DownStream	<u>l</u>	Anron Anno	<u> </u>		<u> </u>		<u> </u>				······································
Estimation		Merge Areas	5			1				320	
					·····	P" - 4:	4:- ·-		Diverge Are	203	······································
_SUMALION	1 01 V ₁₂		***			Estima	tion			, ad	
_SUMALIOI		= V _F (P _{FM})			Estima	tion	of v ₁			
	V ₁₂	. ,)				************	of v ₁	2 ₁₂ = V _R + (\		
- _{EQ} = 751.81	V ₁₂ (Equation 25	-2 or 25-3)				L _{EO} = (Eo	quation	of v ₁ V ₁ 25-8 or	2 ₋₂ = V _R + (\ 25-9)	/ _F - V _R)P _{FD}	
_{EO} = 751.81 _{PM} = 0.595 us	V ₁₂ (Equation 25 sing Equation	-2 or 25-3)				L _{EO} = (Eo P _{FD} = us	quation ing Equ	of v ₁ V ₁ 25-8 or	2 ₁₂ = V _R + (\	/ _F - V _R)P _{FD}	
_{-EO} = 751.81 D _{FM} = 0.595 us V ₁₂ = 1890 pc	V ₁₂ V ₁₂ (Equation 25 Jing Equation	-2 or 25-3)				L _{EO} = (Eo P _{FD} = us V ₁₂ = pc/	quation ing Equ	of v ₁ , V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (\ 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	
***************************************	V ₁₂ (Equation 25 sing Equation t/h Checks	-2 or 25-3)				L _{EO} = (Eo P _{FD} = us	quation ing Equ	of v ₁ , V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (\ 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	
_{-EO} = 751.81 D _{FM} = 0.595 us V ₁₂ = 1890 pc	V ₁₂ VEquation 25 sing Equation /h	-2 or 25-3) (Exhibit 2		LO	SF?	L _{EO} = (Eo P _{FD} = us V ₁₂ = pc/	quation ing Equ	of v ₁ , V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
_{EO} = 751.81 P _{FM} = 0.595 us V ₁₂ = 1890 pc Capacity C	V ₁₂ (Equation 25 sing Equation oft Checks Actual	-2 or 25-3) (Exhibit 2:	5-5) simum		***************************************	L _{EO} = (Eo P _{FD} = us V ₁₂ = pc/	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
_{-EO} = 751.81 D _{FM} = 0.595 us V ₁₂ = 1890 pc	V ₁₂ (Equation 25 sing Equation t/h Checks	-2 or 25-3) (Exhibit 2:	5-5)	LO	***************************************	L _{EO} = (Ec P _{FD} = us V ₁₂ = pc/ Capaci V _{FI} = V	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
_{EO} = 751.81 P _{FM} = 0.595 us V ₁₂ = 1890 pc Capacity C	V ₁₂ (Equation 25 sing Equation oft Checks Actual	-2 or 25-3) (Exhibit 2:	5-5) simum		***************************************	L_{EO} = (Ec P_{FD} = us V_{12} = pc/ Capaci V_{FI} = V	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
Capacity C	V ₁₂ (Equation 25 sing Equation th Checks Actual	-2 or 25-3) (Exhibit 2: Max See Ex	simum hìbit 25-7	N	0	$L_{EO} = (Ec$ $P_{FD} = us$ $V_{12} = pc/$ $Capaci$ $V_{FI} = V$ V_{12} $V_{FO} = V_{F}$	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
_{EO} = 751.81 P _{EM} = 0.595 us V ₁₂ = 1890 pc Capacity C	V ₁₂ (Equation 25 sing Equation oft Checks Actual	-2 or 25-3) (Exhibit 2: Max See Ex	5-5) simum		0	L_{EO} = (Ec P_{FD} = us V_{12} = pc/ Capaci V_{FI} = V	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
Capacity C	V ₁₂ (Equation 25 sing Equation th Checks Actual	-2 or 25-3) (Exhibit 2: Max See Ex	simum hìbit 25-7	N	0	$L_{EO} = (Ec$ $P_{FD} = us$ $V_{12} = pc/$ $Capaci$ $V_{FI} = V$ V_{12} $V_{FO} = V_{F}$	quation ing Equ h	of v ₁ . V ₁ 25-8 or uation (E	2 ₋₂ = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD}	LOS F?
Capacity C V _{R12}	V ₁₂ (Equation 25 sing Equation Thecks Actual 4878	-2 or 25-3) (Exhibit 2: Max See Ex	simum hibit 25-7 00:All	N	0	$\begin{array}{c} L_{EO} = \text{ (Ec} \\ P_{FD} = \text{ us} \\ V_{12} = \text{ pc} \\ \hline \\ \textbf{Capaci} \\ \hline \\ V_{F1} = V \\ \hline \\ V_{12} \\ \hline \\ V_{F0} = V_{F} \\ V_{R} \\ \hline \\ V_{R} \end{array}$	quation ing Equ h	of v ₁ , V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD} 1) Maximum	
EO = 751.81 P _{FM} = 0.595 us P ₁₂ = 1890 pc Capacity C V _{FO} V _{R12}	V ₁₂ (Equation 25 sing Equation th Checks Actual 4878 3593	-2 or 25-3) (Exhibit 2: Max See Ex 460	5-5) dimum hibit 25-7 00:All	N N	0	$\begin{array}{c} L_{EO} = \text{ (Ec} \\ P_{FD} = \text{ us} \\ V_{12} = \text{ pc} \\ \hline \\ \textbf{Capaci} \\ \hline \\ V_{F1} = V \\ \hline \\ V_{12} \\ \hline \\ V_{F0} = V_{F} \\ V_{R} \\ \hline \\ V_{R} \end{array}$	quation ing Equilibrium City City City City City City City City	of v ₁ V, 25-8 or Jation (E hecks Actua	2 2 = V _R + (V 25-9) Exhibit 25-1	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
V _{FO} V _{R12} Level of Se D _R = 751.81 V _{FO}	V ₁₂ (Equation 25 sing Equation 27 Actual 4878 3593 ervice D	-2 or 25-3) (Exhibit 2: Max See Ex 460	5-5) dimum hibit 25-7 00:All	N N	0	L_{EO} = (Ec P_{FD} = us V_{12} = pc/ Capaci V_{F1} = V V_{12} V_{FO} = V_{F} V_{R} V_{R}	quation ing Equipment of Se	of v ₁ , V ₁ 25-8 or Lation (E hecks Actua	2 2 = V _R + (V 25-9) Exhibit 25-1	/ _F - V _R)P _{FD} 1) Maximum	if not F)
V _{FO} -evel of So D _R = 28.6	V ₁₂ (Equation 25 sing Equation 27 shecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln)	-2 or 25-3) (Exhibit 2: Max See Ex 460	5-5) dimum hibit 25-7 00:All	N N	0	L_{EO} = (Eo P_{FD} = us V_{12} = pc/ Capaci V_{FI} = V V_{12} V_{FO} = V_{F} V_{R} Level O	quation ing Equity Cify Cify Cife Control of Se	of v ₁ , V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + (V 25-9) Exhibit 25-1	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
V _{FO} 2 2 2 2 2 2 2 2 2	V ₁₂ (Equation 25 sing Equation 26 hecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4)	-2 or 25-3) (Exhibit 2: Max See Ex 460	5-5) dimum hibit 25-7 00:All	N N	0	L_{EO} = (Eo P_{FD} = us V_{12} = pc/ Capaci V_{FI} = V V_{12} V_{FO} = V_{F} V_{R} Level O	quation ing Equipment of Se	of v ₁ , V ₁ 25-8 or uation (E hecks Actua	2 2 = V _R + (V 25-9) Exhibit 25-1	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
V _{FO} 2 2 2 2 2 2 2 2 2	V ₁₂ (Equation 25 sing Equation 26 hecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4)	-2 or 25-3) (Exhibit 2: Max See Ex 460	5-5) dimum hibit 25-7 00:All	N N	0	L_{EO} = (Eo P_{FD} = us V_{12} = pc/ Capaci V_{FI} = V V_{12} V_{FO} = V_{F} V_{R} Level O	quation ing Equilibrium (F. Se D _F Se D _F (pc/mi/l (Exhibit	v ₁ 25-8 or uation (E hecks Actua rvice = 4.25 (n) t 25-4)	2 25-9) Exhibit 25-1 S I I Detern 2 + 0.0086	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
$V_{\rm FO} = 751.81$ $V_{\rm FO} = 1890 \text{pc}$ $V_{\rm FO} = 1800 \text{pc}$ $V_{\rm FO} = 1800 pc$	V ₁₂ (Equation 25 sing Equation 26 hecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4) imation	-2 or 25-3) (Exhibit 2: Max See Ex 460 etermin	5-5) dimum hibit 25-7 00:All	N N	0	L _{EO} = (Ec P _{FD} = us V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{FO} = V _F V _R V _R Level c D _R = 1 LOS = 1	quation ing Equation ing Equation ing Equation in the image of the ima	of v ₁ . V ₁ 25-8 or Lation (E hecks Actua rvice R = 4.25. In) t 25-4) matic	2 2 = V _R + (V 25-9) Exhibit 25-1 S I I Detern 2 + 0.0086	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
$V_{\rm FO}$ = 751.81 $V_{\rm EQ} = 751.81$ $V_{\rm 12} = 1890$ pc $V_{\rm FO}$ $V_{\rm R12}$ $V_{\rm R12}$ $V_{\rm R2} = 0.419$	V ₁₂ (Equation 25 sing Equation 27 shecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4) imation (Exibit 25-19	-2 or 25-3) (Exhibit 2: Max See Ex 460 etermin	5-5) dimum hibit 25-7 00:All	N N	0	L _{EO} = (Ec P _{FD} = us V ₁₂ = pc/ Capaci V _{FI} = V V ₁₂ V _{FO} = V _F V _R Level c D _R = 1 LOS = 1	quation ing Equation ing Equation in the control of	of v ₁ , V ₁ 25-8 or uation (E hecks Actua rvice 3 = 4.25 In) t 25-4) matic t 25-19)	2 25-9) Exhibit 25-1 S J J Detern 2 + 0.0086	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
V _{FO} 2 28.4 3 2 28.4 3 3 2 28.4 3 4 2 28.4 3 5 2 28.4 4 5 2 28.4 5 2 28.4 6 3 2 28.4 6 3 2 28.4 6 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	V ₁₂ (Equation 25 sing Equation 26 hecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4) imation (Exibit 25-19 hph (Exhibit 35-19)	-2 or 25-3) (Exhibit 2: Max See Ex 460 etermin V _R + 0.007	5-5) dimum hibit 25-7 00:All	N N	0	L _{EO} = (Ec P _{FD} = us V ₁₂ = pc/ Capaci V _{F1} = V V ₁₂ V _{F0} = V _F V _R V _R Level c D _R = 1 LOS = 1 Speed D _S = 1 Speed	quation ing Equation ing Equation ing Equation in Estimates in Estimat	of v ₁ , V ₁ 25-8 or Lation (E hecks Actua rvice R = 4.25 In) t 25-4) matic t 25-19) xhibit 25	2 22 = V _R + (V 25-9) Exhibit 25-1 S I I Detern 2 + 0.0086	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)
V _{FO} Level of So D _R = 5.4 Caped Est Speed Est G= 751.81 D _R = 0.595 us V ₁₂ = 1890 pc V _{R12} Level of So D _R = 5.4 D _R = 5.4 D _R = 5.4 D _R = 5.4 D _R = 5.4 D _R = 67.2 n G= 67.2 n	V ₁₂ (Equation 25 sing Equation 27 shecks Actual 4878 3593 ervice D 75 + 0.00734 8 (pc/mi/ln) Exhibit 25-4) imation (Exibit 25-19	-2 or 25-3) (Exhibit 2: Max See Ex 460 etermin V _R + 0.007	5-5) dimum hibit 25-7 00:All	N N	0	L_{EO} = (Eo P_{FD} = us V_{12} = pc/ Capaci V_{F1} = V V_{12} V_{FO} = V_{F} V_{R} Level co D_{R} = $D_$	quation ing Equitor ing Equito	of v ₁ , V ₁ 25-8 or uation (E hecks Actua rvice 3 = 4.25 In) t 25-4) matic t 25-19)	2 = V _R + (V 25-9) Exhibit 25-1 S J / P Detern 2 + 0.0086	/ _F · V _R)P _{FD} 1) Maximum mination (if not F)

General	nformati			,		CTIONS Site In:		··			······································
Analysi	morman	EJB		····	r.				1.75 Court	hound	
Analysi Agency or Co	mnanv	HW Loch	ner Inc			eeway/Dir onction	orrrave	•	1-75 South	nouna rtez Blva. On-l	R amn
Date Perform		7/28/200				risdiction			Hernando		Camp
Analysis Time	Period	DHV				nalysis Yea	ſ		2030		
Project Descri	ption I-75 P	D&E Sludy -	2030 SB (n Ramp				•			
nputs											
Ipstream Adj	Ramp	Terrain: Lev	el							Downstread	m Adj Ramp
√ Yes	Г On									☐ Yes	
□ No	L Oll									₹ No	
-up = 2	?360 ft		C - 70	O b			· - 0	L _{down} =	ft		
/u = 1	150 veh/h		S _{FF} = 70.				111	5.0 mph		V _D =	veh/h
						s, L _A , L _D ,V	$_{R},V_{f}$				***************************************
Conversi	on to pc/	<u>'h Under</u>	Base (Condi	tions	·					***************************************
(pc/h)	V (Veh/hr)	PHF	Terr	ain	%Truck	%Rv	f _H	iv	ſp	v = V/PHF f _{HV} x f _p	X
Freeway	2640	0.94	Lev	el	14	2	0.93	}1	0.95	3175	
Ramp	1310	0.89	Lev	el	19	2	0.91	0	0.95	1703	
UpStream	1150	0.89	Lev	el	19	2	0.91	10	0.95	1495	
DownStream	l	t I			<u> </u>		<u> </u>				
Estimatic		Merge Areas	<u> </u>			Estima	tion		iverge Are	as	
	٧.	₂ = V _E (P _{EM}	}		***************************************				, = V _R + (V _f	V-IP-	
# (Fous	ı tion 25-2 or 2:		,			L _{EO} = (E(nuction	.,	, ,	- 'R/' FD	
			F (C)			ŧ					
	using Equation	n (⊏xnioit ∠	3-3}			1	-	iation (E	xhibit 25-11)	
/ ₁₂ = 653 pc				***************************************		$V_{12} = pc_{12}$		······································			
Capacity	Checks					Capaci	ity CI	recks			
	Actual	Max	dimum (LO	SF?			Actual	М	aximum	LOS F?
						V _{E1} = \	/ _F				
V_{FO}	4878	See Ex	hibit 25-7	N	О	V ₁₂		······································			
						 		***************************************			····
1.1						V _{F0} = V _F	7				
V _{R12}	2356	46	IIA:00	N	10	V _R					
						V_R					
evel of S	Service D	etermin	ation (i	f not	F)	Level	of Se	rvice	Determ	ination (i	f not F)
D _R = 5.	475 + 0.0073	4 v _R + 0.007	78 V ₁₂ - 0.0	0627 L,						/ ₁₂ - 0.0009 L _c	
).1 (pc/mi/ln)	**	¥ 4.	A		D _R =	n pc/mi/li)			16. L	,
**	(Exhibit 25-4)					l ''	(Exhibit	•			
				······································		<u> </u>		····			······································
Speed Es						Speed			n		
Ģ	8 (Exibit 25-1)	9)				3	(Exhibit	•			
_R = 61.1	mph (Exhibit	25-19)				S _R =	mph (E	xhibit 25	-19)		
	mph (Exhibit	25-19)				S ₀ =	mph (E	xhibit 25	-19)		
{}		ı									
	mph (Exhibit	25-14)				S =	mph (E.	xhibit 25	-15)		

APPENDIX 'R' AIR QUALITY AND NOISE TRAFFIC

Project:	t-75 PD&E Study from north of SR 52 to south of CR 4768	Date:	4/5/2006	
State Project Number(s)	Photo-	Prepared By	E18	
Work Program Number(s)				
Federal Aid Number(s)				
Segment Description	Site 1: South of CR 41 (Blanton Road)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)		Build (Design Year)
Lanes:	4	Lanes	4	Lanes	8
Year	2005	Year.	2030	Year	2030
ADT: LOS (C)	52,500	ADT LOS (C)	52,500	ADT: LOS (C)	109,600
Demand	52,600	Demand	107,400	Demand	107,400
Speed:	70 mph	Speed	70 mph 113 i anh	Speed	70 mph 113 kmh
K=	9.4 %	K≃	9.4 %	K=	9.4 %
D=	56 %	D=	56 %	D=	56%
T=	27.0 % for 24 hrs	T=	27 0 % for 24 hrs.	Τ=	27.0 % for 24 his.
T=	13.5 % Design hr	T=	13.5 % Design hi	Τ=	13.5 % Design hr
0.8	% Medium Trucks DHV	8.0	_ % Medium Trucks DHV	8.0	% Medium Trucks DHV
5.5	% Heavy Trucks DHV	5.5	% Heavy Trucks DHV	5.5	_ % Heavy Trucks DHV
0.0	% Buses DHV	0.0	% Buses DHV	0.0	% Buses DHV
0.0	% Motorcycles DHV	00	% Motorcycles DHV	0.0	% Motorcycles DHV

	The fallow	ing ass speade	boot sale data	STAMINA/THM INPU	<u>T</u>				
***************************************	2710 (031)04	ng are spreads	meer carculatio	ns based on the inpu	it above + do r	not enter data be	fow this fine		
Existing Fac	cility Model:	LOS (C)	No-Build (De	No-Build (Design Year) Model: LOS (C)			Build (Design Year) Model:		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	LOS (C)			LOS (C)		LOS (C)			
Southbound		2391	Southtwood	Autos	2391	Southbound	Autos	4990	
	Med Trucks	221		Med Trucks	221		Med Trucks	462	
	Hvy Trucks	152		Hvy Trucks	152		Hvy Trucks	317	
	Buses	0		Buses "	0		Buses	0	
	Motorcycles	0		Motorcycles	Ú		Motorcycles	0	
forthbound	Autos	1876	Northbound	Autos	1878	Northbound	Autos	3921	
	Med Trucks	174		Med Trucks	174		Med Trucks	363	
	Hvy Trucks	119		Hys Trucks	119		Hwy Trucks	249	
	Buses	Ŋ		Buses *	0		Euses		
	Motorcycles	0		Hotorcycles	g		Motorcycles	0	
	Decrand			Demand			Demand		
icudhbound.	Autos	2395	Southboard	Aiens	4890	Southbrood	Autos	4390	
	Lied Trucks	322		Med That's	452	2	Med Trucks	452	
	Hvy Trucks	152	1	Hey Tracks	311		Hay Trucks	311	
	Boses	Ú.		Buses	0		Buses	6	
	Motorcycles	-0		Adoptive to a	()		Metorc vetes	Ü	
- Self From the self	Auttos	1382	Morth Congress	Selling	3642	13 metal passing and	Lates	3842	
	Land Transky	174		fefret Transky	355		Med Tracks	355	
	hts y Tombs	120		Hay Franks	244		they tap ke	2.4.4	
	fficació	G.		⁹⁴ (15°+9≤	1)		Prophago	- 5	
	Mukanca les	9	1	1. Bellever yellow	3		Motion gross	0	

Project:	1-75 PD&E Study from north of SR 52 to south of CR 4768	Date	4/5/2006	
State Project Number(s)		Prepared By	EJB	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description	Site 5: CR 41 (Blanton Road) to SR 50 (Cortez Blvd)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facili	ty		No-Build (Design Ye	ear)		Build (Design Ye	ar)
Lanes	4		Lanes:	4		Lanes:	8	
Year	2005		Year.	2030		Year.	2030	<del></del>
ADT: LOS (C)	52,500		ADT: LOS (C)	52,500		ADT: LOS (C)	109,600	
Demand	49.300		Demand	94,000	<del></del>	Demand	94,000	
Speed	70 113	mph kmh	Speed:	70 113	mph kmh	Speed:	70 113	mph kmh
K≠	94	%	K≈	9.4	%	K≃	9.4	- %
D=	56	%	D=	56	%	D=	56	%
T=	27 0	% for 24 hrs.	T =	27.0	% for 24 hrs.	T=	27.0	% for 24 hrs
T=	13 5	% Design hr	T=	13.5	% Design hr	T=	13.5	% Design hr
8.0	% Medium Truc	ks DHV	8.0	% Medium Trucks	DHV	8.0	_ % Medium Truc	ks DHV
5.5	_ % Heavy Truck	s DHV	5.5	_ % Heavy Trucks D	HV	5.5	_ % Heavy Truck	s DHV
0.0	_ % Buses DHV		00	_ % Buses DHV		0.0	_ % Buses DHV	
00	% Motorcycles I	DHV	00	_% Motorcycles DH	٧	0.0	% Motorcycles	DHV

				STAMINA/TNM INPU					
	The follow	ving are spreads	heet calculatio	ns based on the inpu	it above - do r	iot enter data bi	low this line		
Existing Fac	ifity Model:	Deinand	No-Build (De	No-Build (Design Year) Model: LOS (C)			Build (Design Year) Model:		
	LOS (C)			LOS (Ĉ)		LOS (C)			
Southbound	Autos	2391	Southbound	adtuA	2391	Southbound	Autos	4990	
	Med Trucks	221	1	Med Trucks	221		Med Trucks	462	
	Hey Trocks	152	1	Hvy Trocks	152		Hvy Trucks	317	
	Buses	Ü	i	Buses	0		Buses	0	
	Motorcycles	0		Motorcycles	0		Motorcycles	(J	
Vorthbound	Autos	1878	Northbound	Autos	1876	Hombbound	Autos	3921	
	Med Trucks	174	ŀ	Med Trucks	17.4		Med Trucks	363	
	Hvy Trocks	119		Hvy Tracks	119	l l	Hvy Trucks	249	
	Buses	9		Euses	Û		Boses	Ú.	
	Motorcycles	0		Motorcycles	()		Matorovotes	Ű	
	Demand			Denvand			Demand		
Soumbound	Autos	2245	Southbound	Antos	4280	Seedlitsanut	àmas	4285	
	IAed Trucks	208		Med Trucks	396		Med Trucks	396	
	May Inucks	143		Hey Tracks	272		Stay Tringes	272	
	Buses	0		Boses	(1		Suscs	Ą	
	Motorcycles	- O		Moinrevoles	()		Matercycles	Ţĵ	
Indulated	Autos	1764	Heath Jones	Autos	3363	Mathir dabt	Antos	3363	
	Med Tricks	163	-	Mod Trucks	311		Dert Tracks	311	
	Hog Fryske	112		Hoy Trucks	214		Hay Teacher	21-1	
	Burns	e		Buses	-0		(Repeted	()	
	Mistericates	0		fatotorary chara	Ģ		Missission entire -	Ú	

Project:	I-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s)		Prepared By	EJB	
Work Program Number(s):				
Federal Aid Number(s):				
Segment Description	Site 9. North of SR 50 (Cortez Blvd)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)		Build (Design Year)
Lanes:	4	Lanes:	4	Lanes:	8
Year:	2005	Year:	2030	Year:	2030
ADT. LOS (C)	52,500	ADT. LOS (C)	52,500	ADT: LOS (C)	109,600
Demand	49,300	Demand	90,000	Demand	90,000
Speed:	70 mph 113 kmh	Speed.	70 mph 113 kmb	Sp <del>eed</del> :	70 mph 113 kmh
K≖	9.4 %	<b> </b>	9.4 %	K=	9.4 %
D=	56%	D=	56 %	D=	56%
T=	27.0 % for 24 hrs.	T=	27.0 % for 24 hrs.	Τ=	% for 24 hrs
T=	13.5 % Design hr	7=	13.5 % Design br	٣=	13.5 % Design hr
8.0	% Medium Trucks DHV	8.0	% Medium Trucks DHV	8.5	% Medium Trucks DHV
5.5	% Heavy Trucks DHV	5.5	% Heavy Trucks DHV	5.5	% Heavy Trucks DHV
0.0	% Buses DHV	0.0	_ % Buses DHV	0.0	% Buses DHV
0.0	% Motorcycles DHV	0.0	% Motorcycles DHV	0.0	% Motorcycles DHV

				STAMINA/TNM INPU				
	The follow	ing are spreads	heet calculation	ns based on the inpu	it above - do n	ot enter data be	low this line	
Existing Fac	Existing Facility Model: Demand		No-Build (De	No-Build (Design Year) Model: LOS (C)		Build (Desig	n Year) Model:	Demand
LGS (C)			LOS (C)			LOS (C)		
Southbound	Autos	2391	Southbound	Autos	2391	Southbound:	Autos	4990
	Med Trucks	221		Med Trucks	221		Med Trucks	462
	Hvy Trucks	152		Hyy Tracks	152		Hvv Trucks	317
	Buses	Ü		Buses	0		Buses	0
	Motorcycles	0		Molercycles	ŋ		Molorcycles	Q
forthbound	Autos	1876	Northbound	Autos	1878	Northbound	Autos	3921
	Med Trucks	174	ł	Med Trucks	17.1		Med Trucks	363
	Hvy Tracks	119	-	Hvy Tracks	119	1	Hay Trucks	249
	Buses	Û		Buses	0		Buses	0
	Motorcycles	- 0		Motorcycles	Ü		Motorcycles	Ü
	Demand					Demard		
Soumbound	Autos	2245	Southbound	Autos	4( <i>i</i> )/b	Stadblymod	Autos	4098
	Med Tracks	20e		Med Trucks	379		Med Trucks	379
	Hey Trucks	143		Hay Trucks	261		Hvy Trucks	261
	Buses	O	1	Busis	Ģ		Buses	Ú
	Morcocycles	0		Matericycles	0		Motorcycles	()
ionstana d	Action	1761	F4 triffic entri	Action	3220	Monthboard	Autos	3220
	West Trucks	163	Ì	that trucks	298		Med Trucks	293
	H.y. Tanks	112	-	How Truste	20%		Hay Topolo	7(15
	Bretts	<i>r</i> ₁		Barrers	0		Buses	0
	Motorcycles	0	1	filedon sclass	÷ ÷		Metorisides	()

Project.	I-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s):		Prepared By:	ЕЈВ	
Work Program Number(s):				
Federal Aid Number(s):				
Segment Description.	Site 9b: Southbound onramp at CR 41 (Blanton Road)			

(Data sheets are to be lifted out for every segment having a change in traffic parameters such as volumes, posted speeds, lypical section, etc.)

Existing Facility			N	lo-Build (Design Ye	ar)	Build (Design Year)		
Lanes:	1		Lanes:	1	_	Lanes	1	-
Year	2005		Year:	2030	-	Year.	2030	-
ADT: LOS (C)	7,860		ADT: LOS (C)	7,860	_	ADT: LOS (C)	7,860	-
Demand	2,400	Į	Demand	11,900	_	Demand	11,900	_
Speed.		mph knih	Speed.	35 56	mph kmib	Speed:	35 56	mph knih
K=	9,4	%	K=	9,4	[%]	K=	9.4	- %
D=	56	%	D=	56	_%	D=	56	_ %
T≍	20.0	% for 24 hrs.	T=	20.0	% for 24 hrs.	Τ=	20 0	% for 24 hrs
T≃	10.G	% Design hr	T=	10.0	% Design hr	T=	10.0	_% Design hr
6.0	% Medium Trucks	DHV	6.0	% Medium Trucks	DHV	6.0	% Medium Truci	ks DHV
4.0 % Heavy Trucks DHV		)HV	4.0	% Heavy Trucks D	HV	40	% Heavy Trucks	DHV
0.0 % Buses DHV			0.0	% Buses DHV		0.0	00 % Buses DHV	
0.0	% Molorcycles DH	ıv	0.0	% Motorcycles DH	V	00	% Molorcycles (	OHV

			STAMINA/TNM I			
	The follow	ing are spreads	heet calculations based on the	input above - do no	ot enter data below this line	
Existing Fac	cility Model: Demand No-Build (Design Year) Model: LOS (C)		ef: LOS(C)	Build (Design Year) Model:	LOS (C)	
LGS (C)		LOS (C)		LOS (C)		
Southbound	Autos Med Trucks Hvy Trucks	372 25 17	Southbound Autos Med Trucks Hvy Trucks	372 25 17	Southbound, Autos Med Tracks Hvy Tracks	372 25 17
	Buses Motorcycles	0	Buses Motorcycles	<u> </u>	Buses Matarcycles	0
Northbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	293 20 13 6	Northbound Autos Med Trucks Hvy Trucks Buses Motorcycles	293 20 13 0	Northbound Autos Med Trucks Hvy Trucks Buses Mararevstes	293 20 13 0 0
	Demand		Demand		D-mand	
Southbound	Autos Med Tracks Hvy Tracks Buses Metoicycles	114 8 5 0	Southbaund Autos tyled Trucks Hey Trucks Buses Motorcyclas	564 38 25 0	Southteam! Autos Med Trucks Hzy Trocks Buses Motorcycles	564 38 25 0
्राज्यस्य देशसम्ब	Antris Need Trucks Hey Trucks Besses Material les	5 4 6 0	Haddisand Adas Stee Lucks Gry Tracks Buses (Adamystee	443 30 20 0 6	Harthsound Anton Liga Tucks Ger Lacks Sases Depois votes	443 30 20 6

Project:	1-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/200G	
State Project Number(s):		Prepared By:	E.J8	***********
Work Program Number(s).				
Federal Aid Number(s):				
Segment Description:	Site 9a: Southbound offramp at CR 41 (Blanton Road)			

(Oata sheets are to be litted out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)		Build (Design Year)		
Lanes:	1	Lanes:	1	Lanes:	1		
Year	2005	Year [.]	2030	Year:	2030		
ADT: LOS (C)	7,860	ADT: LOS (C)	7.860	ADT: LOS (C)	7,860		
Demand	800	Demand	5,200	Demand	5,200		
Speed:	35 mph 56 kmh	Speed.	35 mph 56 kinh	Speed:	35 mph 56 kmh		
К=	9.4 %	K≈	9.4 %	K=	9.4 %		
D=	56 %	D≈	56 %	D=	56 %		
T≃	20.0 % for 24 hrs.	7=	20.0 % for 24 hrs.	T=	20.0 % for 24 hrs		
Τ=	10.0 % Design hr	T=	10.0 % Design hr	T=	10.0 % Design hr		
6.0	_ % Medium Trucks DHV	6.0	_ % Medium Trucks DHV	6.0	% Medium Trucks DHV		
4.0	4.0 % Heavy Trucks DHV 4.0 % Heavy Trucks DHv		_ % Heavy Trucks DHV	4,0	% Heavy Trucks DHV		
0.0	_% Buses DHV	0.0	_ % Buses DHV	0.0	% Buses DHV		
0.0	% Motorcycles DHV	0.0	% Motorcycles DHV	0.0	% Motorcycles DHV		

	The follow	ing are spreads		STAMINA/TNM INPU		ot enter data be	low this line		
Existing Facility Model: Demand					Build (Design Year) Model:		Demand		
ŁOS (C)				LOS (C)			LOS (C)		
Southbound	Autos	372	Southbound	Aulas	372	Southbound	Autos	372	
	Med Trucks	25		Med Trucks	25		Med Trucks	25	
	Hvy Trucks	17		Hvy Trucks	17		Hvy Trucks	17	
	Buses	0	i	Buses	0		Buses	0	
	Mutarcycles	Ü		Motorcycles	Ú		Motorcycles	G	
Jodhbound	Autos	295	Horinbound.	Autos	293	Northbound	Autos	293	
	Med Trucks	26	ŀ	Med Trucks	20		Med Trucks	20	
	Hvy Tracks	13	]	Hvy Trocks	13		Hvy Trucks	13	
	Buses	0	L L	Buses	0		Buses	Û	
	Motorcycles	0		Motorcycles	0		Motorcycles	Ü	
	Demand		Demend			Cenard			
Southbound	Autos	38	Southboard	Autos	246	Southbound	Autos	246	
	Med Trucks	3	1	Med Trucks	<b>16</b>	1	Med Tracks	16	
	Hvy Trucks	2		Hay Inacks	11		Hvy Trucks	11	
	Buses	Ū Ū	1	Euses	Û		Buses	73	
	Metorcycles			Motorcycles	U		Motorcycles	9	
lerthbound	Autos	30	Weathlynaut	Autos	194	Hortobolavi	Autos	194	
	Med Trikks	2	ļ	Ided Tracks	13	]	Med Trucks	13	
	Hay Ing Es	1		Hoy Trucks	9	]	My Tauts	Ģ	
	Busins	- 6	1	Hases	į ì	]	Buses	- 11	
	Datates les	Ü	1	Motorcycles	Ú	]	Digitariosches	(1	

Project:	1-75 PD&E Study from north of SR 52 to south of CR 476B	Date	4/5/2006	
State Project Number(s)		Prepared By:	E18	
Work Program Number(s).				
Federal Aid Number(s):				
Segment Description:	Site 10a: Northbound offramp at CR 41 (Blanton Road)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)	Build (Design Year)		
Lanes:	1	Lanes:	1	Lanes:	1	
Year:	2005	Year:	2030	Year:	2030	
ADT: LOS (C)	7,860	ADT: LOS (C)	7.860	ADT: LOS (C)	7,860	
Demand	2,400	Demand	11,900	Demand	11,900	
Speed:	35 mph 56 kmh	Speed	35 mph 56 kenti	Speed:	35 mph 56 kmh	
K=	9.4 %	κ=	9.4 %	K=	9.4 %	
D=	56 %	D=	56 %	D≃	56 %	
T=	% for 24 hrs.	T=	20.0 % for 24 firs.	T=	20.0 % for 24 hrs	
T=	10.0 % Design hr	T=	10.0 % Design hr	T≈	10.0 % Design hr	
6.0	% Medium Trucks DHV	6.0	% Medium Trucks DHV	6,0	% Medium Trucks DHV	
4.0	% Heavy Trucks DHV	4.0	% Heavy Trucks DHV	4.0	 % Heavy Trucks DHV	
0.0	% Buses DHV	0.0	% Buses DHV	0.0	% Buses DHV	
0.0	% Molorcycles DHV	0.0	% Motorcycles DHV	0.0	% Motorcycles DHV	

	The follow	ing are spreads	theet calculation	STAMINA/THM INPL	JT ul above - do e	and another where he	Laco Abia Lina			
Existing Facility Model: Demand			et calculations based on the input above - do n No-Build (Design Year) Model: LOS (C)			n Year) Model:	LOS (C)			
	LOS (C)			LOS (C)			LOS (C)			
Southbound		372	Southbound	Aulos	372	Southbound	Autos	372		
	Med Trucks	25		Med Trucks	25		Med Trucks	25		
	Hvy Trucks	17		Hvy Trucks	17		Hwy Trucks	17		
	Buses	0		Buses	0		Buses	0		
	Motorcycles	0		Motorcycles	ŷ		Motorcycles	Ü		
4edhbound	Autos	293	Northbound.	Aulos	293	Northbound	Autos	293		
	Med Trucks	20	1	Med Trucks	20	1 45/11/15/11/15	Med Trucks	20		
	Hvy Tricks	13	1	Hory Trucks	13		Hvy Trucks	13		
	Buses	0	1	Suses			Euses	G		
	Motorcycles	0		Motorcycles	0		Molorcycles	0		
	Demand		Demand			Demand				
Southbound	Airios	114	Southbound	Autos	564	Scothiscond	frantis :	564		
	Med Trucks	- 8		Med Tracks	38	200 MIN SHIP IN	Med Trucks	35		
	Hvy Trucks	5		Hoy Trucks	25		Hvv Trocks	25		
	Buses	0		Euses			Buses			
	Motorcycles	()		Motorcycles	i i	į	Motorcycles	0		
toningound	Autos	89	Northbooker	Andre	443	Montdaying	2	* 4 7.		
	Ned Trucks	6		Med Inake	30	1461106(344)6(3	Autos Med Tracks	30		
	Hive Trucks	4	1	Hez Iners	30		Med Tracks	20		
	Buses	Ü		Euses	17		Suses			
	Idolorcycles	0		Metarcockes			Motorcycles	- V		

Project	1-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s)	F-10-20	Prepared By:	EJB	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description:	Site 10b: Northbound onramp at CR 41 (Blanton Road)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

	Existing Facility		No-Build (Design Year)	Build (Design Year)		
Lanes ⁻	1	Lanes:	3	Lanes:	1	
Year.	2005	Year:	2030	Year:	2030	
ADT. LOS (C)	7,860	ADT. LOS (C)	7,860	ADT: LOS (C)	7,860	
Demand	008	Demand	5,200	Demand	5.200	
Speed:	35 mph 56 kmh	Speed:	35 mph 56 kmh	Speed.	35 mph 56 kmn	
K=	9.4 %	К=	9.4 %	К=	9.4 %	
D=	56%	D=	56%	D=	56%	
T=	20.0 % for 24 hrs	. T=	20.0 % for 24 hrs.	Ţ=	20.0 % for 24 hrs	
7=	10.0 % Design to	T=	10.0 % Design hr	T=	10.0 % Design hr	
60	% Medium Trucks DHV	6.0	_ % Medium Trucks DHV	6.0	% Medium Trucks DHV	
4.0 % Heavy Trucks DHV		4.0	_% Heavy Trucks DHV	4.0	% Heavy Trucks DHV	
0.0	_ % Buses DHV	0.0	0.0 % Buses DHV		% Buses DHV	
0.0	% Motorcycles DHV	0.0	% Motorcycles DHV	0.0	% Molorcycles DHV	

	The feller			STAMINA/TNM INPU	Ť			
	We londw	mg are spreaus	ineet calculatio	ns based on the inpu	t above - do n	ot enter data be	low this line	
Existing Facility Model: Demand		No-Build (De	No-Build (Design Year) Model:		Build (Desig	n Year) Model:	Demand	
	LGS (C)			LOS (C)			LOS (C)	
Southbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	372 25 17 0 0	Southbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	372 25 17 0	Southbound:	Autos Med Trucks Hvy Trucks Buses Motorcycles	372 25 17 0
Vorthbound	Autos Med Trucks Hvy Trucks Buscis Motorcycles	293 20 13 0 0	Modebound	Autos Med Trucks Hvy Trucks Buses Motorcycles	293 20 13 0	Northbound	Autos Med Trucks Hvv Trucks Buses Motorcycles	293 20 13 0
	Cemand			Demand			Domand	
Southbound	Autos Med Tracks Hes Tracks Bases Motorcycles	39 3 2 0 0	Southbound	Autos Med Trucks Hay Trucks Buses Motorcycles	246 16 11 0	Southbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	24G 16 11 0
	Auto 1864 Incli- 1965 Incli- 18656 Automoties	30 2 1 0 0	Haddaning	Anter- Med Trucks Hay Trucks Buses scharcycles	194 13 9 0	कि ५ मेर्च सम्बद्ध	Autos Med Trai Es Ovo Traces Buses Medonyclas	164

Project.	1-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s)		Prepared By:	EJB	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description:	Site 12a: Southbound offramp at SR 50 (Cortez Blvd)			

(Data sheets are to be filted out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)		Build (Design Year)		
Lanes:	1	Lanes	1	Lanes:	1		
Year:	2005	Year	2030	Year.	2030		
ADT. LOS (C)	7,860	ADT: LOS (C)	7,860	ADT. LOS (C)	7,860		
Demand	4,300	Demand.	13,800	Demand	13,800		
Speed.	35 mph 56 kmh	Speed	35 mph 56 kmh	Speed:	35 mph 56 kmh		
К≃	9.4 %	K=	9.4 %	K=	9.4 %		
D=	56 %	D=	56 %	D=	56 %		
T=	38.0 % for 24 hrs	T=	38.0 % for 24 hrs	T=	38.0 % for 24 hrs		
7 =	19.0 % Design hr	<b>1</b> =		Т=	19.0 % Design hr		
11.5	% Medium Trucks DHV	11.5	% Medium Trucks DHV	115	% Medium Trucks DHV		
7.5 % Heavy Trucks DHV		7.5	% Heavy Trucks DHV	7.5	% Heavy Trucks DHV		
0.0	% Buses DHV	00	% Buses DHV	0.0	% Buses DHV		
0.0	% Matorcycles DHV	00	% Motorcycles DHV	0.0	% Motorcycles DHV		

				STAMINATHM INPU	T			······
	The follow	ing are spreads	sheet calculatio	ns based on the inpi	it above - do n	ot enter data be	law this line	
Existing Facility Model: Demand		No-Build (Di	No-Build (Design Year) Model: LOS (C)		Build (Desig	n Year) Model:	LOS (C)	
	LOS (C)			LOS (C)			LOS (C)	
Southbound:	Autos	335	Southbound	Autos	335	Southbound	Autos	335
	Med Trucks	48		Med Trucks	48		Med Trucks	48
	Hvy Trucks	31		Hvy Trucks	31		Hvy Trucks	31
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	Û		Motorcycles	Ú
	Autos	263	Northbound	Aulas	263	Northbound	Autos	263
	Med Trucks	37		Med Trucks	37		Med Trucks	37
	Hvy Trucks	2-1	İ	Hvy Trucks	24		Hay Trucks	24
	Buses	0		Buses	Đ	Ì	Buses	0
	Motorcycles	0		Motorcycles	Ü		Motorcycles	0
	Deinaard			Demand			Demand	
Southbound	Autos	183	Southbound	Suhis	588	Snethberard	Arthre	565
	Med Trucks	26	<u>"</u>	Med Trucks	54	Ortomis hang	Med Trucks	Ed
	Hvy Tracks	17		Hay Trucks	5.4		Hvy Trucks	54
	Buses	0		Buses	ŋ		Buses	n
	Molorcycles	- 0		Motorcycles	1)		Motorcycles	Ó
Cettid-Cetting	Autos	114	Neitlidageni	Autos	462	Northbolad	Authors	462
	Ned Trucks	20		Med Tricks	65		Med Inutes	(66)
	Hwy Trucks	13		Hey Trucks	43		Hz-Tods	£,L
	Buses	9		Utises	Ō		Buses	ř):
	Mataravates	0		Aluton coles	0		Malmuşdes	62

Project:	I-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s):		Prepared By	EJB	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description	Site 12b: Southbound onramp at SR 50 (Codez Blvd)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		No-Build (Design Year)	Build (Design Year)		
Lanes:	1	Lanes:	1	Lanes:	2	
Year:	2005	Year.	2030	Year:	2030	
ADT LOS (C)	7,860	ADT: LOS (C)	7,860	ADT: LOS (C)	19,680	
Demand	6,100	Demand	15,800	Demand	15,800	
Speed:	35 mph 56 kmh	Speed:	35 mph 56 km/s	Speed.	35 mph 56 kmh	
K=	9 4 %	к=	9.4 %	K=	94 %	
D≈	56%	D=	56 %	D=	55 %	
T=	38.0 % for 24 hrs	T≈	38.0 % for 24 hrs.	T=	38.0 % for 24 hrs.	
T=	19.0 % Design fir	T≠	19.0 % Design hr	7=	190 % Design hr	
11.5	% Medium Trucks DHV	11.5	_ % Medium Trucks DHV	11.5	% Medium Trucks DHV	
7 5	% Heavy Trucks DHV	7.5	_ % Heavy Trucks DHV	7.5	% Heavy Trucks DHV	
0.0	_ % Buses DHV	0.0	% Buses DHV	0.0	% Buses DHV	
0.0	% Molorcycles DHV	0.0	_% Motorcycles DHV	0.0	% Motorcycles DHV	

				STAMINA/THM INPL	JT		······································	
	The follow	ring are spreads	heet calculatio	ns based on the inp	ut above - do n	ot enter data be	low this line	
Existing Facility Model: Demand		No-Build (D	No-Build (Design Year) Model: LOS (C)		Build (Desig	n Year) Model:	Demand	
	LOS (C)			LOS (C)			LOS (C)	
Southbound	Autos Med Trucks	335 48	Southbound		335	Southbound		839
	Hvy Trucks	31		Med Trucks	48		Med Trucks	119
	Buses	0	l	Hvy Trucks Buses	31		Hvy Trucks	78
	Matercycles	0		Motorcycles	0		Buses Motorcycles	0
Hornbound	Autos	263	Northbound.	Aulos	263	Northbound	Autos	659
	Med Trucks	37		Med Trucks	37		Med Trucks	94
	Hvy Trucks	24	ľ	Hvy Trucks	24		Hyv Trucks	61
	Buses	0	,	Buses	5	1	Buses	Õ
	Motorcycles	0		Motorcycles	5		(dorarevel <del>les</del>	Ü
	Demand			Demand			Dengad	
Southboomd	Autos	260	Southbound	Autos	674	Southware	Autos	674
	Med Tayoks	37		Med Trucks	69		Med Inchs	66
	Hvy Trucks	24		Hov Trucks	62		Hav Trucks	62
	Buses	0		Euses	G		Buses	0
	Motorcycles	0		Motorcycles	()		Motorcycles	()
aphtenact	Áritos	204	htgmtdynapet	Autos	528	Paliferthatory enact	Estrick	529
	Light Tracks	29		Med Tracks	7 <u>5</u>		Test Trocks	75
	May Troubs	19		Hwy Tracks	16		tive lances	16
	Buses	Û		ซีแระล	0	İ	Buses	- i)
	Motorcy,les	()		Motorcyclick	ė.		3, Water 11 , 55 3 (cm	Ü

Project.	1-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	4/5/2006	
State Project Number(s):	-	Prepared By:	EJB	
Work Program Number(s)				
Federal Aid Number(s)				
Segment Description:	Site 13a: Northbound offramp at SR 50 (Cortez Blvd)			_

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

Existing Facility			No-Build (Design Year)			Build (Design Year)			
Lanes:	1	****	Lanes:	1		Lanes:	2		
Year	2005		Year	2030		Year:	2030		
ADT LOS (C)	7,860	<del></del>	ADT LOS (C)	7,860	nunnere	ADT: LOS (C)	19,680		
Demand	6,100		Demand	15,800		Demand	15,800		
Speed.	35 56	mph Emh	Speed:	35 56	mph kmh	Speed	35 56	mph kmh	
K≃	9.4	%	K=	9 4	%	К=	9 4	%	
D=	56	%	D=	56	%-	D=	56	%	
7=	38.0	% for 24 hrs.	T=	38.0	% for 24 hrs	T=	38.0	% for 24 hrs	
T=	19.0	% Design hr	T=	19.0	% Design hr	T=	19.0	% Design hr	
11.5	% Medium Truc	:ks DHV	11.5	% Medium Truck	s DHV	11.5	% Medium Tru	cks DHV	
75 % Heavy Trucks DHV		7.5	% Heavy Trucks	DHV	7.5	7.5 % Heavy Trucks DHV			
0.0	_ % Buses DHV		0.0	0.0 % Buses DHV		0.0	0.0 % Buses DHV		
0.0	_ % Motorcycles	DHV	0.0	0.0 % Motorcycles DHV		0.0	% Motorcycles	DHV	

			STAMINA/THM INP	IJΤ			
	The follow	ing are spreads	heet calculations based on the inc	ut above • do n	ol enter data be	low this line	
Existing Facility Model: Demand		No-Build (Design Year) Model:	LOS (C)	Build (Desig	n Year) Model:	Demand	
	LOS (C)		LOSICI			LOS (C)	
Southbound	Autos	335	Southbound Autos	335	Southbound	Autos	839
	Med Trucks	48	Med Trucks	48		Med Trucks	119
	Hvy Trucks	31	Hvy Trucks	31		Hwy Trucks	78
	Buses	Ú	Buses	0		Buses	Ð
	Motorcycles	0	Motorcycles	ij		Motorcycles	Ú
-breodrinol	Autos	263	Northbound Autos	263	tenuodiineM	Autos	659
	Med Trucks	37	Med Trucks	37		Med Trucks	9.4 9.4
	Hvy Tricks	24	Hvy Trocks	24		Hvy Trucks	€1
	Euses	0	Buses	Ü		Buses	G
	Molorcycles	Ú	Motorcycles	()	1	Motocycles	Ŋ
	Demand		Demand		Demand		
Southbeard	Autos	260	Smithbound Autos	674	Southernet	Autos	674
	Med Trucks	37	Med Trucks	96		Med Trucks	96
	Hzy Trocks	24	Hay Tracks	6.2		Hvy Tracks	62
	Buses	0	Buses	i)		Busés	Ģ
	Listoraydes	- 1	Motorcycles	Ú		Motorcycles	()
logitica asi	Autos	294	Heathlagand Antos	529	Domblesen	Autos	529
	杨州李田中。	.79	stanni test	ř.S		'Agd Trucks	75
	H.C Torks	19	Hay Trucks	46		How Tracks	46
	that the the	0	Parks.	0		Bushs	1.
	Distance follows	9	ै हिल्लामा दूर किन्द	0		Motorcycles	()

Project:	1-75 PD&E Study from north of SR 52 to south of CR 4768	Date:	4/5/2006	
State Project Number(s)		Prepared By.	EJB	····
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description:	Site 13b: Northbound onramp at SR 50 (Cortez Blvd)			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facility		1	lo-Build (Design Y	ear)		Build (Design Ye:	ar)
Lanes	1		Lanes:	i .		Lanes:	1	
Year	2005	-	Year	2030		Year:	2030	
ADT. LOS (C)	7,860	_	ADT LOS (C)	7,860		ADT: LOS (C)	7,860	
Demand	4,300	_	Demand	13,800		Demand	13,800	_
Speed:	35 56	mph knih	Speed	35 56	mph kmh	Speed ⁷	35 56	mph krnh
К=	9.4	-%	κ=	9 4	<u>"</u> %	К=	9.4	%
D=	56	_%	D≃	56	%	D≈	56	%
T=	38.0	_ % for 24 hrs.	T=	0.86	% for 24 hrs.	T=	38.0	% for 24 hrs.
T=	19.0	% Design hr	T=	19.0	% Design hr	T=	19.0	% Design hr
11.5	_ % Medium Truck	s DHV	11.5	% Medium Truck	s DHV	11.5	_ % Medium Truc	ks DHV
7.5	% Heavy Trucks	DHV	7.5	% Heavy Trucks	DHV	7.5	_ % Heavy Truck	s DHV
0.0	_% Buses DHV		0.0 % Buses DHV		0.0	_ % Buses DHV		
0.0	% Motorcycles D	HV	0.0	% Motorcycles D	HV	0.0	% Motorcycles	DHV

				TAMINA/THM INPU				
	The follow	ing are spreads	heet calculation	is based on the inpu	it above - do n	ot enter data be	low this line	
Existing Fac	ility Model:	Demand	No-Build (De	sign Year) Model:	LOS (C)	Build (Desig	n Year) Model:	LOS (C)
	LOS (C)			LOS (C)			LOS (C)	
Southbound	Autos	335	Southbound	Autos	335	Southbound	Autos	335
	Med Trucks	48		Med Trucks	48		Med Trucks	48
	Hvy Trucks	31		Hvy Trucks	31		Hvy Trucks	31
	Buses	0		Buses	Ð		Buses	0
	Motorcycles	0		Motorcycles	Û		Motorcycles	Ō
bnuodifio/I	Autos	263	Morthbound:	Autos	263	Hornbound	Autos	263
	Med Trucks	37		Med Trucks	37		Med Trucks	37
	Hvy Trucks	24		Hvy Tracks	24		Hvy Trucks	24
	Buses	0		Buses	0		Buses	G
	Motorcycles	ij		Notorcycles	Ü		Materovoles	9
	Demand			Demand			Demand	
Southbound	Autos	183	Southbound	Autos	558	Southtwood	Autos	568
	Med Trucks	26		Med Tracks	54		Med Trucks	54
	Hvy Trusts	17		How Trucks	5.4	1	Hwy Trucks	54
	Buses	0		Buses	Ģ.	1	Buses	0
	Mororcycles	Ġ.		Mutorcycles	0		Motorcycles	()
Monthleamd	Autos	144	Nochbound	Autes	462	Neathbound	Aidos	462
	Liter Liter Ko	20	.	Stort Tagestin	55	1	Mod Frucks	66
	Hay Trucks	1:3		Hy Trusts	4.5	]	Hwy hacks	43
	Bisses	7	-	B.1805	į.	]	80585	()
	Flores sales	0	-	United Section		]	Statemen, deta	()

Project:	I-75 PD&E Study from north of SR 52 to south of CR 476B	Date:	10/30/2006	
State Project Number(s)		Prepared By:	rev'd 11/2/06 FJD	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description:	Site 8: SR 50 (Cortez Blvd) East of I-75			

(Data sheefs are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

	Existing Facilit	Existing Facility		No-Build (Design Year)			Build (Design Ye	ear)
Lanes:	4		Lanes.	4		Lanes:	6	
Year:	2005	••••	Year:	2030		Үеаг.	2030	
ADT: LOS (C)	24,400		ADT: LOS (C)	24,400		ADT: LOS (C)	38,000	
Demand	24,100		Demand	75,000	makement	Demand	75,000	
Speed:	45 72	mph kash	Speed:	45 72	mph Emh	Speed:	45 72	mph Eath
K=	9.6	_%	K=	9.6	%	К=	9.6	<b></b> %
D=	55	_%	D=	55	%	D=	55	%
T=	14.1	% for 24 hrs	Τ=	14.1	% for 24 hrs.	Т=	14.1	% for 24 hrs.
T=	7.1	% Design hr	Τ=	7.1	% Design hr	T=	7.1	% Design hr
1.8	% Medium Truci	ks DHV	1.8	_% Medium Truck	s DHV	1.8	% Medium Truc	ks DHV
5.3	_ % Heavy Trucks	DHV	5.3	5.3 % Heavy Trucks DHV		5.3 % Heavy Trucks OHV		s DHV
0.5	_ % Buses DHV	Ì	0.5 % Buses DHV		0.5 % Buses DHV			
0.4	_ % Motorcycles E	ЭHV	0.4	0.4 % Motorcycles DHV		0.4	% Motorcycles	DHV

	The fallow	ing are enteade	hoot calculatio	STAMINA/TNM INPU	T		In Note than	
					11 apgae - 00 1	ioi emer data bi	now this are	
Existing Fac	cility Model:	Demand	No-Build (D	esign Year) Model:	LOS(C)	Build (Desig	n Year) Model:	LOS (C)
	LOS (C)			LOS (C)			LOS (C)	·
Westbeund	Autos	1177	Westbound	Autos	1176	Westward	Autos	1831
	Med Trucks	23		Med Trucks	23		Med Trucks	36
	Hvy Trucks	67		Hay Trocks	55		Hvy Taucks	105
	Buses	6		Buses	Ĝ		Buses	9
	Motorcycles	5		Motorcycles	6		Diotorcycles	9
astbound	Autos	982	Easthound	Autos	982	Eastbound	Autos	1529
	Med Trucks	19		Med Trucks	19		Med Trucks	30
	Hvy Trucks	56		Hvy Touses	57		Hoy Trucks	88
	Buses	5		Suses	5		Buses	?
	Motorcycles	5		Vator vates	ŝ		Modernovides	7
	Damand		Cemara		Demand			
7-sdykod	éidos	1162	Westward	Actos	3616	Nestraund	Antos.	i615
	Mod Teacko	2.2		Ned Tracks	7.1		Medianos	71
	rtvir Taucks	(j.f.)		eta, Toldis	308		Hwy Yead's	208
	Buses	ť.		Ž(,) (-\$	1.5		5.659	15
	Managares	5		िक्षांस्त्रा १९७५ <b>।</b>			Mannagales	1.7
arthrainst	Actor	970	Continue	4.09	KH3	Haston of	es i gita pie	3111
	Used Fradis	14		bed Trovale.	£153		Mathews	हुव
	teng taka ke	55		for Translati	3.7.4		34 S Table 195	
	(5) G(1)			Marina.	15		Frigue-	1 }-
	findments	Ē-		That was a	14		1.10.00 10.00	

Project.	I-75 PD&E Study from north of SR 52 to south of CR 476B	Date	11/2/2006	
State Project Number(s):		Prepared By:	FJD	
Work Program Number(s)				
Federal Aid Number(s):				
Segment Description:	Sile 8: SR 50 (Cortez Blvd) West of I-75			

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds. Typical section, etc.)

	Existing Facility	No-Build (Design Year)			Build (Design Year)
Lanes:	4	Lanes:	4	Lanes:	6
Year:	2005	Year:	2030	Year:	2030
ADT. LOS (C)	24,400	ADT: LOS (C)	24,400	ADT: LOS (C)	38,000
Demand	20,600	Demand	64,000	Demand	64,000
Speed.	45 mph 72 kmh	Speed.	45 mph 72 irms	Speed	45 mph 72 kmh
К=	9.6	K≠	9.6 %	K=	9.6 %
D=	55 %	D=	55 %	D=	55 %
T=	15.5 % for 24 hrs	T=	15.5 % for 24 hrs	T=	15.5 % for 24 hrs
T=	7.8 % Design hr	Т=	7.8 % Design hr	Ϋ́=	7.8 % Design hr
2.0	% Medium Trucks DHV	2.0	% Medium Trucks DHV	20	% Medium Trucks DHV
5.8	% Heavy Trucks DHV	5.8	5.8 % Heavy Trucks DHV		% Heavy Trucks DHV
6.6	% Buses DHV	06	0.6 % Buses DHV		% Buses DHV
0.4	% Motorcycles DHV	0.4	% Malarcycles DHV	0.4	% Motorcycles DHV

				STAMINA/THM INPU				
	The follow	ring are spreads	Theet calculatio	ns based on the inpu	it above - do n	not enter data b	elow this line	
Existing Fac	cility Model;	Demand	No-Build (D	esign Year) Model:	LOS (C)	Build (Desig	in Year) Model:	LOS (C)
	<u> </u>			LÖS (C)		***************************************	LOS (C)	
Westbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	1165 25 75 7	Wastoouvi	Autos Med Trucks Hvy Trucks Buses Motorcycles	1165 25 75 7	Westbound	Autos Med Trucks Hvy Trucks Buses Utotoxycles	1915
Eastbound	Autos Med Trucks Hvy Trucks Buses Motorcycles	973 21 62 6	Eastimund	Autos Med Trucks Hry Trucks Buses Motorcycles	973 23 62 6	Eenthoung	Autos Med Trucks Hay Trucks Buses Movercides	1515 33 97 9
	Demend		Demand		ी-स्वर्यकार			
Arrettanani	Autos Med Hacks Hvy Tucks Bushs Mobilety fes	984 21 63 6	Negati wend	Autos Med Tracks Hev Tracks Bases Motaroycles	VOS 7 56 156 18 18	Ananganyan yan k	Autos Ded Treaks Hzy Tricks Bases Llonco ydes	\$157 06 196 18 18
हैं क्षा ज्यात	Auster Med Inch- Hovier Boses Vena (des	913 13 4 4	म प्रतिक स्तुरसङ्	Autos Blod Fragos Poy Profils Posos Barra (SCR)	2552 65 66 66 35 35	E retiver is i	Autory Mod Graces (for Graces formers Modernson	25/52 65 95/5 95 12

# DISTRICT 7 TRAFFIC DATA FOR AIR STUDY SCREENING TEST

	DATE: 04/25/06				
	PREPARED BY: <u>Ed Bryant, PE</u>				
Work Program Item Segment Number(s): 411014-1	-22-01				
Federal Aid Number(s): <u>0751-1201</u>					
Project Description: <u>I-75 PD&amp;E Study from north of</u> Hernando, and Sumter Counties, Florida)	of SR 52 to south of CR 476B (Pasco,				
NOTE: The most congested intersection is the intersection values and it could be two different intersections based on the are to be the peak vph of the most congested leg approaching accepted into the computer model). The speeds are to be the a congested leg and the model will accept values between 15 – 6	Build vs. No-Build alternatives. The traffic volumes the intersection (values between 1000- 9999 are verage cruise speed / mid-block speed for the most				
OPENING YEA	R: _2010				
"BUILD"	<u>"NO-BUILD"</u> □				
Most Congested Intersection:  1-75 (SR 93) SB Ramps at SR 50  Peak Hour Traffic for most congested leg:  1,561 vph  Specify leg: WB SR 50 - Cortez Blvd  Average Cruise Speed:  45 mph	Most Congested Intersection:  1-75 (SR 93) SB Ramps at SR 50  Peak Hour Traffic for most congested leg:  1,561 vph  Specify leg: WB SR 50 - Cortez Blvd  Average Cruise Speed:  45 mph				
DESIGN YEAR	R: 2030				
"BUILD"	<u>"NO-BUILD"□</u>				
Most Congested Intersection:  1-75 (SR 93) NB Ramps at SR 50  Peak Hour Traffic for most congested leg: 3,389 vph  Specify leg: WB SR 50 - Cortez Blvd  Average Cruise Speed: 45 mph	Most Congested Intersection:  1-75 (SR 93) NB Ramps at SR 50  Peak Hour Traffic for most congested leg: 3,389 vph  Specify leg: WB SR 50-Cortez Blvd  Average Cruise Speed: 45 mph				

Revised 4/5/