

ENCLAVE HOUSING CR 42 TRAFFIC IMPACT ANALYSIS

July 2025

Enclave Housing CR 42 Traffic Impact Analysis Marion County, Florida

Prepared for:
Enclave Housing, LLC
20801 Biscayne Boulevard, Suite 304
Aventura, FL 33180

Prepared by:
Kittelson & Associates, Inc.
225 East Robinson Street, Suite 355
Orlando, FL 32801
407.540.0555

Project Manager:
Emmanuel Masindoki, PE, RSP1

Project Principal:
Kok Wan Mah, P.E.

Project Number 31313

July 2025



CONTENTS

Introduction	2
Study Area.....	2
Existing Conditions.....	5
Existing Roadway Capacity Analysis.....	5
Existing Intersection Capacity Analysis	5
Future Conditions	11
Trip Generation	11
Trip Distribution and Assignment	11
Future Year (2028) Traffic Volume	14
FUTURE (2028) Roadway Analysis.....	14
FUTURE (2028) Intersection Capacity Analysis	17
Recommended Intersection Improvements (No-Build).....	21
Future (2028) Intersection Capacity Analysis – Buildout	21
Turn Lane Analysis	24
Access review.....	24
Signal Warrant Analysis.....	27
Conclusions	37

LIST OF FIGURES

Figure 1: Project Location Map	3
Figure 2 : Existing Intersection AM Traffic Volumes.....	7
Figure 3 : Existing Intersection PM Traffic Volumes	8
Figure 4 : Project Trip Distribution.....	12
Figure 5 : Driveways Project Trip Distribution	13
Figure 6 : Future AM Volumes.....	18
Figure 7 : Future PM Volumes	19
Figure 8 : Warrant 2 Analysis	33

LIST OF TABLES

Table 1 : Existing Roadway Capacity Analysis.....	6
Table 2 : Existing Peak Hour Intersection Capacity Analysis.....	9
Table 3 : Project Trip Generation.....	11
Table 4 : 2028 Background Roadway Capacity Analysis.....	15
Table 5 : 2028 Buildout Roadway Capacity Analysis.....	16
Table 6 : 2028 Background (No Buildout) PM Peak Hour Intersection Capacity Analysis.....	20
Table 7 : Improved - 2028 Background (No Buildout) Intersection Capacity Analysis – Improved.....	22
Table 8 : 2028 Buildout Intersection Capacity Analysis	23
Table 9 : Turn Lane Analysis	25
Table 10 : Existing 12-Hour Traffic Volumes	28
Table 11 : 12-Hour Background Growth Volumes	29
Table 12 : 12-Hour Committed Development Traffic Volumes.....	30
Table 13 : 12-Hour Project Trips.....	30
Table 14 : Total Buildout (2028) Traffic Volumes.....	31
Table 15 : Warrant 1 – Eight-Hour Vehicular Volume Thresholds	32
Table 16 : Warrant 1 Summary Result.....	32
Table 17 : Crash History for SE 73 Avenue & CR 42.....	34

APPENDICES

Appendix A: Preliminary Site Plan
Appendix B: TIA Methodology
Appendix C: Ocala Mation TPO CPM Database
Appendix D: K-factor & D-factor
Appendix E: Raw Turning Movement Counts and Signal Timings
Appendix F: Existing Condition HCM Reports
Appendix G: Trip Generation Resources
Appendix H: Model Output
Appendix I: Committed Trips
Appendix J: Intersection Volume Calculation
Appendix K: Future Condition HCM Results
Appendix L: Turn Lane Warrants Analysis
Appendix M: Raw 12-Hour Turning Movement Counts
Appendix N: ITE Hourly Trip Generation Tables
Appendix O: 12-Hour Turning Movement Volume Calculations
Appendix P: Crash Summary
Appendix Q: Sensitivity Analysis

Section 1

Introduction

INTRODUCTION

Kittelson & Associates, Inc. has conducted a Traffic Impact Analysis (TIA) for the proposed Enclave Housing CR 42 project, in Marion County, Florida. The ±140.7 project site is located on the north side of CR 42, east of US 301 and consists of parcels 47667-004-00, 47667-005-02, 47667-000-00, and portions of 47667-003-01 and 47667-006-00. The development is planned to include up to 475 single-family residential units, to be built in a single phase with an anticipated buildout year in 2028.

The proposed development will be accessed from CR 42 via an existing full-access driveway currently serving a church and an animal hospital. Additionally, the development will feature four full-access driveways on SE 73rd Avenue, including one emergency access only. These access points and building locations are depicted in **Figure 1**, and in the preliminary site plan, included in **Appendix A**.

STUDY AREA

The following study facilities were agreed in the approved TIA methodology (included in **Appendix B**) to be included in the analysis.

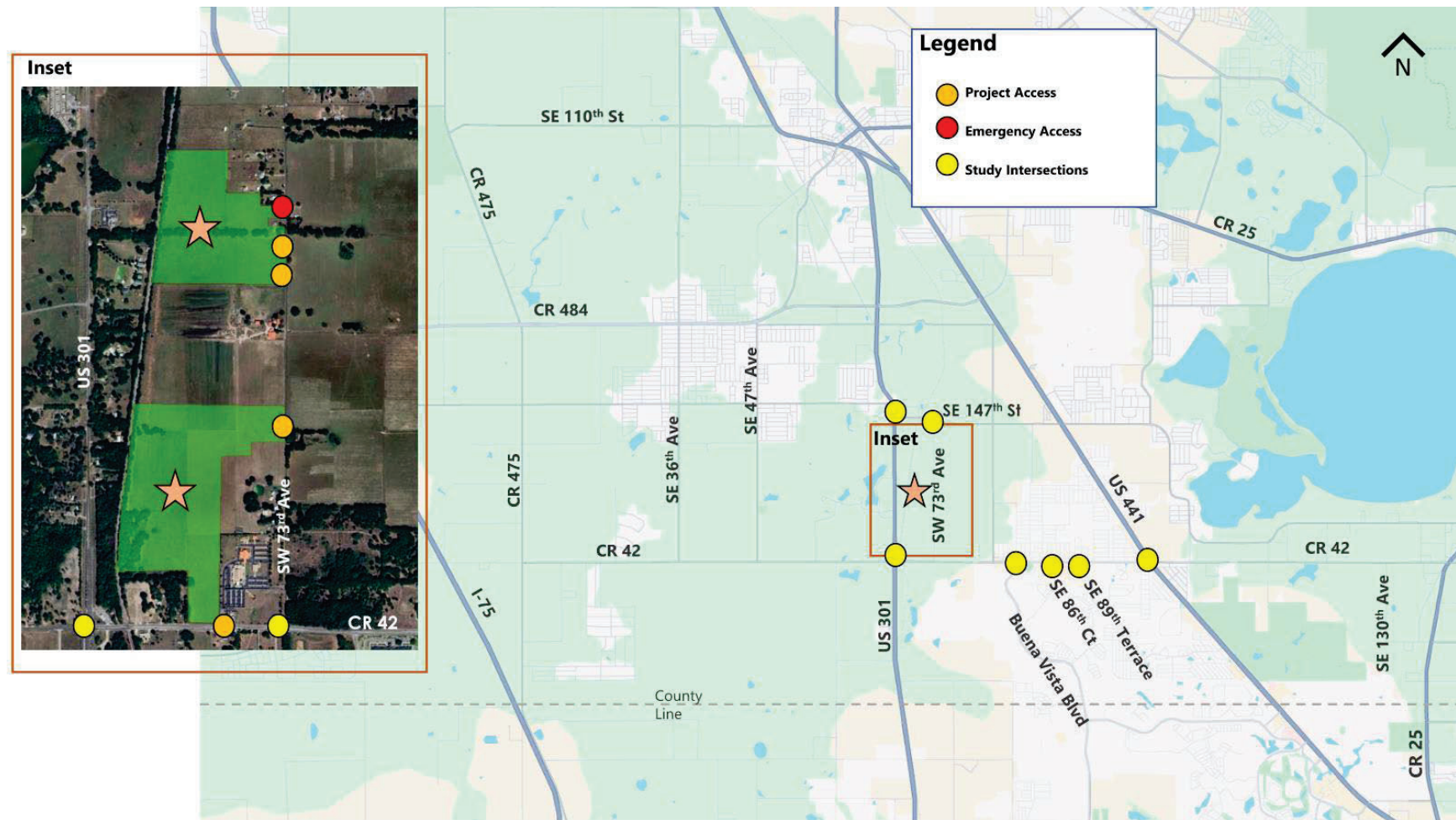
Roadway Segments:

- CR 42
 - US 301 to SE 77 Ave
 - SE 77 Ave to US 441
- SE 147 Place
 - US 301 to US 441
- US 301
 - SE 147 Place to US 441
 - County Line to CR 42
 - CR 42 to SE 147 Place
- SE 73rd Avenue
 - CR 42 to SE 147 Place
- US 441
 - County Line to CR 42
 - SE 147 Place to SE 92 Place Loop

Study Intersections:

- CR 42 & US 301 (signalized)
- CR 42 & SW 73rd Avenue (unsignalized)
- CR 42 & US 441 (signalized)
- US 301 & SE 147th Street (signalized)
- SE 147th Street & SW 73rd Avenue (signalized)
- CR 42 & right-in/right-out access (unsignalized)
- SW 73rd Avenue & access driveways (unsignalized)
- CR 42 at Driveway for Saint Mark The Evangelist/Mulberry Grove Animal Hospital (unsignalized)
- CR 42 at Buena Vista Boulevard/SE 83rd Avenue (signalized)
- CR 42 at SE 86th Belle Meade Circle/SE 86th Court (signalized)
- CR 42 at SE 89th Sweetwater Terrace/SE 89th Terrace (signalized)

Figure 1: Project Location Map



Section 2

Existing Conditions

EXISTING CONDITIONS

Existing roadway facilities were reviewed to establish a benchmark for the potential future impact due to background traffic growth and the proposed development. The analysis includes a review of study roadway segments and intersections to document the existing capacity, lane configuration, traffic volume and operations.

EXISTING ROADWAY CAPACITY ANALYSIS

Existing roadway capacity analysis was conducted by evaluating the Peak Hour Directional Volume (PHDV) and the existing Peak Hour Directional Service Volume, obtained from the Ocala Marion TPO CMP database, included in **Appendix C**. The existing roadway segment's PHDV were calculated by converting 2023 AADT using a K-factor of 0.09 and D-factor of 0.561 taken from the closest FDOT count station (360214), included in **Appendix D**. **Table 1** summarizes the existing roadway attributes, traffic volume and roadway capacity analysis.

The existing roadway capacity analysis indicates that study roadway segments except for US 301 from CR 42 to SE 147 Street are currently operating below the existing capacity with volume-to-capacity (V/C) ratio less than 1.0.

EXISTING INTERSECTION CAPACITY ANALYSIS

Existing Intersection Capacity analysis was conducted using Synchro software and the methods of the Highway Capacity Manual (HCM), which incorporates intersection layout, traffic volume and control type.

CR 42 is a 4-lane facility with a posted speed limit of 40 mph at US 301, and 45 mph to the east of US 301. US 301 is a 4-lane facility at CR 42 but turns into a two-lane facility to the north. Its posted speed limit is 55 mph until just south of SE 147 Street, where it becomes 50 mph. US 441 is a 4-lane facility with a posted speed limit of 55 mph. SE 73 Avenue, along with SE 147 Street/SE 147 Place, is a 2-lane facility with a posted speed limit of 30 mph.

The capacity analysis was performed using the existing traffic volumes for the AM and PM peak hours. The intersection counts were collected February 27, 2025, and April 29, 2025; the raw counts were not seasonally adjusted as they were collected during the peak season. The raw count data and existing signal timings are included in **Appendix E**, and **Figure 2** and **Figure 3** illustrates the existing AM and PM peak hour intersection volumes.

The results of the existing intersection capacity analysis are summarized in **Table 2** and the output HCM worksheets are included in **Appendix F**.

All study intersections are currently operating with an acceptable overall LOS E or better and with a V/C ratio less than 1.0. Except for the following intersections:

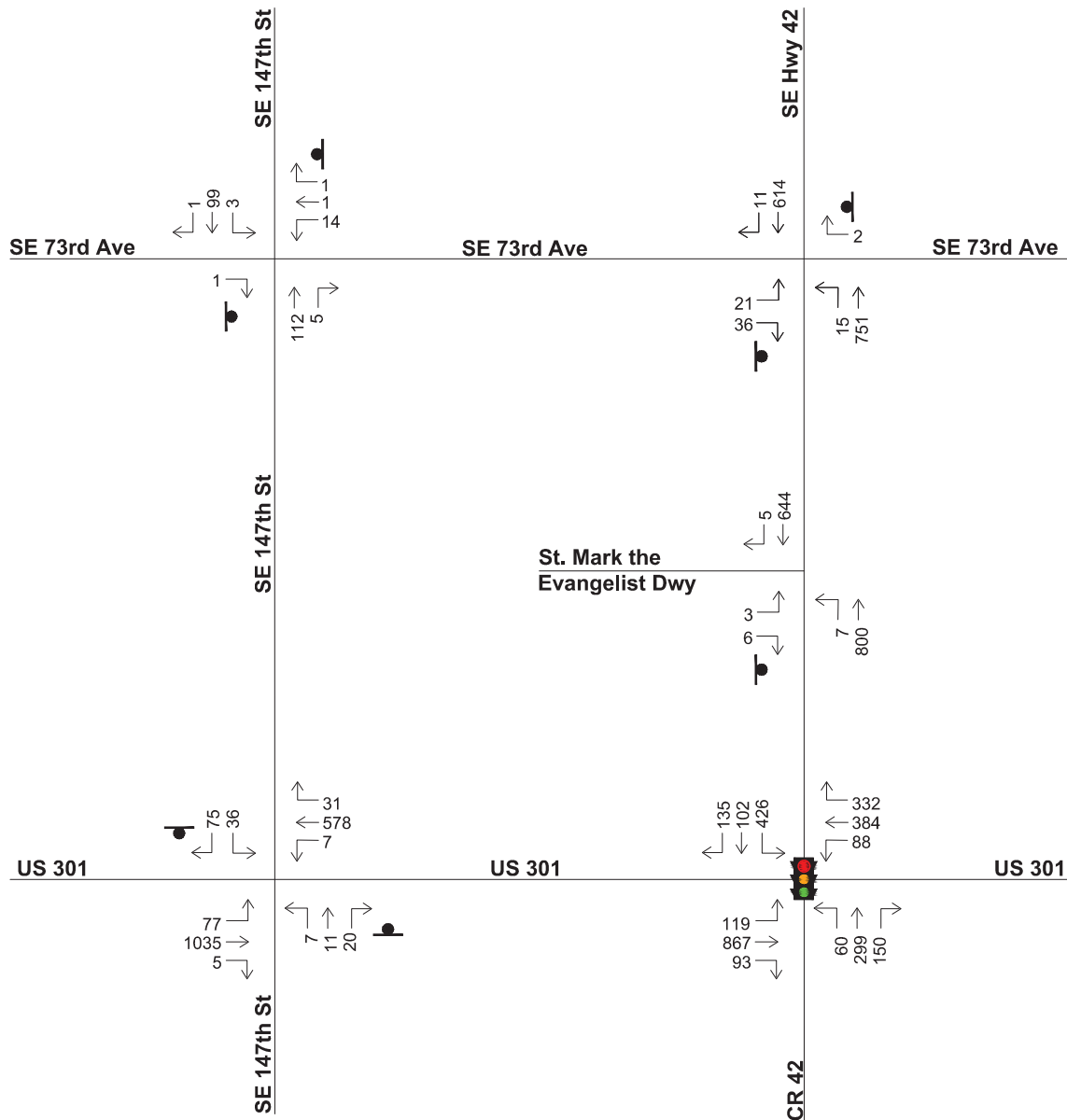
- US 301 & SE 147 St – The east/west leg stop-controlled approaches of the Intersection are experiencing delays while the east-leg is operating with inadequate capacity with v/c ratio greater than 1.0.
- US 301 & CR 42 – The east/west leg of the intersection is currently operating with inadequate capacity with a v/c ratio greater than 1.0. The intersection has an overall LOS E.
- US 441 & CR 42 – The west leg of the intersection is currently operating with inadequate capacity with a v/c ratio of greater than 1.0.

Improvements needed to address deficiencies for background conditions will be identified in the next section.

Table 1 : Existing Roadway Capacity Analysis

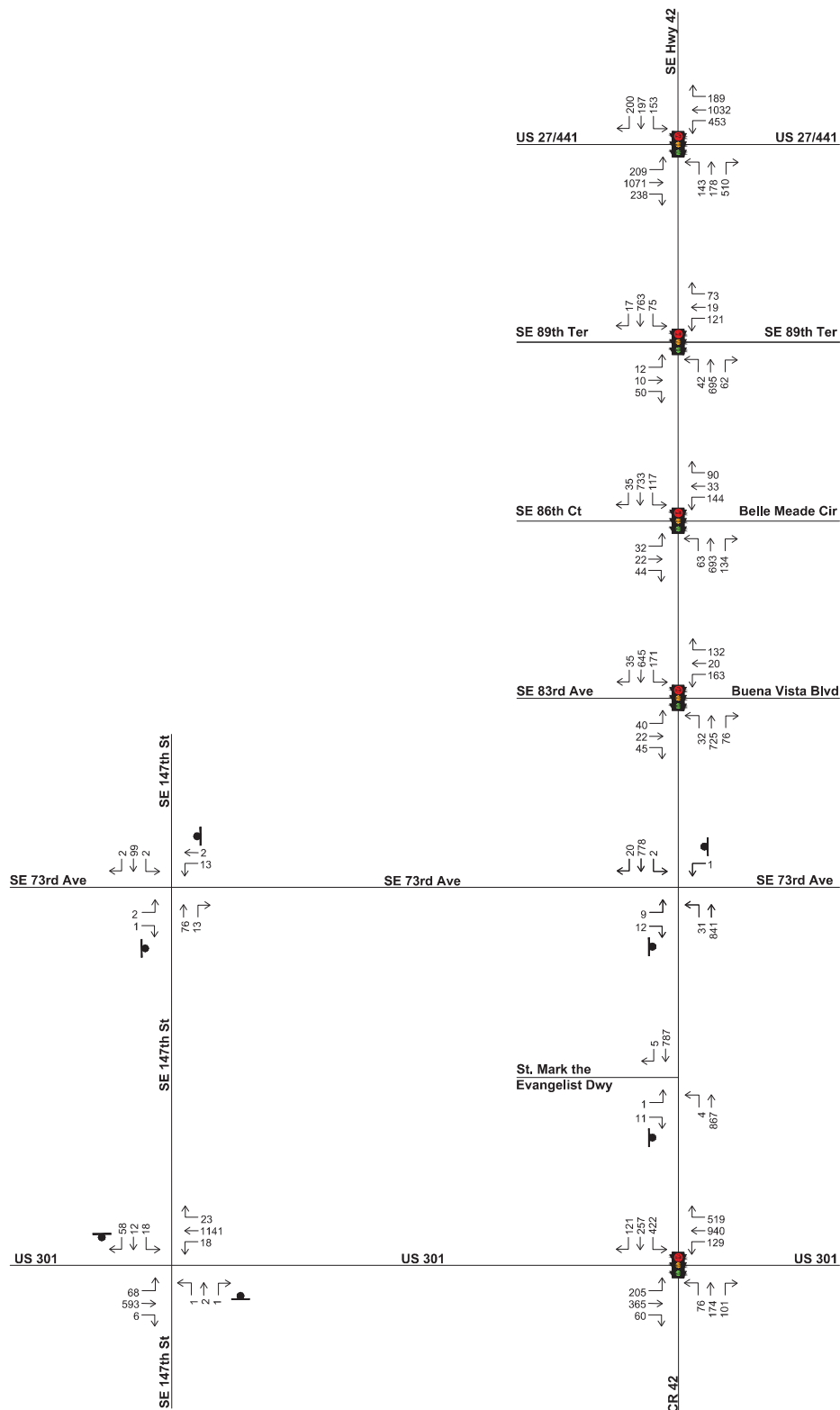
Segment ID	Road Name	Roadway Segment		Roadway Attributes			Existing Roadway Capacity				
		From	To	No. Lns	LOS Std	Pk-Dir Cap	2023 AADT	2023 PHDV	V/C	Remaining Cap	Over Cap?
1560	CR 42	US 301	SE 77 Ave	4	E	1,800	18,300	924	0.51	888	NO
1570	CR 42	SE 77 Ave	US 441	4	E	1,800	18,300	924	0.51	888	NO
3880	SE 147 PI	US 301	US 441	2	E	576	6,000	303	0.53	277	NO
6530.1	US 301	County Line (S)	CR 42	4	D	2,910	24,100	1,217	0.42	1,708	NO
6540	US 301	CR 42	SE 147 St	2	D	730	17,700	894	1.22	-164	YES
6550.1	US 301	SE 147 St	US 441	4	D	987	13,200	666	0.67	329	NO
6700	US 441	County Line (S)	CR 42	4	D	1,996	38,400	1,939	0.97	81	NO
6740	US 441	SE 147 PI	SE 92 PI Loop	4	E	1,901	33,300	1,681	0.88	241	NO
N/A	SE 73 rd Avenue ¹	CR 42	SE 147 PI	2	E	730	-	51	0.08	583	NO

Notes:¹Not in Ocala TPO Motion CMP Database, PHDV used from collected counts.



Existing Traffic Volumes
AM Peak Hour

Figure
2



Existing Traffic Volumes
PM Peak Hour

Figure
3

Table 2 : Existing Peak Hour Intersection Capacity Analysis

Intersection	Control	Peak Hour	EB			WB			NB			SB			Overall	
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
US 301 & SE 147 St	TWSC	AM	73.1	F	0.44	230.8	F	1.19	11.1	B	0.01	9.1	A	0.09	-	-
		PM	94.1	F	0.09	198.4	F	1.06	8.9	A	0.02	12.3	B	0.13	-	-
SE 73 Ave & SE 147 St	TWSC	AM	0.0	A	0.0	7.4	A	0.01	10.1	B	0.02	8.8	A	0.01	-	-
		PM	-	-	-	7.4	A	0.01	10.0	A	0.02	9.5	A	0.01	-	-
US 301 & CR 42	Signal	AM	154.3	F	1.18	73.6	E	1.01	52.1	D	0.83	66.5	E	0.89	79.1	E
		PM	83.9	F	0.91	66.0	E	1.00	64.6	E	0.88	70.3	E	0.98	68.0	E
St Mark the Evangelist Dwy & CR 42	TWSC	AM	8.9	A	0.01	0	A	0	0	A	0	16	C	0.03	-	-
		PM	9.5	A	0.01	0	A	0	-	-	-	13.4	B	0.03	-	-
SE 73 Ave & CR 42	TWSC	AM	9.1	A	0.02	0	A	0	10.9	B	0.01	19.3	C	0.19	-	-
		PM	9.9	A	0.04	9.7	A	0.01	41.0	E	0.01	25.2	D	0.11	-	-
Buena Vista Blvd/SE 83 Ave & CR 42	Signal	PM	13.9	B	0.60	11.3	B	0.48	20.5	C	0.44	19.5	B	0.28	14.0	B
SE 86 Ct & CR 42	Signal	PM	15.8	B	0.70	13.8	B	0.60	20.6	C	0.51	19.1	B	0.35	15.7	B
SE 89 Ter & CR 42	Signal	PM	15.0	B	0.65	14.4	B	0.64	17.9	B	0.30	17.2	B	0.17	15.0	B
US 441 & CR 42	Signal	PM	274.0	F	1.76	55.8	E	0.70	64.1	E	0.90	50.6	D	0.62	99.4	F

Note: The operational results represent the worst movement v/c ratio.

Section 3

Future Conditions

FUTURE CONDITIONS

TRIP GENERATION

The trip generation analysis was conducted using information published by the Institute of Transportation Engineers (ITE) *Trip Generation (11th Edition)*. **Table 3** summarizes the resulting trip generation analysis. Trip generation resources are included in the **Appendix G**.

Table 3 : Project Trip Generation

Land Use Type	ITE Code	Intensity	Daily	AM Peak-Hour Trips Ends			PM Peak-Hour Trips Ends		
				In	Out	Total	In	Out	Total
Single Family Residential	210	475 DU	4,231	77	231	308	270	160	430
Net New External Trips Ends (Existing Development)			4,231	77	231	308	270	160	430

Source: ITE Trip Generation, 11th Edition; Equations were used where $r\text{-squared} > 0.75$

The proposed development is projected to generate 4,231 new net external daily trips of which 308 trips occur during the AM peak hour and 430 trips occur during the PM peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

The project trip distribution and assignment were estimated based on a select zone analysis using the Central Florida Regional Planning Model, Version 7, project driveway distribution, and local traffic patterns. The approved distribution for the future year is included in **Figure 4 & Figure 5** (driveways distribution) with the detailed model plots included in **Appendix H**.

Figure 4 : Project Trip Distribution

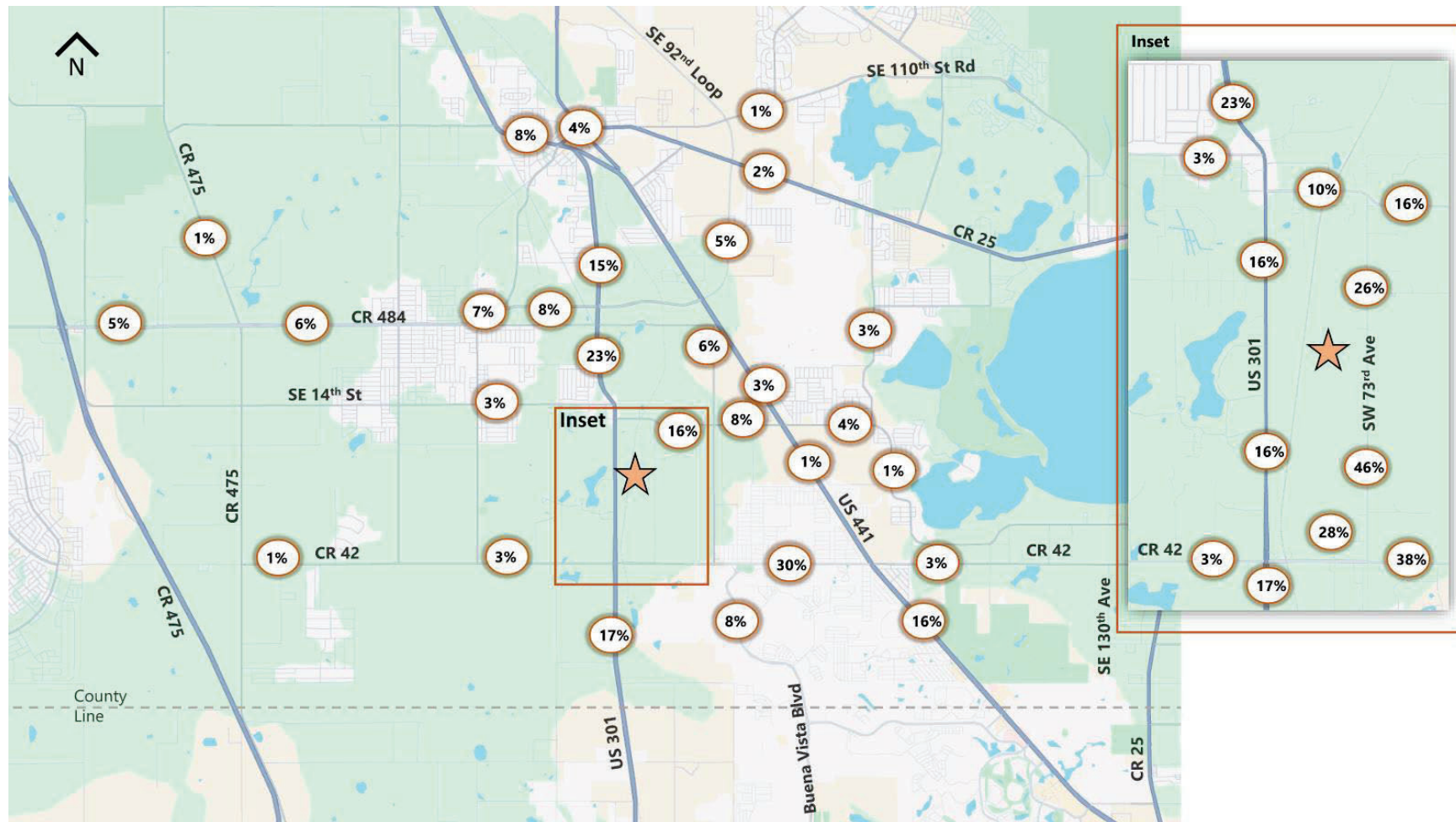
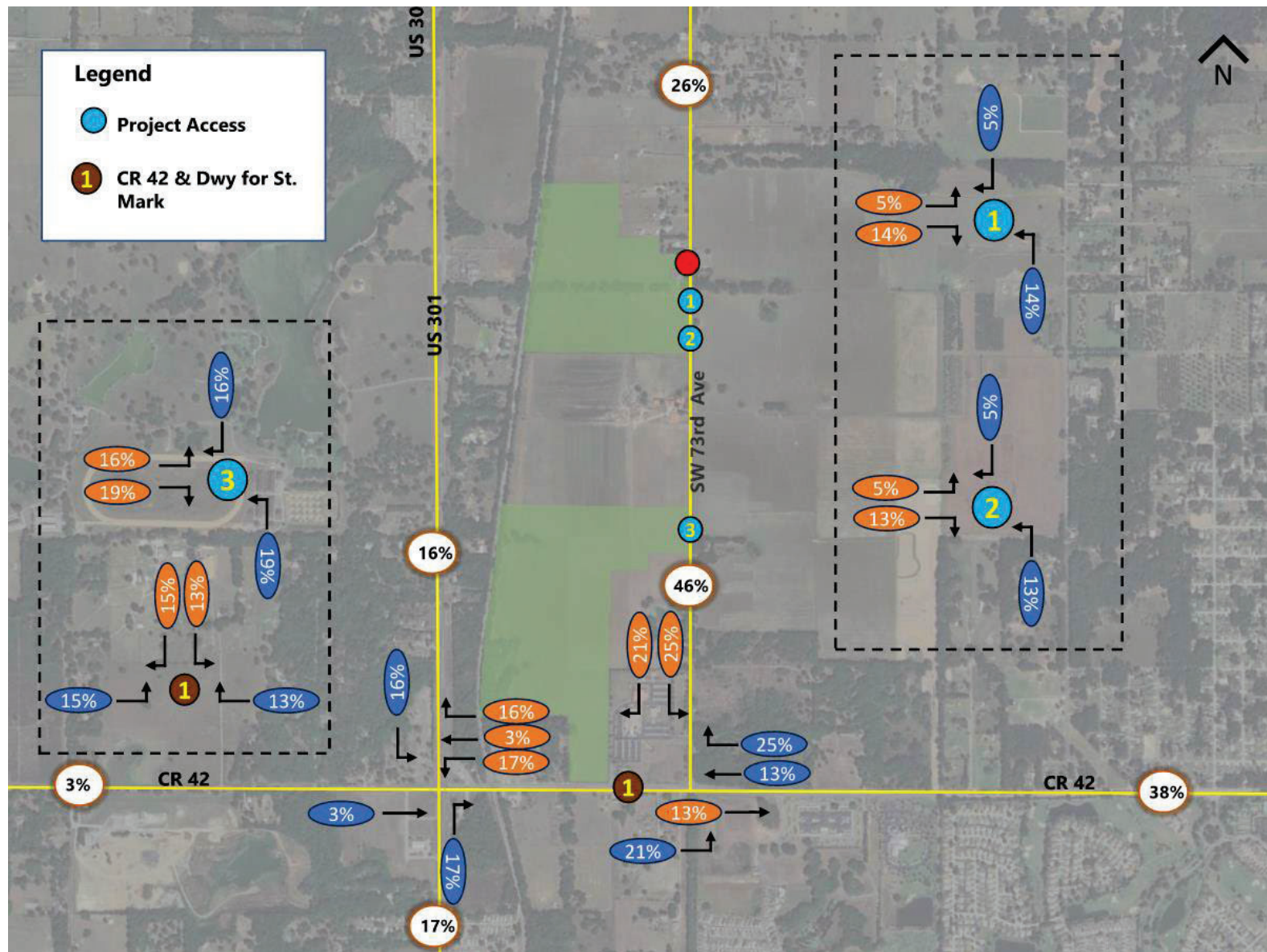


Figure 5 : Driveways Project Trip Distribution



FUTURE YEAR (2028) TRAFFIC VOLUME

The proposed Enclave Housing CR 42 project is expected to be built out in 2028. Buildout traffic volume consists of the projected background (2028 no-buildout) traffic volume and trips generated by the proposed development. Projected background traffic was determined by projecting existing volume using a 2.65% growth rate, which is discussed and approved in the study methodology (included in **Appendix B**). Committed trips from the developments of Utopia PUD, Summerfield PUD, and Heritage Oaks, which are shown in **Appendix I**, were added to the background traffic volume.

FUTURE (2028) ROADWAY ANALYSIS

A roadway capacity analysis was conducted to evaluate the 2028 traffic volumes with and without the proposed project against the roadway segments capacities provided in the Ocala Marion TPO CMP database. The results summarized in **Table 4** show that the segments listed below are projected to exceed capacity in the No Build condition (without the proposed project).

- US 301 from CR 42 to SE 147 Street
- US 441 from county line to CR 42
- US 441 from SE 147 Place to SE 92 Place Loop

The segment of US 301 from CR 42 to SE 147 Street is listed as deficient in the year 2028 according to the Ocala Marion TPO CMP database. While US 441 segments from county line to CR 42, and from SE 147 Place to SE 92 Place Loop are listed in the Ocala Marion TPO CMP database to approach their capacity in the year 2028 with v/c ratio of 1.0 and 0.91, respectively. The project's impact on these two segments is not significant, with projected usage accounting for less than 3% of the existing roadway capacity.

As depicted in **Table 5**, the remaining study segments are projected to continue to operate within their existing roadway capacities based on the adopted LOS. summarizes future roadway capacity analysis.

Table 4 : 2028 Background Roadway Capacity Analysis

Segment ID	Road Name	Roadway Segment		2023 Roadway Attributes				2028 No-Build Roadway Capacity					
		From	To	No. Lns	LOS Std	Pk-Dir Cap	2023 PHDV	2028 Total Growth	Committed Trips	2028 No-Build	V/C	Remaining Cap	Over Cap?
1560	CR 42	US 301	SE 77 Ave	4	E	1,800	924	97	518	1,540	0.86	260	NO
1570	CR 42	SE 77 Ave	US 441	4	E	1,800	924	97	499	1,521	0.85	279	NO
3880	SE 147 PI	US 301	US 441	2	E	576	303	32	55	390	0.68	186	NO
6530.1	US 301	County Line (S)	CR 42	4	D	2,910	1,217	127	97	1,443	0.50	1467	NO
6540	US 301	CR 42	SE 147 St	2	D	730	894	94	111	1,100	1.51	-370	YES
6550.1	US 301	SE 147 St	US 441	4	D	987	666	70	58	795	0.81	192	NO
6700	US 441	County Line (S)	CR 42	4	D	1,996	1,939	203	155	2,300	1.15	-304	YES
6740	US 441	SE 147 PI	SE 92 PI Loop	4	E	1,901	1,681	176	70	1,929	1.01	-28	YES
N/A	SE 73 rd Avenue	CR 42	SE 147 PI	2	E	730	51	5	285	341	0.54	293	NO

Table 5 : 2028 Buildout Roadway Capacity Analysis

Segment ID	Road Name	Roadway Segment		2023 Roadway Attributes				2028 No-Build Volumes	2028 Build Roadway Capacity						% of Project Trips to the Projected Build Volume	Project Impact (%) on the existing Capacity
		From	To	No. Lns	LOS Std	Pk-Dir Cap	2023 PHDV		Assign %	Dir Trips	2028 Build Volumes	V/C	Remaining Cap	Over Cap?		
1560	CR 42	US 301	SE 77 Ave	4	E	1,800	924	1,540	38%	98	1,638	0.91	162	NO	5.98%	5.44%
1570	CR 42	SE 77 Ave	US 441	4	E	1,800	924	1,521	38%	98	1,619	0.90	181	NO	6.05%	5.44%
3880	SE 147 PI	US 301	US 441	2	E	576	303	390	16%	41	431	0.75	145	NO	9.51%	7.12%
6530.1	US 301	County Line (S)	CR 42	4	D	2,910	1,217	1,443	17%	44	1,487	0.51	1423	NO	2.96%	1.51%
6540	US 301	CR 42	SE 147 St	2	D	730	894	1,100	16%	41	1,141	1.56	-411	YES	3.59%	5.62%
6550.1	US 301	SE 147 St	US 441	4	D	987	666	795	23%	59	854	0.87	133	NO	6.91%	5.98%
6700	US 441	County Line (S)	CR 42	4	D	1,996	1,939	2,300	16%	41	2,341	1.17	-345	YES	1.75%	2.05%
6740	US 441	SE 147 PI	SE 92 PI Loop	4	E	1,901	1,681	1,929	8%	21	1,950	1.03	-49	YES	1.08%	1.10%
N/A	SE 73 rd Avenue	CR 42	SE 147 PI	2	E	730	51	341	54%	139	480	0.76	154	NO	28.96%	21.92%

FUTURE (2028) INTERSECTION CAPACITY ANALYSIS

Future intersection capacity analysis was performed for the 2028 no-buildout (background) and 2028 buildout conditions. No-buildout intersection volume was calculated using the methods described in previous section, which include both historical traffic growth and committed trips. **Figure 6** and **Figure 7** depict the projected AM Peak hour and PM peak hour volumes respectively, including background, committed, and project volumes.

Intersection volume worksheets, which summarize the projected intersection volume calculations for 2028 background, 2028 project trips and 2028 total buildout volume are included in **Appendix J**.

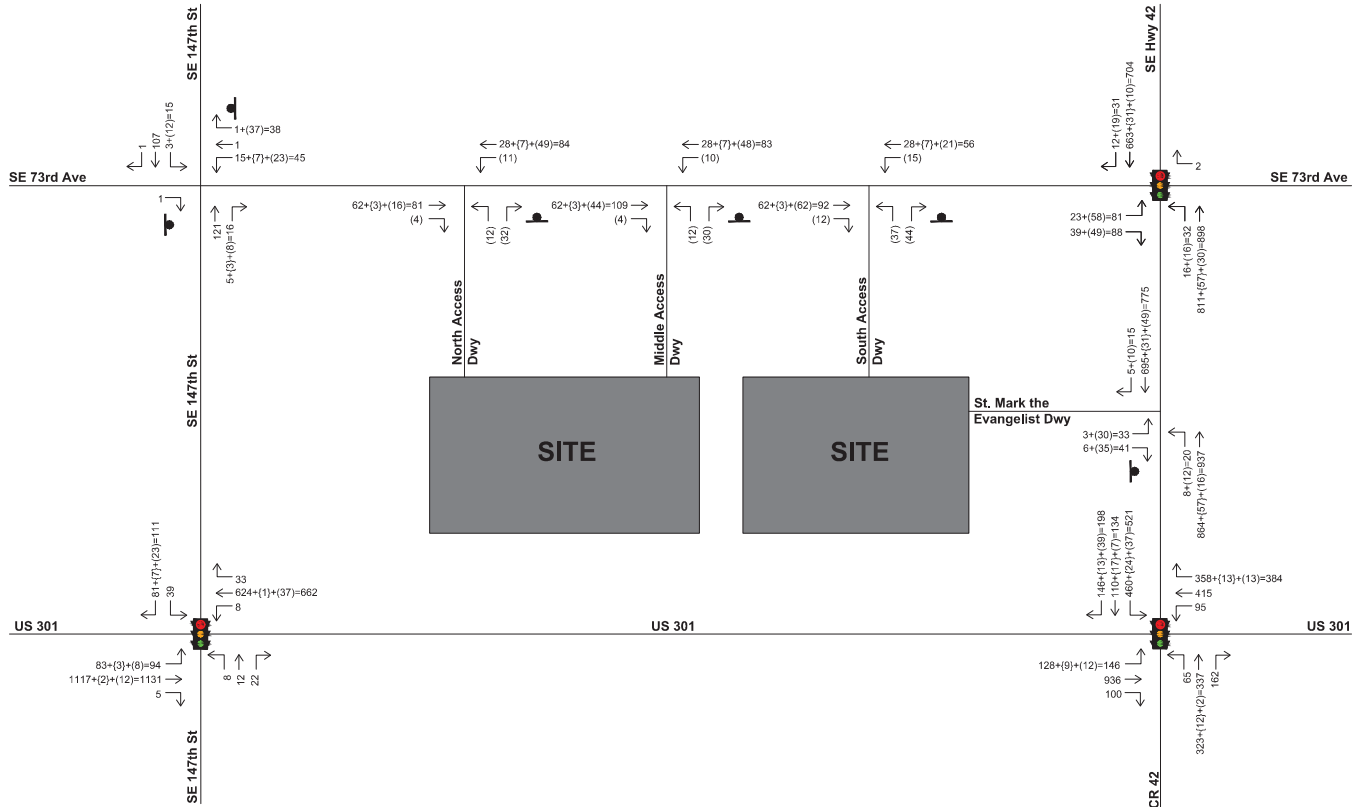
Intersection analysis was performed using Synchro software in accordance with the methodologies outlined in the Highway Capacity Manual (HCM). **Table 6** presents a summary of the 2028 no-build intersection capacity analysis. Detailed HCM worksheets are provided in **Appendix K**. Consistent with existing conditions, the intersections of CR 42 & US 301 and CR 42 & US 441 are projected to operate at inadequate levels of service. Similarly, the intersection of CR 42 and SE 73rd Avenue is expected to experience insufficient capacity. Control improvements are currently underway at this location to implement signalization.



Not to Scale

Legend:

Background + {Vested} + (Project) = Total

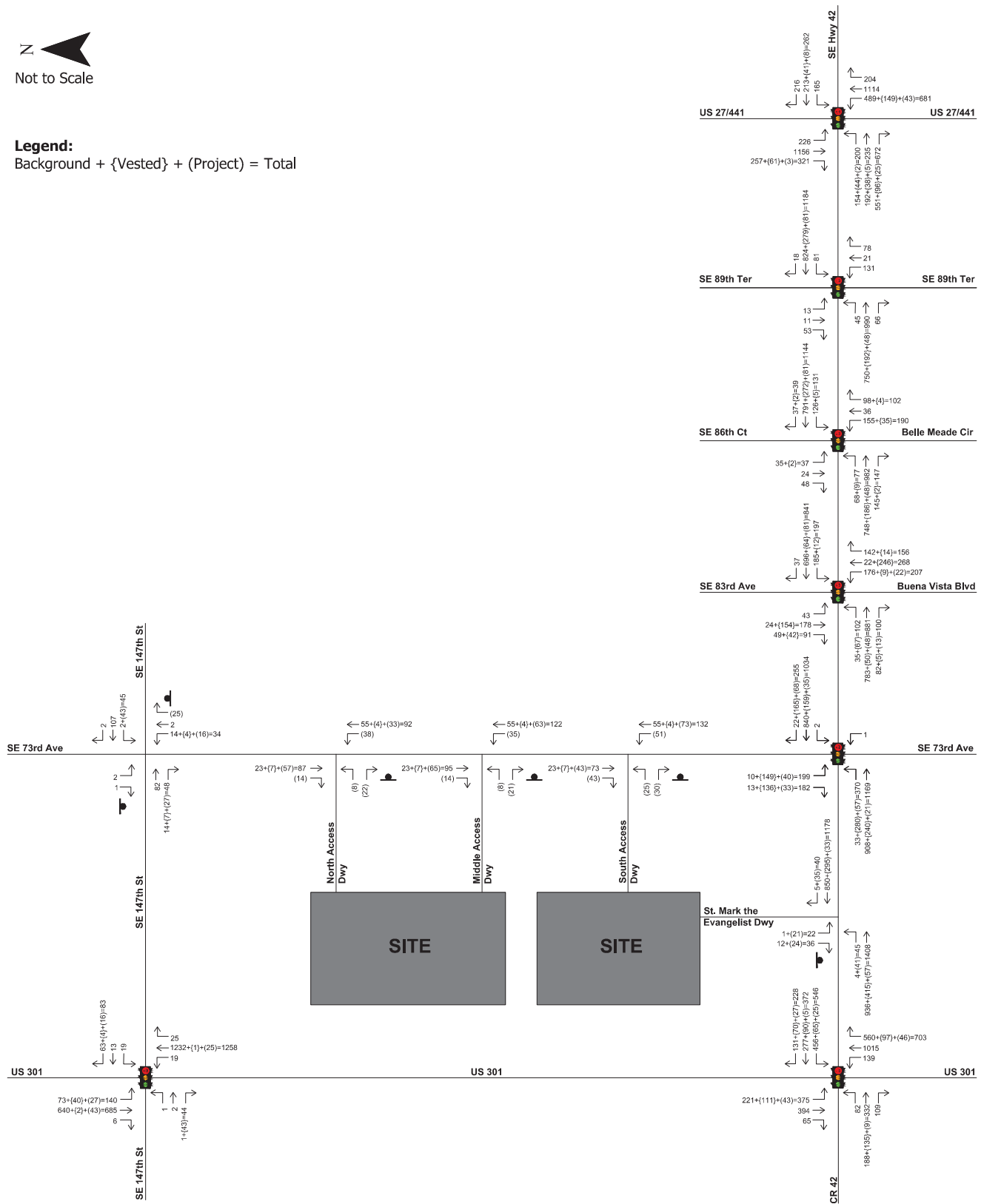


Projected Traffic Volumes
AM Peak Hour

Figure
6



Legend:

$$\text{Background} + \{\text{Vested}\} + (\text{Project}) = \text{Total}$$


Projected Traffic Volumes PM Peak Hour

Figure
7

Table 6 : 2028 Background (No Buildout) PM Peak Hour Intersection Capacity Analysis

Intersection	Control	Peak Hour	EB			WB			NB			SB			Overall	
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
US 301 & SE 147 St	Signal	AM	36.9	D	0.18	41.3	D	0.60	11.5	B	0.64	30.5	C	0.97	25.1	C
		PM	40.4	D	0.24	42.3	D	0.44	83.2	F	1.12	11.4	B	0.66	55.5	E
SE 73 Ave & SE 147 St	TWSC	AM	0.0	A	0.0	7.5	A	0.01	10.3	B	0.04	8.8	A	0.01	-	-
		PM	-	-	-	7.4	A	0.01	9.2	A	0.02	8.8	A	0.01	-	-
US 301 & CR 42	Signal	AM	223.8	F	1.36	115.8	F	1.19	54.1	D	0.84	70.9	E	0.91	102.5	F
		PM	196.3	F	1.28	163.0	F	1.45	82.6	F	1.02	221.9	F	1.78	144.2	F
St Mark the Evangelist Dwy & CR 42	TWSC	AM	9.3	A	0.01	0	A	0	0	A	0	18.9	C	0.04	-	-
		PM	11.2	B	0.01	0	A	0	-	-	-	20.1	C	0.05	-	-
SE 73 Ave & CR 42	TWSC	AM	9.4	A	0.02	0	A	0	11.5	B	0.01	24.1	C	0.26	-	-
		PM	22.2	C	0.62	11.2	B	0.01	>300	F	0.25	>300	F	25.8	-	-
Buena Vista Blvd/SE 83 Ave & CR 42	Signal	PM	18.0	B	0.72	16.2	B	0.62	29.0	C	0.78	37.1	D	0.82	21.6	C
SE 86 Ct & CR 42	Signal	PM	18.5	B	0.78	17.3	B	0.75	36.5	D	0.80	32.4	C	0.66	20.5	C
SE 89 Ter & CR 42	Signal	PM	14.4	B	0.69	14.9	B	0.74	22.8	C	0.38	21.8	C	0.22	15.6	B
US 441 & CR 42	Signal	PM	>300	F	2.31	123.4	F	1.14	86.0	F	1.12	69.4	E	0.96	156.2	F

Note: The operational results represent the worst movement v/c ratio.

RECOMMENDED INTERSECTION IMPROVEMENTS (NO-BUILD)

To mitigate the existing and future background intersection deficiencies, the following improvements are recommended:

US 301 & SE 147 Street

- Construct an exclusive northbound right turn lane on US 301.

US 301 & CR 42

The recommended improvements from the 9494 Summerfield PUD TIA reports were analyzed:

- Provide an exclusive eastbound right turn lane
- Provide dual westbound and southbound right turn lane
- Adjust the existing signal timings (cycle length and phase splits), including right turn overlaps on northbound approach.

SE 73 Avenue & CR 42

The recommended improvements from the Utopia & Heritage Oaks TIA reports were analyzed:

- Upgrade intersection with a traffic signal. Signal Warrant Analysis is provided in the later section of this document.
- Provide an exclusive westbound right turn lane.
- Provide an exclusive southbound left turn lane.

US 441 & CR 42

The recommended improvements from the 9494 Summerfield PUD TIA reports were analyzed:

- Provide dual eastbound and westbound left turn lane
- Adjust the existing signal timings (cycle length and phase splits), including right turn overlaps on eastbound approach.

As shown in **Table 7**, intersections are projected to operate adequately with the recommended improvements. The detailed HCM worksheets are included in **Appendix K**.

FUTURE (2028) INTERSECTION CAPACITY ANALYSIS – BUILDOUT

An intersection capacity analysis for the buildout condition was conducted, as summarized in **Table 8**. The analysis incorporated the recommended improvements identified for the no build scenario. Based on the results, all study intersections are projected to operate at acceptable levels of service at full project buildout. Therefore, no additional improvements are required to accommodate the proposed development trips. Detailed Highway Capacity Manual (HCM) worksheets are provided in **Appendix K**.

Table 7 : Improved - 2028 Background (No Buildout) Intersection Capacity Analysis – Improved

Intersection	Control	Peak Hour	EB			WB			NB			SB			Overall	
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
US 301 & SE 147 St	Signal	AM	36.4	D	0.23	41.3	D	0.77	10.8	B	0.60	31.5	C	0.97	25.5	C
		PM	56.3	E	0.38	60.7	E	0.72	33.4	C	0.97	12.8	B	0.72	27.7	C
US 301 & CR 42	Signal	AM	58.8	E	0.93	46.1	D	0.89	32.2	C	0.83	52.3	D	0.91	46.9	D
		PM	75.7	E	0.94	56.7	E	0.93	59.2	E	0.98	57.6	E	0.89	60.3	E
SE 73 Ave & CR 42	Signal	AM	4.9	A	0.50	8.7	A	0.63	12.3	B	0.02	13.7	B	0.35	6.9	A
		PM	9.8	A	0.74	14.9	B	0.76	24.0	C	0.00	23.5	C	0.65	13.3	B
US 441 & CR 42	Signal	PM	61.1	E	0.95	51.1	D	0.77	64.7	E	0.92	52.2	D	0.76	58.6	E

Note: The operational results represent the worst movement v/c ratio.

Table 8 : 2028 Buildout Intersection Capacity Analysis

Intersection	Control	Peak Hour	EB			WB			NB			SB			Overall	
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
US 301 & SE 147 St	Signal	AM	36.2	D	0.16	46.6	D	0.87	11.3	B	0.62	35.5	D	0.99	28.3	C
		PM	57.8	E	0.37	76.4	E	0.93	37.3	D	0.99	25.5	C	0.99	35.4	D
SE 73 Ave & SE 147 St	TWSC	AM	0.0	A	0	7.5	A	0.01	10.4	B	0.12	8.8	A	0.01	-	-
		PM	-	-	-	7.5	A	0.03	10.5	B	0.09	10.2	B	0.01	-	-
SE 73 Ave & North Access Dwy	TWSC	AM	9.1	A	0.05	-	-	-	7.4	A	0.01	-	-	-	-	-
		PM	9.3	A	0.04	-	-	-	7.5	A	0.03	-	-	-	-	-
SE 73 Ave & Middle Access Dwy	TWSC	AM	9.3	A	0.05	-	-	-	7.4	A	0.01	-	-	-	-	-
		PM	9.4	A	0.04	-	-	-	7.5	A	0.03	-	-	-	-	-
SE 73 Ave & South Access Dwy	TWSC	AM	9.8	A	0.10	-	-	-	7.5	A	0.01	-	-	-	-	-
		PM	10.0	B	0.08	-	-	-	7.5	A	0.04	-	-	-	-	-
US 301 & CR 42	Signal	AM	64.5	E	0.96	55.4	E	0.96	34.5	C	0.86	53.9	D	0.92	51.5	D
		PM	79.4	E	0.96	63.3	E	0.98	61.2	E	0.98	68.1	E	0.98	65.3	E
St Mark the Evangelist Dwy & CR 42	TWSC	AM	9.6	A	0.03	0	A	0	-	-	-	35.2	E	0.40	-	-
		PM	12.2	B	0.09	0	A	0	-	-	-	>100	F	0.92	-	-
SE 73 Ave & CR 42	Signal	AM	5.8	A	0.52	11.4	B	0.70	13.1	B	0.01	15.0	B	0.48	8.9	A
		PM	12.6	B	0.87	17.9	B	0.80	26.7	C	0.01	25.6	C	0.70	16.3	B
Buena Vista Blvd/SE 83 Ave & CR 42	Signal	PM	18.0	B	0.73	16.5	B	0.66	36.8	D	0.90	43.4	D	0.86	23.8	C
SE 86 Ct & CR 42	Signal	PM	19.1	B	0.79	18.3	B	0.78	39.1	D	0.82	34.8	C	0.68	21.4	C
SE 89 Ter & CR 42	Signal	PM	14.2	B	0.69	15.0	B	0.76	24.2	C	0.40	23.1	C	0.23	15.6	B
US 441 & CR 42	Signal	PM	77.6	E	0.99	69.7	E	0.86	62.7	E	0.91	55.2	E	0.80	64.7	E

Note: The operational results represent the worst movement v/c ratio.

TURN LANE ANALYSIS

Turn lane analysis was performed to determine if the existing turn lane lengths will have sufficient capacity to accommodate the projected traffic growth in the vicinity of the study area. The analysis was conducted for the intersection's movements where the proposed development is anticipated to add trips, and with an existing turn lane length. Error! Reference source not found. shows the analysis, which indicates that the proposed development has a minimum impact to the existing intersection's turn lane. However, **Table 9** provides the recommended turn lane treatments for deficiency movements.

ACCESS REVIEW

The proposed development will be accessed from CR 42 via an existing full-access driveway currently serving a church and an animal hospital. Additionally, the development will feature four full-access driveways on SE 73rd Avenue, including one emergency access only.

The need for exclusive left and right turn lanes on SE 73rd at the proposed access driveways were evaluated using the methodology of NCHRP 457. Accordingly, neither left nor right-turn lane is warranted at the proposed access driveways. NCHRP 457 warrant summary is included in **Appendix L**.

Table 9 : Turn Lane Analysis

Intersection	Turn Lane	Posted Speed Limit	Existing Lane Length	Required Deceleration	No-Buildout						Buildout						Project Impact	Recommended Turn Lane Treatments
					# of Lane	95th Percentile Queue Vehicle (AM)	95th Percentile Queue Vehicle (PM)	95th Percentile Queue Length	Required Turn Lane Length	Turn Lane Length Deficiency	95th Percentile Queue Vehicle (AM)	95th Percentile Queue Vehicle (PM)	95th Percentile Queue Length	Required Turn Lane Length	Turn Lane Length Deficiency			
US 301 & SE 147 St ¹	SBL ²	50	190'	290'	1	0.7	5.6	150'	440'	250'	0.8	12.1	325'	615'	425'	175'	Extends to 615'	
US 301 & CR 42	NBR	55	665'	350'	1	9.3	22.1	575'	925'	260'	7.2	24.9	625'	975'	310'	50'	Extends to 975'	
	SBL	55	630'	350'	1 ⁴	3.4	11.6	300'	650'	20'	3.7	14.2	375'	725'	95'	75'	Dual turn lane	
	WBL	40	400'	155'	1 ⁴	12.1	17.1	450'	605'	205'	14.3	19.0	475'	630'	230'	25'	Dual turn lane	
	WBR ³	40	N/A	155'	1	3.3	5.0	125'	280'	-	3.0	5.8	150'	305'	-	25'	N/A	
St Mark the Evangelist Dwy & CR 42	EBL	45	230'	185'	1	0	0	25'	210'	0'	0.1	0.3	25'	210'	0'	0'	N/A	
SE 73 Ave & CR 42	EBL	45	235'	185'	1	0.0	2.5	75'	260'	25'	0.3	5.2	150'	310'	75'	50'	Extends to 310'	
	WBR ⁵	45	-	185'	1	0.0	2.3	75'	260'	-	0.2	4.0	100'	285'	-	25'	N/A	
	SBL ⁵	30	-	120'	1	0.2	3.4	100'	220'	-	0.9	4.9	125'	245'	-	25'	N/A	
Buena Vista Blvd/SE 83 Ave & CR 42	EBR	45	910'	185'	1	-	0.0	25'	210'	0'	-	0.0	25'	210'	0'	0'	N/A	
	NBL	30	230'	120'	1	-	6.9	175'	295'	65 ⁶	-	9.3	250'	370'	140 ⁶	75'	N/A	
US 441 & CR 42	EBL	45	320'	185'	1	-	8.1	225'	410'	90'	-	8.3	225'	410'	90'	0'	Dual turn lane	
	EBR ³	45	N/A	185'	1	-	36.1	925'	1,110'	-	-	37.2	950'	1,135'	-	25'	N/A	
	NBL	55	640'	350'	2	-	19.6	500'	850'	210'	-	20.7	525'	875'	235'	25'	Extends to 875'	
	SBR	55	435'	350'	1	-	0.0	0'	375'	0'	-	0.0	0'	375'	-	0'	N/A	

¹Planned for future signalization²Existing TWLT lane can be used as deceleration (restripe lane rather than extend pavement)³Turn lane transitions from through lane⁴Recommended to turn to dual turn lanes due to background trips impact⁵New lane recommended from background trips impact⁶Unable to be extended due to downstream roundabout

Section 4

Signal Warrant Analysis

SIGNAL WARRANT ANALYSIS

A signal warrant analysis (SWA) was conducted at the intersection of CR 42 and SE 73rd Avenue, based on Chapter 4c of the *Manual on Uniform Traffic Control Devices (MUTCD) 11th Edition* and Marion County standards, and incorporating professional engineering judgment.

Guidance from the *MUTCD* indicates that a traffic control signal should not be installed unless one or more of the following nine warrants are met:

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour Vehicular Volume
- Warrant 4 – Pedestrian Volume
- Warrant 5 – School Crossing
- Warrant 6 – Coordinated Signal System
- Warrant 7 – Crash Experience
- Warrant 8 – Roadway Network
- Warrant 9 – Intersection Near a Grade Crossing

The following warrants were not applicable at this study intersection:

- Warrant 3 – Not an unusual case (e.g., office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities) that attracts or discharges large numbers of vehicles over a short time.
- Warrant 4 – From collected traffic counts, there is little to no existing pedestrian demand to cross Rattlesnake Hammock Road at this location.
- Warrant 5 – No school zone exists at the intersection.
- Warrant 6 – Not applicable.
- Warrant 8 – Not located at intersection of two or more major through routes within the roadway network.
- Warrant 9 – Not located within the proximity of a grade crossing.

Therefore, this study analyzed Warrants 1 (Eight-Hour Vehicular Volume), Warrant 2 (Four-Hour Vehicular Volume) and Warrant 7 (Crash Experience) for the study intersection.

FUTURE TRAFFIC DEVELOPMENT

Project buildout is anticipated in 2026. Buildout traffic volume for the study intersection was calculated as the sum projected background traffic existing, trips from committed developments and trips generated by the proposed development.

Existing Traffic Volumes

The raw traffic counts for the intersection, summarized in 15-minute increments, is included in **Appendix M**. Raw counts were not adjusted using a seasonal factor, as the value obtained from the FDOT FTI Marion countywide 2023 Peak Season Factor Category Report (0.95) is less than 1.00. **Table 10** summarizes the adjusted hourly counts at the intersection.

Table 10 : Existing 12-Hour Traffic Volumes

Start Time	CR 42							Private Dwy				SE 73 rd Avenue			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	6	253	0	0	369	4	632	1	0	0	1	6	0	6	12
7:00 AM	15	662	1	0	520	12	1,210	0	0	0	0	23	0	26	49
8:00 AM	14	742	0	0	589	14	1,359	0	0	2	2	18	0	36	54
9:00 AM	7	463	0	0	484	9	963	0	0	0	0	10	0	16	26
10:00 AM	7	460	0	0	428	13	908	1	0	0	1	8	0	13	21
11:00 AM	11	447	0	0	460	14	932	0	0	0	0	6	0	10	16
12:00 PM	10	457	0	0	450	13	930	0	0	0	0	8	0	15	23
1:00 PM	14	489	0	0	388	17	908	0	0	0	0	7	0	13	20
2:00 PM	12	538	0	0	460	16	1,026	0	0	0	0	10	0	14	24
3:00 PM	11	545	1	0	509	15	1,081	0	0	0	0	4	0	7	11
4:00 PM	25	805	0	2	730	26	1,588	1	0	0	1	10	0	11	21
5:00 PM	31	764	0	0	680	8	1,483	0	0	0	0	5	0	16	21
Total	163	6,625	2	2	6,067	161	13,020	3	0	2	5	115	0	183	298

Background Traffic Volumes

Background traffic volumes were determined as the sum of existing (2024) traffic volume, background growth to 2028 (using the 2.65% annual growth rate), and trips from committed developments, detailed in **Appendix I**. These developments' spatial trip distributions were multiplied by ITE hourly trip distributions to estimate 24-hour trip distributions at the study intersection. Hourly trip distributions for each land use provided by ITE's Trip Generation Manual are included in **Appendix N**.

Table 11 summarizes the background growth at the intersection, and **Table 12** summarizes the total committed traffic at the intersection. Supporting calculations are included in **Appendix O**.

Table 11 : 12-Hour Background Growth Volumes

Start Time	CR 42							Private Dwy				SE 73 rd Avenue			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	6	273	0	0	398	4	681	1	0	0	1	6	0	6	12
7:00 AM	16	715	1	0	561	13	1,306	0	0	0	0	25	0	28	53
8:00 AM	15	801	0	0	636	15	1,467	0	0	2	2	19	0	39	58
9:00 AM	8	500	0	0	522	10	1,040	0	0	0	0	11	0	17	28
10:00 AM	8	497	0	0	462	14	981	1	0	0	1	9	0	14	23
11:00 AM	12	483	0	0	497	15	1,007	0	0	0	0	6	0	11	17
12:00 PM	11	493	0	0	486	14	1,004	0	0	0	0	9	0	16	25
1:00 PM	15	528	0	0	419	18	980	0	0	0	0	8	0	14	22
2:00 PM	13	581	0	0	497	17	1,108	0	0	0	0	11	0	15	26
3:00 PM	12	588	1	0	549	16	1,166	0	0	0	0	4	0	8	12
4:00 PM	27	869	0	2	788	28	1,714	1	0	0	1	11	0	12	23
5:00 PM	33	825	0	0	734	9	1,601	0	0	0	0	5	0	17	22
Total	176	7,153	2	2	6,549	173	14,055	3	0	2	5	124	0	197	323

Table 12 : 12-Hour Committed Development Traffic Volumes

Start Time	CR 42					SE 73 rd Avenue		
	EBL	EBT	WBT	WBR	Total	SBL	SBR	Total
6:00 AM	40	20	84	30	174	130	119	249
7:00 AM	75	39	142	56	312	217	199	416
8:00 AM	102	57	125	76	360	184	168	352
9:00 AM	107	59	91	77	334	128	118	246
10:00 AM	128	75	101	93	397	135	123	258
11:00 AM	167	95	112	122	496	139	127	266
12:00 PM	186	106	121	135	548	150	137	287
1:00 PM	181	102	124	133	540	157	143	300
2:00 PM	206	111	127	150	594	161	147	308
3:00 PM	242	124	127	177	670	164	150	314
4:00 PM	301	153	143	220	817	183	167	350
5:00 PM	306	153	156	223	838	198	180	378
Total	2,041	1,094	1,453	1,492	6,080	1,946	1,778	3,724

Project Trips

Similarly, the 12-hour trip distribution at the study intersection was estimated by multiplying the project's spatial trip distribution (previously shown in **Figure 5**) by ITE's hourly trip distributions for the proposed land use, included in **Appendix N**.

Table 13 summarizes the calculated 12-hour project trips at the study intersection, derived from the estimated trip distribution and the daily trips generated by the development. Supporting calculations are provided in **Appendix O**.

Table 13 : 12-Hour Project Trips

Start Time	CR 42					SE 73 rd Avenue		
	EBL	EBT	WBT	WBR	Total	SBL	SBR	Total
6:00 AM	7	16	4	8	35	31	26	57
7:00 AM	14	27	8	16	65	53	44	97
8:00 AM	17	23	10	20	70	45	38	83
9:00 AM	15	16	9	18	58	30	26	56
10:00 AM	19	15	12	22	68	29	25	54
11:00 AM	24	14	15	29	82	27	23	50
12:00 PM	26	16	16	30	88	30	25	55
1:00 PM	27	17	17	32	93	32	27	59
2:00 PM	32	17	20	38	107	32	27	59
3:00 PM	39	17	24	46	126	33	28	61
4:00 PM	47	20	29	56	152	39	33	72
5:00 PM	45	20	28	53	146	39	33	72
Total	312	218	192	368	1,090	420	355	775

Total Future Buildout Volumes

The total future buildout volumes at the intersection were calculated by summing together the background growth, committed development project trips, and project trips from **Table 11**, **Table 12** and **Table 13**, respectively. The 12-hour total buildout traffic volumes are summarized in **Table 14**.

Table 14 : Total Buildout (2028) Traffic Volumes

Start Time	CR 42										SE 73 rd Avenue			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	SBL	SBT	SBR	Total
6:00 AM	62	300	0	0	486	42	890	1	0	0	167	0	151	318
7:00 AM	118	768	1	0	711	85	1683	0	0	0	295	0	271	566
8:00 AM	140	875	0	0	771	111	1897	0	0	2	248	0	245	493
9:00 AM	131	574	0	0	622	105	1432	0	0	0	169	0	161	330
10:00 AM	151	591	0	0	575	129	1446	1	0	0	173	0	162	335
11:00 AM	193	602	0	0	624	166	1,585	0	0	0	172	0	161	333
12:00 PM	213	625	0	0	623	179	1640	0	0	0	189	0	178	367
1:00 PM	213	657	0	0	560	183	1613	0	0	0	197	0	184	381
2:00 PM	236	724	0	0	644	205	1,809	0	0	0	204	0	189	393
3:00 PM	271	751	1	0	700	239	1,962	0	0	0	201	0	186	387
4:00 PM	348	1069	0	2	960	304	2,683	1	0	0	233	0	212	445
5:00 PM	359	1023	0	0	918	285	2,585	0	0	0	242	0	230	472
Total	2,435	8,559	183	2	6,067	161	21,225	3	0	2	2,490	0	2,330	4,820

WARRANT 1 – EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 requires that a certain level of traffic be maintained on the major and minor street for each of any eight hours of an average day. The major street and minor street volumes shall be the same eight hours for each condition. According to the *MUTCD*, only one of the following two conditions (i.e., A or B) is required to satisfy Warrant 1:

- Condition A (Minimum Vehicular Volume) is intended for application where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.
- Condition B (Interruption of Continuous Traffic) is intended for application where the traffic volume on the major street is so heavy that traffic on the minor street suffers excessive delay or conflict to merge with the major stream.

CR 42 at the study intersection has a posted speed limit of 45 mph. Therefore, signal warrants were performed using the 70% Volume Level Criteria, as summarized in **Table 15**. The Warrant 1 analysis for the buildout conditions is summarized in **Table 16**, which reveals the buildout traffic volumes at the intersection meet the thresholds of Warrant 1, Condition A & B. Therefore, **Warrant 1 is satisfied** based on projected volumes.

Table 15 : Warrant 1 – Eight-Hour Vehicular Volume Thresholds

Number of lanes for moving traffic on each approach		Vehicles/hour on major street (total of both approaches)	Vehicles/hour on higher-volume minor-street approach (one direction only)
Major Street	Minor Street		
Condition A – Minimum Vehicular Volume			
2+ Lanes	1 Lanes	420	105
Condition B – Interruption of Continuous Traffic			
2+ Lanes	1 Lanes	630	53

Table 16 : Warrant 1 Summary Result

Begin Time	CR 42	SE 73 rd Ave	Warrant 1	
	Major Approach	Minor Approach	Condition A	Condition B
6:00 AM	890	318	X	X
7:00 AM	1,683	566	X	X
8:00 AM	1,897	493	X	X
9:00 AM	1,432	330	X	X
10:00 AM	1,446	335	X	X
11:00 AM	1,585	333	X	X
12:00 PM	1,640	367	X	X
1:00 PM	1,613	381	X	X
2:00 PM	1,809	393	X	X
3:00 PM	1,962	387	X	X
4:00 PM	2,683	445	X	X
5:00 PM	2,585	472	X	X
Hours Required			8	8
Hours Satisfied			12	12
Volume Threshold Satisfied			Y	Y
Warrant Results			Satisfied	

WARRANT 2 – FOUR-HOUR VEHICULAR VOLUME

Warrant 2 is intended to be applied where the volume of intersecting traffic is the principal reason to consider installation of a traffic signal. Warrant 2 requires that a certain level of traffic be maintained on the major and minor street for each of any four hours of an average day. The analysis of buildout traffic volumes against the Warrant 2 thresholds is depicted in **Figure 8**, which reveals the buildout intersection volumes meet the threshold of Warrant 2. Therefore, **Warrant 2 is met** based on projected volumes.

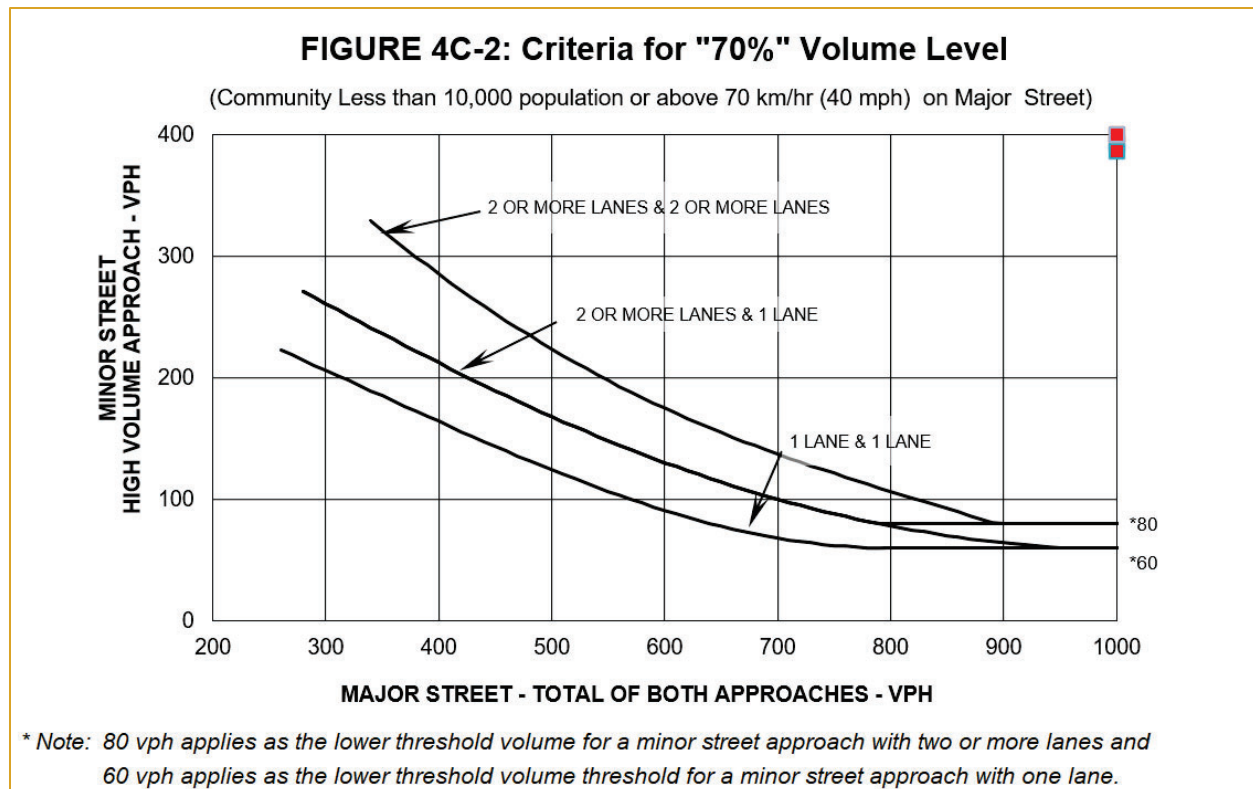


Figure 8 : Warrant 2 Analysis

WARRANT 7 – CRASH EXPERIENCE

Warrant 7 analyzes the frequency of certain crash types within the study intersection. Crash reports for the intersection since 2020 were pulled from Signal Four Analytics. From 2020 to 2024, the last five years with full crash data, there have been six crashes. Data for 2025 is still partial, but 2025 contained one crash. As a result, the total number of crashes since 2020 is seven, as shown in **Table 17**.

Table 17 : Crash History for SE 73 Avenue & CR 42

Year	Crashes	Crash Type				
		Rear End	Angle	Left Turn	Off Road	Sideswipe
2020	0	0	0	0	0	0
2021	2	0	0	1	1	0
2022	1	1	0	0	0	0
2023	2	0	1	0	0	1
2024	1	1	0	0	0	0
Total (only full 5 years)	6	2	1	1	1	1
2025	1	1	0	0	0	0
Total (including partial data years)	7	3	1	1	1	1

The maximum number of crashes in a one-year period over the last five full years of data is three (between November 18, 2022, and October 26, 2023). Thus, since at least five crashes correctible through signalization did not occur at the intersection in one year, **Warrant 7 is not met**. The crash summary of reports pulled from Signal Four are found in **Appendix P**.

SENSITIVITY ANALYSIS

The traffic study for the Utopia PUD found that a traffic signal would be warranted once 24% of the overall development is built. A sensitivity analysis was conducted to determine whether the addition of the Enclave Housing CR 42 development would accelerate the need for the signal. The analysis also included background traffic and trips from Heritage Oaks.

This analysis has revealed the following:

- Signal is projected to be warranted with 80% of the Heritage Oaks without Utopia PUD and Enclave Housing CR 42 development.
- Signal is projected to be warranted with 50% of the Heritage Oaks and 20% of Utopia PUD without Enclave Housing CR 42 development.
- Signal is projected to be warranted with 20% of the Heritage Oaks, 20% of Utopia PUD and 20% of Enclave Housing CR 42 development.
- Signal is projected to be warranted with 0% of the Heritage Oaks, 0% of Utopia PUD and 55% of Enclave Housing CR 42 development.

A summary of the sensitivity analysis is included in **Appendix Q**.

Section 5

Conclusions

CONCLUSIONS

This traffic analysis has been prepared to evaluate the traffic impacts associated with the proposed Enclave Housing CR 42, in Marion County, Florida. The development is planned to include up to 475 single-family residential units. The following is a summary of the study findings:

Proposed Development

- The proposed development is expected to generate 4,231 external daily trips, of which 308 occur in the AM peak hour and 430 occur in the PM peak hour.

Existing Conditions

- US 301 (from CR 42 to SE 147 Street): This segment is projected to continue operating over capacity due to existing traffic volumes.
- US 441 (from the county line to CR 42, and from SE 147 Place to SE 92 Place Loop): These segments are projected to exceed capacity under the future No Build condition (without the proposed project). The proposed project is expected to impact this corridor by less than 6%.
- Remaining Segments: All other study segments are projected to continue operating within their existing capacities, based on adopted Level of Service (LOS) standards.

Future Conditions

- Roadway segments:
 - The segment of US 301 from CR 42 to SE 147 Street is projected to continue to operate above capacity due to the existing traffic volume.
 - The segments of US 441 from county line to CR 42, and from SE 147 Place to SE 92 Place Loop are projected to exceed capacity in the future No Build condition (without the proposed project). The project's expected impact to this roadway segment is less than 6%.
 - The remaining study segments are projected to continue to operate within their existing roadway capacities based on the adopted LOS.
- Study intersections:

The following mitigation measures are recommended for intersections identified as deficient under existing conditions:

- US 301 & SE 147 Street: This intersection is already planned for signalization. Imagery suggests that a traffic light has been implemented on US 301 approach only. Full signal implementation is recommended, along with the construction of an exclusive northbound right-turn lane.
- US 301 & CR 42: The following mitigations were documented Summerfield PUD TIA report considered sufficient to accommodate the projected traffic volume
 - Add an exclusive eastbound right-turn lane.
 - Add dual westbound and southbound right-turn lanes.
 - Adjust signal timings.

- US 441 & CR 42: Mitigation measures documented in the Summerfield PUD TIA report are deemed adequate for projected traffic volumes:
 - Add dual eastbound and westbound left-turn lanes.
 - Adjust signal timings.
- CR 42 & SE 73rd Avenue: Based on the Utopia & Heritage Oaks TIA report, the following improvements are sufficient to meet future demand:
 - Provide an exclusive westbound right turn lane and southbound left turn lane
 - Upgrade intersection with traffic signal control.

All deficient intersections are projected to operate adequately, with volume-to-capacity (v/c) ratios below 1.0 and a LOS of E or better under both the No-Build and Buildout scenarios.

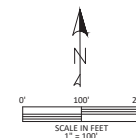
Site Access

- The proposed development will be accessed from CR 42 via an existing full-access driveway, which currently serves a church and an animal hospital. In addition, four full-access driveways will be provided along SE 73rd Avenue, including one designated for emergency access only.
- A turn lane analysis, conducted using the NCHRP 457 methodology, indicates that exclusive turn lanes are not warranted at the project driveways on SE 73rd Avenue.

Signal Warrant Analysis:

- Intersection volumes at the intersection of CR 42 and SE 73rd Avenue were evaluated and found to meet both Warrant 1 (8-hour vehicular volume) and Warrant 2 (4-hour vehicular volume) based on projected buildout volumes.

Appendix A: Preliminary Site Plan



SHT. 03

SITE DATA TABLE

OWNER/DEVELOPER:
 STRATEGIC DEVELOPMENT, LLC.
 JAKE BEREN
 880 AIRPORT ROAD, SUITE 113
 ORMOND BEACH, FL 32174
 PH: (732) 552-5154

PARCEL: 47667-000-00

PROJECT AREA:

TOTAL = 55.00 ± AC.

LAND USE & ZONING:

EXISTING FUTURE LAND USE: RURAL LAND

EXISTING ZONING: A-1

PROPOSED ZONING: PUD

MINIMUM BUILDING LOTLINE SETBACKS:

FRONT - 20'

REAR - 15' (5') ACCESSORY

SIDE - 5' (5') ACCESSORY

MAX BUILDING HEIGHT:

40'

PROPOSED LOTS:

 (A) 50' X 115' MIN. LOTS 114 UNITS

 (B) 60' X 115' MIN. LOTS 51 UNITS

TOTAL 165 UNITS

 PROPOSED BUFFERS:

AS SHOWN ON CONCEPT PLAN

REQUIRED:

OPEN SPACE 11.00 ± AC. (20% of 55.00 Ac.)

IMPROVED OPEN SPACE: 0.55 ± AC. (5% of 11.00 Ac.)

PROVIDED:

OPEN SPACE: 8.63 ± AC.

IMPROVED OPEN SPACE: 2.97 ± AC.

DRA: 2.10 ± AC. (25% of 8.41 Ac.)

BUFFERS: 1.38 ± AC.

TOTAL AS SHOWN: 15.08 ± AC. (27% of 55.00 Ac.)

DRA: 8.41 ± AC. (15% OF 55.00 Ac.)

DENSITY:

TOTAL ALLOWABLE = 220 UNITS

TOTAL SHOWN = 165 UNITS

TOTAL DENSITY NOT TO EXCEED 175 UNITS

Tillman & Associates
 ENGINEERING, LLC.

CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
 1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
 Office: (352) 387-4540 Fax: (352) 387-4545

STRATEGIC DEVELOPMENT, COVENTRY SQUARE
 MARION COUNTY, FLORIDA

SITE DATA

DATE 3/18/25

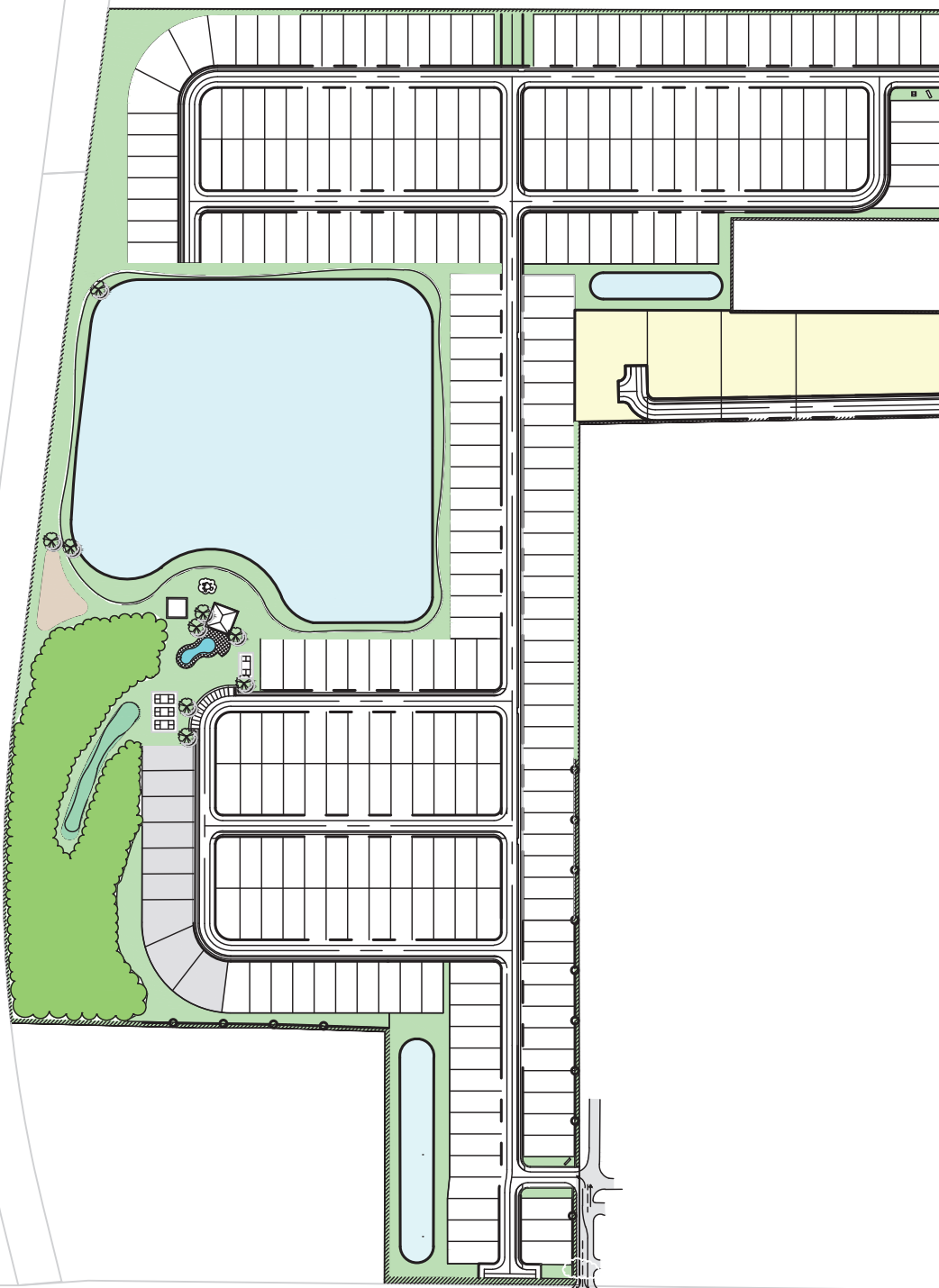
DRAWN BY

CHKD. BY JH

JOB NO. 24-9157

SCALE

SHT 04-A



OPEN SPACE CALCULATIONS

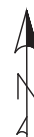
REQUIRED:

1. OPEN SPACE: (20% OF PROJECT AREA) $0.20 \times 90.69 = 18.14 \pm \text{AC}$.
2. IMPROVED OPEN SPACE (AMENITY): (5% OF OPEN SPACE) $0.05 \times 18.14 = 0.91 \pm \text{AC}$.

PROVIDED:

TOTAL PROVIDED OPEN SPACE: $22.46 \pm \text{AC}$.

- | | |
|---|---|
| <div style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></div> <div style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></div> <div style="display: inline-block; width: 15px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></div> | <ol style="list-style-type: none"> 1. OPEN SPACE: $13.37 \pm \text{AC}$. 2. IMPROVED OPEN SPACE: $3.62 \pm \text{AC}$. 3. DRA: $3.67 \pm \text{AC}$. (25% of 14.68 Ac.) 4. BUFFERS: $1.80 \pm \text{AC}$. |
|---|---|



Tillman & Associates
ENGINEERING, LLC.

CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

STRATEGIC DEVELOPMENT, PICCADILLY SQUARE
MARION COUNTY, FLORIDA

OPEN SPACE MAP AND CALCULATIONS

DATE 3/18/25
DRAWN BY SM
CHKD. BY JH
JOB NO. 24-9157
SCALE 1"=400'
SHT. 11

SITE DATA TABLE

OWNER/DEVELOPER:
STRATEGIC DEVELOPMENT, LLC.
JAKE BEREN
880 AIRPORT ROAD, SUITE 113
ORMOND BEACH, FL 32174
PH: (732) 552-5154

PARCELS:
47667-004-00, 47667-005-02
PORTIONS OF PARCELS:
47667-006-00, 47667-003-01

PROJECT AREA:
TOTAL = 90.69 ± AC.

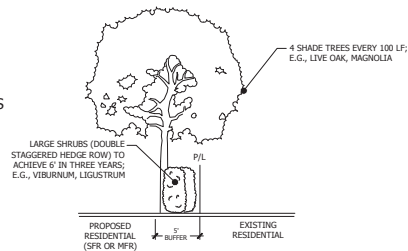
LAND USE & ZONING:
EXISTING FUTURE LAND USE: RURAL LAND
PROPOSED LAND USE: MEDIUM RESIDENTIAL
EXISTING ZONING: A-1
PROPOSED ZONING: PUD

REQUIRED:
OPEN SPACE 18.14 ± AC. (20% of 90.69 Ac.)
IMPROVED OPEN SPACE: 0.91 ± AC. (5% of 18.14 Ac.)

PROVIDED:
OPEN SPACE: 16.12 ± AC.
IMPROVED OPEN SPACE: 0.87 ± AC.
DRA: 3.67 ± AC. (25% of 14.68 Ac.)
BUFFERS: 1.80 ± AC.
TOTAL AS SHOWN: 22.46 ± AC. (25% of 90.69 Ac.)

DRA: 14.68 ± AC. (16% OF 90.69 Ac.)

DENSITY:
TOTAL ALLOWABLE = 362 UNITS
TOTAL SHOWN = 291 UNITS
TOTAL DENSITY NOT TO EXCEED 300 UNITS



TYPE 'E' BUFFER
NOT TO SCALE

TYPE 'E' BUFFER
BUFFER SHALL CONSIST OF A FIVE-FOOT WIDE LANDSCAPE STRIP. THE BUFFER SHALL CONTAIN SHRUBS TO BE PLANTED IN A DOUBLE-STAGGERED ROW AND BE CAPABLE OF REACHING A MAINTAINED HEIGHT OF SIX FEET WITHIN THREE YEARS. GROUNDCOVERS AND/OR TURFGRASS SHALL NOT BE USED IN THIS BUFFER.

MINIMUM BUILDING LOT
LINE SETBACKS:
FRONT - 20'
REAR - 15' (5') ACCESSORY
SIDE - 5' (5') ACCESSORY/
15' FOR CORNER LOT
TRACTS (A-D) A-1 SETBACKS

MAX BUILDING HEIGHT:
40'

PROPOSED LOTS:
(A) 50' X 115' MIN. LOTS 278 UNITS
(B) 60' X 115' MIN. LOTS 9 UNITS
(A-D) MIN. 1 ACRE 4 UNITS
TOTAL 291 UNITS

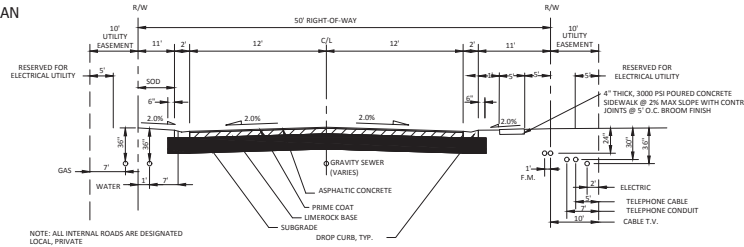
PROPOSED BUFFERS:
AS SHOWN ON CONCEPT PLAN

GENERAL NOTES

- THE PROJECT MAY BE DEVELOPED IN MULTIPLE PHASES, AT THE DISCRETION OF THE DEVELOPER. THE DEVELOPER SHALL NOTIFY THE COUNTY OF PROPOSED PHASING CHANGES AT THE TIME OF SITE PLAN SUBMITTAL(S). EACH PHASE MAY INCLUDE TEMPORARY SUPPORT TRAILERS (INCLUDING BUT NOT LIMITED TO SALES, CONSTRUCTION, DEVELOPMENT AND REAL ESTATE OFFICES) WHICH WILL BE REMOVED UPON COMPLETION OF WORK IN EACH APPLICABLE PHASE. INFRASTRUCTURE NECESSARY TO SUPPORT EACH PHASE OF THE PROJECT SHALL BE CONSTRUCTED CONCURRENTLY WITH THAT PHASE AS A CONDITION OF PLATTING AND/OR SITE PLAN APPROVAL.
- ALL BUFFERS SHALL ADHERE TO THE MARION COUNTY LDC STANDARDS FOR ADJOINING UNITS ON THE EXTERIOR OF THE P.U.D. BOUNDARIES EXCEPT AS OTHERWISE DEFINED WITHIN THE SUBMITTED DOCUMENTS. NO INTERNAL BUFFER SHALL BE REQUIRED AND LEFT UP TO THE DISCRETION OF THE DEVELOPER.
- THE PROJECT SHALL CONNECT TO MARION COUNTY UTILITIES FOR WATER AND SEWER.
- APPLICANT RESERVES THE ABILITY TO REARRANGE OR MODIFY LOCATION OF HOUSING UNIT TYPES PRIOR TO APPROVAL OF FINAL MASTER PLAN. PROVISIONS FOR ADEQUATE BUFFERS WILL BE PROVIDED.
- THIS PROJECT WILL BE PLATTED AS FEE-SIMPLE LOTS.

Notes:

- PRIVATE ROAD STATUS WITH 50' RIGHT-OF-WAY WIDTH TOGETHER WITH 10.00' UTILITY EASEMENT.
- ALL LOTS IN THIS SUBDIVISION WILL BE SERVED BY CENTRAL WATER AND SEWER.
- ALL LOTS/TRACTS IN THIS SUBDIVISION SHALL USE THE INTERNAL SUBDIVISION ROADWAYS FOR DRIVEWAY/VEHICLE ACCESS, EXCEPT TRACTS A-D.
- ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE MARION COUNTY LAND DEVELOPMENT CODE.
- HOME OWNERS ASSOCIATION IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF BOTH NEW AND REPLACEMENT QUADRANT STREET SIGNS.
- WATER/SEWER UTILITIES PROVIDED BY MARION COUNTY UTILITIES DEPARTMENT.
- H.O.A. IS RESPONSIBLE FOR THE STORM WATER MAINTENANCE.
- ACCESSORY STRUCTURES (SCREEN ENCLOSURES, ETC.) SHALL CONFORM TO THE BUILDING SETBACKS AS DETAILED.
- ADDITIONAL PERMITS WILL BE REQUIRED FOR SIGNAGE, WHICH MAYBE LOCATED IN BUFFER EASEMENT.
- TRACTS A-D LIMITED TO USES ALLOWED IN A-1 ZONING, INCLUDING DEVELOPMENT STANDARDS.



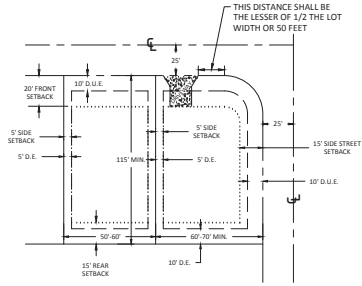
50' PRIVATE LOCAL RIGHT-OF-WAY
ROADWAY SECTION
N.T.S.

DEVELOPMENT NOTES

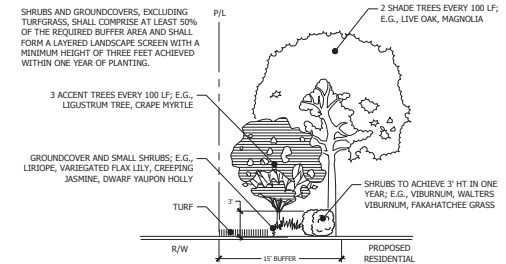
- ROADS, DETENTION AREAS AND COMMON AREAS WILL BE CONSTRUCTED BY THE DEVELOPER AND WILL BE EVENTUALLY MAINTAINED BY DECLARANT POA.

ARCHITECTURAL STYLE

NOTES: FAÇADE COLORS SHALL BE LOW REFLECTANCE, SUBTLE, OR NEUTRAL TONE COLORS. BUILDING TRIM AND ACCENT AREAS MAY FEATURE BRIGHTER COLORS, INCLUDING PRIMARY COLORS.



TYPICAL LOT DETAILS
N.T.S.



TYPE 'C' BUFFER (ALONG PUBLIC ROAD)
NOT TO SCALE

TYPE 'C' BUFFER
SHRUBS AND GROUNDCOVERS, EXCLUDING TURFGRASS, SHALL COMPRISE AT LEAST 50% OF THE REQUIRED BUFFER AREA AND SHALL FORM A LAYERED LANDSCAPE SCREEN WITH A MINIMUM HEIGHT OF THREE FEET ACHIEVED WITHIN ONE YEAR OF PLANTING.

MODIFIED TYPE 'E' BUFFER
NOT TO SCALE

MODIFIED TYPE 'E' BUFFER
BUFFER SHALL CONSIST OF A TEN-FOOT WIDE LANDSCAPE STRIP WITH A 6' PRIVACY FENCE. THE BUFFER SHALL CONTAIN SHRUBS TO BE PLANTED IN A DOUBLE-STAGGERED ROW AND BE CAPABLE OF REACHING A MAINTAINED HEIGHT OF SIX FEET WITHIN THREE YEARS. GROUNDCOVERS AND/OR TURFGRASS SHALL NOT BE USED IN THIS BUFFER.

* PRIVACY FENCE TO BE INSTALLED AFTER 30% OF BUILDINGS ARE FINALIZED.

Timber & Associates
— ENGINEERING, LLC —
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave, Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

STRATEGIC DEVELOPMENT
PICCADILLY SQUARE
MARION COUNTY, FLORIDA

DATE 3/19/25
DRAWN BY SM
CHKD BY JH
JOB NO. 24-9157

SHT. 02

Appendix B: TIA Methodology

225 East Robinson Street, Suite 355
Orlando, FL 32801
P 407.540.0555

TECHNICAL MEMORANDUM

Date:	April 28, 2025	Project #: 31313
To:	Development Review Marion County Board of County Commissioners 412 SE 25 th Avenue Ocala, FL 34471	
From:	Emmanuel Masindoki, P.E. 225 E Robinson Street, Suite 355 Orlando, FL 32801	
CC:	Kok Wan Mah, P.E.	
Project:	Enclave Housing CR 42	
Subject:	Proposed Methodology for Enclave Housing CR 42	

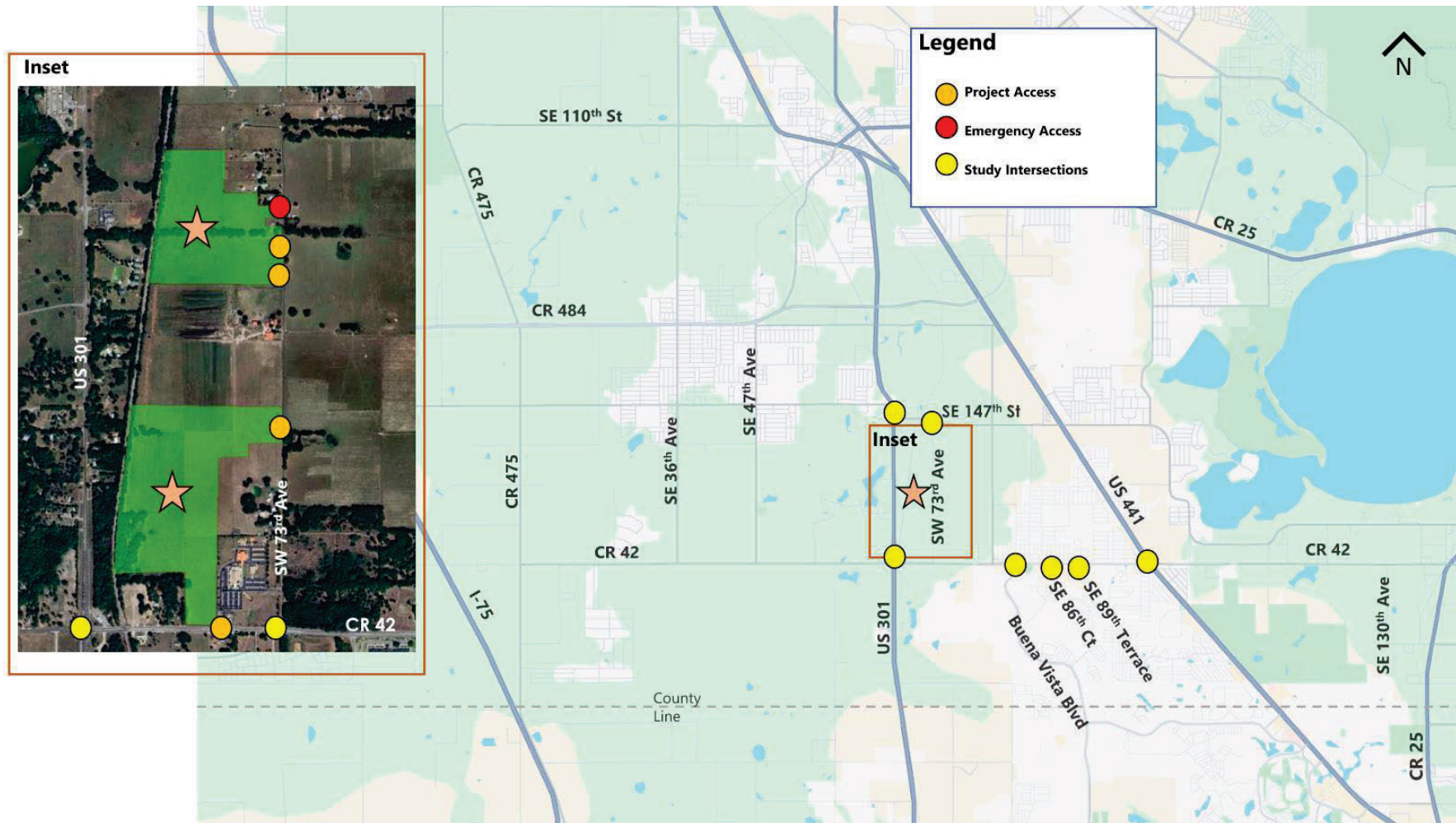
Introduction

This technical memorandum provides a recommended Transportation Impact Study (TIS) methodology for the proposed Enclave Housing CR 42, in Marion County, Florida. The ±140.7 project site is located on the north side of CR 42, east of US 30 and consists of parcels 47667-004-00, 47667-005-02, 47667-006-00, and portions of 47667-003-01 and 47667-006-00. The project location is shown in **Figure 1**.

The development is planned to include up to 475 single-family residential units. Based upon the generated project trips, a Transportation Impact Study (TIS) will be conducted per the Marion County TRAFFIC IMPACT ANALYSIS GUIDELINES.

The development is planned to be constructed in a single phase, with an anticipated buildout year of 2028. It will be accessed from CR 42 via an existing full-access driveway currently serving a church and an animal hospital. Additionally, the development will feature four full-access driveways on SE 73rd Avenue, including one emergency access only. The preliminary site plan included in **Attachments**.

Figure 1. Project Location



TRIP GENERATION

The trip generation analysis was conducted using information published by the Institute of Transportation Engineers (ITE) *Trip Generation (11th Edition)*. **Table 1** summarizes the resulting trip generation analysis. The ITE trip generation information sheets are included in the **Attachments**.

Table 1: Trip Generation

Land Use Type	ITE Code	Intensity	Daily	AM Peak-Hour Trips Ends			PM Peak-Hour Trips Ends		
				In	Out	Total	In	Out	Total
Single Family Residential	210	475 DU	4,231	77	231	308	270	160	430
Net New External Trips Ends (Existing Development)			4,026	77	231	308	270	160	430

The proposed development is projected to generate 4,231 new net external daily trips of which 308 trips occur during the AM peak hour and 430 trips occur during the PM peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT.

The project trip distribution and assignment were estimated based on a select zone analysis using the Central Florida Regional Planning Model, Version 7. Raw model output (included in **Attachments**) was slightly adjusted to capture the anticipated travelling pattern in vicinity of the project site on US 301 and SE 73rd Avenue. The raw model assigned 42% on SE 73rd Avenue and 0% on a parallel corridor (US 301). The proposed adjustments result in 26% on SE 73rd Avenue and 16% on US 301. The proposed distribution for the future year is included in **Figure 2** and **Figure 3**.

Figure 2. Project Trip Distribution

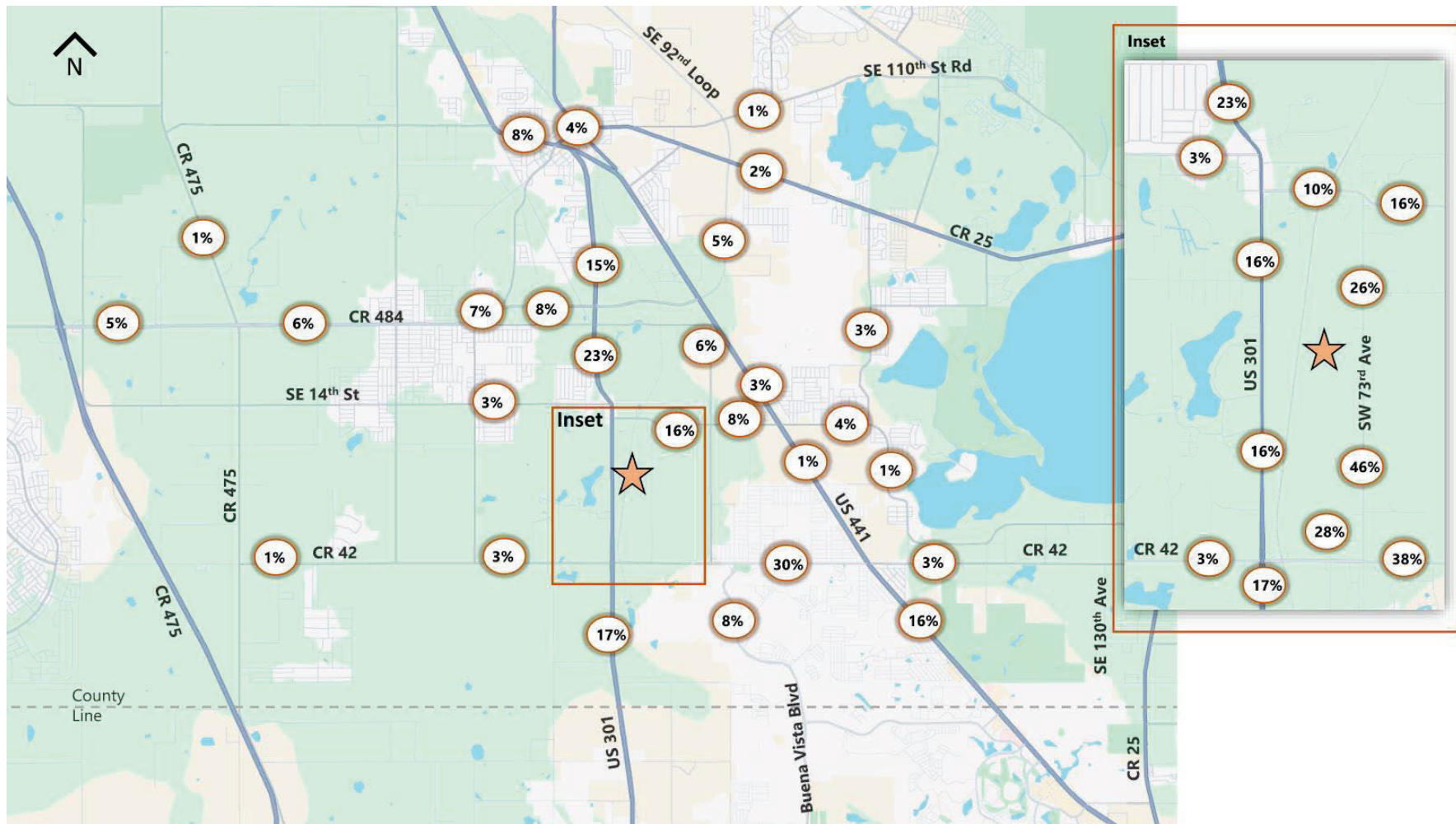
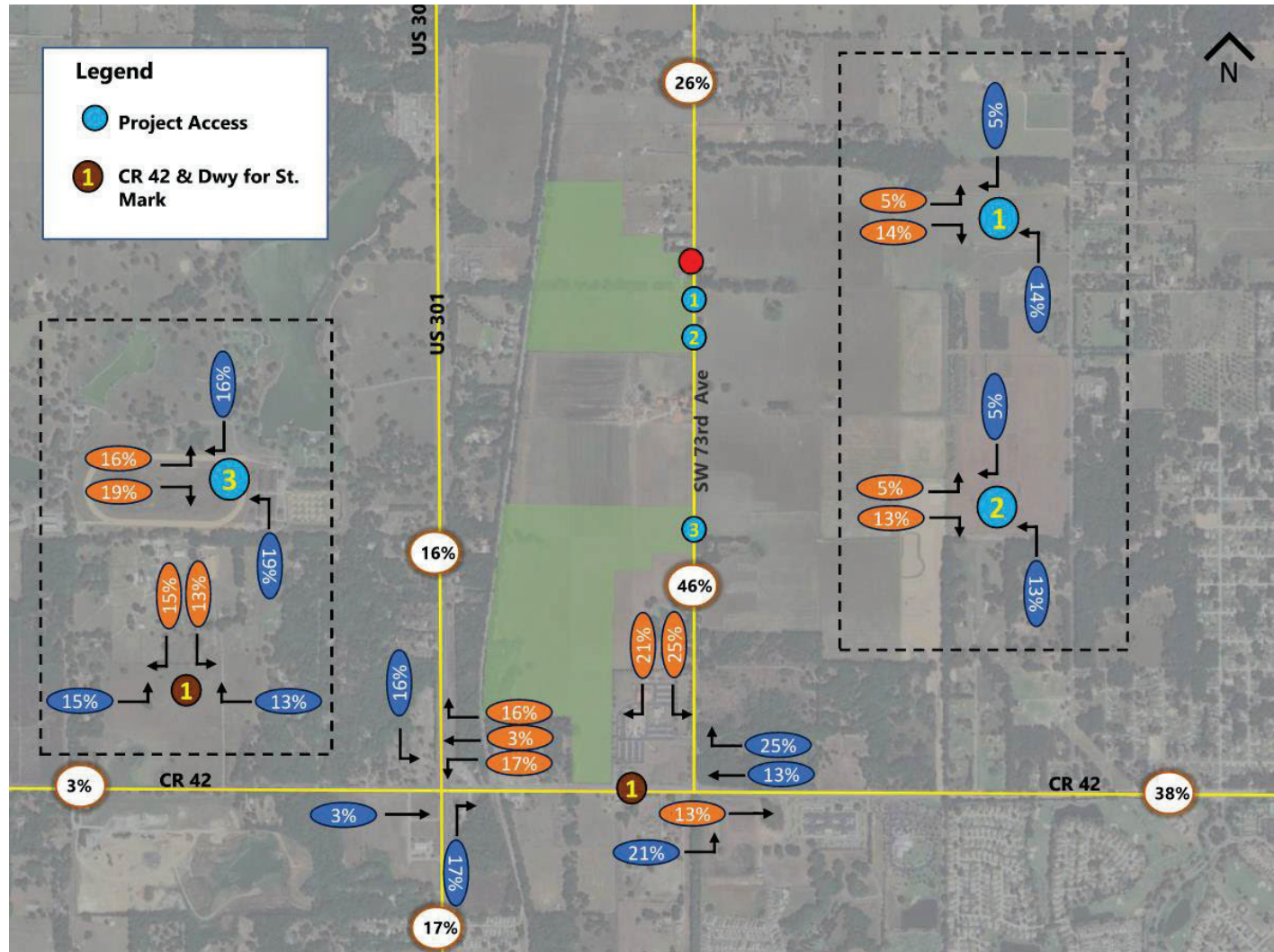


Figure 3. Project Trip Distribution at Project Driveways



STUDY AREA DETERMINATION

Per MARION COUNTY TRAFFIC IMPACT ANALYSIS GUIDELINES, a study area for a Traffic Study level of analysis includes any public roadway where the net new project's traffic consumes at least three percent of the maximum service volume based on the adopted level of service. **Table 2** presents the project's significance review, which indicates that seven of the reviewed segments are projected to have project trips that consume at least three percent of their maximum service volume. Roadway segment maximum service volumes and the existing traffic counts were obtained from the Ocala Marion Congestion Management Process (CMP), dated August 2023, included in the **Attachments**. Project trips were calculated using trips generated by the proposed development and trip distribution presented in previous sections. Based on the expected trip generation, distribution, assignment, and significance review, it is recommended that the following roadway segments and intersections to be evaluated in the TIA.

Study Roadways:

- CR 42
 - US 301 to SE 77 Ave
 - SE 77 Ave to US 441
- SE 147 Place
 - US 301 to US 441
- US 301
 - SE 147 Place to US 441
 - County Line to CR 42
 - CR 42 to SE 147 Place
- SE 73rd Avenue
 - CR 42 to SE 147 Place
- US 441
 - County Line to CR 42
 - SE 147 Place to SE 92 Place Loop

Study Intersections:

- CR 42 & US 301 (signalized)
- CR 42 & SW 73rd Avenue (unsignalized)
- CR 42 & US 441 (signalized)
- US 301 & SE 147th Street (signalized)
- SE 147th Street & SW 73rd Avenue (signalized)
- CR 42 & right-in/right-out access (unsignalized)
- SW 73rd Avenue & access driveways (unsignalized)
- CR 42 at Driveway for Saint Mark The Evangelist/Mulberry Grove Animal Hospital (unsignalized)
- CR 42 at Buena Vista Blvd/SE 83rd Ave (signalized)
- CR 42 at SE 86th Belle Meade Cir/SE 86th Ct (signalized)
- CR 42 at SE 89th Sweetwater Ter/SE 89th Ter (signalized)

Table 2: Project Trip Significance Review

Segment ID	Road Name	Roadway Segment		Roadway Attributes ¹				PM Peak Project Trips ²		Significant Test ³		
		From	To	No. Lns	Functional Class.	LOS Std	PK - Dir Cap	Assign %	Dir Trips	Max % Impact	Sign?	In Study?
1550.1	CR 42	CR 475	US 301	2	COLLECTOR	D	999	3%	8	0.80%	NO	NO
1560	CR 42	US 301	SE 77 AV	4	ARTERIAL	E	1,800	38%	103	5.72%	YES	YES
1570	CR 42	SE 77 AV	US 441	4	ARTERIAL	E	1,800	38%	103	5.72%	YES	YES
1610.1	CR 42	US 441	SE 130 AVE	2	COLLECTOR	E	1,449	3%	8	0.55%	NO	NO
1610.2	CR 42	SE 130 AVE	CR 25	2	COLLECTOR	E	1,449	2%	5	0.35%	NO	NO
3880	SE 147 PL	US 301	US 441	2	MAJOR LOCAL	E	576	16%	43	7.47%	YES	YES
6530.1	US 301	COUNTY LINE (S)	CR 42	4	ARTERIAL	D	2,910	17%	46	1.58%	NO	YES
6540	US 301	CR 42	SE 147 ST	2	ARTERIAL	D	730	16%	43	5.89%	YES	YES
6550.1	US 301	SE 147 ST	US 441	4	ARTERIAL	D	987	23%	62	6.28%	YES	YES
6700	US 441	COUNTY LINE (S)	CR 42	4	ARTERIAL	D	1,996	16%	43	2.15%	NO	YES
6730	US 441	CR 42	SE 147 PL	4	ARTERIAL	D	1,901	1%	3	0.16%	NO	NO
6740	US 441	SE 147 PL	SE 92 PLACE LOOP	4	COLLECTOR	E	1,901	3%	8	0.42%	NO	YES
8200	BUENA VISTA BLVD	SUMTER CO LINE	CR 42	4	COLLECTOR	E	792	8%	22	2.78%	NO	NO
N/A	SE 73 rd AV ⁴	CR 42	SE 147 PL	2	MAJOR LOCAL	E	576	46%	124	21.56%	YES	YES

Notes:

1. Data obtained from the latest Ocala TPO Marion CMP Database
2. Directional trips calculated as the maximum of the PM Peak entry and exit trips
3. Percent Impact was calculated as the PM peak directional project trips divided by the PM peak directional service volume
4. This segment is not included in Ocala TPO Marion CMP Database. Traffic counts will be used for analysis.
- 5 The minimum threshold for significance is at least 3% impact of the directional capacity

STUDY SCENARIOS

The proposed TIS report will document the study of roadway segments and intersections analysis for the existing scenario, no-buildout (base) scenario, and buildout (proposed) scenario. The existing scenario will provide the existing capacity and operations condition at the study facilities, which is to be used as a benchmark for the base scenario and proposed scenario. The existing scenario analysis for the roadway segments will document the existing roadway volume, existing and available roadway capacity using the information provided in the latest Ocala Marion Congestion Management Process (CMP). The existing (2025) condition intersections analysis will be conducted using field counts that will be collected within a 12-month period of the approval of this study methodology. The counts will include passenger cars and heavy vehicles. Seasonal adjustments, if needed, will be made to the raw field counts.

No-buildout scenario traffic volume will constitute the 2028 projected background traffic and committed trips (Utopia PUD, 9494 Summerfield PUD & Heritage Oaks). Buildout scenarios will be analyzed using the projected buildout volume, which is the summation of 2028 projected background volume and project trips.

Projected background traffic volume will be calculated by using a weighted average annual growth of 2.65%, which was calculated based on the growth rate presented in the Ocala Marion Congestion Management Process (CMP) as shown in **Table 3**.

Table 3. Growth Rate Determination

Segment ID	Road Name	Roadway Segment		2023 AADT	Annual Growth Rate
		From	To		CMP Database
1560	CR 42	US 301	SE 77 AV	18,300	5.05%
1570.0	CR 42	SE 77 AV	US 441	18,300	5.05%
3880	SE 147 PL	US 301	US 441	6,000	6.96%
6530.1	US 301	COUNTY LINE (S)	CR 42	24,100	4.94%
6540	US 301	CR 42	SE 147 ST	17,700	1.00%
6550.1	US 301	SE 147 ST	US 441	13,200	1.00%
6700	US 441	COUNTY LINE (S)	CR 42	38,400	1.00%
6740.0	US 441	SE 147 PL	SE 92 PLACE LOOP	33,300	1.00%
Weighted Average Growth					2.65%

Note

The latest (2024) Ocala TPO Marion CMP Database would be used if available.

OPERATIONAL ANALYSIS

The Traffic Impact Study will provide an analysis of weekday PM peak hours traffic operations at study intersections. The AM analysis will also be conducted at the site access driveways and for the intersection of CR 42 at SE 73rd Avenue, CR 42 at US 301, CR 42 at Driveway for Saint Mark The Evangelist/Mulberry Grove Animal Hospital and 147th Place at SE 73rd Avenue. HCM 7th Edition methodology included in Synchro 12 software will be used for intersection operational analyses. The intersection operational analyses will include an assessment of overall intersection delay and level of service (LOS), as well as queues, delays, and LOS by movement, for the study intersections. The need for turn lanes at the proposed project driveways will be conducted using guidance provided in Chapter 6 of FDOT's Access Management Guidebook.

Roadway segments will be analyzed using roadway capacities published in the latest Ocala Marion TPO CMP Database. FDOT 2020 Generalized LOS Tables will be used for County roadway segments. For roadways or intersections found to be operating deficiently due to the addition of project trips, recommendations will be provided to address the identified deficiencies).

SIGNAL WARRANT ANALYSIS

Signal Warrant Analysis (SWA) will be conducted to determine the need for a signal at the intersection of CR 42 and SE 73rd Avenue, based on the Chapter 4c of the Manual on Uniform Traffic Control Devices (MUTCD) 11th Edition and Marion County standards, and incorporating professional engineering judgment. This analysis will be supported by a 12-hour traffic count at the intersection, and the results will be documented in the Traffic Impact Study report. The analysis will include the project trips from the development of Utopia PUD and other committed developments that would impact the analyzed intersection.

225 East Robinson Street, Suite 355
Orlando, FL 32801
P 407.540.0555

MEMORANDUM

April 28, 2025

Project #: 31313

To: Development Review
Office of the County Engineer
412 SE 25th Avenue
Ocala, FL 34471

From: Emmanuel Masindoki, PE and Kok Wan Mah, PE

RE: Enclave Housing CR 42 Response to Comments

This memorandum has been prepared to provide responses to the comments from Marion County on April 23, 2025. The revised TIA methodology memorandum is provided under separate cover.

TRANSPORTATION

1. Response to Original Comment #22 - The traffic methodology continues to propose 3 driveways on SE 73rd Ave for the northernmost parcel (47667-000-00). These driveways do not meet the minimum 245 ft spacing requirements as mentioned in the previous comments. Traffic staff cannot approve a methodology that violates the driveway spacing standards. The traffic study must analyze an access scenario that meets the driveway spacing criteria (i.e., 1 or 2 driveways for Parcel 47667-000-00). A second scenario that does not meet driveway spacing criteria can also be analyzed. However, the approval/disapproval of any driveway deviations will not occur until review of the site plan

Response: The northern driveway of the northernmost parcel will be designated for emergency access only; therefore, the parcel will have two full-access driveways.

2. PDF pg. 4 & 5, Figures 2 & 3 - Figures 2 & 3 show different distributions to/from the south on SE 73rd Ave. Figure 2 shows 54% while Figure 3 shows 39%. Update the figures to show the same distributions on SE 73rd Ave. Ensure the distributions used in Table 2 also match the distributions shown on Figures 2 & 3.

Response: Agreed, and Figures 2 & 3 are updated accordingly.

3. Response to Original Comment #6 - After addressing the first comment by increasing the total number of residential units to 505, update the driveway distributions in Figures 3 & 5. The total distribution at Driveways 1, 2, & 3 should be 44% in both figures (220 units / 505 units = 0.44).

Response: The latest site plan proposes a maximum of 175 units for the northern parcel and 300 units for the southern parcel, for a total of 475 units. Based on this distribution, approximately 37% (175 units / 475 units) of the site traffic is expected to use Driveways 2 and 3, as Driveway 1 is now designated for emergency access only.

4. PDF pg. 5, Figure 3 - The 39% to/from the south on SE 73rd Ave needs to be changed to 46% based on the distributions shown at the driveways on SE 73rd Ave

Response: Figure 3 has been updated to show 46% to/from the south on SE 73rd Ave.

5. PDF pg. 5, Figure 3 - The 15% of eastbound through traffic on CR 42 at SE 73rd Ave needs to be changed to 13%.

Response: Figure 3 has been updated to show 13% eastbound through traffic on CR 42 at SE 73rd Avenue.

6. PDF pg. 12 & 13 - The site data shows the number of units proposed but does not show the proposed access locations. Provide an updated concept plan showing the proposed access locations on CR 42 and SE 73rd Ave.

Response: The concept plan showing the access locations is attached to the revised methodology.

Appendix C: Ocala Mation TPO CPM Database

ATTACHMENT E-2 - 25-L03, TRAFFIC STUDY (AR 33162)

LocalMarion IPO VMP Data as of September 2024

E-2-60

SEGMENT ID	ROAD NAME	FROM	TO	LANES (2023)	FUNCTIONAL CLASSIFICATION	FLOW	FDOT CLASS	DAILY SERVICE VOLUME (2023)	PEAK HOUR DIRECTIONAL SERVICE VOLUME (2023)	PEAK HOUR DIRECTIONAL SERVICE VOLUME (2028)	URBAN / RURAL	DIVIDED / UNDIVIDED	MAINTAINING AGENCY	NHS	ADOPTED LOS STANDARD	2023 AADT	2023 DAILY V/MSV	2023 DAILY LOS	GROWTH RATE	2028 AADT	2028 DAILY V/MSV	2028 DAILY LOS
1550.1	CR 42	CR 475	US 301	2	COLLECTOR	UNINTERRUPTED		19,170	999	999	Rural	U	COUNTY	Other CMP Network Roadway	D	5,300	0.28	B	1.00%	5,500	0.29	B
1560	CR 42	US 301	SE 77 AV	4	ARTERIAL	INTERRUPTED	1	35,820	1,800	1,800	Urban	D	COUNTY	Other CMP Network Roadway	E	18,300	0.51	C	5.05%	23,400	0.65	C
1570	CR 42	SE 77 AV	US 441	4	ARTERIAL	INTERRUPTED	1	35,820	1,800	1,800	Urban	D	COUNTY	Other CMP Network Roadway	E	18,300	0.51	C	5.05%	23,400	0.65	C
1610.1	CR 42	US 441	SE 130 AVE	2	COLLECTOR	UNINTERRUPTED		29,340	1,449	1,449	Urban	U	COUNTY	Other CMP Network Roadway	E	14,100	0.48	C	6.58%	19,300	0.66	D
1610.2	CR 42	SE 130 AVE	CR 25	2	COLLECTOR	UNINTERRUPTED		29,340	1,449	1,449	Urban	U	COUNTY	Other CMP Network Roadway	E	10,800	0.37	C	1.79%	11,800	0.40	C
2070	CR 484	I-75 RAMP (E)	CR 475A	4	ARTERIAL	INTERRUPTED	1	35,820	1,800	1,800	Urban	D	COUNTY	Other CMP Network Roadway	D	33,500	0.94	C	1.00%	35,200	0.98	D
3880	SE 147 PL	US 301	US 441	2	COLLECTOR	INTERRUPTED	1	12,744	634	634	Urban	U	COUNTY	Other CMP Network Roadway	E	6,000	0.47	C	6.96%	8,400	0.66	C
6530.1	US 301	COUNTY LINE (S)	CR 42	4	ARTERIAL	INTERRUPTED		55,700	2,910	2,910	Urban	D	STATE	NHS - Non-Interstate Roadway	D	24,100	0.43	B	4.94%	30,700	0.55	B
6540	US 301	CR 42	SE 147 ST	2	ARTERIAL	UNINTERRUPTED		14,000	730	730	Urban	U	STATE	NHS - Non-Interstate Roadway	D	17,700	1.26	E	1.00%	18,600	1.33	E
6550.1	US 301	SE 147 ST	US 441	4	ARTERIAL	UNINTERRUPTED		32,970	987	987	Urban	D	STATE	NHS - Non-Interstate Roadway	D	13,200	0.7	C	1.00%	13,900	0.74	C
6700	US 441	COUNTY LINE (S)	CR 42	4	ARTERIAL	UNINTERRUPTED		40,352	1,996	1,996	Urban	D	STATE	NHS - Non-Interstate Roadway	D	38,400	0.95	D	1.00%	40,300	1.00	D
6730	US 441	CR 42	SE 147 PL	4	ARTERIAL	INTERRUPTED		38,430	1,901	1,901	Urban	D	STATE	NHS - Non-Interstate Roadway	D	33,900	0.88	D	2.62%	38,500	1.00	F
6740	US 441	SE 147 PL	SE 92 PLACE LOOP	4	ARTERIAL	INTERRUPTED		38,430	1,901	1,901	Urban	D	STATE	NHS - Non-Interstate Roadway	D	33,300	0.87	D	1.00%	35,000	0.91	D
8200	BUENA VISTA BLVD	SUMTER CO LINE	CR 42	4	COLLECTOR	INTERRUPTED	2	30,420	792	792	Urban	D	COUNTY	Other CMP Network Roadway	E	12,300	0.77	C	1.00%	13,000	0.82	C

Appendix D: K-factor & D-factor

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2024 HISTORICAL AADT REPORT

COUNTY: 36 - MARION

SITE: 0214 - CR-42, 0.1 MI E OF SR-35 (HPMS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2024	15700 F	E 8000	W 7700	9.00	56.10	17.50
2023	15100 C	E 7700	W 7400	9.00	55.40	17.50
2022	13500 S	E 6500	W 7000	9.00	55.10	12.90
2021	13500 F	E 6500	W 7000	9.00	53.20	12.90
2020	13300 C	E 6400	W 6900	9.00	53.40	12.90
2019	14000 S	E 7600	W 6400	9.00	53.80	9.40
2018	13800 F	E 7500	W 6300	9.00	54.30	9.40
2017	13600 C	E 7400	W 6200	9.00	55.50	9.40
2016	15700 S	E 7600	W 8100	9.00	56.10	4.40
2015	15100 F	E 7300	W 7800	9.00	56.30	4.40
2014	14500 C	E 7000	W 7500	9.00	56.80	4.40
2013	11300 F	E 5700	W 5600	9.00	56.70	3.10
2012	11300 C	E 5700	W 5600	9.00	56.70	3.10
2011	8700 F	E 4400	W 4300	9.00	56.00	7.60
2010	8700 C	E 4400	W 4300	10.14	57.07	8.00
2009	9300 F	E 4700	W 4600	10.04	59.21	8.60

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

Appendix E: Raw Turning Movement Counts and Signal Timings

Raw Turning Movement Counts

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42
 Site Code : 00000001
 Start Date : 2/27/2025
 Page No : 1

Groups Printed- Automobiles - Commercial

	US 301 Southbound					CR 42 Westbound					US 301 Northbound					CR 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
07:00 AM	22	175	16	3	216	79	19	11	9	118	17	77	59	12	165	9	51	20	7	87	586
07:15 AM	21	225	20	3	269	84	15	13	11	123	18	93	65	15	191	7	71	23	9	110	693
07:30 AM	27	244	21	4	296	100	24	23	12	159	18	88	78	19	203	15	62	28	7	112	770
07:45 AM	29	228	20	4	281	116	17	24	16	173	20	104	66	17	207	16	77	32	11	136	797
Total	99	872	77	14	1062	379	75	71	48	573	73	362	268	63	766	47	261	103	34	445	2846
08:00 AM	29	211	21	2	263	96	25	13	11	145	23	109	59	11	202	16	83	23	15	137	747
08:15 AM	34	184	19	2	239	114	36	23	13	186	27	83	66	16	192	13	77	18	16	124	741
08:30 AM	29	192	30	5	256	107	27	17	13	164	26	76	70	14	186	8	81	36	9	134	740
08:45 AM	36	153	22	2	213	93	24	21	9	147	27	83	66	19	195	6	65	26	13	110	665
Total	128	740	92	11	971	410	112	74	46	642	103	351	261	60	775	43	306	103	53	505	2893
04:00 PM	45	73	10	6	134	99	45	12	9	165	19	183	82	12	296	8	30	11	6	55	650
04:15 PM	53	88	9	8	158	103	38	17	12	170	32	226	105	20	383	11	36	19	5	71	782
04:30 PM	44	83	9	4	140	112	57	23	15	207	33	242	121	24	420	20	42	18	6	86	853
04:45 PM	59	85	6	7	157	102	68	17	13	200	26	228	110	31	395	18	52	20	4	94	846
Total	201	329	34	25	589	416	208	69	49	742	110	879	418	87	1494	57	160	68	21	306	3131
05:00 PM	45	100	11	8	164	115	83	18	12	228	32	243	101	24	400	19	44	21	6	90	882
05:15 PM	57	97	8	7	169	93	49	15	8	165	38	227	89	19	373	19	36	22	4	81	788
05:30 PM	53	110	12	9	184	89	57	19	13	178	31	198	80	26	335	17	30	20	5	72	769
05:45 PM	47	86	7	8	148	76	46	17	7	146	25	186	90	20	321	16	26	18	8	68	683
Total	202	393	38	32	665	373	235	69	40	717	126	854	360	89	1429	71	136	81	23	311	3122
Grand Total	630	2334	241	82	3287	1578	630	283	183	2674	412	2446	1307	299	4464	218	863	355	131	1567	11992
Apprch %	19.2	71	7.3	2.5		59	23.6	10.6	6.8		9.2	54.8	29.3	6.7		13.9	55.1	22.7	8.4		
Total %	5.3	19.5	2	0.7	27.4	13.2	5.3	2.4	1.5	22.3	3.4	20.4	10.9	2.5	37.2	1.8	7.2	3	1.1	13.1	
Automobiles	598	2221	222	73	3114	1552	585	266	181	2584	381	2280	1259	289	4209	207	845	337	128	1517	11424
% Automobiles	94.9	95.2	92.1	89	94.7	98.4	92.9	94	98.9	96.6	92.5	93.2	96.3	96.7	94.3	95	97.9	94.9	97.7	96.8	95.3
Commercial	32	113	19	9	173	26	45	17	2	90	31	166	48	10	255	11	18	18	3	50	568
% Commercial	5.1	4.8	7.9	11	5.3	1.6	7.1	6	1.1	3.4	7.5	6.8	3.7	3.3	5.7	5	2.1	5.1	2.3	3.2	4.7

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42
 Site Code : 00000001
 Start Date : 2/27/2025
 Page No : 2

	US 301 Southbound					CR 42 Westbound					US 301 Northbound					CR 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	27	244	21	4	296	100	24	23	12	159	18	88	78	19	203	15	62	28	7	112	770
07:45 AM	29	228	20	4	281	116	17	24	16	173	20	104	66	17	207	16	77	32	11	136	797
08:00 AM	29	211	21	2	263	96	25	13	11	145	23	109	59	11	202	16	83	23	15	137	747
08:15 AM	34	184	19	2	239	114	36	23	13	186	27	83	66	16	192	13	77	18	16	124	741
Total Volume	119	867	81	12	1079	426	102	83	52	663	88	384	269	63	804	60	299	101	49	509	3055
% App. Total	11	80.4	7.5	1.1		64.3	15.4	12.5	7.8		10.9	47.8	33.5	7.8		11.8	58.7	19.8	9.6		
PHF	.875	.888	.964	.750	.911	.918	.708	.865	.813	.891	.815	.881	.862	.829	.971	.938	.901	.789	.766	.929	.958
Automobiles	117	829	76	8	1030	420	98	79	52	649	82	333	261	62	738	55	294	95	49	493	2910
% Automobiles	98.3	95.6	93.8	66.7	95.5	98.6	96.1	95.2	100	97.9	93.2	86.7	97.0	98.4	91.8	91.7	98.3	94.1	100	96.9	95.3
Commercial	2	38	5	4	49	6	4	4	0	14	6	51	8	1	66	5	5	6	0	16	145
% Commercial	1.7	4.4	6.2	33.3	4.5	1.4	3.9	4.8	0	2.1	6.8	13.3	3.0	1.6	8.2	8.3	1.7	5.9	0	3.1	4.7

DE TRAFFIC

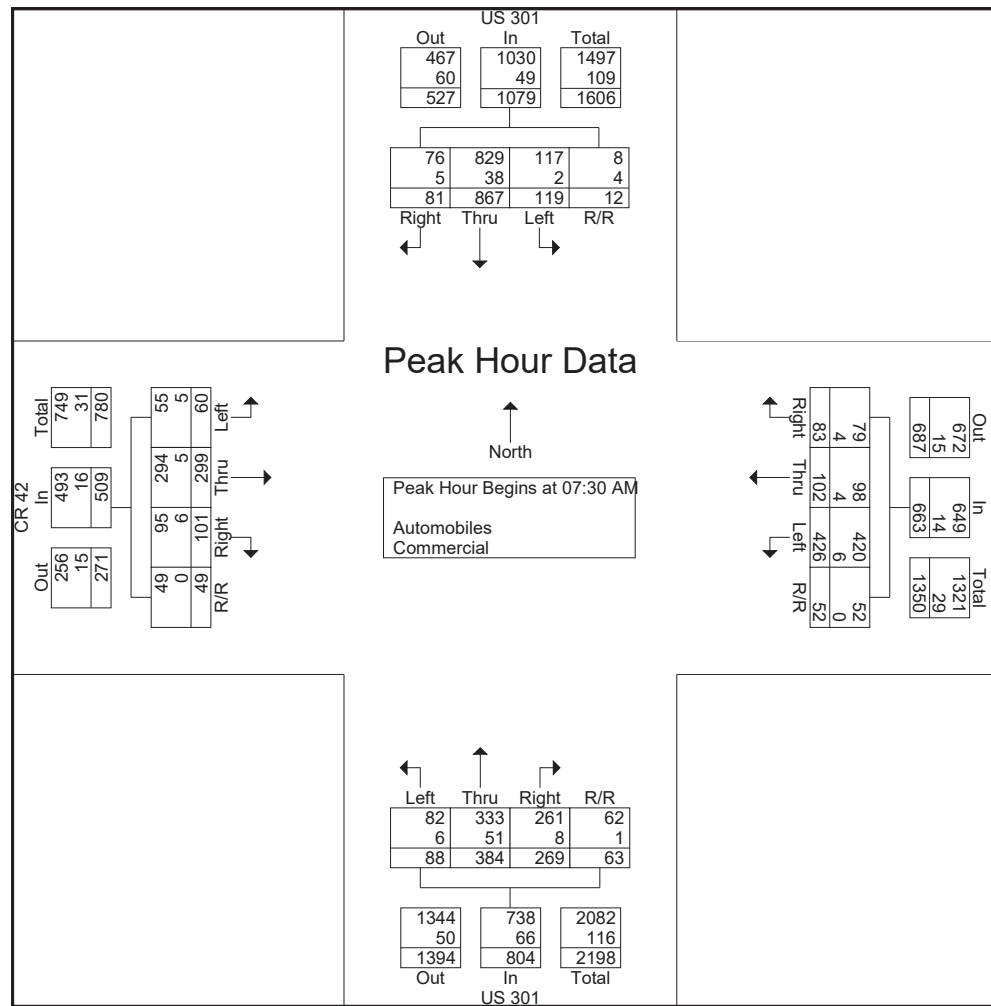
detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42

Site Code : 00000001

Start Date : 2/27/2025

Page No : 3



DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42
 Site Code : 00000001
 Start Date : 2/27/2025
 Page No : 4

	US 301 Southbound					CR 42 Westbound					US 301 Northbound					CR 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	44	83	9	4	140	112	57	23	15	207	33	242	121	24	420	20	42	18	6	86	853
04:45 PM	59	85	6	7	157	102	68	17	13	200	26	228	110	31	395	18	52	20	4	94	846
05:00 PM	45	100	11	8	164	115	83	18	12	228	32	243	101	24	400	19	44	21	6	90	882
05:15 PM	57	97	8	7	169	93	49	15	8	165	38	227	89	19	373	19	36	22	4	81	788
Total Volume	205	365	34	26	630	422	257	73	48	800	129	940	421	98	1588	76	174	81	20	351	3369
% App. Total	32.5	57.9	5.4	4.1		52.8	32.1	9.1	6		8.1	59.2	26.5	6.2		21.7	49.6	23.1	5.7		
PHF	.869	.913	.773	.813	.932	.917	.774	.793	.800	.877	.849	.967	.870	.790	.945	.950	.837	.920	.833	.934	.955
Automobiles	193	347	30	25	595	412	235	68	47	762	116	896	406	96	1514	72	168	75	19	334	3205
% Automobiles	94.1	95.1	88.2	96.2	94.4	97.6	91.4	93.2	97.9	95.3	89.9	95.3	96.4	98.0	95.3	94.7	96.6	92.6	95.0	95.2	95.1
Commercial	12	18	4	1	35	10	22	5	1	38	13	44	15	2	74	4	6	6	1	17	164
% Commercial	5.9	4.9	11.8	3.8	5.6	2.4	8.6	6.8	2.1	4.8	10.1	4.7	3.6	2.0	4.7	5.3	3.4	7.4	5.0	4.8	4.9

DE TRAFFIC

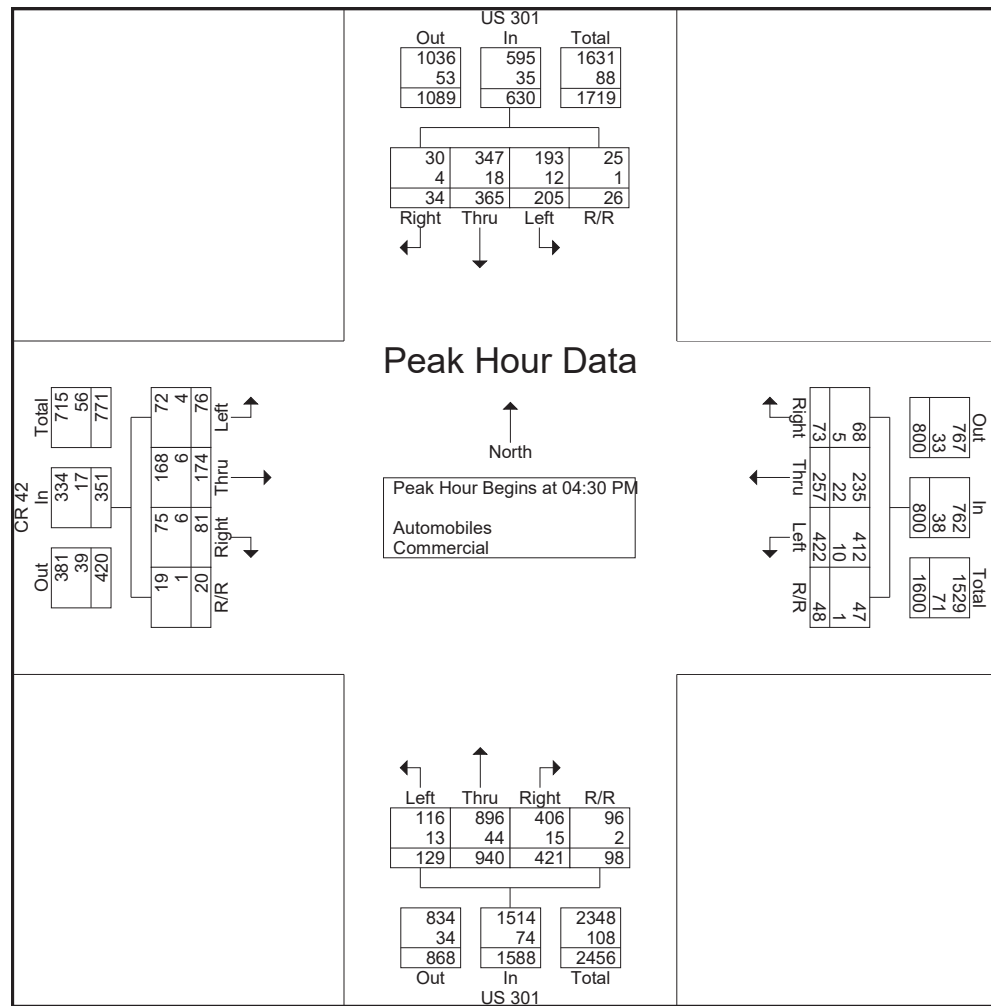
detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42

Site Code : 00000001

Start Date : 2/27/2025

Page No : 5



DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at CR 42
 Marion County, FL

File Name : 01 301 at Hwy 42
 Site Code : 00000001
 Start Date : 2/27/2025
 Page No : 6

Groups Printed- Peds

	US 301 Southbound					CR 42 Westbound					US 301 Northbound					CR 42 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	

DE TRAFFIC

detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal

Site Code : 00000002

Start Date : 2/27/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	Animal Hospital/Church Drwy Southbound				CR 42 Westbound				N/A Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	164	2	166	0	0	0	0	0	166	0	166	332
04:15 PM	0	0	1	1	0	174	1	175	0	0	0	0	1	207	0	208	384
04:30 PM	0	0	3	3	0	204	3	207	0	0	0	0	0	209	0	209	419
04:45 PM	1	0	4	5	0	196	1	197	0	0	0	0	1	245	0	246	448
Total	1	0	8	9	0	738	7	745	0	0	0	0	2	827	0	829	1583
05:00 PM	0	0	3	3	0	213	0	213	0	0	0	0	2	206	0	208	424
05:15 PM	2	0	4	6	0	165	0	165	0	0	0	0	0	196	0	196	367
05:30 PM	1	0	2	3	0	174	1	175	0	0	0	0	1	193	0	194	372
05:45 PM	0	0	1	1	0	145	0	145	0	0	0	0	0	188	0	188	334
Total	3	0	10	13	0	697	1	698	0	0	0	0	3	783	0	786	1497
Grand Total	4	0	18	22	0	1435	8	1443	0	0	0	0	5	1610	0	1615	3080
Apprch %	18.2	0	81.8		0	99.4	0.6		0	0	0		0.3	99.7	0		
Total %	0.1	0	0.6	0.7	0	46.6	0.3	46.9	0	0	0	0	0.2	52.3	0	52.4	
Automobiles	4	0	18	22	0	1357	8	1365	0	0	0	0	5	1535	0	1540	2927
% Automobiles	100	0	100	100	0	94.6	100	94.6	0	0	0	0	100	95.3	0	95.4	95
Commercial	0	0	0	0	0	78	0	78	0	0	0	0	0	75	0	75	153
% Commercial	0	0	0	0	0	5.4	0	5.4	0	0	0	0	0	4.7	0	4.6	5

DE TRAFFIC

detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal

Site Code : 00000002

Start Date : 2/27/2025

Page No : 2

	Animal Hospital/Church Drwy Southbound				CR 42 Westbound				N/A Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	1	1	0	174	1	175	0	0	0	0	1	207	0	208	384
04:30 PM	0	0	3	3	0	204	3	207	0	0	0	0	0	209	0	209	419
04:45 PM	1	0	4	5	0	196	1	197	0	0	0	0	1	245	0	246	448
05:00 PM	0	0	3	3	0	213	0	213	0	0	0	0	2	206	0	208	424
Total Volume	1	0	11	12	0	787	5	792	0	0	0	0	4	867	0	871	1675
% App. Total	8.3	0	91.7		0	99.4	0.6		0	0	0		0.5	99.5	0		
PHF	.250	.000	.688	.600	.000	.924	.417	.930	.000	.000	.000	.000	.500	.885	.000	.885	.935
Automobiles	1	0	11	12	0	746	5	751	0	0	0	0	4	832	0	836	1599
% Automobiles	100	0	100	100	0	94.8	100	94.8	0	0	0	0	100	96.0	0	96.0	95.5
Commercial	0	0	0	0	0	41	0	41	0	0	0	0	0	35	0	35	76
% Commercial	0	0	0	0	0	5.2	0	5.2	0	0	0	0	0	4.0	0	4.0	4.5

DE TRAFFIC

detraffic.com

(386)341-4186

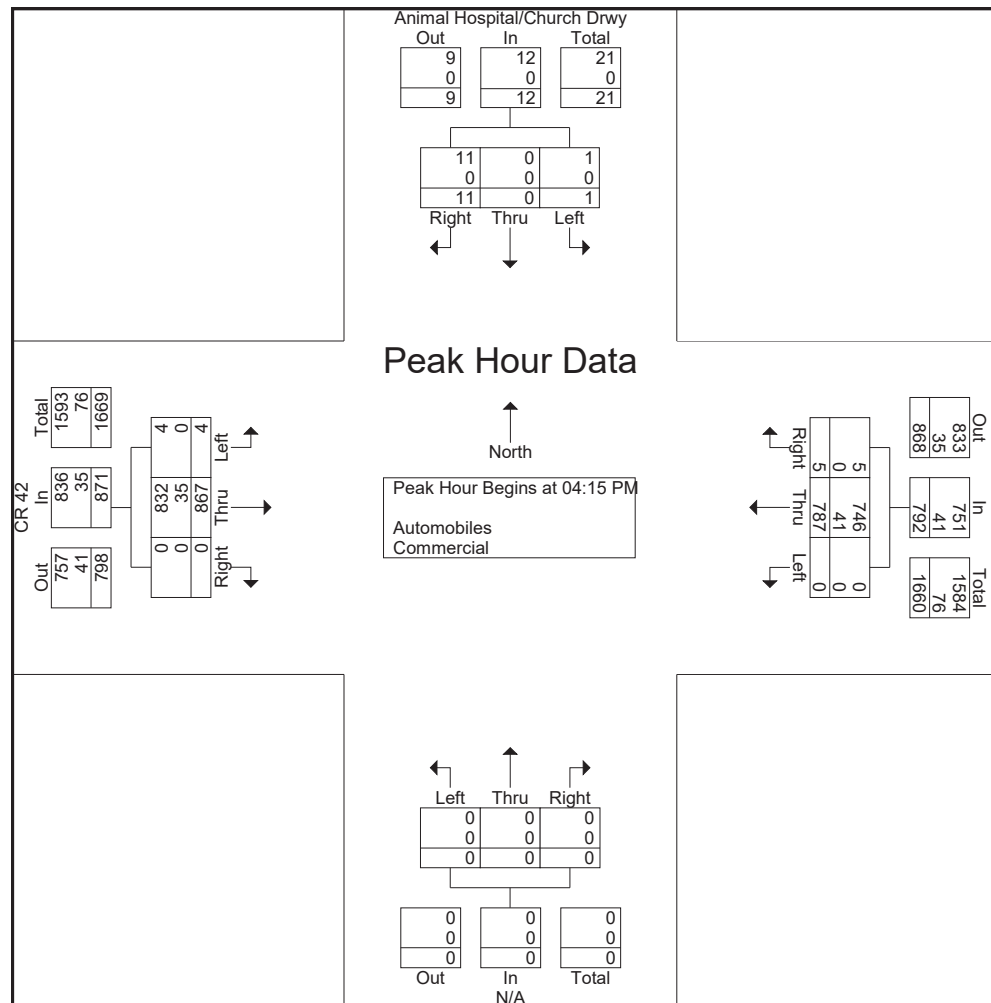
Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal

Site Code : 00000002

Start Date : 2/27/2025

Page No : 3



detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42

Marion County, FL

File Name : 02 Hwy 42 at Animal

Site Code : 00000002

Start Date : 2/27/2025

Page No : 4

Groups Printed- Peds

[illegible]

DE TRAFFIC

detraffic.com

(386)341-4186

SE 73rd Ave at CR 42

Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:00 AM	2	0	2	4	0	72	1	73	0	0	0	0	1	54	0	55	132
06:15 AM	1	0	1	2	0	73	2	75	0	0	0	0	2	56	0	58	135
06:30 AM	1	0	2	3	0	114	0	114	1	0	0	1	1	73	0	74	192
06:45 AM	2	0	1	3	0	110	1	111	0	0	0	0	2	70	0	72	186
Total	6	0	6	12	0	369	4	373	1	0	0	1	6	253	0	259	645
07:00 AM	6	0	6	12	0	111	2	113	0	0	0	0	2	114	0	116	241
07:15 AM	4	0	4	8	0	118	4	122	0	0	0	0	3	172	0	175	305
07:30 AM	8	0	9	17	0	130	4	134	0	0	0	0	5	187	1	193	344
07:45 AM	5	0	7	12	0	161	2	163	0	0	0	0	5	189	0	194	369
Total	23	0	26	49	0	520	12	532	0	0	0	0	15	662	1	678	1259
08:00 AM	5	0	11	16	0	127	1	128	0	0	1	1	4	181	0	185	330
08:15 AM	6	0	10	16	0	166	3	169	0	0	0	0	2	191	0	193	378
08:30 AM	5	0	8	13	0	160	5	165	0	0	1	1	4	190	0	194	373
08:45 AM	2	0	7	9	0	136	5	141	0	0	0	0	4	180	0	184	334
Total	18	0	36	54	0	589	14	603	0	0	2	2	14	742	0	756	1415
09:00 AM	3	0	6	9	0	117	1	118	0	0	0	0	1	101	0	102	229
09:15 AM	4	0	3	7	0	128	3	131	0	0	0	0	3	116	0	119	257
09:30 AM	2	0	4	6	0	115	2	117	0	0	0	0	1	115	0	116	239
09:45 AM	1	0	3	4	0	124	3	127	0	0	0	0	2	131	0	133	264
Total	10	0	16	26	0	484	9	493	0	0	0	0	7	463	0	470	989
10:00 AM	2	0	3	5	0	102	4	106	0	0	0	0	2	106	0	108	219
10:15 AM	0	0	4	4	0	107	3	110	0	0	0	0	1	118	0	119	233
10:30 AM	3	0	3	6	0	106	1	107	0	0	0	0	3	130	0	133	246
10:45 AM	3	0	3	6	0	113	5	118	1	0	0	1	1	106	0	107	232
Total	8	0	13	21	0	428	13	441	1	0	0	1	7	460	0	467	930
11:00 AM	1	0	4	5	0	119	4	123	0	0	0	0	1	119	0	120	248
11:15 AM	3	0	3	6	0	106	3	109	0	0	0	0	2	110	0	112	227
11:30 AM	0	0	2	2	0	116	3	119	0	0	0	0	5	109	0	114	235
11:45 AM	2	0	1	3	0	119	4	123	0	0	0	0	3	109	0	112	238
Total	6	0	10	16	0	460	14	474	0	0	0	0	11	447	0	458	948
12:00 PM	2	0	5	7	0	115	5	120	0	0	0	0	4	128	0	132	259
12:15 PM	2	0	2	4	0	108	2	110	0	0	0	0	3	105	0	108	222
12:30 PM	1	0	5	6	0	119	2	121	0	0	0	0	2	118	0	120	247
12:45 PM	3	0	3	6	0	108	4	112	0	0	0	0	1	106	0	107	225
Total	8	0	15	23	0	450	13	463	0	0	0	0	10	457	0	467	953

DE TRAFFIC

detraffic.com

(386)341-4186

SE 73rd Ave at CR 42

Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 2

Groups Printed- Automobiles - Commercial

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	1	0	3	4	0	104	4	108	0	0	0	0	4	116	0	120	232
01:15 PM	1	0	5	6	0	103	5	108	0	0	0	0	3	130	0	133	247
01:30 PM	2	0	2	4	0	103	5	108	0	0	0	0	3	134	0	137	249
01:45 PM	3	0	3	6	0	78	3	81	0	0	0	0	4	109	0	113	200
Total	7	0	13	20	0	388	17	405	0	0	0	0	14	489	0	503	928
02:00 PM	3	0	4	7	0	118	4	122	0	0	0	0	2	136	0	138	267
02:15 PM	2	0	2	4	0	110	6	116	0	0	0	0	4	130	0	134	254
02:30 PM	2	0	4	6	0	133	4	137	0	0	0	0	4	145	0	149	292
02:45 PM	3	0	4	7	0	99	2	101	0	0	0	0	2	127	0	129	237
Total	10	0	14	24	0	460	16	476	0	0	0	0	12	538	0	550	1050
03:00 PM	0	0	2	2	0	141	3	144	0	0	0	0	3	135	0	138	284
03:15 PM	3	0	2	5	0	110	6	116	0	0	0	0	4	147	0	151	272
03:30 PM	1	0	2	3	0	129	4	133	0	0	0	0	2	129	0	131	267
03:45 PM	0	0	1	1	0	129	2	131	0	0	0	0	2	134	1	137	269
Total	4	0	7	11	0	509	15	524	0	0	0	0	11	545	1	557	1092
04:00 PM	3	0	1	4	0	163	7	170	0	0	0	0	3	163	0	166	340
04:15 PM	5	0	3	8	0	173	11	184	0	0	0	0	3	206	0	209	401
04:30 PM	2	0	5	7	2	199	3	204	1	0	0	1	7	203	0	210	422
04:45 PM	0	0	2	2	0	195	5	200	0	0	0	0	12	233	0	245	447
Total	10	0	11	21	2	730	26	758	1	0	0	1	25	805	0	830	1610
05:00 PM	2	0	2	4	0	211	1	212	0	0	0	0	9	199	0	208	424
05:15 PM	0	0	7	7	0	157	2	159	0	0	0	0	6	199	0	205	371
05:30 PM	1	0	4	5	0	169	3	172	0	0	0	0	7	186	0	193	370
05:45 PM	2	0	3	5	0	143	2	145	0	0	0	0	9	180	0	189	339
Total	5	0	16	21	0	680	8	688	0	0	0	0	31	764	0	795	1504
Grand Total	115	0	183	298	2	6067	161	6230	3	0	2	5	163	6625	2	6790	13323
Apprch %	38.6	0	61.4		0	97.4	2.6		60	0	40		2.4	97.6	0		
Total %	0.9	0	1.4	2.2	0	45.5	1.2	46.8	0	0	0	0	1.2	49.7	0	51	
Automobiles	102	0	171	273	2	5820	148	5970	3	0	2	5	153	6390	2	6545	12793
% Automobiles	88.7	0	93.4	91.6	100	95.9	91.9	95.8	100	0	100	100	93.9	96.5	100	96.4	96
Commercial	13	0	12	25	0	247	13	260	0	0	0	0	10	235	0	245	530
% Commercial	11.3	0	6.6	8.4	0	4.1	8.1	4.2	0	0	0	0	6.1	3.5	0	3.6	4

DE TRAFFIC

detraffic.com
 (386)341-4186
 SE 73rd Ave at CR 42
 Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 3

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	5	0	7	12	0	161	2	163	0	0	0	0	5	189	0	194	369
08:00 AM	5	0	11	16	0	127	1	128	0	0	1	1	4	181	0	185	330
08:15 AM	6	0	10	16	0	166	3	169	0	0	0	0	2	191	0	193	378
08:30 AM	5	0	8	13	0	160	5	165	0	0	1	1	4	190	0	194	373
Total Volume	21	0	36	57	0	614	11	625	0	0	2	2	15	751	0	766	1450
% App. Total	36.8	0	63.2		0	98.2	1.8		0	0	100		2	98	0		
PHF	.875	.000	.818	.891	.000	.925	.550	.925	.000	.000	.500	.500	.750	.983	.000	.987	.959
Automobiles	19	0	35	54	0	600	10	610	0	0	2	2	14	737	0	751	1417
% Automobiles	90.5	0	97.2	94.7	0	97.7	90.9	97.6	0	0	100	100	93.3	98.1	0	98.0	97.7
Commercial	2	0	1	3	0	14	1	15	0	0	0	0	1	14	0	15	33
% Commercial	9.5	0	2.8	5.3	0	2.3	9.1	2.4	0	0	0	0	6.7	1.9	0	2.0	2.3

DE TRAFFIC

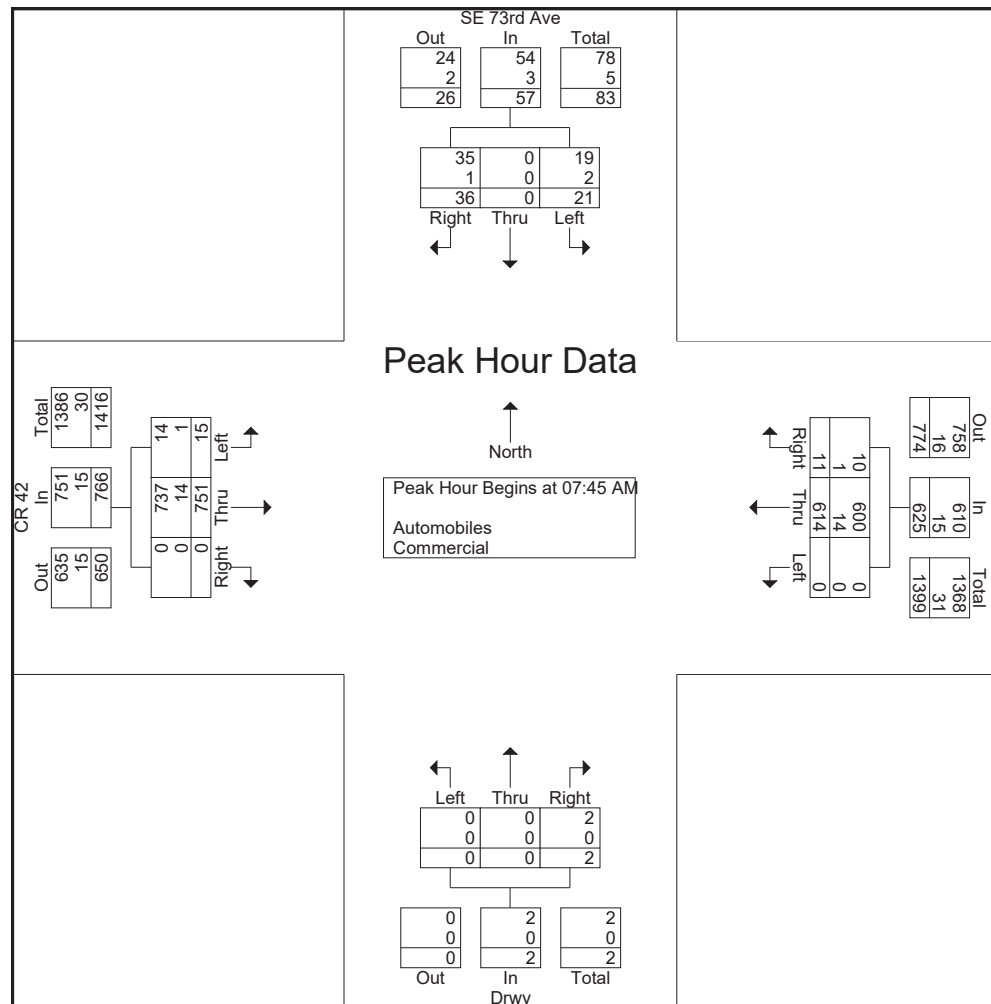
detraffic.com
 (386)341-4186
 SE 73rd Ave at CR 42
 Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 4



DE TRAFFIC

detraffic.com

(386)341-4186

SE 73rd Ave at CR 42

Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

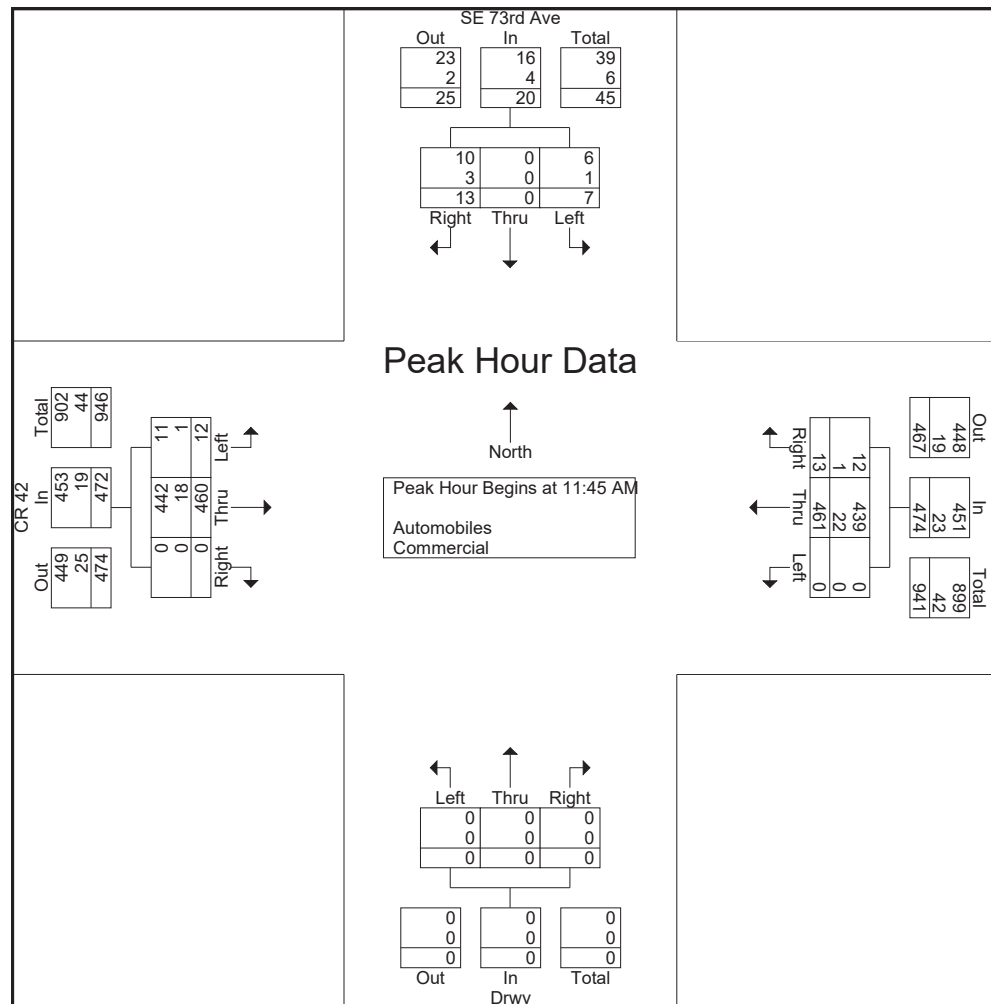
Page No : 5

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	2	0	1	3	0	119	4	123	0	0	0	0	3	109	0	112	238
12:00 PM	2	0	5	7	0	115	5	120	0	0	0	0	4	128	0	132	259
12:15 PM	2	0	2	4	0	108	2	110	0	0	0	0	3	105	0	108	222
12:30 PM	1	0	5	6	0	119	2	121	0	0	0	0	2	118	0	120	247
Total Volume	7	0	13	20	0	461	13	474	0	0	0	0	12	460	0	472	966
% App. Total	35	0	65		0	97.3	2.7		0	0	0		2.5	97.5	0		
PHF	.875	.000	.650	.714	.000	.968	.650	.963	.000	.000	.000	.000	.750	.898	.000	.894	.932
Automobiles	6	0	10	16	0	439	12	451	0	0	0	0	11	442	0	453	920
% Automobiles	85.7	0	76.9	80.0	0	95.2	92.3	95.1	0	0	0	0	91.7	96.1	0	96.0	95.2
Commercial	1	0	3	4	0	22	1	23	0	0	0	0	1	18	0	19	46
% Commercial	14.3	0	23.1	20.0	0	4.8	7.7	4.9	0	0	0	0	8.3	3.9	0	4.0	4.8

DE TRAFFIC

detraffic.com
 (386)341-4186
 SE 73rd Ave at CR 42
 Marion County, FL

File Name : 03 73rd at Hwy 42
 Site Code : 00000003
 Start Date : 2/27/2025
 Page No : 6



DE TRAFFIC

detraffic.com
 (386)341-4186
 SE 73rd Ave at CR 42
 Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 7

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	5	0	3	8	0	173	11	184	0	0	0	0	3	206	0	209	401
04:30 PM	2	0	5	7	2	199	3	204	1	0	0	1	7	203	0	210	422
04:45 PM	0	0	2	2	0	195	5	200	0	0	0	0	12	233	0	245	447
05:00 PM	2	0	2	4	0	211	1	212	0	0	0	0	9	199	0	208	424
Total Volume	9	0	12	21	2	778	20	800	1	0	0	1	31	841	0	872	1694
% App. Total	42.9	0	57.1		0.2	97.2	2.5		100	0	0		3.6	96.4	0		
PHF	.450	.000	.600	.656	.250	.922	.455	.943	.250	.000	.000	.250	.646	.902	.000	.890	.947
Automobiles	9	0	11	20	2	737	19	758	1	0	0	1	29	803	0	832	1611
% Automobiles	100	0	91.7	95.2	100	94.7	95.0	94.8	100	0	0	100	93.5	95.5	0	95.4	95.1
Commercial	0	0	1	1	0	41	1	42	0	0	0	0	2	38	0	40	83
% Commercial	0	0	8.3	4.8	0	5.3	5.0	5.3	0	0	0	0	6.5	4.5	0	4.6	4.9

DE TRAFFIC

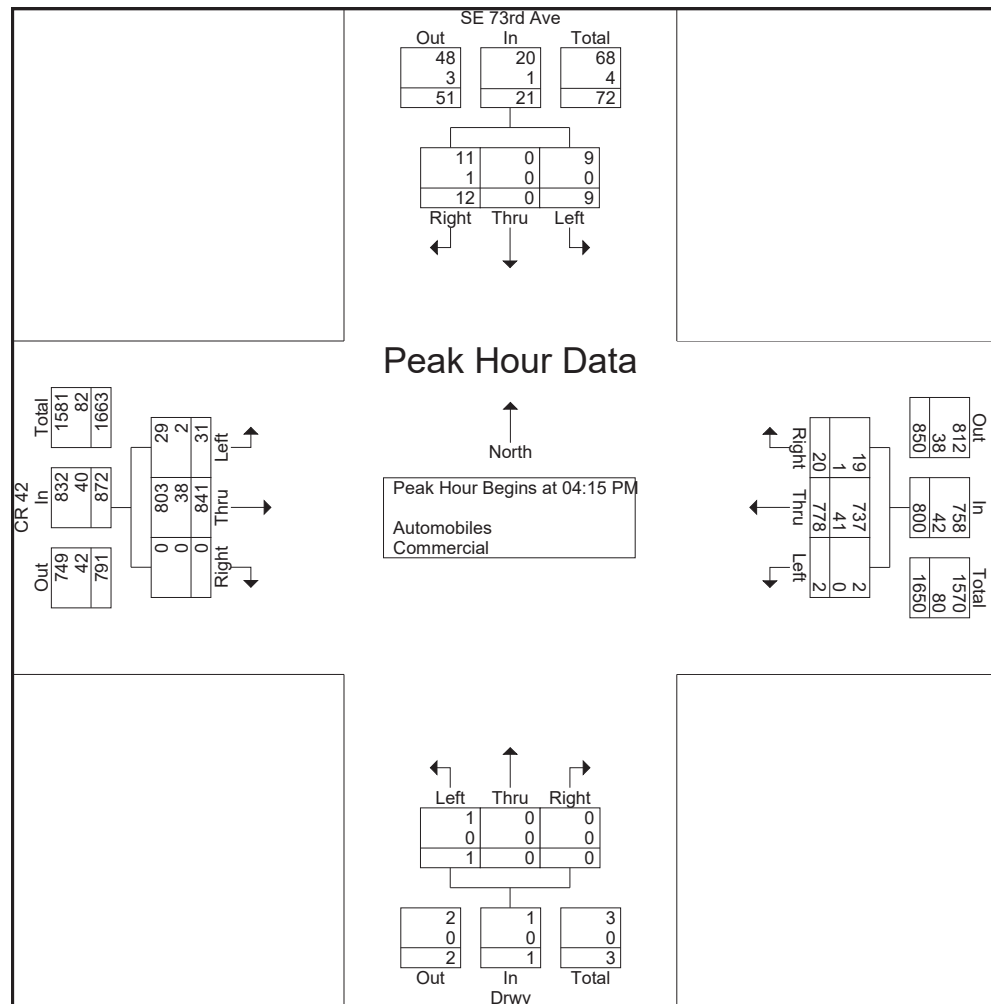
detraffic.com
 (386)341-4186
 SE 73rd Ave at CR 42
 Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 8



detraffic.com
(386)341-4186
SE 73rd Ave at CR 42
Marion County, Fl

[illegible]

DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42

Marion County, FL

File Name : 04 Buena at 42

Site Code : 00000004

Start Date : 2/27/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	SE 83rd Ave Southbound					SE Hwy 42 Westbound					Buena Vista Blvd Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
04:00 PM	9	3	10	1	23	25	142	5	1	173	28	3	27	9	67	6	146	9	4	165	428
04:15 PM	12	4	11	2	29	41	162	7	3	213	36	5	29	9	79	5	182	11	3	201	522
04:30 PM	11	6	9	3	29	51	173	5	1	230	41	6	29	8	84	8	173	17	4	202	545
04:45 PM	9	4	7	4	24	43	159	10	1	213	53	4	24	4	85	10	193	17	5	225	547
Total	41	17	37	10	105	160	636	27	6	829	158	18	109	30	315	29	694	54	16	793	2042
05:00 PM	8	8	8	1	25	36	151	7	1	195	33	5	23	6	67	9	177	15	4	205	492
05:15 PM	14	4	7	2	27	43	142	9	0	194	34	3	19	6	62	9	175	15	6	205	488
05:30 PM	9	5	9	1	24	36	127	9	1	173	36	5	26	4	71	7	163	17	4	191	459
05:45 PM	8	6	9	2	25	43	123	8	1	175	27	4	27	6	64	8	160	14	3	185	449
Total	39	23	33	6	101	158	543	33	3	737	130	17	95	22	264	33	675	61	17	786	1888
Grand Total	80	40	70	16	206	318	1179	60	9	1566	288	35	204	52	579	62	1369	115	33	1579	3930
Apprch %	38.8	19.4	34	7.8		20.3	75.3	3.8	0.6		49.7	6	35.2	9		3.9	86.7	7.3	2.1		
Total %	2	1	1.8	0.4	5.2	8.1	30	1.5	0.2	39.8	7.3	0.9	5.2	1.3	14.7	1.6	34.8	2.9	0.8	40.2	
Automobiles	78	40	68	16	202	313	1113	53	8	1487	281	33	196	51	561	60	1304	109	32	1505	3755
% Automobiles	97.5	100	97.1	100	98.1	98.4	94.4	88.3	88.9	95	97.6	94.3	96.1	98.1	96.9	96.8	95.3	94.8	97	95.3	95.5
Commercial	2	0	2	0	4	5	66	7	1	79	7	2	8	1	18	2	65	6	1	74	175
% Commercial	2.5	0	2.9	0	1.9	1.6	5.6	11.7	11.1	5	2.4	5.7	3.9	1.9	3.1	3.2	4.7	5.2	3	4.7	4.5

DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 04 Buena at 42

Site Code : 00000004

Start Date : 2/27/2025

Page No : 2

	SE 83rd Ave Southbound					SE Hwy 42 Westbound					Buena Vista Blvd Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	12	4	11	2	29	41	162	7	3	213	36	5	29	9	79	5	182	11	3	201	522
04:30 PM	11	6	9	3	29	51	173	5	1	230	41	6	29	8	84	8	173	17	4	202	545
04:45 PM	9	4	7	4	24	43	159	10	1	213	53	4	24	4	85	10	193	17	5	225	547
05:00 PM	8	8	8	1	25	36	151	7	1	195	33	5	23	6	67	9	177	15	4	205	492
Total Volume	40	22	35	10	107	171	645	29	6	851	163	20	105	27	315	32	725	60	16	833	2106
% App. Total	37.4	20.6	32.7	9.3		20.1	75.8	3.4	0.7		51.7	6.3	33.3	8.6		3.8	87	7.2	1.9		
PHF	.833	.688	.795	.625	.922	.838	.932	.725	.500	.925	.769	.833	.905	.750	.926	.800	.939	.882	.800	.926	.963
Automobiles	39	22	35	10	106	169	609	25	5	808	158	19	101	27	305	31	694	55	16	796	2015
% Automobiles	97.5	100	100	100	99.1	98.8	94.4	86.2	83.3	94.9	96.9	95.0	96.2	100	96.8	96.9	95.7	91.7	100	95.6	95.7
Commercial	1	0	0	0	1	2	36	4	1	43	5	1	4	0	10	1	31	5	0	37	91
% Commercial	2.5	0	0	0	0.9	1.2	5.6	13.8	16.7	5.1	3.1	5.0	3.8	0	3.2	3.1	4.3	8.3	0	4.4	4.3

DE TRAFFIC

detraffic.com

(386)341-4186

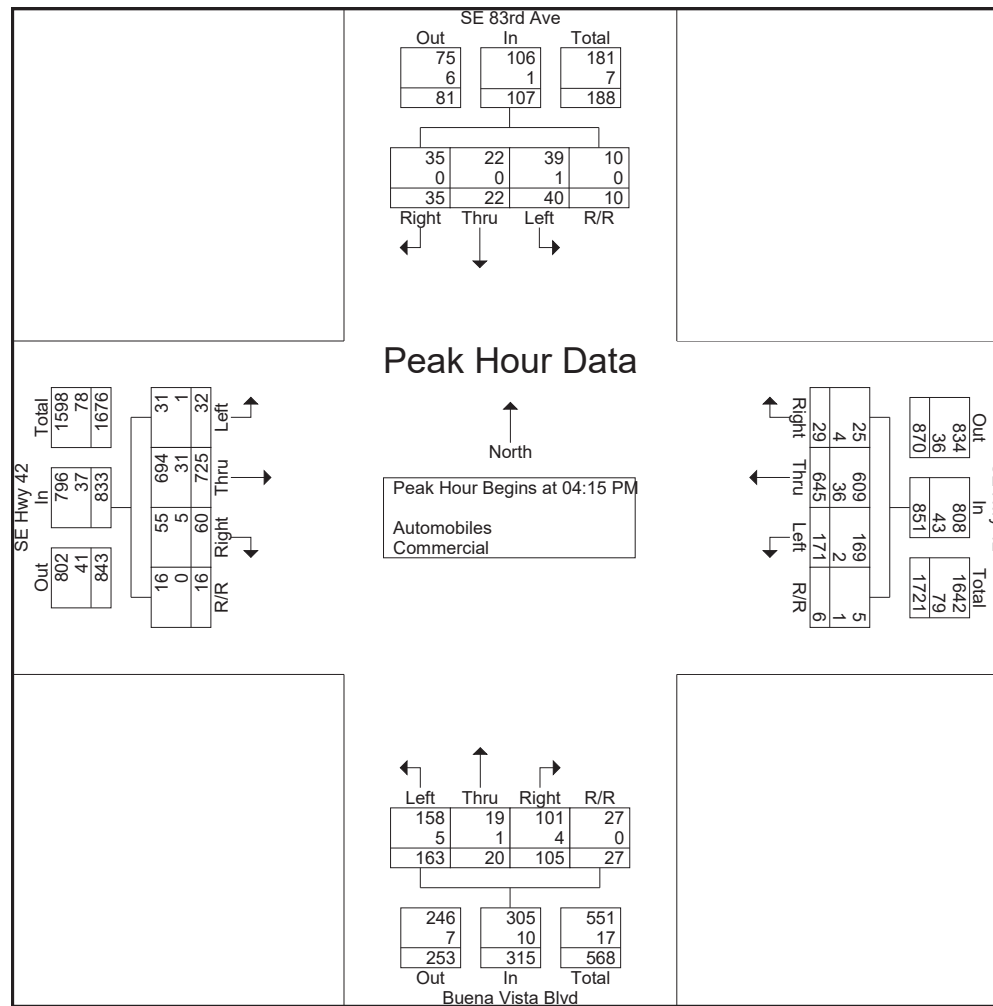
Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 04 Buena at 42

Site Code : 00000004

Start Date : 2/27/2025

Page No : 3



DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 04 Buena at 42

Site Code : 00000004

Start Date : 2/27/2025

Page No : 4

Groups Printed- Peds

	SE 83rd Ave Southbound					SE Hwy 42 Westbound					Buena Vista Blvd Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	3
Grand Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	3
Apprch %	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	0	0	0	0	0	33.3	33.3	0	0	0	0	0	0	0	0	66.7	66.7	

DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 05 SE 86th Belle at Hwy 42

Site Code : 00000005

Start Date : 2/26/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	SE 86th Ct Southbound					SE Hwy 42 Westbound					Belle Meade Cir Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
04:00 PM	7	3	7	2	19	19	137	7	1	164	31	9	13	3	56	9	151	24	3	187	426
04:15 PM	4	4	11	1	20	25	167	5	1	198	35	8	16	4	63	12	175	35	2	224	505
04:30 PM	8	6	8	3	25	36	191	8	1	236	42	7	16	5	70	16	186	29	2	233	564
04:45 PM	11	4	8	2	25	30	200	9	1	240	36	10	20	7	73	18	177	27	5	227	565
Total	30	17	34	8	89	110	695	29	4	838	144	34	65	19	262	55	689	115	12	871	2060
05:00 PM	9	8	10	1	28	26	175	8	2	211	31	8	18	4	61	17	155	30	4	206	506
05:15 PM	8	4	7	3	22	27	176	10	2	215	28	9	20	8	65	16	145	34	6	201	503
05:30 PM	10	7	9	2	28	24	140	10	2	176	27	12	20	5	64	14	158	26	5	203	471
05:45 PM	9	3	10	1	23	17	133	9	1	160	23	9	17	5	54	9	170	24	3	206	443
Total	36	22	36	7	101	94	624	37	7	762	109	38	75	22	244	56	628	114	18	816	1923
Grand Total	66	39	70	15	190	204	1319	66	11	1600	253	72	140	41	506	111	1317	229	30	1687	3983
Apprch %	34.7	20.5	36.8	7.9		12.8	82.4	4.1	0.7		50	14.2	27.7	8.1		6.6	78.1	13.6	1.8		
Total %	1.7	1	1.8	0.4	4.8	5.1	33.1	1.7	0.3	40.2	6.4	1.8	3.5	1	12.7	2.8	33.1	5.7	0.8	42.4	
Automobiles	58	36	62	15	171	194	1279	62	10	1545	243	69	130	39	481	108	1241	227	29	1605	3802
% Automobiles	87.9	92.3	88.6	100	90	95.1	97	93.9	90.9	96.6	96	95.8	92.9	95.1	95.1	97.3	94.2	99.1	96.7	95.1	95.5
Commercial	8	3	8	0	19	10	40	4	1	55	10	3	10	2	25	3	76	2	1	82	181
% Commercial	12.1	7.7	11.4	0	10	4.9	3	6.1	9.1	3.4	4	4.2	7.1	4.9	4.9	2.7	5.8	0.9	3.3	4.9	4.5

DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 05 SE 86th Belle at Hwy 42

Site Code : 00000005

Start Date : 2/26/2025

Page No : 2

	SE 86th Ct Southbound					SE Hwy 42 Westbound					Belle Meade Cir Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	4	11	1	20	25	167	5	1	198	35	8	16	4	63	12	175	35	2	224	505
04:30 PM	8	6	8	3	25	36	191	8	1	236	42	7	16	5	70	16	186	29	2	233	564
04:45 PM	11	4	8	2	25	30	200	9	1	240	36	10	20	7	73	18	177	27	5	227	565
05:00 PM	9	8	10	1	28	26	175	8	2	211	31	8	18	4	61	17	155	30	4	206	506
Total Volume	32	22	37	7	98	117	733	30	5	885	144	33	70	20	267	63	693	121	13	890	2140
% App. Total	32.7	22.4	37.8	7.1		13.2	82.8	3.4	0.6		53.9	12.4	26.2	7.5		7.1	77.9	13.6	1.5		
PHF	.727	.688	.841	.583	.875	.813	.916	.833	.625	.922	.857	.825	.875	.714	.914	.875	.931	.864	.650	.955	.947
Automobiles	29	22	32	7	90	111	710	29	4	854	138	33	66	19	256	61	649	119	13	842	2042
% Automobiles	90.6	100	86.5	100	91.8	94.9	96.9	96.7	80.0	96.5	95.8	100	94.3	95.0	95.9	96.8	93.7	98.3	100	94.6	95.4
Commercial	3	0	5	0	8	6	23	1	1	31	6	0	4	1	11	2	44	2	0	48	98
% Commercial	9.4	0	13.5	0	8.2	5.1	3.1	3.3	20.0	3.5	4.2	0	5.7	5.0	4.1	3.2	6.3	1.7	0	5.4	4.6

DE TRAFFIC

detraffic.com

(386)341-4186

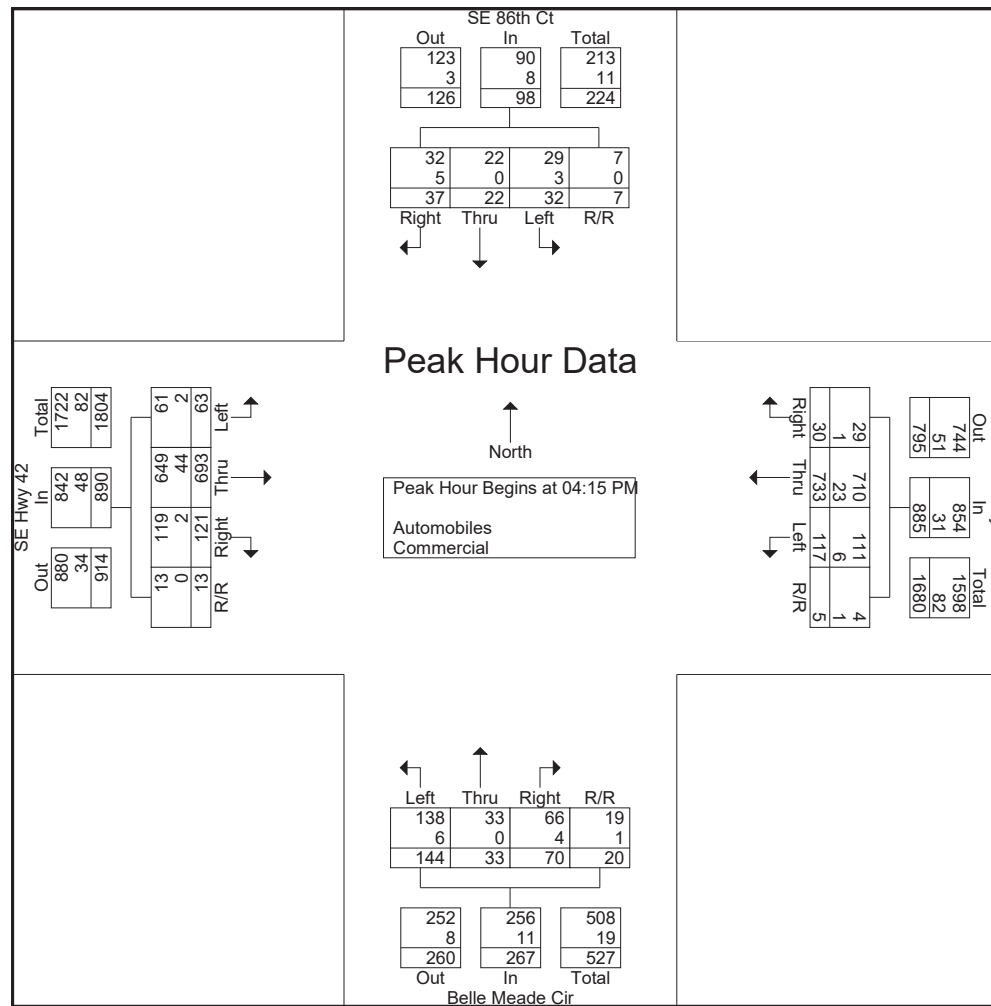
Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 05 SE 86th Belle at Hwy 42

Site Code : 00000005

Start Date : 2/26/2025

Page No : 3



DE TRAFFIC

detraffic.com

(386)341-4186

Buena Vista Blvd/SE 83rd Ave at CR 42
Marion County, FL

File Name : 05 SE 86th Belle at Hwy 42

Site Code : 00000005

Start Date : 2/26/2025

Page No : 4

Groups Printed- Peds

	SE 86th Ct Southbound					SE Hwy 42 Westbound					Belle Meade Cir Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
04:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	5
Apprch %	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	0		0	0	0	40	40	0	0	0	0		0	0	0	60	60	

DE TRAFFIC

detraffic.com

(386)341-4186

Sweetwater Terrace/SE 89th Ave at CR 42
Marion County, FL

File Name : 06 S89th at Hwy 42

Site Code : 000000006

Start Date : 2/26/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	SE 89th Ave Southbound					SE Hwy 42 Westbound					Sweetwater Terrace Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
04:00 PM	2	2	6	1	11	12	140	2	1	155	20	2	9	2	33	6	160	9	3	178	377
04:15 PM	4	2	9	0	15	16	146	6	2	170	27	5	11	3	46	5	179	8	1	193	424
04:30 PM	4	3	14	2	23	18	194	4	0	216	34	2	10	3	49	8	193	12	2	215	503
04:45 PM	4	1	9	1	15	18	203	3	0	224	28	6	15	6	55	10	176	15	1	202	496
Total	14	8	38	4	64	64	683	15	3	765	109	15	45	14	183	29	708	44	7	788	1800
05:00 PM	2	2	10	2	16	20	179	2	3	204	28	4	14	4	50	11	167	16	2	196	466
05:15 PM	2	4	11	1	18	19	187	5	0	211	31	7	16	5	59	13	159	13	1	186	474
05:30 PM	3	3	7	2	15	17	147	6	2	172	25	4	14	2	45	9	173	13	3	198	430
05:45 PM	4	2	9	1	16	25	145	3	1	174	16	3	9	5	33	8	182	12	2	204	427
Total	11	11	37	6	65	81	658	16	6	761	100	18	53	16	187	41	681	54	8	784	1797
Grand Total	25	19	75	10	129	145	1341	31	9	1526	209	33	98	30	370	70	1389	98	15	1572	3597
Apprch %	19.4	14.7	58.1	7.8		9.5	87.9	2	0.6		56.5	8.9	26.5	8.1		4.5	88.4	6.2	1		
Total %	0.7	0.5	2.1	0.3	3.6	4	37.3	0.9	0.3	42.4	5.8	0.9	2.7	0.8	10.3	1.9	38.6	2.7	0.4	43.7	
Automobiles	21	18	73	10	122	139	1296	29	8	1472	202	31	91	28	352	69	1313	97	12	1491	3437
% Automobiles	84	94.7	97.3	100	94.6	95.9	96.6	93.5	88.9	96.5	96.7	93.9	92.9	93.3	95.1	98.6	94.5	99	80	94.8	95.6
Commercial	4	1	2	0	7	6	45	2	1	54	7	2	7	2	18	1	76	1	3	81	160
% Commercial	16	5.3	2.7	0	5.4	4.1	3.4	6.5	11.1	3.5	3.3	6.1	7.1	6.7	4.9	1.4	5.5	1	20	5.2	4.4

DE TRAFFIC

detraffic.com

(386)341-4186

Sweetwater Terrace/SE 89th Ave at CR 42
Marion County, FL

File Name : 06 S89th at Hwy 42

Site Code : 000000006

Start Date : 2/26/2025

Page No : 2

	SE 89th Ave Southbound					SE Hwy 42 Westbound					Sweetwater Terrace Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	3	14	2	23	18	194	4	0	216	34	2	10	3	49	8	193	12	2	215	503
04:45 PM	4	1	9	1	15	18	203	3	0	224	28	6	15	6	55	10	176	15	1	202	496
05:00 PM	2	2	10	2	16	20	179	2	3	204	28	4	14	4	50	11	167	16	2	196	466
05:15 PM	2	4	11	1	18	19	187	5	0	211	31	7	16	5	59	13	159	13	1	186	474
Total Volume	12	10	44	6	72	75	763	14	3	855	121	19	55	18	213	42	695	56	6	799	1939
% App. Total	16.7	13.9	61.1	8.3		8.8	89.2	1.6	0.4		56.8	8.9	25.8	8.5		5.3	87	7	0.8		
PHF	.750	.625	.786	.750	.783	.938	.940	.700	.250	.954	.890	.679	.859	.750	.903	.808	.900	.875	.750	.929	.964
Automobiles	10	10	43	6	69	72	740	13	2	827	116	17	51	18	202	42	654	56	5	757	1855
% Automobiles	83.3	100	97.7	100	95.8	96.0	97.0	92.9	66.7	96.7	95.9	89.5	92.7	100	94.8	100	94.1	100	83.3	94.7	95.7
Commercial	2	0	1	0	3	3	23	1	1	28	5	2	4	0	11	0	41	0	1	42	84
% Commercial	16.7	0	2.3	0	4.2	4.0	3.0	7.1	33.3	3.3	4.1	10.5	7.3	0	5.2	0	5.9	0	16.7	5.3	4.3

DE TRAFFIC

detraffic.com

(386)341-4186

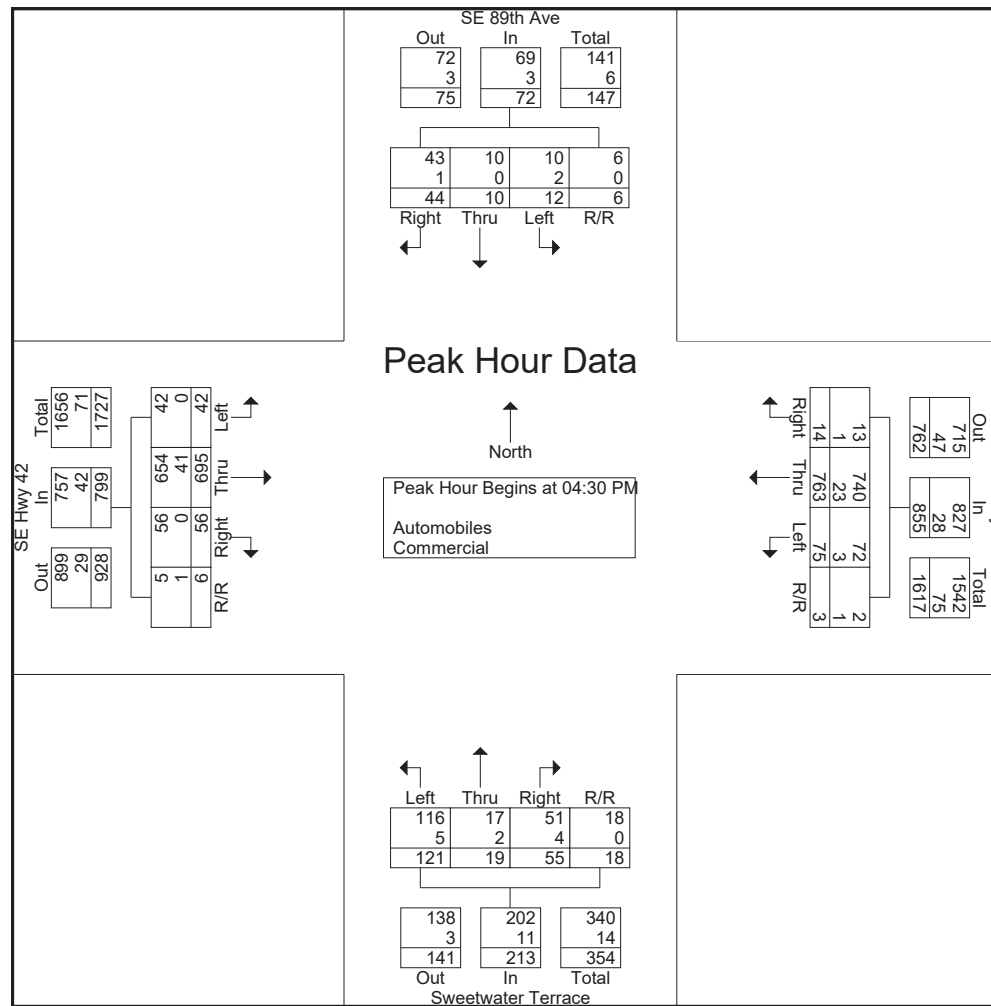
Sweetwater Terrace/SE 89th Ave at CR 42
Marion County, FL

File Name : 06 S89th at Hwy 42

Site Code : 000000006

Start Date : 2/26/2025

Page No : 3



DE TRAFFIC

detraffic.com

(386)341-4186

Sweetwater Terrace/SE 89th Ave at CR 42
Marion County, FL

File Name : 06 S89th at Hwy 42

Site Code : 00000006

Start Date : 2/26/2025

Page No : 4

Groups Printed- Peds

	SE 89th Ave Southbound					SE Hwy 42 Westbound					Sweetwater Terrace Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	3
Grand Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	5
Apprch %	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	0		0	0	0	40	40	0	0	0	0		0	0	0	60	60	

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 27/441 at CR 42
 Marion County, FL

File Name : 07 441 at Hwy 42

Site Code : 00000007

Start Date : 2/26/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	US 27/441 Southbound					SE Hwy 42 Westbound					US 27/441 Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
04:00 PM	36	207	27	9	279	20	32	36	7	95	69	230	20	4	323	25	30	88	10	153	850
04:15 PM	47	235	36	9	327	27	38	44	4	113	84	243	25	13	365	36	36	101	10	183	988
04:30 PM	58	252	45	13	368	36	45	38	10	129	105	263	36	12	416	41	51	127	12	231	1144
04:45 PM	47	267	57	16	387	32	56	40	10	138	129	249	43	11	432	36	44	120	10	210	1167
Total	188	961	165	47	1361	115	171	158	31	475	387	985	124	40	1536	138	161	436	42	777	4149
05:00 PM	55	269	46	12	382	40	55	45	9	149	118	265	35	10	428	31	35	118	14	198	1157
05:15 PM	49	283	40	9	381	45	41	39	9	134	101	255	28	14	398	35	48	99	10	192	1105
05:30 PM	55	253	45	11	364	37	52	46	8	143	88	272	24	10	394	43	41	85	12	181	1082
05:45 PM	45	236	29	6	316	28	43	43	7	121	81	216	31	6	334	36	38	79	9	162	933
Total	204	1041	160	38	1443	150	191	173	33	547	388	1008	118	40	1554	145	162	381	45	733	4277
Grand Total	392	2002	325	85	2804	265	362	331	64	1022	775	1993	242	80	3090	283	323	817	87	1510	8426
Apprch %	14	71.4	11.6	3		25.9	35.4	32.4	6.3		25.1	64.5	7.8	2.6		18.7	21.4	54.1	5.8		
Total %	4.7	23.8	3.9	1	33.3	3.1	4.3	3.9	0.8	12.1	9.2	23.7	2.9	0.9	36.7	3.4	3.8	9.7	1	17.9	
Automobiles	362	1904	293	80	2639	237	324	303	60	924	746	1885	231	77	2939	273	313	783	84	1453	7955
% Automobiles	92.3	95.1	90.2	94.1	94.1	89.4	89.5	91.5	93.8	90.4	96.3	94.6	95.5	96.2	95.1	96.5	96.9	95.8	96.6	96.2	94.4
Commercial	30	98	32	5	165	28	38	28	4	98	29	108	11	3	151	10	10	34	3	57	471
% Commercial	7.7	4.9	9.8	5.9	5.9	10.6	10.5	8.5	6.2	9.6	3.7	5.4	4.5	3.8	4.9	3.5	3.1	4.2	3.4	3.8	5.6

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 27/441 at CR 42
 Marion County, FL

File Name : 07 441 at Hwy 42
 Site Code : 00000007
 Start Date : 2/26/2025
 Page No : 2

	US 27/441 Southbound					SE Hwy 42 Westbound					US 27/441 Northbound					SE Hwy 42 Eastbound					
Start Time	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Left	Thru	Right	R/R	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	58	252	45	13	368	36	45	38	10	129	105	263	36	12	416	41	51	127	12	231	1144
04:45 PM	47	267	57	16	387	32	56	40	10	138	129	249	43	11	432	36	44	120	10	210	1167
05:00 PM	55	269	46	12	382	40	55	45	9	149	118	265	35	10	428	31	35	118	14	198	1157
05:15 PM	49	283	40	9	381	45	41	39	9	134	101	255	28	14	398	35	48	99	10	192	1105
Total Volume	209	1071	188	50	1518	153	197	162	38	550	453	1032	142	47	1674	143	178	464	46	831	4573
% App. Total	13.8	70.6	12.4	3.3		27.8	35.8	29.5	6.9		27.1	61.6	8.5	2.8		17.2	21.4	55.8	5.5		
PHF	.901	.946	.825	.781	.981	.850	.879	.900	.950	.923	.878	.974	.826	.839	.969	.872	.873	.913	.821	.899	.980
Automobiles	193	1016	168	47	1424	137	178	146	35	496	439	973	135	46	1593	138	173	447	45	803	4316
% Automobiles	92.3	94.9	89.4	94.0	93.8	89.5	90.4	90.1	92.1	90.2	96.9	94.3	95.1	97.9	95.2	96.5	97.2	96.3	97.8	96.6	94.4
Commercial	16	55	20	3	94	16	19	16	3	54	14	59	7	1	81	5	5	17	1	28	257
% Commercial	7.7	5.1	10.6	6.0	6.2	10.5	9.6	9.9	7.9	9.8	3.1	5.7	4.9	2.1	4.8	3.5	2.8	3.7	2.2	3.4	5.6

DE TRAFFIC

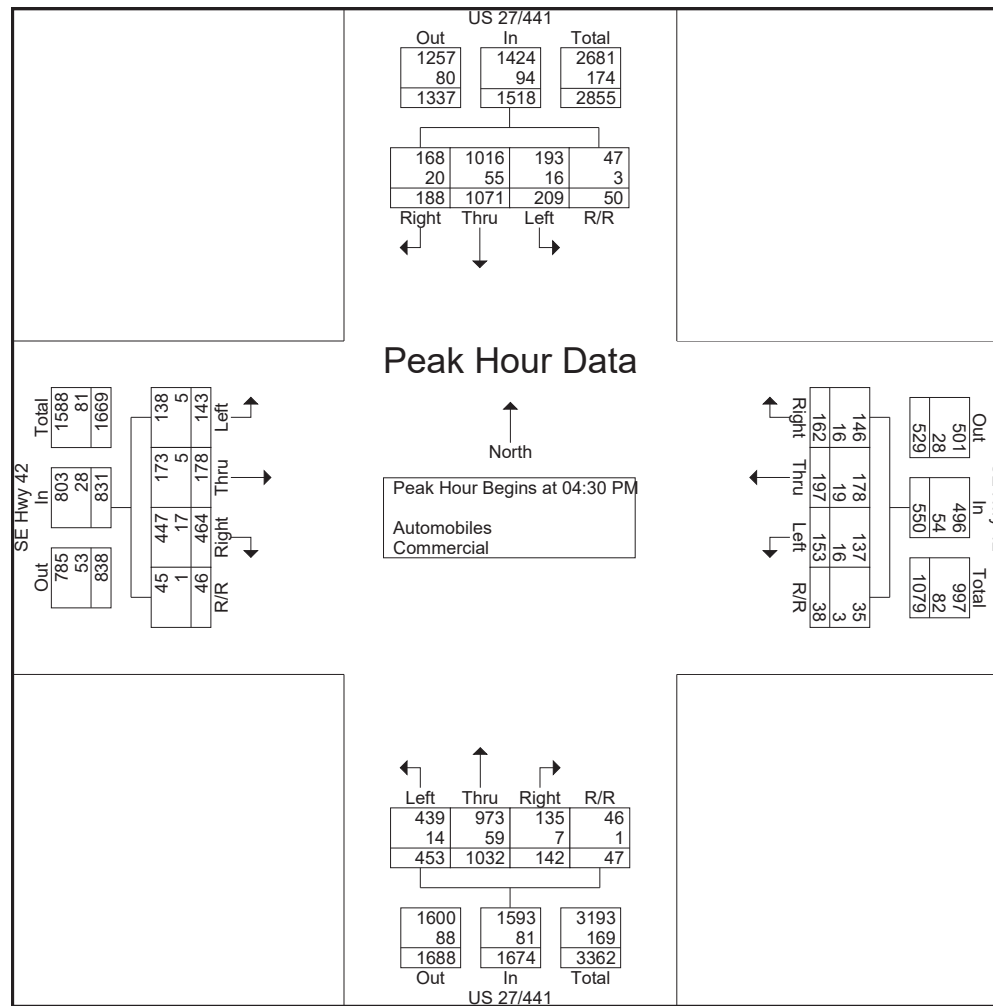
detraffic.com
 (386)341-4186
 US 27/441 at CR 42
 Marion County, FL

File Name : 07 441 at Hwy 42

Site Code : 00000007

Start Date : 2/26/2025

Page No : 3



detraffic.com
(386)341-4186
US 27/441 at CR 42
Marion County, FL

Groups Printed- Peds

[illegible]

DE TRAFFIC

detraffic.com

(386)341-4186

US 301 at SE 147th St

Marion County, FL

File Name : 08 301 at 147

Site Code : 00000008

Start Date : 2/27/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	US 301 Southbound				SE 147th St Westbound				US 301 Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	202	2	213	9	0	11	20	2	105	6	113	0	3	5	8	354
07:15 AM	11	253	0	264	11	0	18	29	1	124	5	130	2	4	4	10	433
07:30 AM	16	282	2	300	8	0	17	25	1	136	5	142	1	2	6	9	476
07:45 AM	18	267	0	285	11	0	18	29	2	161	10	173	2	3	5	10	497
Total	54	1004	4	1062	39	0	64	103	6	526	26	558	5	12	20	37	1760
08:00 AM	17	249	2	268	9	0	19	28	2	149	9	160	2	4	5	11	467
08:15 AM	26	237	1	264	8	0	21	29	2	132	7	141	2	2	4	8	442
08:30 AM	19	241	3	263	13	0	19	32	4	113	9	126	1	4	6	11	432
08:45 AM	16	203	1	220	9	0	13	22	3	118	7	128	4	2	3	9	379
Total	78	930	7	1015	39	0	72	111	11	512	32	555	9	12	18	39	1720
04:00 PM	18	120	3	141	6	3	14	23	6	211	6	223	1	0	1	2	389
04:15 PM	21	144	3	168	3	6	16	25	8	264	11	283	0	0	0	0	476
04:30 PM	15	138	2	155	3	1	7	11	2	298	4	304	0	1	0	1	471
04:45 PM	16	144	0	160	5	1	11	17	5	278	6	289	0	0	1	1	467
Total	70	546	8	624	17	11	48	76	21	1051	27	1099	1	1	2	4	1803
05:00 PM	18	160	2	180	4	4	19	27	6	294	5	305	0	1	0	1	513
05:15 PM	19	151	2	172	6	6	21	33	5	271	8	284	1	0	0	1	490
05:30 PM	16	163	2	181	4	4	15	23	4	246	8	258	0	1	2	3	465
05:45 PM	13	137	0	150	6	5	16	27	6	227	8	241	1	0	1	2	420
Total	66	611	6	683	20	19	71	110	21	1038	29	1088	2	2	3	7	1888
Grand Total	268	3091	25	3384	115	30	255	400	59	3127	114	3300	17	27	43	87	7171
Apprch %	7.9	91.3	0.7		28.8	7.5	63.8		1.8	94.8	3.5		19.5	31	49.4		
Total %	3.7	43.1	0.3	47.2	1.6	0.4	3.6	5.6	0.8	43.6	1.6	46	0.2	0.4	0.6	1.2	
Automobiles	264	2904	24	3192	115	30	253	398	56	2934	107	3097	17	27	43	87	6774
% Automobiles	98.5	94	96	94.3	100	100	99.2	99.5	94.9	93.8	93.9	93.8	100	100	100	100	94.5
Commercial	4	187	1	192	0	0	2	2	3	193	7	203	0	0	0	0	397
% Commercial	1.5	6	4	5.7	0	0	0.8	0.5	5.1	6.2	6.1	6.2	0	0	0	0	5.5

DE TRAFFIC

detraffic.com

(386)341-4186

US 301 at SE 147th St

Marion County, FL

File Name : 08 301 at 147

Site Code : 00000008

Start Date : 2/27/2025

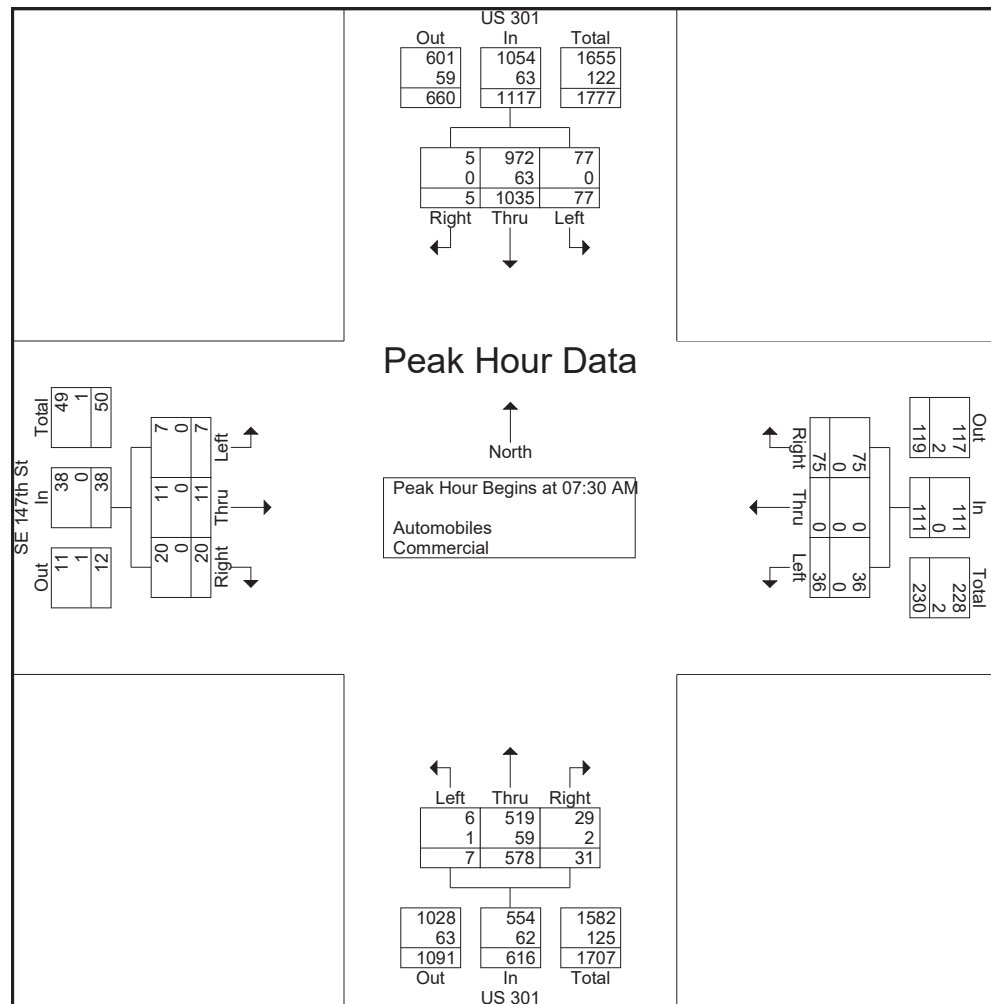
Page No : 2

	US 301 Southbound				SE 147th St Westbound				US 301 Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	16	282	2	300	8	0	17	25	1	136	5	142	1	2	6	9	476
07:45 AM	18	267	0	285	11	0	18	29	2	161	10	173	2	3	5	10	497
08:00 AM	17	249	2	268	9	0	19	28	2	149	9	160	2	4	5	11	467
08:15 AM	26	237	1	264	8	0	21	29	2	132	7	141	2	2	4	8	442
Total Volume	77	1035	5	1117	36	0	75	111	7	578	31	616	7	11	20	38	1882
% App. Total	6.9	92.7	0.4		32.4	0	67.6		1.1	93.8	5		18.4	28.9	52.6		
PHF	.740	.918	.625	.931	.818	.000	.893	.957	.875	.898	.775	.890	.875	.688	.833	.864	.947
Automobiles	77	972	5	1054	36	0	75	111	6	519	29	554	7	11	20	38	1757
% Automobiles	100	93.9	100	94.4	100	0	100	100	85.7	89.8	93.5	89.9	100	100	100	100	93.4
Commercial	0	63	0	63	0	0	0	0	1	59	2	62	0	0	0	0	125
% Commercial	0	6.1	0	5.6	0	0	0	0	14.3	10.2	6.5	10.1	0	0	0	0	6.6

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SE 147th St
 Marion County, FL

File Name : 08 301 at 147
 Site Code : 00000008
 Start Date : 2/27/2025
 Page No : 3



DE TRAFFIC

detraffic.com

(386)341-4186

US 301 at SE 147th St

Marion County, FL

File Name : 08 301 at 147

Site Code : 00000008

Start Date : 2/27/2025

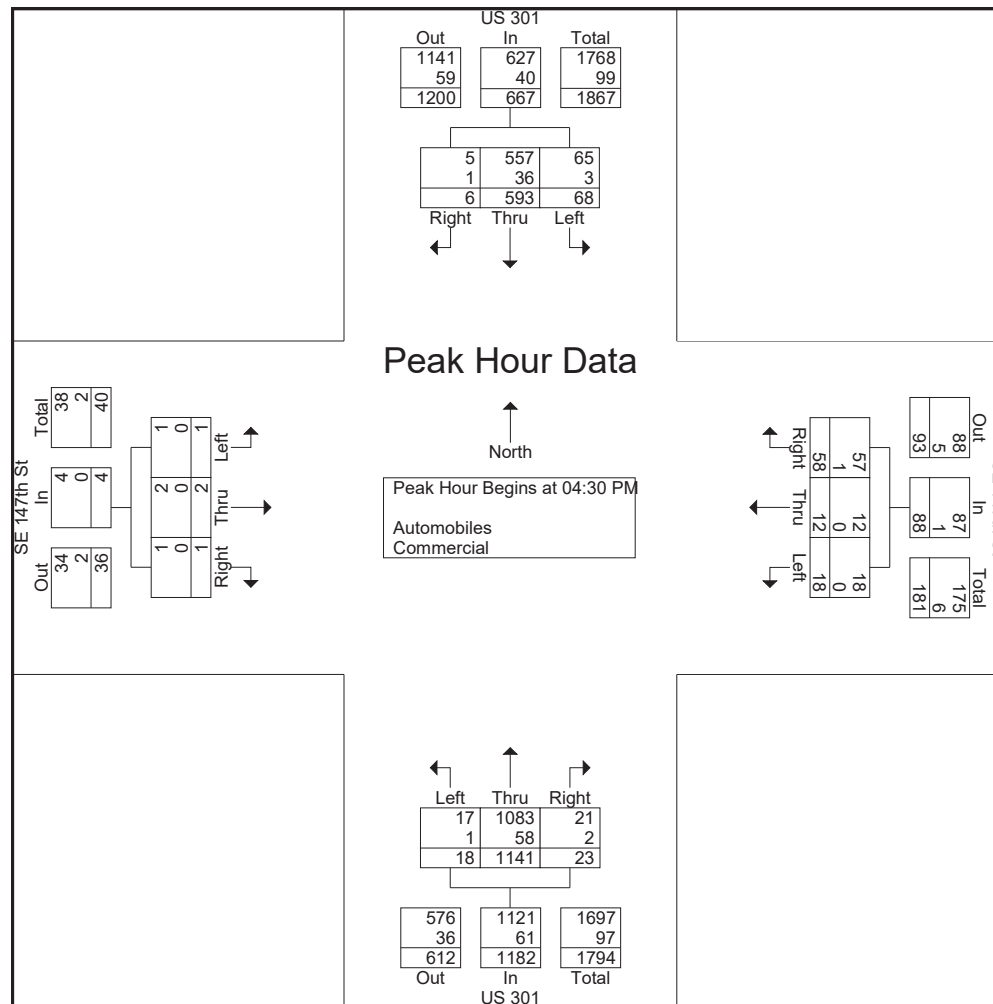
Page No : 4

	US 301 Southbound				SE 147th St Westbound				US 301 Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	138	2	155	3	1	7	11	2	298	4	304	0	1	0	1	471
04:45 PM	16	144	0	160	5	1	11	17	5	278	6	289	0	0	1	1	467
05:00 PM	18	160	2	180	4	4	19	27	6	294	5	305	0	1	0	1	513
05:15 PM	19	151	2	172	6	6	21	33	5	271	8	284	1	0	0	1	490
Total Volume	68	593	6	667	18	12	58	88	18	1141	23	1182	1	2	1	4	1941
% App. Total	10.2	88.9	0.9		20.5	13.6	65.9		1.5	96.5	1.9		25	50	25		
PHF	.895	.927	.750	.926	.750	.500	.690	.667	.750	.957	.719	.969	.250	.500	.250	1.00	.946
Automobiles	65	557	5	627	18	12	57	87	17	1083	21	1121	1	2	1	4	1839
% Automobiles	95.6	93.9	83.3	94.0	100	100	98.3	98.9	94.4	94.9	91.3	94.8	100	100	100	100	94.7
Commercial	3	36	1	40	0	0	1	1	1	58	2	61	0	0	0	0	102
% Commercial	4.4	6.1	16.7	6.0	0	0	1.7	1.1	5.6	5.1	8.7	5.2	0	0	0	0	5.3

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SE 147th St
 Marion County, FL

File Name : 08 301 at 147
 Site Code : 00000008
 Start Date : 2/27/2025
 Page No : 5



detraffic.com
(386)341-4186
US 301 at SE 147th St
Marion County, FL

File Name : 08 301 at 147
Site Code : 00000008
Start Date : 2/27/2025
Page No : 6

[illegible]

DE TRAFFIC

detraffic.com
(386)341-4186
US 301 at SW 73rd Ave
Marion County, FL

File Name : 09 73 at 147
Site Code : 00000009
Start Date : 2/27/2025
Page No : 1

Groups Printed- Automobiles - Commercial

	SW 73rd Ave Southbound				SE 147th St Westbound				SW 73rd Ave Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	18	0	18	2	0	0	2	0	14	2	16	36
07:15 AM	0	0	1	1	0	26	0	26	3	0	0	3	1	18	2	21	51
07:30 AM	1	0	0	1	1	24	0	25	6	0	0	6	0	16	3	19	51
07:45 AM	0	0	0	0	0	23	1	24	7	0	1	8	0	23	1	24	56
Total	1	0	1	2	1	91	1	93	18	0	1	19	1	71	8	80	194
08:00 AM	0	0	1	1	2	22	0	24	2	0	0	2	0	27	2	29	56
08:15 AM	0	0	0	0	0	25	0	25	3	1	0	4	0	32	0	32	61
08:30 AM	0	0	0	0	1	29	0	30	2	0	0	2	0	30	2	32	64
08:45 AM	0	0	0	0	0	21	0	21	3	0	0	3	0	21	1	22	46
Total	0	0	1	1	3	97	0	100	10	1	0	11	0	110	5	115	227
04:00 PM	1	0	0	1	0	21	0	21	2	0	0	2	0	18	3	21	45
04:15 PM	0	0	0	0	0	22	0	22	3	0	0	3	0	25	4	29	54
04:30 PM	0	1	0	1	1	13	0	14	4	0	1	5	0	14	2	16	36
04:45 PM	0	1	2	3	0	15	0	15	5	0	0	5	1	17	3	21	44
Total	1	2	2	5	1	71	0	72	14	0	1	15	1	74	12	87	179
05:00 PM	1	0	0	1	2	25	1	28	4	0	0	4	0	20	4	24	57
05:15 PM	0	0	1	1	0	29	0	29	4	1	0	5	0	22	2	24	59
05:30 PM	1	0	0	1	0	20	1	21	2	1	0	3	0	19	3	22	47
05:45 PM	0	0	0	0	0	25	0	25	3	0	0	3	0	15	4	19	47
Total	2	0	1	3	2	99	2	103	13	2	0	15	0	76	13	89	210
Grand Total	4	2	5	11	7	358	3	368	55	3	2	60	2	331	38	371	810
Apprch %	36.4	18.2	45.5		1.9	97.3	0.8		91.7	5	3.3		0.5	89.2	10.2		
Total %	0.5	0.2	0.6	1.4	0.9	44.2	0.4	45.4	6.8	0.4	0.2	7.4	0.2	40.9	4.7	45.8	
Automobiles	4	2	5	11	7	353	3	363	55	3	2	60	2	324	38	364	798
% Automobiles	100	100	100	100	100	98.6	100	98.6	100	100	100	100	100	97.9	100	98.1	98.5
Commercial	0	0	0	0	0	5	0	5	0	0	0	0	0	7	0	7	12
% Commercial	0	0	0	0	0	1.4	0	1.4	0	0	0	0	0	2.1	0	1.9	1.5

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SW 73rd Ave
 Marion County, FL

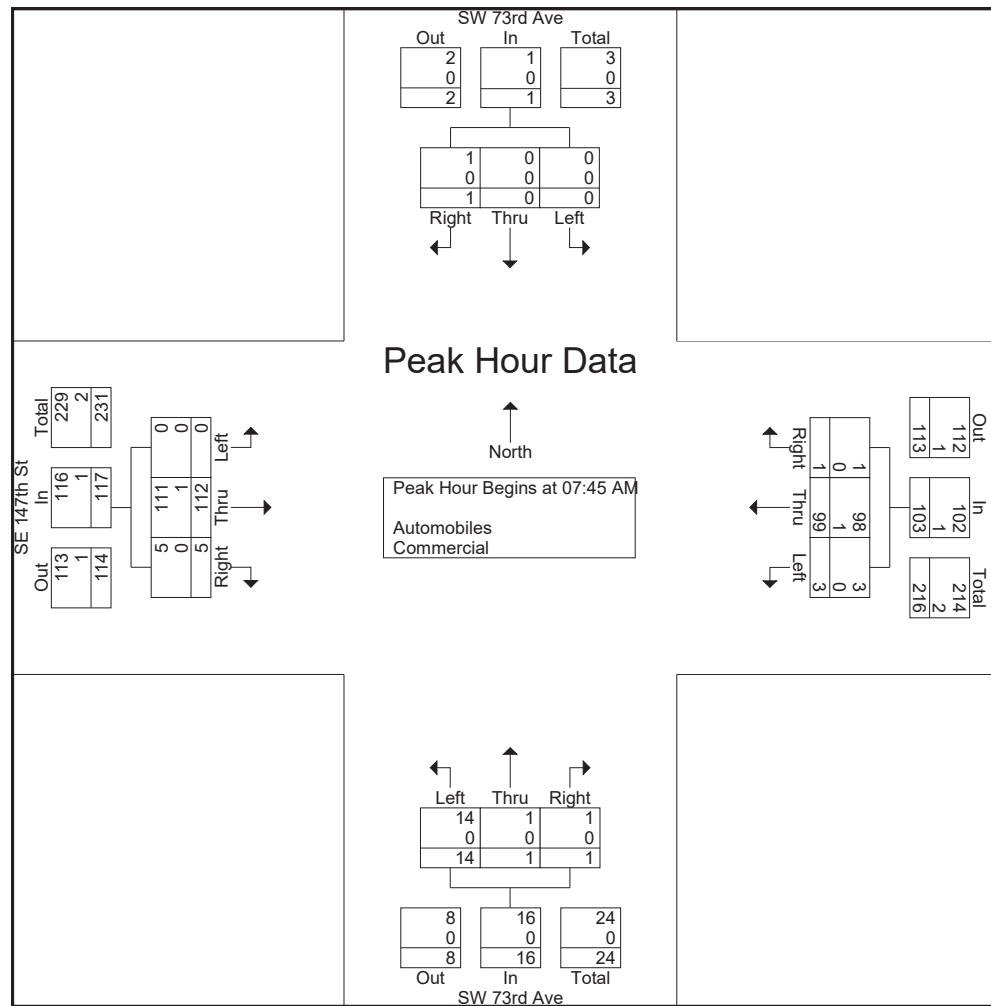
File Name : 09 73 at 147
 Site Code : 00000009
 Start Date : 2/27/2025
 Page No : 2

	SW 73rd Ave Southbound				SE 147th St Westbound				SW 73rd Ave Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	23	1	24	7	0	1	8	0	23	1	24	56
08:00 AM	0	0	1	1	2	22	0	24	2	0	0	2	0	27	2	29	56
08:15 AM	0	0	0	0	0	25	0	25	3	1	0	4	0	32	0	32	61
08:30 AM	0	0	0	0	1	29	0	30	2	0	0	2	0	30	2	32	64
Total Volume	0	0	1	1	3	99	1	103	14	1	1	16	0	112	5	117	237
% App. Total	0	0	100		2.9	96.1	1		87.5	6.2	6.2		0	95.7	4.3		
PHF	.000	.000	.250	.250	.375	.853	.250	.858	.500	.250	.250	.500	.000	.875	.625	.914	.926
Automobiles	0	0	1	1	3	98	1	102	14	1	1	16	0	111	5	116	235
% Automobiles	0	0	100	100	100	99.0	100	99.0	100	100	100	100	0	99.1	100	99.1	99.2
Commercial	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
% Commercial	0	0	0	0	0	1.0	0	1.0	0	0	0	0	0	0.9	0	0.9	0.8

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SW 73rd Ave
 Marion County, FL

File Name : 09 73 at 147
 Site Code : 00000009
 Start Date : 2/27/2025
 Page No : 3



DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SW 73rd Ave
 Marion County, FL

File Name : 09 73 at 147

Site Code : 00000009

Start Date : 2/27/2025

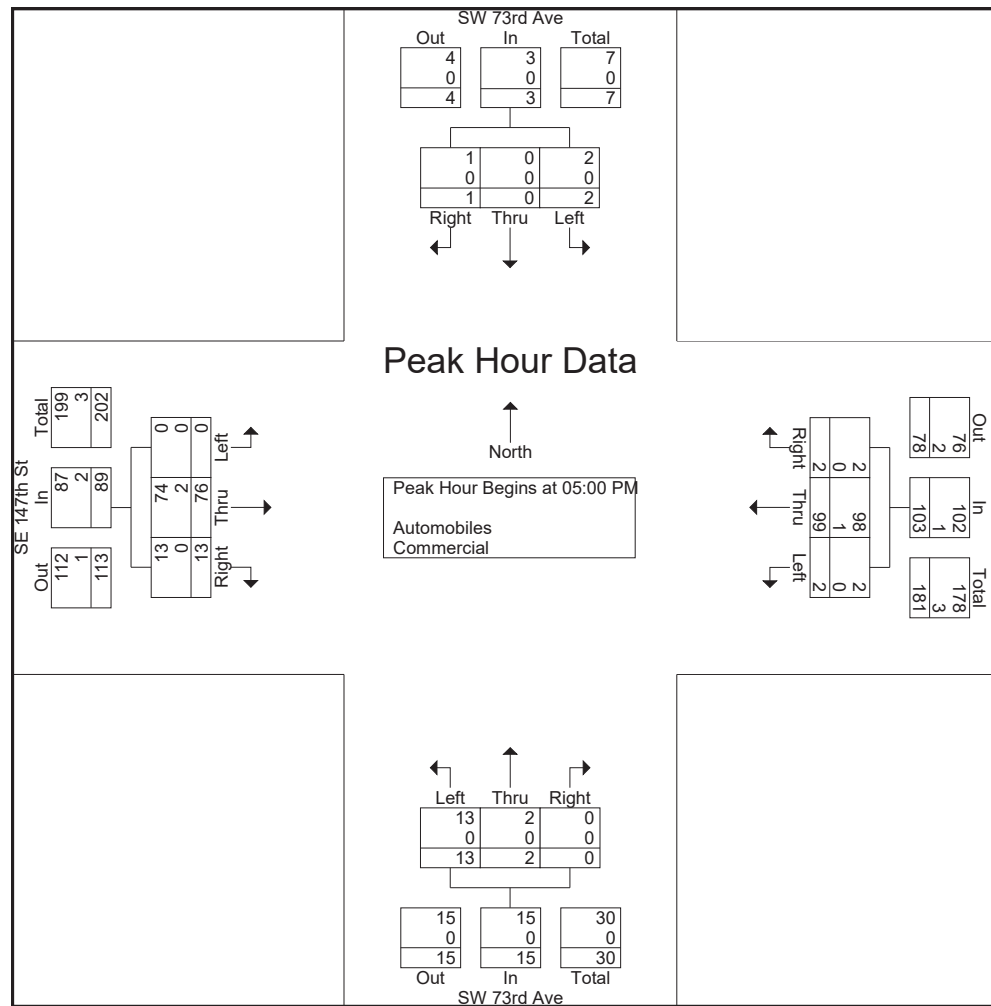
Page No : 4

	SW 73rd Ave Southbound				SE 147th St Westbound				SW 73rd Ave Northbound				SE 147th St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	0	1	2	25	1	28	4	0	0	4	0	20	4	24	57
05:15 PM	0	0	1	1	0	29	0	29	4	1	0	5	0	22	2	24	59
05:30 PM	1	0	0	1	0	20	1	21	2	1	0	3	0	19	3	22	47
05:45 PM	0	0	0	0	0	25	0	25	3	0	0	3	0	15	4	19	47
Total Volume	2	0	1	3	2	99	2	103	13	2	0	15	0	76	13	89	210
% App. Total	66.7	0	33.3		1.9	96.1	1.9		86.7	13.3	0		0	85.4	14.6		
PHF	.500	.000	.250	.750	.250	.853	.500	.888	.813	.500	.000	.750	.000	.864	.813	.927	.890
Automobiles	2	0	1	3	2	98	2	102	13	2	0	15	0	74	13	87	207
% Automobiles	100	0	100	100	100	99.0	100	99.0	100	100	0	100	0	97.4	100	97.8	98.6
Commercial	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
% Commercial	0	0	0	0	0	1.0	0	1.0	0	0	0	0	0	2.6	0	2.2	1.4

DE TRAFFIC

detraffic.com
 (386)341-4186
 US 301 at SW 73rd Ave
 Marion County, FL

File Name : 09 73 at 147
 Site Code : 00000009
 Start Date : 2/27/2025
 Page No : 5



detraffic.com
(386)341-4186
US 301 at SW 73rd Ave
Marion County, FL

Groups Printed- Peds

[illegible]



NB Approach



SB Approach



EB Approach



WB Approach



US 301 at
CR 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 1



SB Approach



EB Approach



WB Approach



Mulberry Grove Animal Hospital/Saint
Mark The Evangelist at CR 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 2



NB Approach



SB Approach



EB Approach



WB Approach



SE 73rd Ave
at CR 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 3



NB Approach



SB Approach



EB Approach



WB Approach



Buena Vista Blvd/SE 83rd Ave
at CR 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 4



NB Approach



SB Approach



EB Approach



WB Approach



SE 86th Ct/Belle Meade Cir
at SE Hwy 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 5



NB Approach



SB Approach



EB Approach



WB Approach



SE 89th Ave/Sweetwater Terrace
at CR 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 6



NB Approach



SB Approach



EB Approach



WB Approach



US 27/441
at SE Hwy 42

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 7



NB Approach



SB Approach



EB Approach



WB Approach



US 301 at
SE 147th St

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 8



NB Approach



SB Approach



EB Approach



WB Approach



SW 73rd Ave at
SE 147th St

Marion County

detraffic.com

9239 Outlook Rock Trl. Windermere Fl. 34786

Project
Number: KA-25-08

Sheet
Number: 9

DE TRAFFIC

detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal AM

Site Code : 00000002

Start Date : 4/29/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	Animal Hospital/Church Drwy Southbound				CR 42 Westbound				N/A Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	127	0	127	0	0	0	0	2	127	0	129	256
07:15 AM	0	0	0	0	0	132	0	132	0	0	0	0	3	158	0	161	293
07:30 AM	0	0	1	1	0	141	1	142	0	0	0	0	2	194	0	196	339
07:45 AM	0	0	2	2	0	173	2	175	0	0	0	0	2	186	0	188	365
Total	0	0	3	3	0	573	3	576	0	0	0	0	9	665	0	674	1253
08:00 AM	0	0	1	1	0	142	0	142	0	0	0	0	3	203	0	206	349
08:15 AM	2	0	2	4	0	162	2	164	0	0	0	0	1	203	0	204	372
08:30 AM	1	0	1	2	0	167	1	168	0	0	0	0	1	208	0	209	379
08:45 AM	0	0	0	0	0	163	0	163	0	0	0	0	0	184	0	184	347
Total	3	0	4	7	0	634	3	637	0	0	0	0	5	798	0	803	1447
Grand Total	3	0	7	10	0	1207	6	1213	0	0	0	0	14	1463	0	1477	2700
Apprch %	30	0	70		0	99.5	0.5		0	0	0		0.9	99.1	0		
Total %	0.1	0	0.3	0.4	0	44.7	0.2	44.9	0	0	0	0	0.5	54.2	0	54.7	
Automobiles	3	0	7	10	0	1160	6	1166	0	0	0	0	14	1406	0	1420	2596
% Automobiles	100	0	100	100	0	96.1	100	96.1	0	0	0	0	100	96.1	0	96.1	96.1
Commercial	0	0	0	0	0	47	0	47	0	0	0	0	0	57	0	57	104
% Commercial	0	0	0	0	0	3.9	0	3.9	0	0	0	0	0	3.9	0	3.9	3.9

DE TRAFFIC

detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal AM

Site Code : 00000002

Start Date : 4/29/2025

Page No : 2

	Animal Hospital/Church Drwy Southbound				CR 42 Westbound				N/A Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	2	2	0	173	2	175	0	0	0	0	2	186	0	188	365
08:00 AM	0	0	1	1	0	142	0	142	0	0	0	0	3	203	0	206	349
08:15 AM	2	0	2	4	0	162	2	164	0	0	0	0	1	203	0	204	372
08:30 AM	1	0	1	2	0	167	1	168	0	0	0	0	1	208	0	209	379
Total Volume	3	0	6	9	0	644	5	649	0	0	0	0	7	800	0	807	1465
% App. Total	33.3	0	66.7		0	99.2	0.8		0	0	0		0.9	99.1	0		
PHF	.375	.000	.750	.563	.000	.931	.625	.927	.000	.000	.000	.000	.583	.962	.000	.965	.966
Automobiles	3	0	6	9	0	615	5	620	0	0	0	0	7	764	0	771	1400
% Automobiles	100	0	100	100	0	95.5	100	95.5	0	0	0	0	100	95.5	0	95.5	95.6
Commercial	0	0	0	0	0	29	0	29	0	0	0	0	0	36	0	36	65
% Commercial	0	0	0	0	0	4.5	0	4.5	0	0	0	0	0	4.5	0	4.5	4.4

DE TRAFFIC

detraffic.com

(386)341-4186

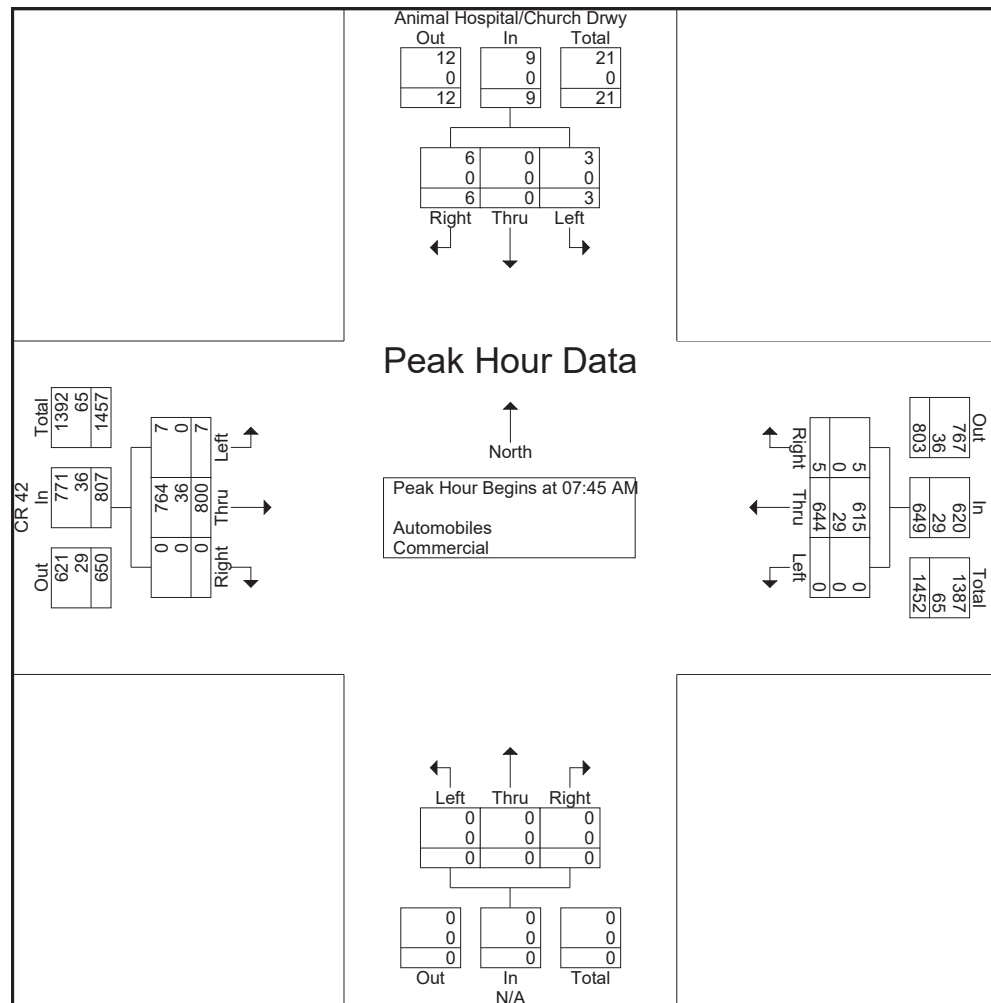
Animal Hospital/Church Drwy at CR 42
Marion County, FL

File Name : 02 Hwy 42 at Animal AM

Site Code : 00000002

Start Date : 4/29/2025

Page No : 3



detraffic.com

(386)341-4186

Animal Hospital/Church Drwy at CR 42
Marion County, FL

Site Code : 00000002

Start Date : 4/29/2025

Page No : 4

[illegible]

Existing Signal Timings

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT FIVE
US 441/27 - TSMO Signal Retiming
Marion County
FIN 440412-1-32-02

Revised Timings Implemented On: 6/25/2024

Designed By:	J.M.
Date:	1/19/2020
Checked By:	R.A.A
Date:	1/19/2020

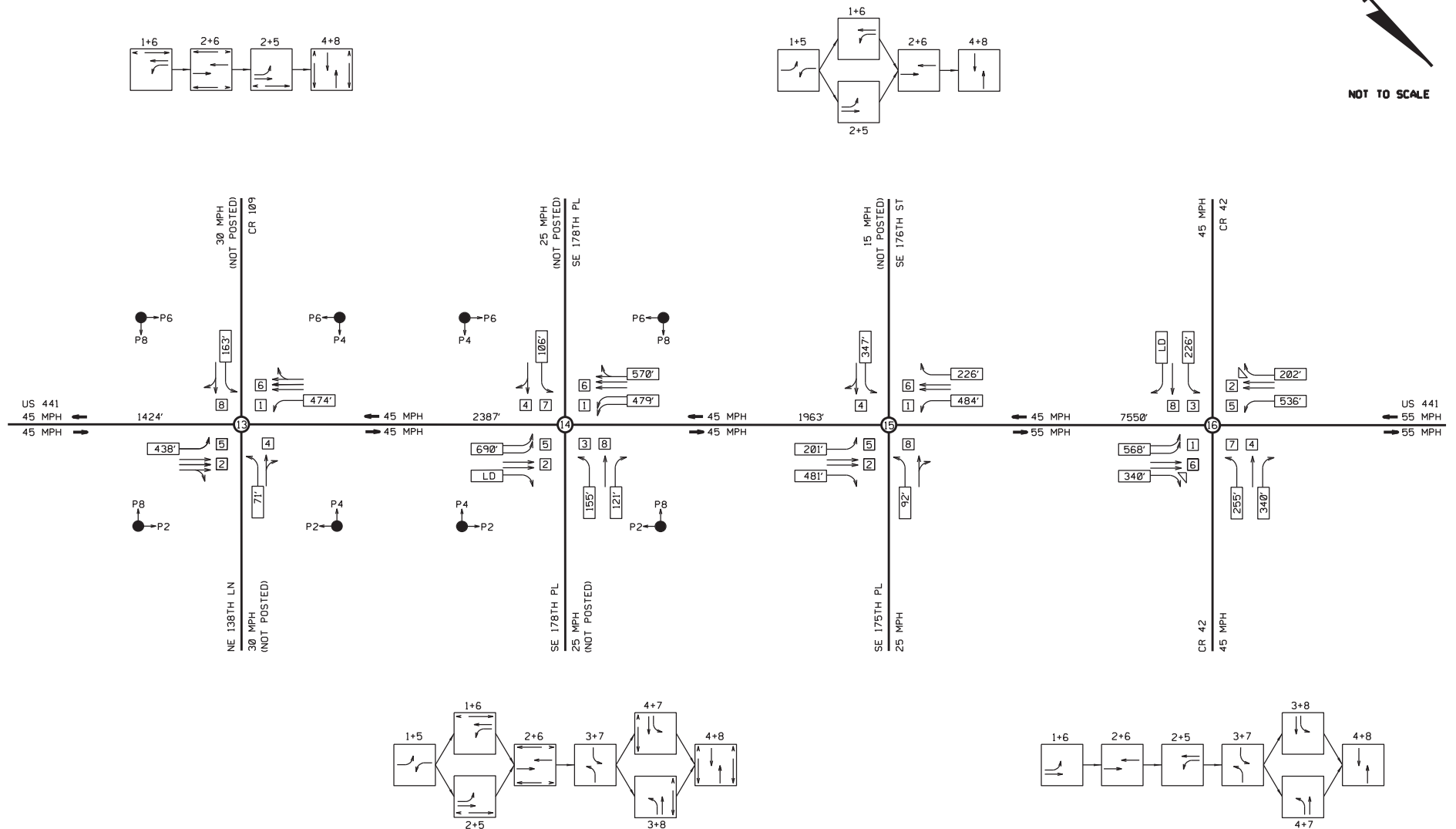
Section	36220000	Mile Post	2.017	Node	16
Sig ID		Controller	Siemens m60	System ID	
Maj. Street	US 441/27	Orientation	N-S	SOP	10 Modified
Min. Street	CR 42	Orientation	E-W		

Data Inputs													
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes				
Direction	NBL	SB	EBL	WB	SBL	NB	WBL	EB					
Speed Limit (mph)	55	55	45	45	55	55	45	45					
Vehicle Traversed Width	162	156	89	148	147	140	90	144					
Approach Grades	-1.0%	-0.6%	-0.4%	-2.2%	-0.6%	-1.0%	-2.2%	-0.4%					
Ped-X (curb to curb)													
Crossing Time													
Ped-X (button to curb)													
Ped-X (button to far curb)													
Crossing Time (to far curb)													
Controller Timings (seconds)													
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes				
Direction	NBL	SB	EBL	WB	SBL	NB	WBL	EB	1) Runs Free 24/7. Not in Coordination. 2) Phase 1 leads, and Phase 5 lags at all times. 3) FYAs operate 24/7 for Phases 3 & 7. Programmed 2.0 second delay for FYAs.				
Turn Type	Prot		Prot/Perm		Prot		Prot/Perm						
Min Green	7	15	7	10	7	15	7	10					
Ext	4.0	3.0	4.0	3.0	4.0	3.0	4.0	3.0					
Yellow Change Interval	5.9	5.9	5.0	5.0	5.9	5.9	5.0	5.0					
Red Clearance Interval	4.0	3.6	2.0	2.5	3.6	3.6	2.6	2.5					
Max I	25	70	25	32	20	70	25	32					
Max II													
Walk													
Flashing Don't Walk													
Min Splits	17.0	25.0	14.0	18.0	17.0	25.0	15.0	18.0					
Non-Lock Memory			ON	ON			ON	ON					
Det. Cross Switch.													
Recall		Min				Min							
Dual Entry		ON		ON		ON		ON					
Coord Phase		YES				YES							
No Simultaneous Gap Out			ON		ON		ON		ON				
Coordination Timings (seconds)													
Plan	Pattern	C-O-S	Splits								Cycle Length	Offset	Seq
AM	1		24	67	18	31	22	69	18	31	140	20	2
MIDDAY	2		35	73	28	24	24	84	24	28	160	111	2
PM	3		38	68	29	25	29	77	19	35	160	131	2
WEEKEND	6		35	73	28	24	24	84	24	28	160	111	2

Notes

- 1) Offset referenced to end of first through movement 2 & 6
- 2) Use Plan Force-Offs
- 3) Use Max Inhibit during coordination
- 4) Program Min Recall on Phase 5 for all patterns
- 5) N-S left turns cannot run concurrently due to intersection geometry

All Patterns (Sequence 2)			
Ring-1	1	2	3
Ring-2	6	5	7



•PM PLAN SEQUENCING SHOWN. REFER TO TIMING SHEETS FOR SIGNAL PHASING SEQUENCE FOR ALL TIMING PLANS

NODE NO.	①	SIGNAL OPERATING PLAN	
STORAGE LENGTH	315'	PEDESTRIAN SIGNAL	
PHASE NO.	2	LANE GEOMETRY	
LANE DROP	LD		

HDR Engineering, Inc.
315 E. Robinson Street, Suite 400
Orlando, FL 32801-1949
(407) 426-4200
www.hdrinc.com
Certificate of Authorization No. 4213

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
US 441	SUMTER MARION	440412-1-32-02

LINK NODE DIAGRAM
DISTRICTWIDE TSM&O

#USER#

#DATE#

#TIME#

#FILE#

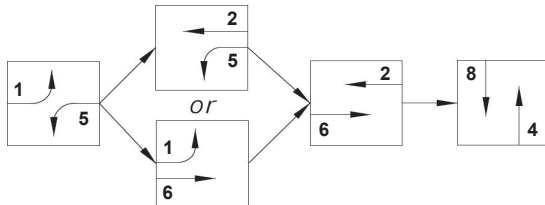


**Marion County
Office of the County Engineer**

Signal ID	Major Street	Minor Street	Date	Technician
172	SE Hwy 42	Belle Meade Cir / SE 86th Ct	5/23/2024	Youman

Basic Timing

PHASE	Φ 1	Φ 2	Φ 3	Φ 4	Φ 5	Φ 6	Φ 7	Φ 8
DIRECTION	EBLT	WB		NB	WBLT	EB		SB
MIN GRN	5	19		9	5	19		9
GAP EXT	3.0	2.5		3.0	3.0	2.5		3.0
MAX 1	15	50		21	15	50		21
MAX 2								
YEL CLR	4.8	4.8		4.0	4.8	4.8		4.0
RED CLR	2.0	2.0		2.0	2.0	2.0		2.0
WALK								
PED CLR								
MIN RECALL		X				X		
MAX RECALL								
PED RECALL								
NON-LOCK CALL	X			X	X			X
DUAL ENTRY				X				X
NO SIMUL GAP				X				X
REST IN WALK								

Signal Operating Plan

Additional Notes (Turning Restrictions?, Overlaps?, Etc.)

Coordination? Yes

No

Splits for Coordination

Plan	Phase Number								Cycle Length	Offset
	1	2	3	4	5	6	7	8		

Weekday Schedule (Mon-Fri)

Plan	Start Time

Weekend Schedule (Sat-Sun)

Plan	Start Time

General Coordination Data

Coord Mode	Max Mode	Correction Mode	Offset Mode	Force Mode

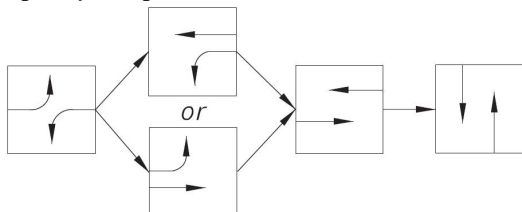


**Marion County
Office of the County Engineer**

Signal ID	Major Street	Minor Street	Date	Technician
78	SE Hwy 42	Buena Vista Blvd / SE 83rd Ave	5/23/2024	Youman

Basic Timing

PHASE	Φ 1	Φ 2	Φ 3	Φ 4	Φ 5	Φ 6	Φ 7	Φ 8
DIRECTION	EBLT	WB		NB	WBLT	EB		SB
MIN GRN	5	19		9	5	19		9
GAP EXT	3.0	2.5		3.0	3.0	2.5		3.0
MAX 1	15	50		21	15	50		21
MAX 2								
YEL CLR	4.8	4.8		4.0	4.8	4.8		4.0
RED CLR	2.0	2.0		2.0	2.0	2.0		2.0
WALK								
PED CLR								
MIN RECALL		X				X		
MAX RECALL								
PED RECALL								
NON-LOCK CALL	X			X	X	X		X
DUAL ENTRY		X		X		X		X
NO SIMUL GAP				X				X
REST IN WALK								

Signal Operating Plan

Additional Notes (Turning Restrictions?, Overlaps?, Etc.)

Coordination? Yes

No

Splits for Coordination

Plan	Phase Number								Cycle Length	Offset
	1	2	3	4	5	6	7	8		

Weekday Schedule (Mon-Fri)

Plan	Start Time

Weekend Schedule (Sat-Sun)

Plan	Start Time

General Coordination Data

Coord Mode	Max Mode	Correction Mode	Offset Mode	Force Mode

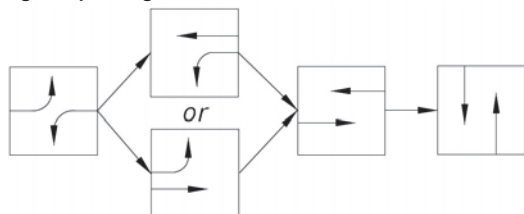


**Marion County
Office of the County Engineer**

Signal ID	Major Street	Minor Street	Date	Technician
168	SE HWY 42	SE 89th Ter / SE 89th Sweetwater Ter	12/3/2021	Solimando

Basic Timing

PHASE	Φ 1	Φ 2	Φ 3	Φ 4	Φ 5	Φ 6	Φ 7	Φ 8
DIRECTION	EBLT	WB		NB	WBLT	EB		SB
MIN GRN	6	15		10	6	15		10
GAP EXT	4.0	4.0		5.0	4.0	4.0		5.0
MAX 1	15	50		20	15	50		20
MAX 2								
YEL CLR	4.8	4.8		3.7	4.8	4.8		3.7
RED CLR	2.0	2.0		2.8	2.1	2.0		2.8
WALK								
PED CLR								
MIN RECALL		X				X		
MAX RECALL								
PED RECALL								
NON-LOCK CALL	X			X	X			X
DUAL ENTRY				X				X
REST IN WALK								

Signal Operating Plan**Additional Notes (Turning Restrictions?, Overlaps?, Etc.)**

- 1) Phase 1 switched with Phase 2.
- 2) Phase 5 switched with Phase 6.

Coordination? Yes

No

Splits for Coordination

Plan	Phase Number								Cycle Length	Offset
	1	2	3	4	5	6	7	8		

Time Patterns for Coordination

Plan	Start Time	End Time	Days of Week

General Coordination Data

Coord Mode	Max Mode	Correction Mode	Offset Mode	Force Mode

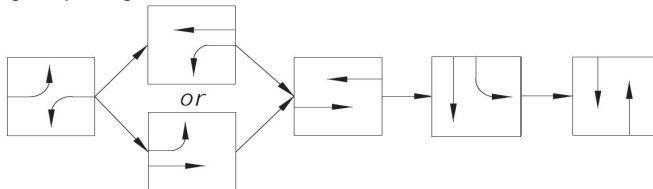


**Marion County
Office of the County Engineer**

Signal ID	Major Street	Minor Street	Date	Technician
104	US 301	CR 42	3/18/2025	Watson

PHASE	1	2	3	4	5	6	7	8
DIRECTION	NBLT	SB		WB	SBLT	NB	WBLT	EB
LEFT TURN MODE	Prot				Prot		Prot-Perm	Perm
MIN GREEN	5	20		8	5	20	8	8
PASSAGE	3.0	4.0		3.0	3.0	4.0	3.0	3.0
MAX 1	17	65		35	21	65	35	35
MAX 2								
YELLOW	5.5	5.5		4.5	5.5	5.5	4.4	4.5
ALL RED	3.1	2.0		2.0	2.2	2.0	2.9	2.0
WALK								
PED CLR								
VEH RECALL		Min				Min		
NON-LOCK CALL				X			X	X
DUAL ENTRY		X		X		X		X
NO SIMUL GAP	X				X		X	

Signal Operating Plan



Additional Notes (Turning Restrictions?, Overlaps?, Etc.)

1) These were the existing timings in the controller on 3/18/2025. No changes made on this date.

Coordination? Yes ☐ No ☒

Plan	Cycle	Phase Splits								Offset	Seq	Spec Func	Coord Mode	Force Mode
		1	2	3	4	5	6	7	8					

Mon-Thu		Fri		Sat		Sun	
Start Time	Plan	Start Time	Plan	Start Time	Plan	Start Time	Plan

General Coordination Data

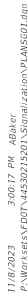
Coord Mode (Normal)	
Max Mode	
Correction Mode	
Offset Mode	
Force Mode (Normal)	

Detector Data

Veh Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	5	2			6	6	6									
Veh Detector	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Phase	8				4	4										
Veh Detector	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Phase	1				2	2										
Veh Detector	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Phase	7				8	8										

Ped Detector	1	2	3	4	5	6	7	8
Phase	1	2	3	4	5	6	7	8

~~E-2-132~~



Appendix F: Existing Condition HCM Reports

HCM 7th TWSC

1: US 301 & SE 147 St

AM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	11	20	36	0	75	7	578	31	77	1035	5
Future Vol, veh/h	7	11	20	36	0	75	7	578	31	77	1035	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	85	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	14	10	6	0	6	0
Mvmt Flow	7	12	21	38	0	79	7	608	33	81	1089	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1877	1910	1092	1897	1896	625	1095	0	0	641	0	0
Stage 1	1254	1254	-	639	639	-	-	-	-	-	-	-
Stage 2	623	656	-	1257	1257	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.24	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.326	-	-	2.2	-	-
Pot Cap-1 Maneuver	55	69	263	53	70	489	595	-	-	953	-	-
Stage 1	213	246	-	467	473	-	-	-	-	-	-	-
Stage 2	477	465	-	212	245	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	42	62	263	~ 37	64	489	595	-	-	953	-	-
Mov Cap-2 Maneuver	42	62	-	~ 37	64	-	-	-	-	-	-	-
Stage 1	194	225	-	462	467	-	-	-	-	-	-	-
Stage 2	395	460	-	169	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	73.09	230.83	0.13	0.63
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	595	-	-	91	98	953	-	-
HCM Lane V/C Ratio	0.012	-	-	0.442	1.19	0.085	-	-
HCM Ctrl Dly (s/v)	11.1	-	-	73.1	230.8	9.1	-	-
HCM Lane LOS	B	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.8	7.9	0.3	-	-

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

HCM 7th TWSC

1: US 301 & SE 147 St

PM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	9.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	1	18	12	58	18	1141	23	68	593	6
Future Vol, veh/h	1	2	1	18	12	58	18	1141	23	68	593	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	85	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	2	6	5	9	4	6	17
Mvmt Flow	1	2	1	19	13	61	19	1201	24	72	624	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2016	2034	627	2019	2025	1213	631	0	0	1225	0	0
Stage 1	771	771	-	1251	1251	-	-	-	-	-	-	-
Stage 2	1245	1263	-	768	774	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.22	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.318	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	44	58	487	44	58	222	933	-	-	562	-	-
Stage 1	396	413	-	213	246	-	-	-	-	-	-	-
Stage 2	215	243	-	397	411	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	21	49	487	36	50	222	933	-	-	562	-	-
Mov Cap-2 Maneuver	21	49	-	36	50	-	-	-	-	-	-	-
Stage 1	346	360	-	209	241	-	-	-	-	-	-	-
Stage 2	145	238	-	344	359	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	94.12	198.4	0.14	1.26
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	45	88	562	-	-
HCM Lane V/C Ratio	0.02	-	-	0.095	1.055	0.127	-	-
HCM Ctrl Dly (s/v)	8.9	-	-	94.1	198.4	12.3	-	-
HCM Lane LOS	A	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	6.2	0.4	-	-

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

AM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	112	5	3	99	1	14	1	1	0	0	1
Future Vol, veh/h	0	112	5	3	99	1	14	1	1	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	120	5	3	106	1	15	1	1	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	126	0	0	236	237	123	234	239	107
Stage 1	-	-	-	-	-	-	123	123	-	113	113	-
Stage 2	-	-	-	-	-	-	113	114	-	121	126	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1496	-	-	1473	-	-	723	667	933	724	665	953
Stage 1	-	-	-	-	-	-	886	798	-	896	805	-
Stage 2	-	-	-	-	-	-	897	805	-	888	796	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1496	-	-	1473	-	-	720	666	933	721	664	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	720	666	-	721	664	-
Stage 1	-	-	-	-	-	-	886	798	-	894	804	-
Stage 2	-	-	-	-	-	-	894	803	-	886	796	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.22	10.07	8.78
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	727	1496	-	-	52	-	-	953
HCM Lane V/C Ratio	0.024	-	-	-	0.002	-	-	0.001
HCM Ctrl Dly (s/v)	10.1	0	-	-	7.4	0	-	8.8
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

PM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	76	13	2	99	2	13	2	0	2	0	1
Future Vol, veh/h	0	76	13	2	99	2	13	2	0	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	85	15	2	111	2	15	2	0	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	113	0	0	100	0	0	208	211	93	203	217	112
Stage 1	-	-	-	-	-	-	93	93	-	117	117	-
Stage 2	-	-	-	-	-	-	116	118	-	87	100	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1488	-	-	1505	-	-	753	690	970	759	685	946
Stage 1	-	-	-	-	-	-	919	822	-	893	803	-
Stage 2	-	-	-	-	-	-	894	802	-	926	816	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1488	-	-	1505	-	-	751	689	970	755	684	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	751	689	-	755	684	-
Stage 1	-	-	-	-	-	-	919	822	-	891	802	-
Stage 2	-	-	-	-	-	-	891	801	-	924	816	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.14	9.96	9.46
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	742	1488	-	-	35	-	-	810
HCM Lane V/C Ratio	0.023	-	-	-	0.001	-	-	0.004
HCM Ctrl Dly (s/v)	10	0	-	-	7.4	0	-	9.5
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

AM Peak Hour - Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	299	150	426	102	135	88	384	332	119	867	93
Future Volume (veh/h)	60	299	150	426	102	135	88	384	332	119	867	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1870	1841	1885	1841	1856	1796	1707	1856	1870	1841	1752
Adj Flow Rate, veh/h	62	311	146	444	106	100	92	400	302	124	903	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	2	4	1	4	3	7	13	3	2	4	10
Cap, veh/h	290	263	123	439	891	761	111	970	470	146	1012	85
Arrive On Green	0.22	0.22	0.22	0.22	0.48	0.48	0.07	0.30	0.30	0.08	0.31	0.31
Sat Flow, veh/h	1120	1204	565	1795	1841	1572	1711	3244	1572	1781	3265	275
Grp Volume(v), veh/h	62	0	457	444	106	100	92	400	302	124	484	495
Grp Sat Flow(s),veh/h/ln	1120	0	1769	1795	1841	1572	1711	1622	1572	1781	1749	1791
Q Serve(g_s), s	7.3	0.0	35.0	35.2	5.1	5.6	8.5	15.8	26.7	11.0	42.2	42.2
Cycle Q Clear(g_c), s	7.3	0.0	35.0	35.2	5.1	5.6	8.5	15.8	26.7	11.0	42.2	42.2
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	290	0	386	439	891	761	111	970	470	146	542	555
V/C Ratio(X)	0.21	0.00	1.18	1.01	0.12	0.13	0.83	0.41	0.64	0.85	0.89	0.89
Avail Cap(c_a), veh/h	290	0	386	439	891	761	182	1316	638	234	710	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	62.6	51.7	22.6	22.8	74.0	44.9	48.7	72.6	52.7	52.7
Incr Delay (d2), s/veh	0.4	0.0	105.6	45.5	0.1	0.1	14.7	0.3	1.5	15.2	11.2	10.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	0.0	38.6	25.7	4.0	3.8	7.4	10.3	15.8	9.4	26.8	27.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.1	0.0	168.2	97.2	22.7	22.9	88.7	45.2	50.2	87.8	63.9	63.6
LnGrp LOS	D		F	F	C	C	F	D	D	F	E	E
Approach Vol, veh/h	519			650			794			1103		
Approach Delay, s/veh	154.3			73.6			52.1			66.5		
Approach LOS	F			E			D			E		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	57.2		84.0	20.8	55.4	42.5	41.5				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	17.0	65.0		35.0	21.0	65.0	35.2	35.0				
Max Q Clear Time (g_c+I1), s	10.5	44.2		7.6	13.0	28.7	37.2	37.0				
Green Ext Time (p_c), s	0.1	5.4		0.8	0.2	3.4	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	79.1											
HCM 7th LOS	E											

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

PM Peak Hour - Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	174	101	422	257	121	129	940	519	205	365	60
Future Volume (veh/h)	76	174	101	422	257	121	129	940	519	205	365	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1856	1796	1870	1767	1826	1752	1826	1856	1811	1826	1781
Adj Flow Rate, veh/h	79	181	84	440	268	76	134	979	439	214	380	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	3	7	2	9	5	10	5	3	6	5	8
Cap, veh/h	212	200	93	438	743	651	153	1121	508	217	1132	104
Arrive On Green	0.17	0.17	0.17	0.21	0.42	0.42	0.09	0.32	0.32	0.13	0.35	0.35
Sat Flow, veh/h	1012	1199	556	1781	1767	1547	1668	3469	1572	1725	3213	294
Grp Volume(v), veh/h	79	0	265	440	268	76	134	979	439	214	204	211
Grp Sat Flow(s),veh/h/ln	1012	0	1755	1781	1767	1547	1668	1735	1572	1725	1735	1773
Q Serve(g_s), s	11.8	0.0	24.7	35.0	17.3	5.0	13.2	44.3	43.7	20.6	14.4	14.6
Cycle Q Clear(g_c), s	11.8	0.0	24.7	35.0	17.3	5.0	13.2	44.3	43.7	20.6	14.4	14.6
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	212	0	293	438	743	651	153	1121	508	217	611	624
V/C Ratio(X)	0.37	0.00	0.91	1.00	0.36	0.12	0.88	0.87	0.86	0.98	0.33	0.34
Avail Cap(c_a), veh/h	256	0	369	438	743	651	170	1353	613	217	677	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	0.0	68.1	48.3	33.0	29.4	74.8	53.2	53.0	72.6	39.6	39.7
Incr Delay (d2), s/veh	1.1	0.0	21.7	44.0	0.3	0.1	34.7	5.7	10.6	56.4	0.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	18.5	28.3	12.0	3.4	11.4	26.7	25.5	18.1	10.1	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.8	0.0	89.8	92.3	33.3	29.5	109.5	58.9	63.6	129.0	39.9	40.0
LnGrp LOS	E		F	F	C	C	F	E	E	F	D	D
Approach Vol, veh/h		344			784			1552			629	
Approach Delay, s/veh		83.9			66.0			64.6			70.3	
Approach LOS		F			E			E			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.8	66.2		76.6	28.7	61.3	42.3	34.3				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	17.0	65.0		35.0	21.0	65.0	35.0	35.0				
Max Q Clear Time (g_c+I1), s	15.2	16.6		19.3	22.6	46.3	37.0	26.7				
Green Ext Time (p_c), s	0.0	2.2		1.5	0.0	7.5	0.0	1.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			68.0									
HCM 7th LOS			E									

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

AM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	800	0	0	644	5	0	0	0	3	0	6
Future Vol, veh/h	7	800	0	0	644	5	0	0	0	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	825	0	0	664	5	0	0	0	3	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	669	0	0	825	0	0	1171	1508	412	1093	1506	335
Stage 1	-	-	-	-	-	-	839	839	-	666	666	-
Stage 2	-	-	-	-	-	-	332	669	-	427	839	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	930	-	-	814	-	-	150	122	594	171	122	667
Stage 1	-	-	-	-	-	-	331	384	-	420	460	-
Stage 2	-	-	-	-	-	-	661	459	-	582	384	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	930	-	-	814	-	-	148	121	594	170	121	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	121	-	170	121	-
Stage 1	-	-	-	-	-	-	328	381	-	420	460	-
Stage 2	-	-	-	-	-	-	655	459	-	577	381	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.08	0	0	15.96
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	930	-	-	814	-	-	338
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.027
HCM Ctrl Dly (s/v)	0	8.9	-	-	0	-	-	16
HCM Lane LOS		A	A	-	-	A	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

PM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	867	0	0	787	5	0	0	0	1	0	11
Future Vol, veh/h	4	867	0	0	787	5	0	0	0	1	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	4	922	0	0	837	5	0	0	0	1	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	843	0	0	922	0	0	1349	1773	461	1310	1771	421
Stage 1	-	-	-	-	-	-	931	931	-	840	840	-
Stage 2	-	-	-	-	-	-	419	843	-	470	931	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	802	-	-	749	-	-	111	84	553	119	84	587
Stage 1	-	-	-	-	-	-	291	348	-	330	384	-
Stage 2	-	-	-	-	-	-	588	383	-	549	348	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	802	-	-	749	-	-	108	83	553	118	84	587
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	83	-	118	84	-
Stage 1	-	-	-	-	-	-	290	347	-	330	384	-
Stage 2	-	-	-	-	-	-	576	383	-	546	347	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.04	0	0	13.41
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	802	-	-	749	-	-	441
HCM Lane V/C Ratio	-	0.005	-	-	-	-	-	0.029
HCM Ctrl Dly (s/v)	0	9.5	-	-	0	-	-	13.4
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th TWSC
8: SE 73 Ave & CR 42

AM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	751	0	0	614	11	0	0	2	21	0	36
Future Vol, veh/h	15	751	0	0	614	11	0	0	2	21	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	185	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	7	2	0	0	2	9	0	0	0	10	0	3
Mvmt Flow	16	782	0	0	640	11	0	0	2	22	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	651	0	0	782	0	0	1133	1465	391	1068	1459	326
Stage 1	-	-	-	-	-	-	814	814	-	645	645	-
Stage 2	-	-	-	-	-	-	320	651	-	422	814	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.27	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.33
Pot Cap-1 Maneuver	898	-	-	845	-	-	160	129	613	166	131	667
Stage 1	-	-	-	-	-	-	343	395	-	408	470	-
Stage 2	-	-	-	-	-	-	672	468	-	559	395	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	898	-	-	845	-	-	148	127	613	162	128	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	127	-	162	128	-
Stage 1	-	-	-	-	-	-	337	388	-	408	470	-
Stage 2	-	-	-	-	-	-	634	468	-	547	388	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.18	0	10.89	19.29
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	613	898	-	-	845	-	-	311
HCM Lane V/C Ratio	0.003	0.017	-	-	-	-	-	0.191
HCM Ctrl Dly (s/v)	10.9	9.1	-	-	0	-	-	19.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.7

HCM 7th TWSC
8: SE 73 Ave & CR 42

PM Peak Hour - Existing Conditions

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱	↱↱		↱	↱↱			↱↱			↱↱	
Traffic Vol, veh/h	31	841	0	2	778	20	1	0	0	9	0	12
Future Vol, veh/h	31	841	0	2	778	20	1	0	0	9	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	185	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	5	0	0	5	5	0	0	0	0	0	8
Mvmt Flow	33	885	0	2	819	21	1	0	0	9	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	840	0	0	885	0	0	1364	1795	443	1342	1784	420
Stage 1	-	-	-	-	-	-	951	951	-	834	834	-
Stage 2	-	-	-	-	-	-	414	844	-	508	951	-
Critical Hdwy	4.22	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.26	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.38
Pot Cap-1 Maneuver	766	-	-	773	-	-	108	81	568	113	83	566
Stage 1	-	-	-	-	-	-	283	341	-	333	386	-
Stage 2	-	-	-	-	-	-	592	382	-	521	341	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	766	-	-	773	-	-	101	78	568	107	79	566
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	78	-	107	79	-
Stage 1	-	-	-	-	-	-	271	327	-	332	385	-
Stage 2	-	-	-	-	-	-	577	381	-	499	327	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.35			0.02			40.99			25.22		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	101	766	-	-	773	-	-	200
HCM Lane V/C Ratio	0.01	0.043	-	-	0.003	-	-	0.111
HCM Ctrl Dly (s/v)	41	9.9	-	-	9.7	-	-	25.2
HCM Lane LOS	E	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4

HCM 7th Signalized Intersection Summary

9: Buena Vista Blvd/SE 83 Ave & CR 42

PM Peak Hour - Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	725	76	171	645	35	163	20	132	40	22	45
Future Volume (veh/h)	32	725	76	171	645	35	163	20	132	40	22	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1796	1885	1811	1693	1856	1826	1856	1856	1900	1900
Adj Flow Rate, veh/h	33	755	0	178	672	30	170	21	110	42	23	37
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	4	7	1	6	14	3	5	3	3	0	0
Cap, veh/h	403	1267		438	1405	63	387	312	269	172	97	98
Arrive On Green	0.04	0.36	0.00	0.09	0.42	0.42	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1767	3497	1522	1795	3355	150	1332	1826	1572	440	569	574
Grp Volume(v), veh/h	33	755	0	178	344	358	170	21	110	102	0	0
Grp Sat Flow(s),veh/h/ln	1767	1749	1522	1795	1721	1784	1332	1826	1572	1583	0	0
Q Serve(g_s), s	0.6	9.2	0.0	3.1	7.6	7.6	2.7	0.5	3.3	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.6	9.2	0.0	3.1	7.6	7.6	5.4	0.5	3.3	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	0.41		0.36
Lane Grp Cap(c), veh/h	403	1267		438	721	747	387	312	269	368	0	0
V/C Ratio(X)	0.08	0.60		0.41	0.48	0.48	0.44	0.07	0.41	0.28	0.00	0.00
Avail Cap(c_a), veh/h	615	2881		551	1417	1469	540	522	450	540	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	13.6	0.0	9.7	11.1	11.1	20.1	18.2	19.4	19.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.6	0.5	0.5	0.8	0.1	1.0	0.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	5.1	0.0	1.7	4.0	4.1	3.3	0.4	2.1	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.0	14.1	0.0	10.3	11.6	11.6	20.9	18.3	20.4	19.5	0.0	0.0
LnGrp LOS	A	B		B	B	B	C	B	C	B		
Approach Vol, veh/h		788			880			301			102	
Approach Delay, s/veh		13.9			11.3			20.5			19.5	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	28.8		15.0	11.7	25.8		15.0				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	8.2	43.2		15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I1), s	2.6	9.6		7.4	5.1	11.2		4.6				
Green Ext Time (p_c), s	0.0	4.2		0.6	0.1	5.3		0.3				

Intersection Summary

HCM 7th Control Delay, s/veh

14.0

HCM 7th LOS

B

Notes

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

HCM 7th Signalized Intersection Summary

10: SE 86 Ct & CR 42

PM Peak Hour - Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	693	134	117	733	35	144	33	90	32	22	44
Future Volume (veh/h)	63	693	134	117	733	35	144	33	90	32	22	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1811	1885	1826	1856	1811	1841	1900	1811	1767	1900	1737
Adj Flow Rate, veh/h	66	729	127	123	772	32	152	35	74	34	23	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	6	1	5	3	6	4	0	6	9	0	11
Cap, veh/h	370	1043	182	361	1298	54	315	51	304	117	82	73
Arrive On Green	0.06	0.36	0.36	0.08	0.38	0.38	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1767	2930	510	1739	3450	143	974	256	1535	128	414	371
Grp Volume(v), veh/h	66	428	428	123	394	410	187	0	74	96	0	0
Grp Sat Flow(s),veh/h/ln	1767	1721	1719	1739	1763	1830	1230	0	1535	913	0	0
Q Serve(g_s), s	1.2	11.4	11.4	2.3	9.6	9.6	0.0	0.0	2.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	11.4	11.4	2.3	9.6	9.6	8.1	0.0	2.2	8.4	0.0	0.0
Prop In Lane	1.00		0.30	1.00		0.08	0.81		1.00	0.35		0.41
Lane Grp Cap(c), veh/h	370	613	612	361	663	688	366	0	304	272	0	0
V/C Ratio(X)	0.18	0.70	0.70	0.34	0.59	0.60	0.51	0.00	0.24	0.35	0.00	0.00
Avail Cap(c_a), veh/h	538	1393	1392	492	1427	1481	485	0	431	400	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.3	14.7	14.7	10.7	13.4	13.4	20.3	0.0	18.0	18.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.5	1.5	0.6	0.9	0.8	1.1	0.0	0.4	0.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	6.6	6.6	1.2	5.5	5.7	3.8	0.0	1.3	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.5	16.2	16.2	11.2	14.2	14.2	21.5	0.0	18.4	19.1	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	C		B	B		
Approach Vol, veh/h	922			927			261			96		
Approach Delay, s/veh	15.8			13.8			20.6			19.1		
Approach LOS	B			B			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	26.9		16.6	11.0	25.8		16.6				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	33.3	43.2		15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I), s	13.3	11.6		10.1	4.3	13.4		10.4				
Green Ext Time (p_c), s	0.0	5.0		0.5	0.1	5.4		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.7											
HCM 7th LOS	B											

HCM 7th Signalized Intersection Summary

11: SE 89 Ter & CR 42

PM Peak Hour - Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	695	62	75	763	17	121	19	73	12	10	50
Future Volume (veh/h)	42	695	62	75	763	17	121	19	73	12	10	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1811	1870	1841	1856	1722	1841	1737	1826	1648	1900	1870
Adj Flow Rate, veh/h	44	724	59	78	795	15	126	20	57	12	10	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	6	2	4	3	12	4	11	5	17	0	2
Cap, veh/h	353	1115	514	380	1240	23	416	77	221	109	79	217
Arrive On Green	0.05	0.32	0.32	0.08	0.35	0.35	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	3441	1585	1753	3540	67	1326	398	1135	126	407	1114
Grp Volume(v), veh/h	44	724	59	78	396	414	126	0	77	68	0	0
Grp Sat Flow(s),veh/h/ln	1721	1585	1753	1763	1844	1326	0	1533	1647	0	0	0
Q Serve(g_s), s	0.8	9.0	1.3	1.4	9.4	9.5	2.0	0.0	2.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	9.0	1.3	1.4	9.4	9.5	3.6	0.0	2.1	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.74	0.18		0.68
Lane Grp Cap(c), veh/h	353	1115	514	380	618	646	416	0	298	405	0	0
V/C Ratio(X)	0.12	0.65	0.11	0.21	0.64	0.64	0.30	0.00	0.26	0.17	0.00	0.00
Avail Cap(c_a), veh/h	550	2960	1363	524	1516	1586	514	0	412	523	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	14.5	11.9	10.3	13.7	13.7	17.6	0.0	17.2	17.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.1	0.3	1.1	1.1	0.4	0.0	0.5	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	5.0	0.7	0.7	5.4	5.6	2.1	0.0	1.3	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.8	15.2	12.0	10.5	14.8	14.7	18.1	0.0	17.6	17.2	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	B		B	B		
Approach Vol, veh/h	827			888			203			68		
Approach Delay, s/veh	14.7			14.4			17.9			17.2		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	24.4		16.3	10.9	23.1		16.3				
Change Period (Y+Rc), s	6.8	6.8		6.5	6.9	6.8		6.5				
Max Green Setting (Gmax), s	43.2	43.2		13.5	8.1	43.2		13.5				
Max Q Clear Time (g_c+I), s	11.5	11.5		5.6	3.4	11.0		3.7				
Green Ext Time (p_c), s	0.0	5.0		0.5	0.1	5.2		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.0											
HCM 7th LOS	B											

HCM 7th Signalized Intersection Summary

12: US 441 & CR 42

PM Peak Hour - Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	178	510	153	197	200	453	1032	189	209	1071	238
Future Volume (veh/h)	143	178	510	153	197	200	453	1032	189	209	1071	238
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1841	1752	1752	1752	1856	1811	1841	1781	1826	1752
Adj Flow Rate, veh/h	146	182	473	156	201	165	462	1053	0	213	1093	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	4	10	10	10	3	6	4	8	5	10
Cap, veh/h	247	319	268	223	290	245	513	1179		341	1358	
Arrive On Green	0.08	0.17	0.17	0.07	0.17	0.17	0.15	0.34	0.00	0.20	0.39	0.00
Sat Flow, veh/h	1767	1856	1560	1668	1752	1485	3428	3441	1560	1697	3469	1485
Grp Volume(v), veh/h	146	182	473	156	201	165	462	1053	0	213	1093	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1560	1668	1752	1485	1714	1721	1560	1697	1735	1485
Q Serve(g_s), s	10.9	14.4	27.5	11.4	17.3	10.5	21.2	46.4	0.0	18.3	44.8	0.0
Cycle Q Clear(g_c), s	10.9	14.4	27.5	11.4	17.3	10.5	21.2	46.4	0.0	18.3	44.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	319	268	223	290	245	513	1179		341	1358	
V/C Ratio(X)	0.59	0.57	1.76	0.70	0.69	0.67	0.90	0.89		0.62	0.80	
Avail Cap(c_a), veh/h	346	319	268	223	290	245	602	1452		341	1358	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	60.8	66.2	53.5	63.0	25.0	66.9	49.8	0.0	58.4	43.2	0.0
Incr Delay (d2), s/veh	2.0	2.2	357.3	9.2	7.0	7.0	15.1	6.4	0.0	3.5	5.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	11.0	57.9	9.7	12.9	7.5	15.3	27.5	0.0	12.6	26.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	63.0	423.6	62.6	70.0	32.0	81.9	56.2	0.0	61.9	48.4	0.0
LnGrp LOS	D	E	F	E	E	C	F	E		E	D	
Approach Vol, veh/h	801			522			1515			1306		
Approach Delay, s/veh	274.0			55.8			64.1			50.6		
Approach LOS	F			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.8	72.2	20.1	33.9	41.7	64.3	19.0	35.0				
Change Period (Y+Rc), s	9.9	9.5	7.0	7.5	9.5	9.5	7.6	7.5				
Max Green Setting (Gmax), s	28.5	58.5	22.0	17.5	19.5	67.5	11.4	27.5				
Max Q Clear Time (g_c+1.2), s	23.2	46.8	12.9	19.3	20.3	48.4	13.4	29.5				
Green Ext Time (p_c), s	0.8	5.2	0.2	0.0	0.0	6.4	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	99.4											
HCM 7th LOS	F											
Notes												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Appendix G: Trip Generation Resources

Single-Family Detached Housing (210)

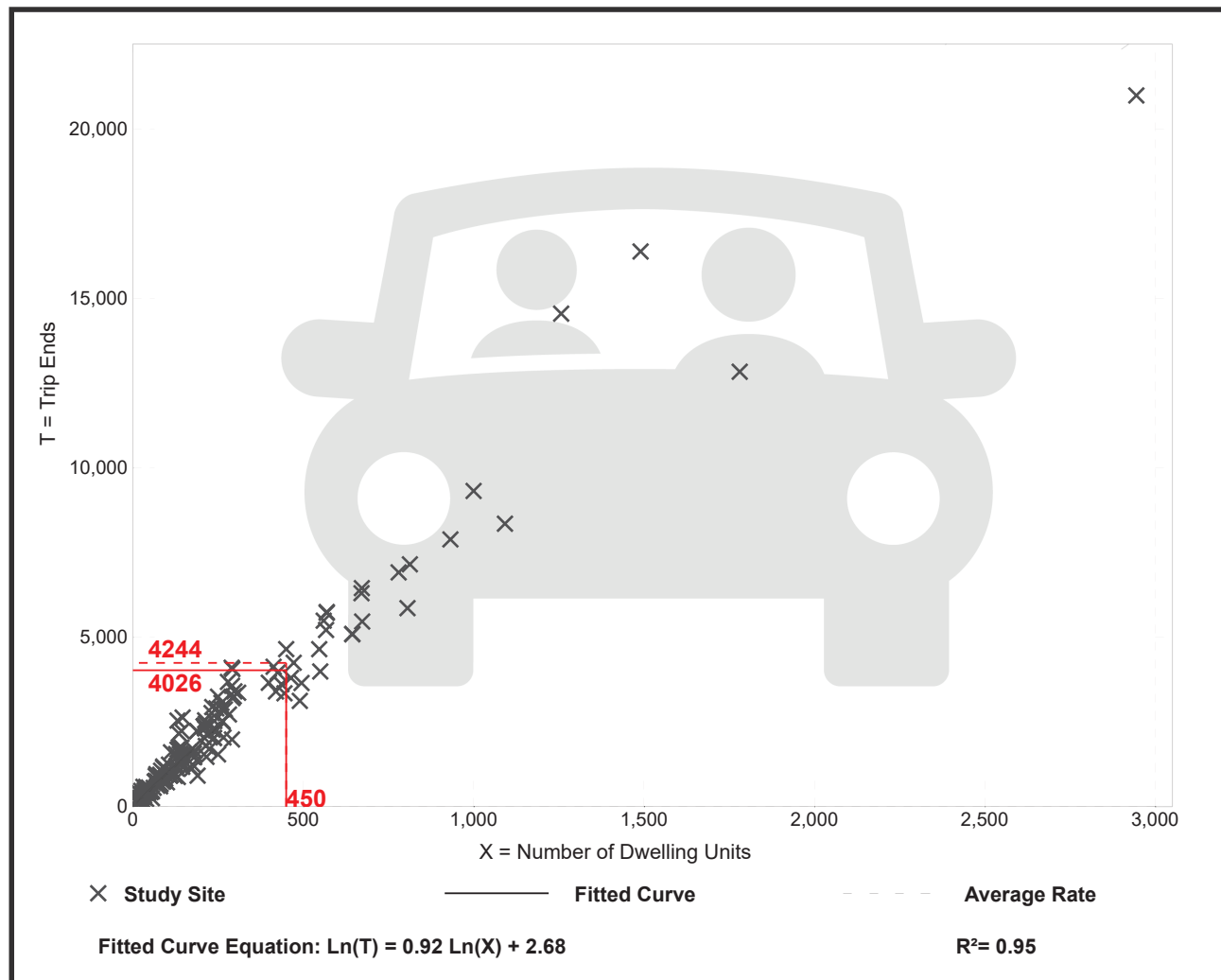
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

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

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 192

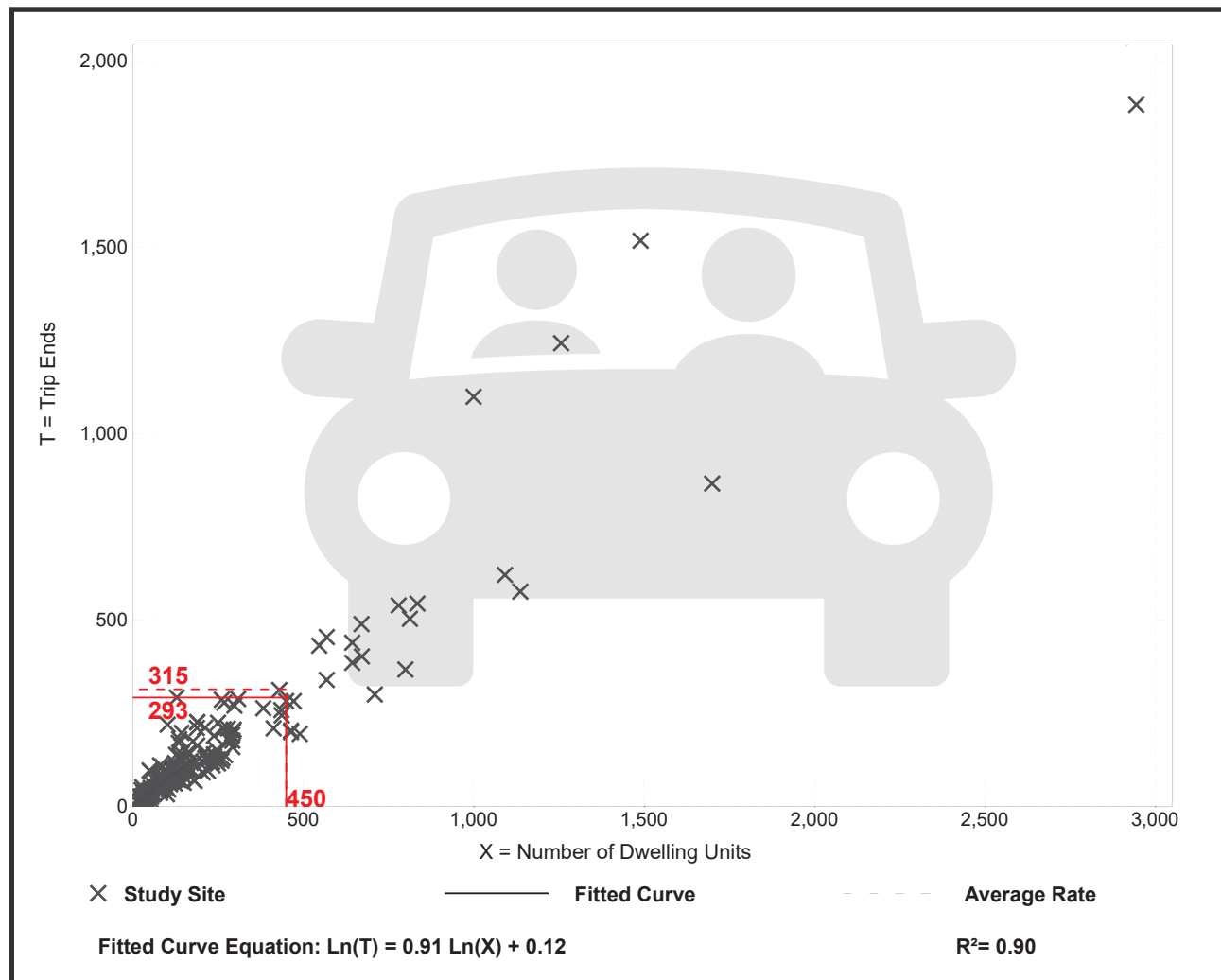
Avg. Num. of Dwelling Units: 226

Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

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

Data Plot and Equation



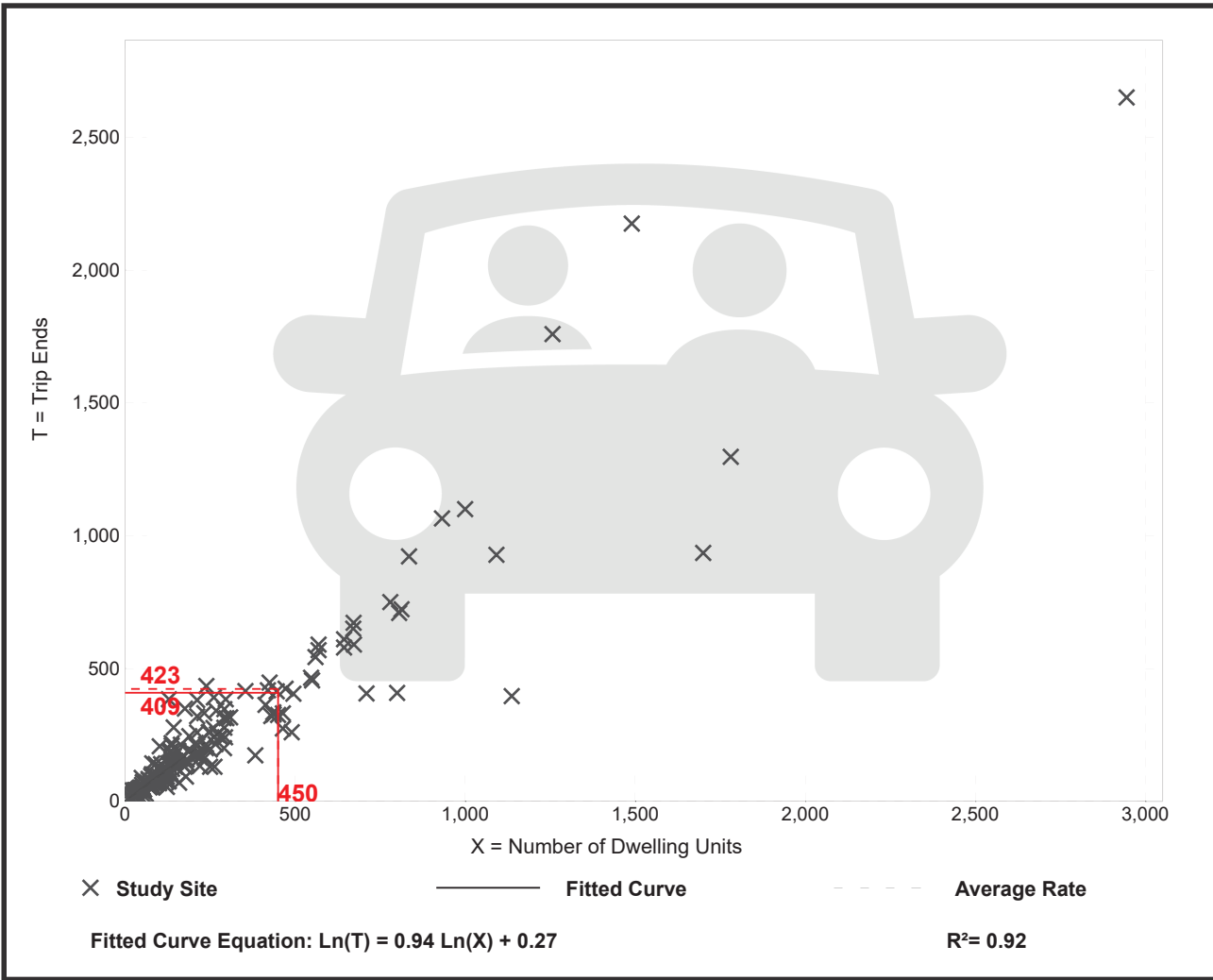
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

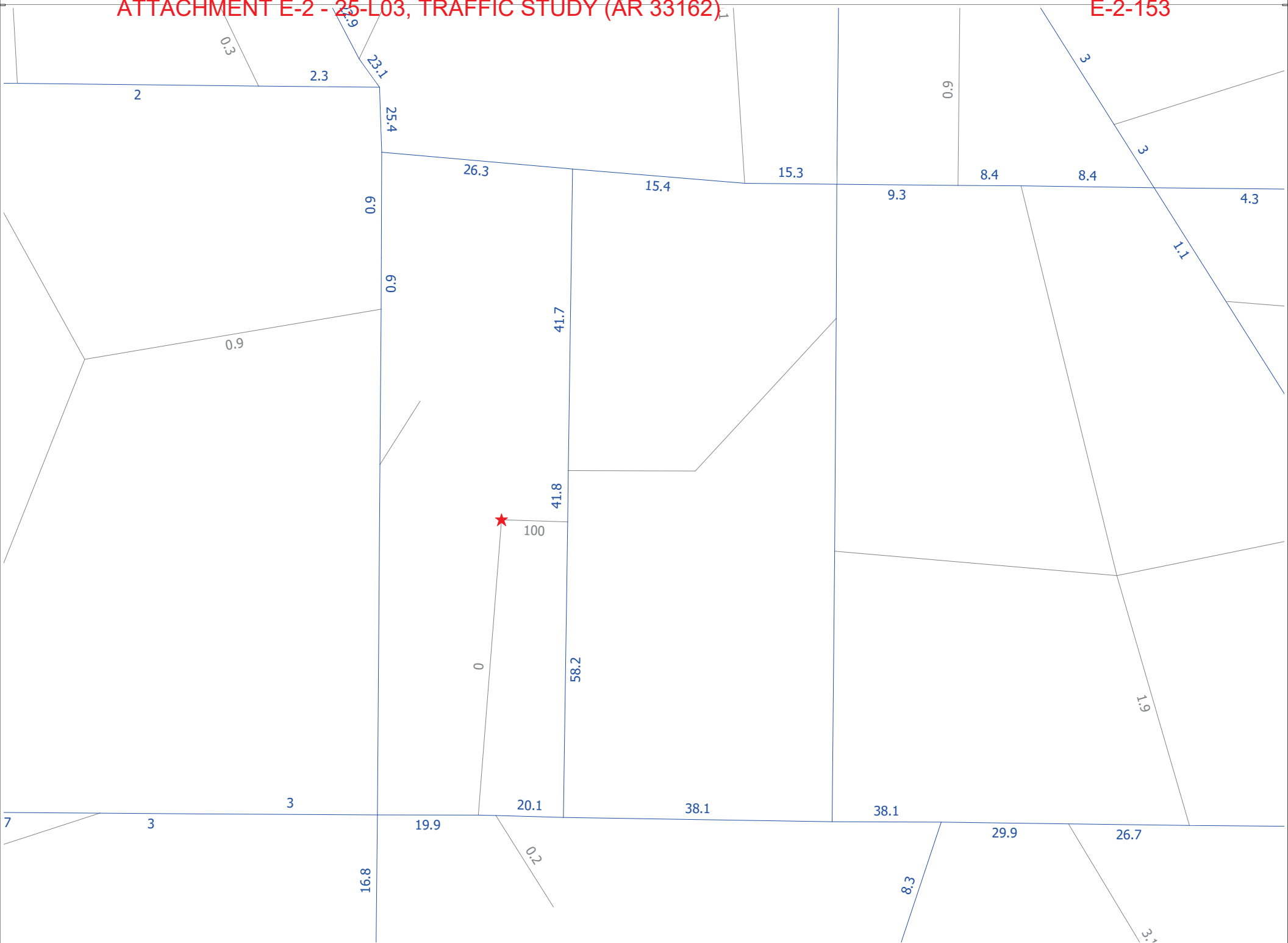
Vehicle Trip Generation per Dwelling Unit

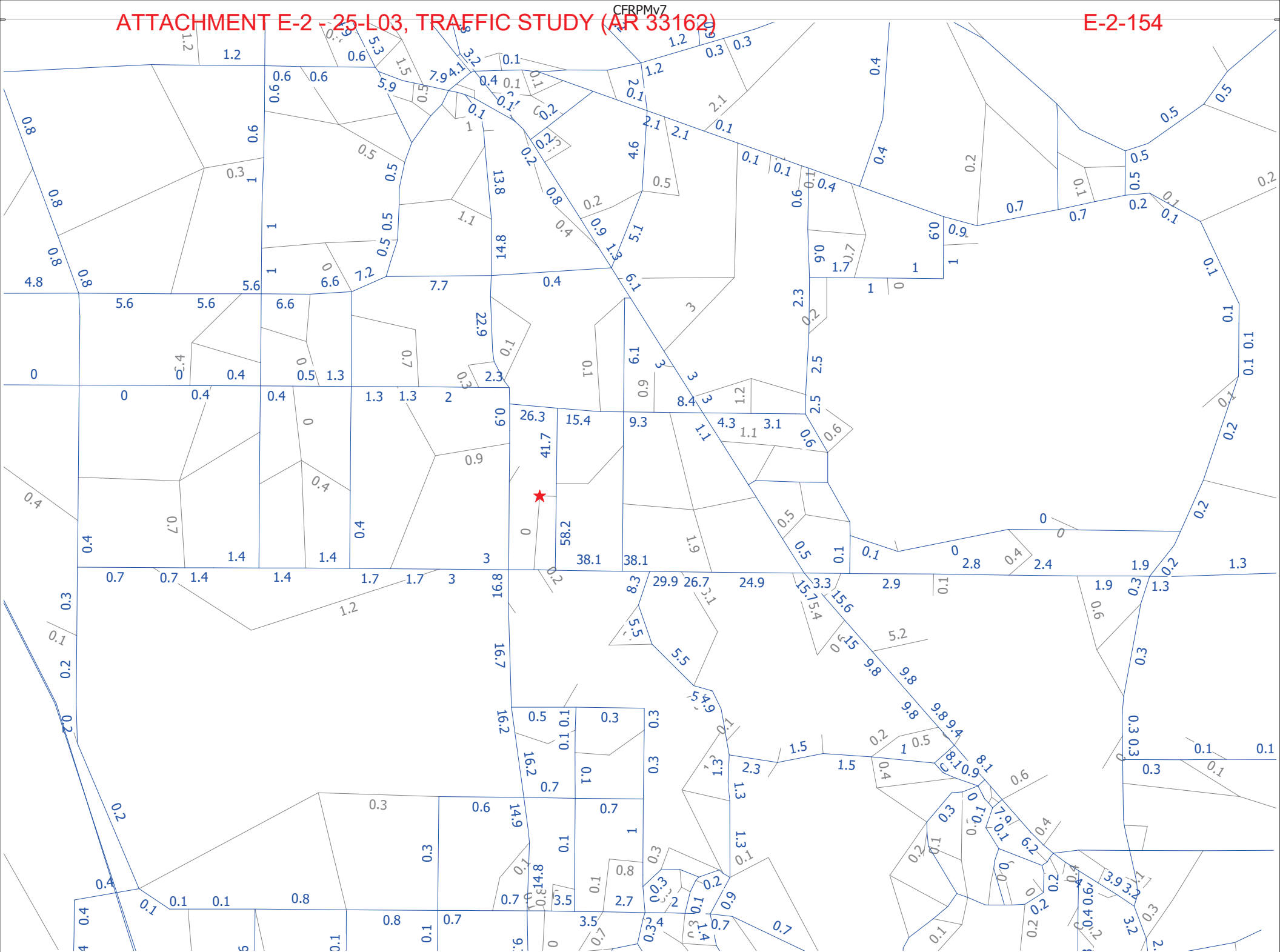
Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Appendix H: Model Output





CFRPMV7

Appendix I: Committed Trips

E-USA Summerfield TIA

Marion County, Florida

PREPARED FOR

Mr. Jay Jesensky
Vice President of Development
Villages of Marion County, GP, LLC
629 Euclid Avenue, Suite 1300
Cleveland, OH 44114
216.456.0125 / 216.401.6084

PREPARED BY



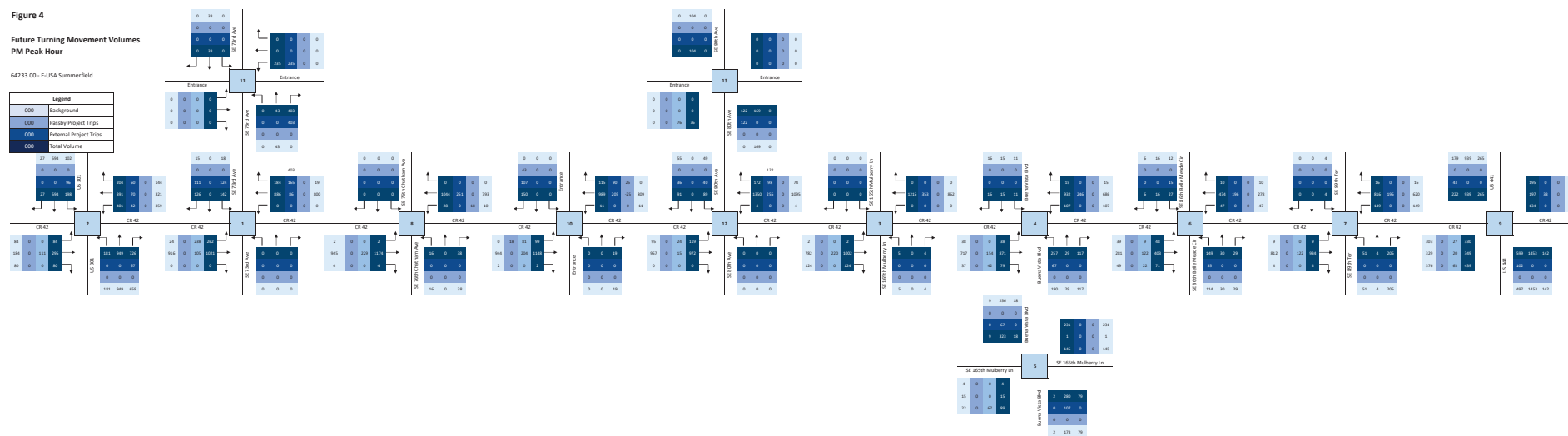
225 East Robinson Street, Suite 300
Landmark Center Two
Orlando FL 32801
407.839.4006

April 2023

Future Turning Movement Volumes
PM Peak Hour

64233.00 - E-USA Summerfield

Legend	
000	Background
000	Passby Project Trips
000	External Project Trips
000	Total Volume



Transportation Impact Study

9494 Summerfield PUD

Marion County, Florida

Prepared For:
Summerfield, LLC

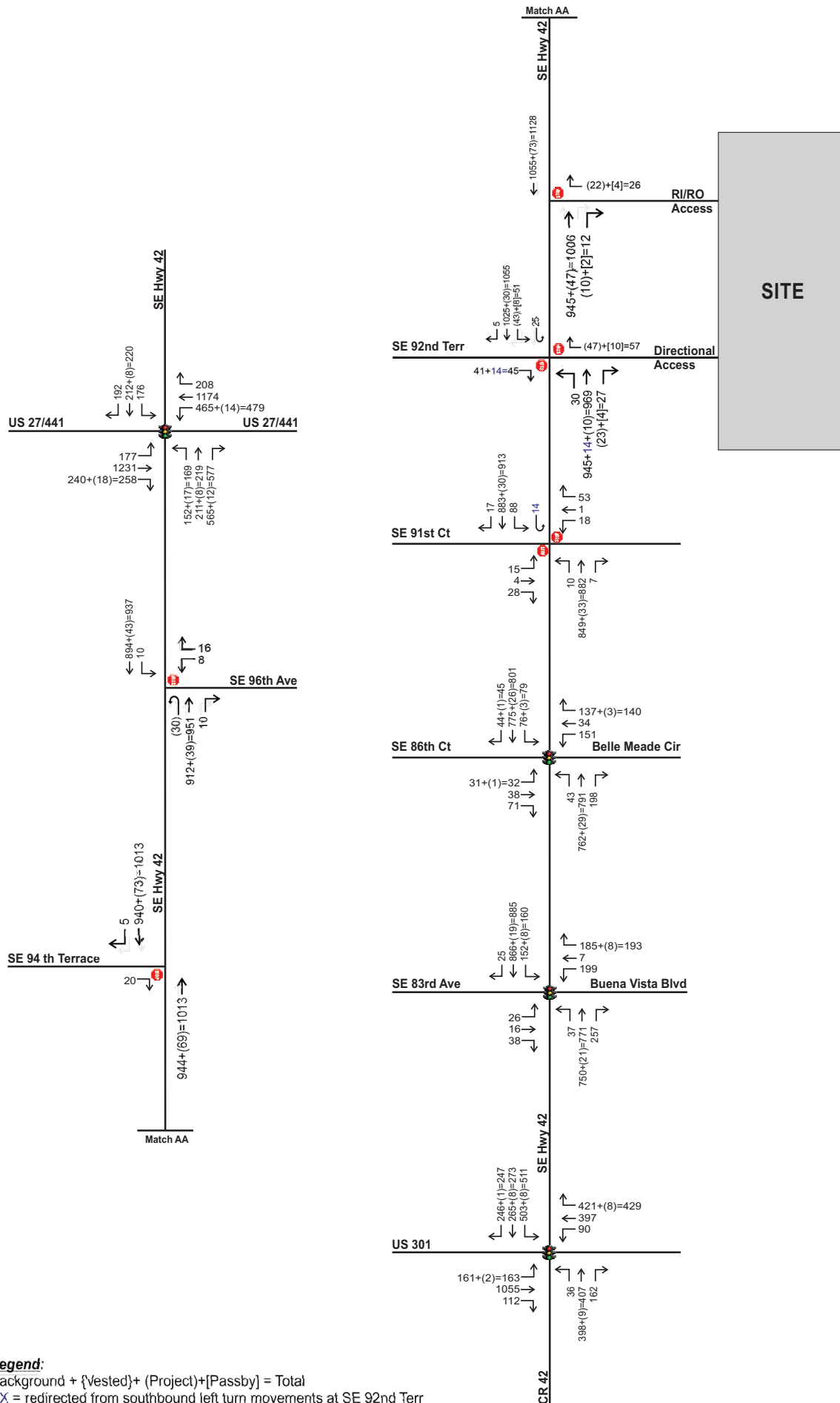
Prepared By:
Kittelson & Associates, Inc.
225 E. Robinson Street, Suite 355
Orlando, FL 32801
(407) 540-0555

Project Manager: Kok Wan Mah, P.E.

Project No. 28606

March 2023, Revised May 2023





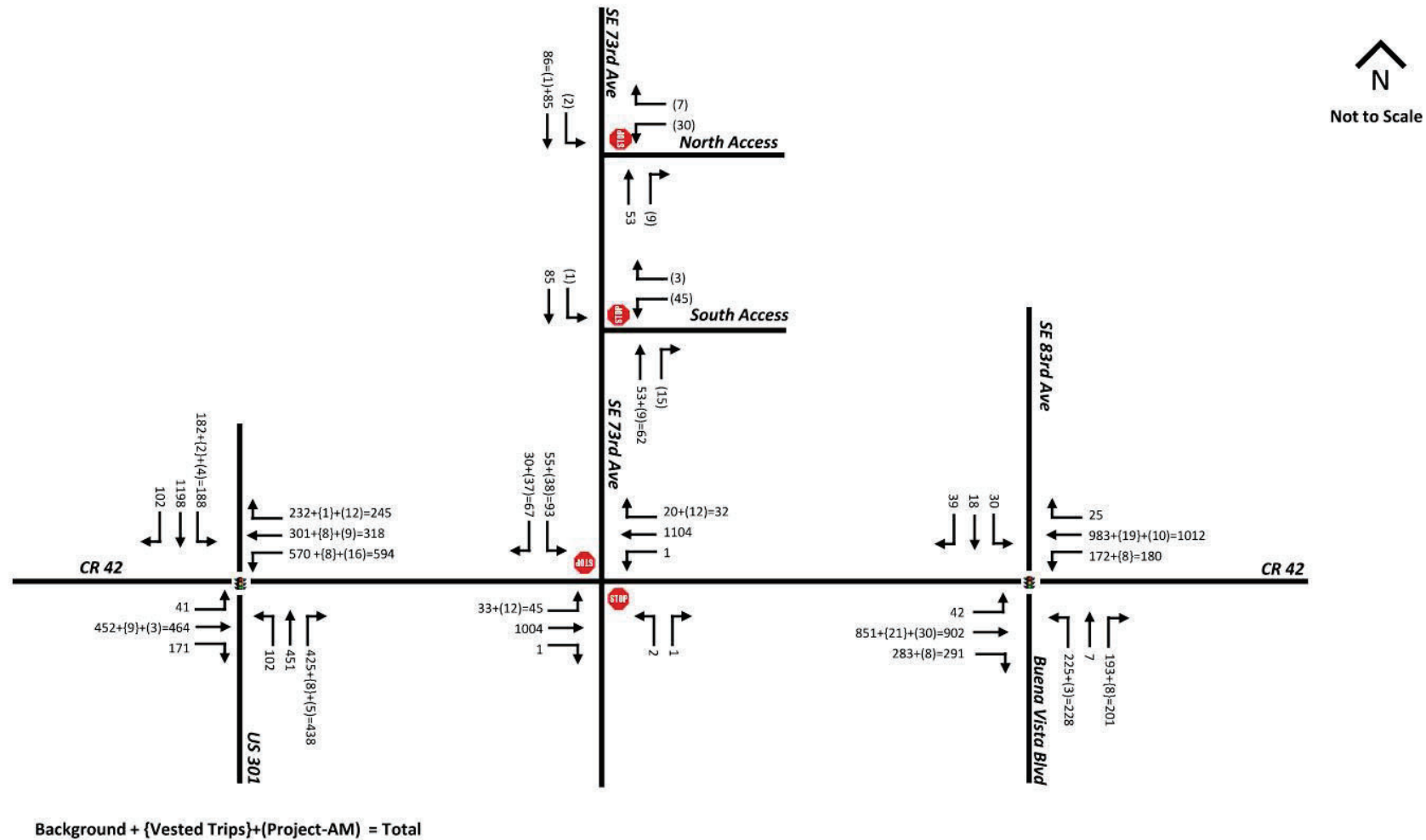


HERITAGE OAKS TRAFFIC IMPACT ANALYSIS

MARION COUNTY, FLORIDA

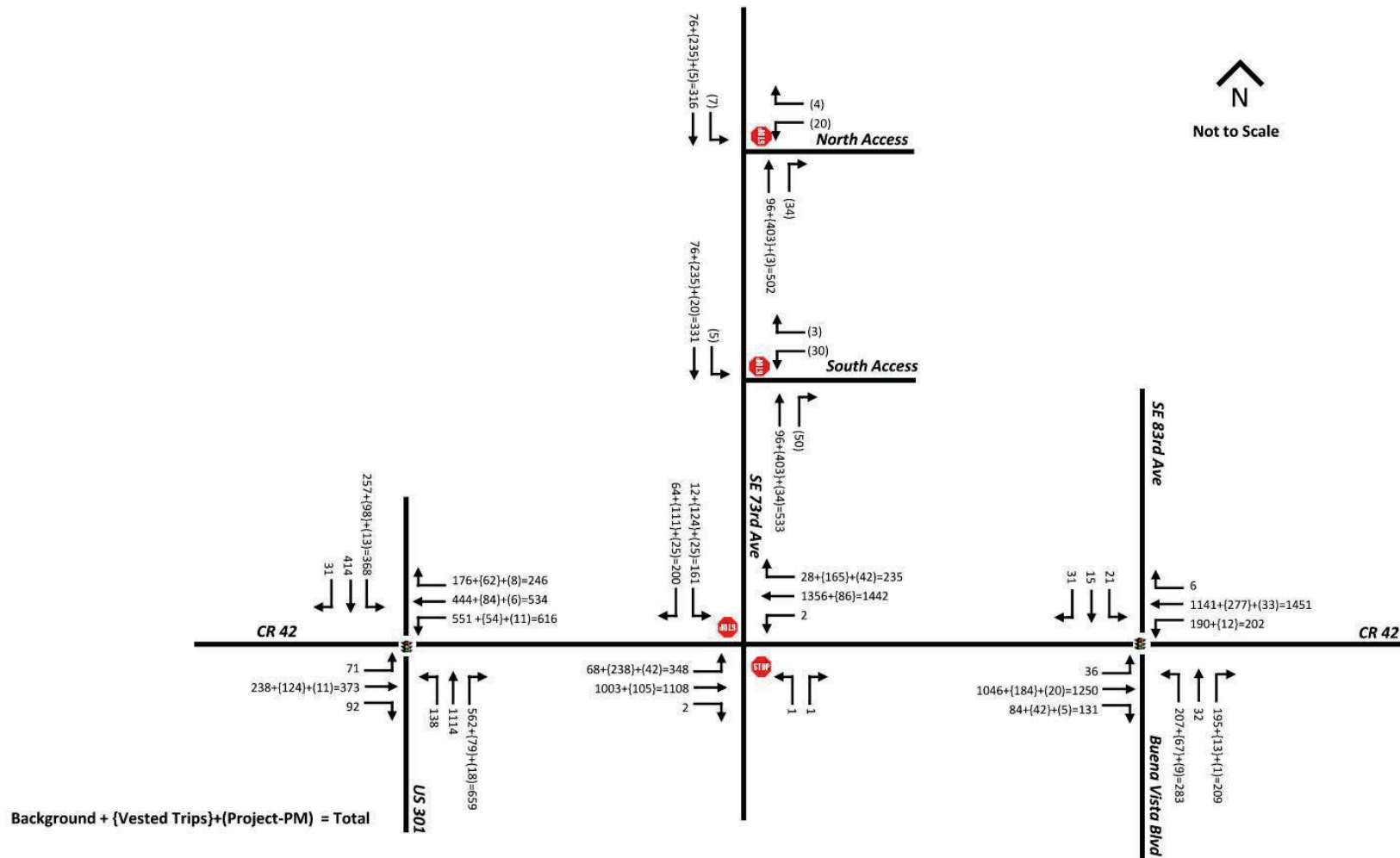
November 2023

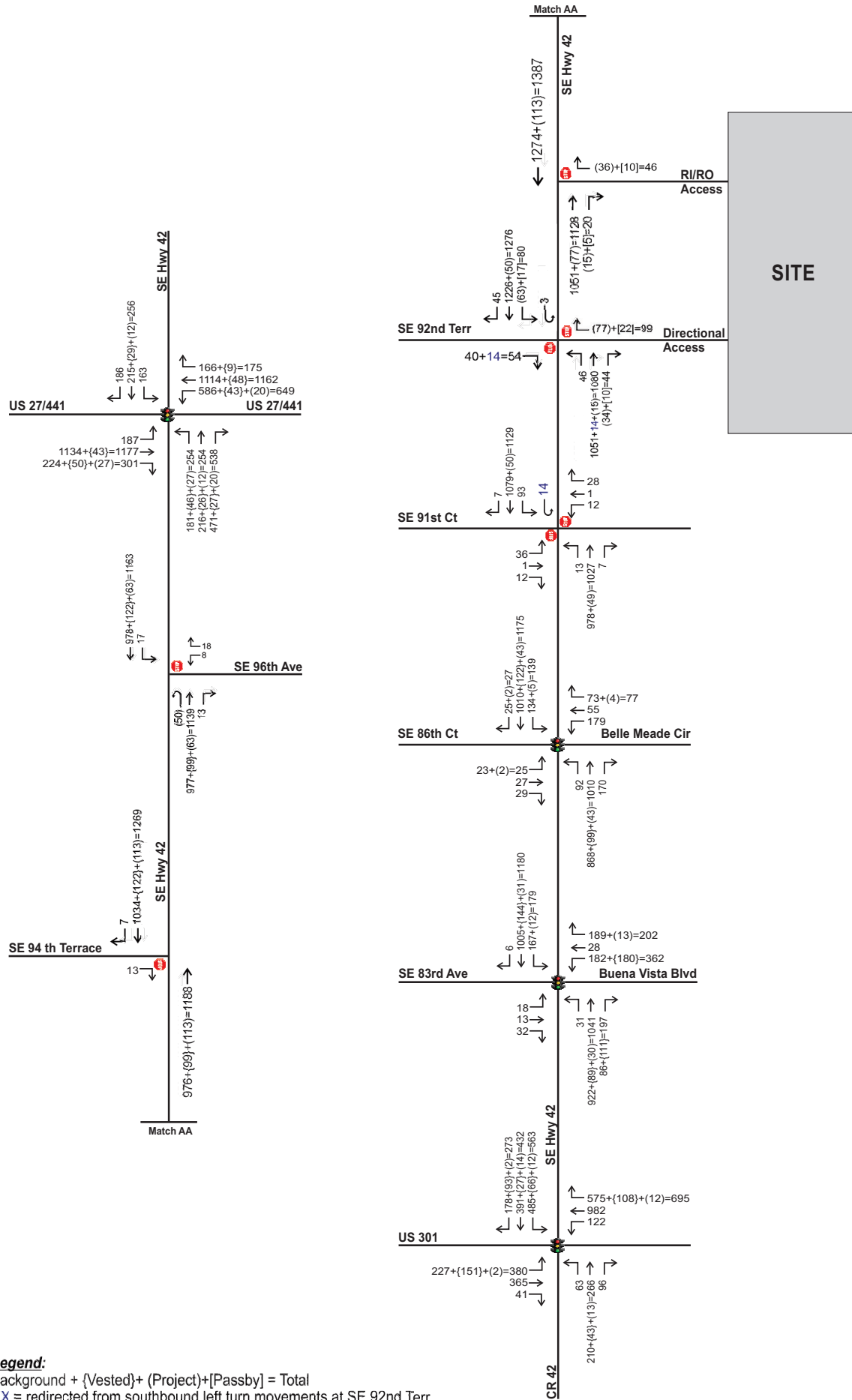




Traffic Impact Analysis

Figure 6: Projected PM Peak Hour Intersection Volume (2027)





Appendix J: Intersection Volume Calculation

31313 - Enclave Housing CR 42 TIA
Intersection Volumes Projected AM

Period	Tgen	Enter	Exit	Passby	Enter	Exit	SF	AGR	Years	Legend
AM Peak		77	231				1.00	2.65%	3	Backg'd + (Project) = Total

Intersection= CR 42 & US 301																		1	
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	2	119	2%	1.00	119	2.65%	9	128	6	134			0	16%		12	146	128 + {6} + (12) = 146
	T	38	867	4%	1.00	867	2.65%	69	936	0	936			0			0	936	936
	R	5	81	6%	1.00	81	2.65%	6	87	0	87			0			0	87	87
	R/R	4	12	33%	1.00	12	2.65%	1	13	0	13			0			0	13	13
NB	L	6	88	7%	1.00	88	2.65%	7	95	0	95			0			0	95	95
	T	51	384	13%	1.00	384	2.65%	31	415	0	415			0			0	415	415
	R	8	269	3%	1.00	269	2.65%	21	290	13	303			0	17%		13	316	290 + {13} + (13) = 316
	R/R	1	63	2%	1.00	63	2.65%	5	68	0	68			0			0	68	68
EB	L	5	60	8%	1.00	60	2.65%	5	65	0	65			0			0	65	65
	T	5	299	2%	1.00	299	2.65%	24	323	12	335			0	3%		2	337	323 + {12} + (2) = 337
	R	6	101	6%	1.00	101	2.65%	8	109	0	109			0			0	109	109
	R/R	0	49	0%	1.00	49	2.65%	4	53	0	53			0			0	53	53
WB	L	6	426	1%	1.00	426	2.65%	34	460	24	484			0		16%	37	521	460 + {24} + (37) = 521
	T	4	102	4%	1.00	102	2.65%	8	110	17	127			0		3%	7	134	110 + {17} + (7) = 134
	R	4	83	5%	1.00	83	2.65%	7	90	13	103			0		17%	39	142	90 + {13} + (39) = 142
	R/R	0	52	0%	1.00	52	2.65%	4	56	0	56			0			0	56	56

Intersection= CR 42 & Dwy for Saint Mark The Evangelist/Mulberry Grove Animal Hospital																			2
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	0	3	0%	1.00	3	2.65%	0	3	0	3			0		13%	30	33	3 + (30) = 33
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	6	0%	1.00	6	2.65%	0	6	0	6			0		15%	35	41	6 + (35) = 41
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
NB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
EB	L	0	7	0%	1.00	7	2.65%	1	8	0	8			0	15%		12	20	8 + (12) = 20
	T	36	800	5%	1.00	800	2.65%	64	864	57	921			0	21%		16	937	864 + {57} + (16) = 937
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
WB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	29	644	5%	1.00	644	2.65%	51	695	31	726			0		21%	49	775	695 + {31} + (49) = 775
	R	0	5	0%	1.00	5	2.65%	0	5	0	5			0	13%		10	15	5 + (10) = 15
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	

Intersection= CR 42 & SW 73rd Ave																			3
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	2	21	10%	1.00	21	2.65%	2	23	0	23			0		25%	58	81	23 + (58) = 81
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	1	36	3%	1.00	36	2.65%	3	39	0	39			0		21%	49	88	39 + (49) = 88
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
NB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	2	0%	1.00	2	2.65%	0	2	0	2			0			0	2	2
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
EB	L	1	15	7%	1.00	15	2.65%	1	16	0	16			0	21%		16	32	16 + (16) = 32
	T	14	751	2%	1.00	751	2.65%	60	811	57	868			0		13%	30	898	811 + {57} + (30) = 898
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
WB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	14	614	2%	1.00	614	2.65%	49	663	31	694			0	13%		10	704	663 + {31} + (10) = 704
	R	1	11	9%	1.00	11	2.65%	1	12	0	12			0	25%		19	31	12 + (19) = 31
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	

31313 - Enclave Housing CR 42 TIA
Intersection Volumes Projected PM

Period	Tgen	Enter	Exit	Passby	Enter	Exit	SF	AGR	Years	Legend
PM Peak		271	159				1.00	2.65%	3	Backg'd + (Project) = Total

Intersection=		CR 42 & US 301																	1
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	12	205	6%	1.00	205	2.65%	16	221	111	332			0	16%		43	375	221 + {111} + (43) = 375
	T	18	365	5%	1.00	365	2.65%	29	394	0	394			0			0	394	394
	R	4	34	12%	1.00	34	2.65%	3	37	0	37			0			0	37	37
	R/R	1	26	4%	1.00	26	2.65%	2	28	0	28			0			0	28	28
NB	L	13	129	10%	1.00	129	2.65%	10	139	0	139			0			0	139	139
	T	44	940	5%	1.00	940	2.65%	75	1015	0	1015			0			0	1015	1015
	R	15	421	4%	1.00	421	2.65%	33	454	97	551			0	17%		46	597	454 + {97} + (46) = 597
	R/R	2	98	2%	1.00	98	2.65%	8	106	0	106			0			0	106	106
EB	L	4	76	5%	1.00	76	2.65%	6	82	0	82			0			0	82	82
	T	6	174	3%	1.00	174	2.65%	14	188	135	323			0	3%		9	332	188 + {135} + (9) = 332
	R	6	81	7%	1.00	81	2.65%	6	87	0	87			0			0	87	87
	R/R	1	20	5%	1.00	20	2.65%	2	22	0	22			0			0	22	22
WB	L	10	422	2%	1.00	422	2.65%	34	456	65	521			0		16%	25	546	456 + {65} + (25) = 546
	T	22	257	9%	1.00	257	2.65%	20	277	90	367			0		3%	5	372	277 + {90} + (5) = 372
	R	5	73	7%	1.00	73	2.65%	6	79	70	149			0		17%	27	176	79 + {70} + (27) = 176
	R/R	1	48	2%	1.00	48	2.65%	4	52	0	52			0			0	52	52

Intersection=		CR 42 & Dwy for Saint Mark The Evangelist/Mulberry Grove Animal Hospital																2	
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	0	1	0%	1.00	1	2.65%	0	1	0	1			0		13%	21	22	1 + (21) = 22
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	11	0%	1.00	11	2.65%	1	12	0	12			0		15%	24	36	12 + (24) = 36
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
NB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
EB	L	0	4	0%	1.00	4	2.65%	0	4	0	4			0	15%		41	45	4 + (41) = 45
	T	35	867	4%	1.00	867	2.65%	69	936	415	1351			0	21%		57	1408	936 + {415} + (57) = 1408
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
WB	L	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	T	41	787	5%	1.00	787	2.65%	63	850	295	1145			0		21%	33	1178	850 + {295} + (33) = 1178
	R	0	5	0%	1.00	5	2.65%	0	5	0	5			0	13%		35	40	5 + (35) = 40
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	

Intersection=		CR 42 & SW 73rd Ave																	3
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bq'd	Vested	Total Bq'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	0	9	0%	1.00	9	2.65%	1	10	149	159			0		25%	40	199	10 + {149} + (40) = 199
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	1	12	8%	1.00	12	2.65%	1	13	136	149			0		21%	33	182	13 + {136} + (33) = 182
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
NB	L	0	1	0%	1.00	1	2.65%	0	1	0	1			0			0	1	1
	T	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
EB	L	2	31	6%	1.00	31	2.65%	2	33	280	313			0	21%		57	370	33 + {280} + (57) = 370
	T	38	841	5%	1.00	841	2.65%	67	908	240	1148			0		13%	21	1169	908 + {240} + (21) = 1169
	R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	
WB	L	0	2	0%	1.00	2	2.65%	0	2	0	2			0			0	2	2
	T	41	778	5%	1.00	778	2.65%	62	840	159	999			0	13%		35	1034	840 + {159} + (35) = 1034
	R	1	20	5%	1.00	20	2.65%	2	22	165	187			0	25%		68	255	22 + {165} + (68) = 255
	R/R	0	0	0%	1.00	0	2.65%	0	0	0	0			0			0	0	

Intersection=		CR 42 at Buena Vista Blvd/SE 83rd Ave																		4
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
SB	L	1	40	3%	1.00	40	2.65%	3	43	0	43			0			0	43	43	
	T	0	22	0%	1.00	22	2.65%	2	24	154	178			0			0	178	24 + {154} = 178	
	R	0	35	0%	1.00	35	2.65%	3	38	42	80			0			0	80	38 + {42} = 80	
	R/R	0	10	0%	1.00	10	2.65%	1	11	0	11			0			0	11	11	
NB	L	5	163	3%	1.00	163	2.65%	13	176	9	185			0	8%		22	207	176 + {9} + (22) = 207	
	T	1	20	5%	1.00	20	2.65%	2	22	246	268			0			0	268	22 + {246} = 268	
	R	4	105	4%	1.00	105	2.65%	8	113	14	127			0			0	127	113 + {14} = 127	
	R/R	0	27	0%	1.00	27	2.65%	2	29	0	29			0			0	29	29	
EB	L	1	32	3%	1.00	32	2.65%	3	35	67	102			0			0	102	35 + {67} = 102	
	T	31	725	4%	1.00	725	2.65%	58	783	50	833			0		30%	48	881	783 + {50} + {48} = 881	
	R	5	60	8%	1.00	60	2.65%	5	65	5	70			0		8%	13	83	65 + {5} + {13} = 83	
	R/R	0	16	0%	1.00	16	2.65%	1	17	0	17			0			0	17	17	
WB	L	2	171	1%	1.00	171	2.65%	14	185	12	197			0			0	197	185 + {12} = 197	
	T	36	645	6%	1.00	645	2.65%	51	696	64	760			0	30%		81	841	696 + {64} + {81} = 841	
	R	4	29	14%	1.00	29	2.65%	2	31	0	31			0			0	31	31	
	R/R	1	6	17%	1.00	6	2.65%	0	6	0	6			0			0	6	6	

Intersection=		CR 42 at SE 86th Belle Meade Cir/SE 86th Ct																	5
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	3	32	9%	1.00	32	2.65%	3	35	2	37			0			0	37	35 + {2} = 37
	T	0	22	0%	1.00	22	2.65%	2	24	0	24			0			0	24	24
	R	5	37	14%	1.00	37	2.65%	3	40	0	40			0			0	40	40
	R/R	0	7	0%	1.00	7	2.65%	1	8	0	8			0			0	8	8
	L	6	144	4%	1.00	144	2.65%	11	155	35	190			0			0	190	155 + {35} = 190

31313 - Enclave Housing CR 42 TIA
Intersection Volumes Projected PM

Period		Tgen				Enter	Exit	Passby				Enter	Exit	SF	AGR	Years		Legend
PM Peak						271	159							1.00	2.65%		3	Backg'd + (Project) = Total
NB	T	0	33	0%	1.00	33	2.65%	3	36	0	36		0			0	36 36	
	R	4	70	6%	1.00	70	2.65%	6	76	4	80		0			0	80 76 + {4} = 80	
	R/R	1	20	5%	1.00	20	2.65%	2	22	0	22		0			0	22 22	
EB	L	2	63	3%	1.00	63	2.65%	5	68	9	77		0			0	77 68 + {9} = 77	
	T	44	693	6%	1.00	693	2.65%	55	748	186	934		0	30%		48	982 748 + {186} + (48) = 982	
	R	2	121	2%	1.00	121	2.65%	10	131	2	133		0			0	133 131 + {2} = 133	
	R/R	0	13	0%	1.00	13	2.65%	1	14	0	14		0			0	14 14	
WB	L	6	117	5%	1.00	117	2.65%	9	126	5	131		0			0	131 126 + {5} = 131	
	T	23	733	3%	1.00	733	2.65%	58	791	272	1063		0	30%		81	1144 791 + {272} + (81) = 1144	
	R	1	30	3%	1.00	30	2.65%	2	32	2	34		0			0	34 32 + {2} = 34	
	R/R	1	5	20%	1.00	5	2.65%	0	5	0	5		0			0	5 5	

Intersection=		CR 42 at SE 89th Sweetwater Ter/SE 89th Ter																	6
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	2	12	17%	1.00	12	2.65%	1	13	0	13			0			0	13 13	
	T	0	10	0%	1.00	10	2.65%	1	11	0	11			0			0	11 11	
	R	1	44	2%	1.00	44	2.65%	3	47	0	47			0			0	47 47	
	R/R	0	6	0%	1.00	6	2.65%	0	6	0	6			0			0	6 6	
NB	L	5	121	4%	1.00	121	2.65%	10	131	0	131			0			0	131 131	
	T	2	19	11%	1.00	19	2.65%	2	21	0	21			0			0	21 21	
	R	4	55	7%	1.00	55	2.65%	4	59	0	59			0			0	59 59	
	R/R	0	18	0%	1.00	18	2.65%	1	19	0	19			0			0	19 19	
EB	L	0	42	0%	1.00	42	2.65%	3	45	0	45			0			0	45 45	
	T	41	695	6%	1.00	695	2.65%	55	750	192	942		30%	0			48	990 750 + {192} + (48) = 990	
	R	0	56	0%	1.00	56	2.65%	4	60	0	60			0			0	60 60	
	R/R	1	6	17%	1.00	6	2.65%	0	6	0	6			0			0	6 6	
WB	L	3	75	4%	1.00	75	2.65%	6	81	0	81			0			0	81 81	
	T	23	763	3%	1.00	763	2.65%	61	824	279	1103		30%	0			81	1184 824 + {279} + (81) = 1184	
	R	1	14	7%	1.00	14	2.65%	1	15	0	15			0			0	15 15	
	R/R	1	3	33%	1.00	3	2.65%	0	3	0	3			0			0	3 3	

Intersection=		CR 42 & US 441																	7
Approach	Mvmt	Heavy Veh	Total	Heavy Veh %	SF	Adjusted	GR	Growth	Adj Bg'd	Vested	Total Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
SB	L	16	209	8%	1.00	209	2.65%	17	226	0	226			0			0	226 226	
	T	55	1071	5%	1.00	1,071	2.65%	85	1156	0	1156			0			0	1156 1156	
	R	20	188	11%	1.00	188	2.65%	15	203	61	264			0	1%		3	267 203 + {61} + (3) = 267	
	R/R	3	50	6%	1.00	50	2.65%	4	54	0	54			0			0	54 54	
NB	L	14	453	3%	1.00	453	2.65%	36	489	149	638			0	16%		43	681 489 + {149} + (43) = 681	
	T	59	1032	6%	1.00	1,032	2.65%	82	1114	0	1114			0			0	1114 1114	
	R	7	142	5%	1.00	142	2.65%	11	153	0	153			0			0	153 153	
	R/R	1	47	2%	1.00	47	2.65%	4	51	0	51			0			0	51 51	
EB	L	5	143	3%	1.00	143	2.65%	11	154	44	198			0		1%	2	200 154 + (44) + (2) = 200	
	T	5	178	3%	1.00	178	2.65%	14	192	38	230			0		3%	5	235 192 + {38} + (5) = 235	
	R	17	464	4%	1.00	464	2.65%	37	501	96	597			0		16%	25	622 501 + {96} + (25) = 622	
	R/R	1	46	2%	1.00	46	2.65%	4	50	0	50			0			0	50 50	
WB	L	16	153	10%	1.00	153	2.65%	12	165	0	165			0			0	165 165	
	T	19	197	10%	1.00	197	2.65%	16	213	41	254			0	3%		8	262 213 + {41} + (8) = 262	
	R	16	162	10%	1.00	162	2.65%	13	175	0	175			0			0	175 175	
	R/R	3	38	8%	1.00	38	2.65%	3	41	0	41			0			0	41 41	

Appendix K: Future Condition HCM Results

2028 No-Buildout HCM Reports

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

AM Peak Hour - Future Background

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	22	39	0	88	8	625	33	86	1119	5
Future Volume (veh/h)	8	12	22	39	0	88	8	625	33	86	1119	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1693	1752	1811	1900	1811	1900
Adj Flow Rate, veh/h	8	13	23	41	0	93	8	658	35	91	1178	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	14	10	6	0	6	0
Cap, veh/h	64	75	100	93	12	120	125	1032	55	477	1215	5
Arrive On Green	0.11	0.11	0.11	0.11	0.00	0.11	0.01	0.63	0.63	0.06	0.67	0.67
Sat Flow, veh/h	149	681	909	369	111	1090	1612	1648	88	1810	1802	8
Grp Volume(v), veh/h	44	0	0	134	0	0	8	0	693	91	0	1183
Grp Sat Flow(s),veh/h/ln	1739	0	0	1570	0	0	1612	0	1736	1810	0	1810
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	0.0	0.1	0.0	22.3	1.5	0.0	55.2
Cycle Q Clear(g_c), s	2.1	0.0	0.0	7.4	0.0	0.0	0.1	0.0	22.3	1.5	0.0	55.2
Prop In Lane	0.18		0.52	0.31		0.69	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	239	0	0	225	0	0	125	0	1087	477	0	1220
V/C Ratio(X)	0.18	0.00	0.00	0.60	0.00	0.00	0.06	0.00	0.64	0.19	0.00	0.97
Avail Cap(c_a), veh/h	421	0	0	398	0	0	375	0	1199	671	0	1249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	0.0	38.8	0.0	0.0	21.8	0.0	10.4	7.8	0.0	13.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.5	0.0	0.0	0.2	0.0	1.0	0.2	0.0	18.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0	5.4	0.0	0.0	0.2	0.0	10.9	0.7	0.0	28.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.9	0.0	0.0	41.3	0.0	0.0	22.0	0.0	11.4	8.0	0.0	32.2
LnGrp LOS	D			D			C		B	A		C
Approach Vol, veh/h		44			134			701			1274	
Approach Delay, s/veh		36.9			41.3			11.5			30.5	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	66.8		15.6	11.7	62.5		15.6				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	15.0	62.0		20.0	15.0	62.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	57.2		9.4	3.5	24.3		4.1				
Green Ext Time (p_c), s	0.0	3.3		0.5	0.1	4.8		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				25.1								
HCM 7th LOS				C								

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

PM Peak Hour - Future Background

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	44	19	0	67	19	1233	25	113	642	6
Future Volume (veh/h)	1	2	44	19	0	67	19	1233	25	113	642	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1811	1826	1767	1841	1811	1648
Adj Flow Rate, veh/h	1	2	46	20	0	71	20	1298	26	119	676	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	2	6	5	9	4	6	17
Cap, veh/h	39	9	155	68	13	127	478	1154	23	180	1221	11
Arrive On Green	0.10	0.10	0.10	0.10	0.00	0.10	0.03	0.65	0.65	0.06	0.68	0.68
Sat Flow, veh/h	10	90	1523	220	130	1243	1725	1784	36	1753	1792	16
Grp Volume(v), veh/h	49	0	0	91	0	0	20	0	1324	119	0	682
Grp Sat Flow(s),veh/h/ln	1622	0	0	1593	0	0	1725	0	1819	1753	0	1808
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	0.0	0.3	0.0	62.0	2.2	0.0	18.5
Cycle Q Clear(g_c), s	2.7	0.0	0.0	5.1	0.0	0.0	0.3	0.0	62.0	2.2	0.0	18.5
Prop In Lane	0.02		0.94	0.22		0.78	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	204	0	0	208	0	0	478	0	1177	180	0	1232
V/C Ratio(X)	0.24	0.00	0.00	0.44	0.00	0.00	0.04	0.00	1.12	0.66	0.00	0.55
Avail Cap(c_a), veh/h	376	0	0	374	0	0	704	0	1177	350	0	1232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	0.0	40.9	0.0	0.0	6.0	0.0	16.9	24.9	0.0	7.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.4	0.0	0.0	0.0	0.0	67.5	4.1	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.0	0.0	3.8	0.0	0.0	0.2	0.0	56.6	3.2	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.4	0.0	0.0	42.3	0.0	0.0	6.0	0.0	84.4	29.0	0.0	8.4
LnGrp LOS	D			D			A		F	C		A
Approach Vol, veh/h		49			91			1344			801	
Approach Delay, s/veh		40.4			42.3			83.2			11.4	
Approach LOS		D			D			F			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	71.6		15.5	12.0	68.3		15.5				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	15.0	62.0		20.0	15.0	62.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	20.5		7.1	4.2	64.0		4.7				
Green Ext Time (p_c), s	0.0	4.6		0.3	0.2	0.0		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				55.5								
HCM 7th LOS				E								

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

AM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	121	8	3	107	1	22	1	1	0	0	1
Future Vol, veh/h	0	121	8	3	107	1	22	1	1	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	130	9	3	115	1	24	1	1	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	139	0	0	256	257	134	253	261	116
Stage 1	-	-	-	-	-	-	134	134	-	122	122	-
Stage 2	-	-	-	-	-	-	122	123	-	131	139	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1485	-	-	1457	-	-	701	651	920	705	647	942
Stage 1	-	-	-	-	-	-	874	789	-	887	799	-
Stage 2	-	-	-	-	-	-	888	798	-	878	786	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1485	-	-	1457	-	-	699	649	920	701	646	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	649	-	701	646	-
Stage 1	-	-	-	-	-	-	874	789	-	885	797	-
Stage 2	-	-	-	-	-	-	884	796	-	876	786	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.2	10.31	8.83
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	704	1485	-	-	49	-	-	942
HCM Lane V/C Ratio	0.037	-	-	-	0.002	-	-	0.001
HCM Ctrl Dly (s/v)	10.3	0	-	-	7.5	0	-	8.8
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

PM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	82	21	2	0	2	18	2	0	2	0	1
Future Vol, veh/h	0	82	21	2	0	2	18	2	0	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	86	22	2	0	2	19	2	0	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	108	0	0	102	104	97	93	114	1
Stage 1	-	-	-	-	-	-	97	97	-	5	5	-
Stage 2	-	-	-	-	-	-	4	6	-	87	108	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1633	-	-	1495	-	-	884	790	964	896	780	1089
Stage 1	-	-	-	-	-	-	914	818	-	1022	895	-
Stage 2	-	-	-	-	-	-	1023	894	-	925	809	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1633	-	-	1495	-	-	882	789	964	892	779	1089
Mov Cap-2 Maneuver	-	-	-	-	-	-	882	789	-	892	779	-
Stage 1	-	-	-	-	-	-	914	818	-	1021	894	-
Stage 2	-	-	-	-	-	-	1021	893	-	923	809	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	3.71	9.23	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	872	1633	-	-	750	-	-	950
HCM Lane V/C Ratio	0.024	-	-	-	0.001	-	-	0.003
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.4	0	-	8.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

AM Peak Hour - Future Background

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	335	162	484	127	159	95	415	371	134	936	100
Future Volume (veh/h)	65	335	162	484	127	159	95	415	371	134	936	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1870	1841	1885	1841	1856	1796	1707	1856	1870	1841	1752
Adj Flow Rate, veh/h	68	349	159	504	132	125	99	432	342	140	975	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	2	4	1	4	3	7	13	3	2	4	10
Cap, veh/h	268	256	117	423	857	732	118	1018	493	161	1075	92
Arrive On Green	0.21	0.21	0.21	0.21	0.47	0.47	0.07	0.31	0.31	0.09	0.33	0.33
Sat Flow, veh/h	1069	1216	554	1795	1841	1572	1711	3244	1572	1781	3262	278
Grp Volume(v), veh/h	68	0	508	504	132	125	99	432	342	140	523	535
Grp Sat Flow(s),veh/h/ln	1069	0	1771	1795	1841	1572	1711	1622	1572	1781	1749	1791
Q Serve(g_s), s	8.9	0.0	35.0	35.2	6.9	7.7	9.5	17.6	31.8	12.9	47.6	47.6
Cycle Q Clear(g_c), s	8.9	0.0	35.0	35.2	6.9	7.7	9.5	17.6	31.8	12.9	47.6	47.6
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	268	0	372	423	857	732	118	1018	493	161	577	590
V/C Ratio(X)	0.25	0.00	1.36	1.19	0.15	0.17	0.84	0.42	0.69	0.87	0.91	0.91
Avail Cap(c_a), veh/h	268	0	372	423	857	732	175	1267	614	225	683	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	0.0	65.7	54.2	25.6	25.8	76.6	45.2	50.1	74.7	53.3	53.3
Incr Delay (d2), s/veh	0.5	0.0	180.5	107.5	0.1	0.1	20.0	0.3	2.5	22.2	14.3	14.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	0.0	50.9	37.4	5.5	5.2	8.3	11.3	18.5	11.0	30.2	30.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.9	0.0	246.3	161.7	25.7	25.9	96.5	45.5	52.6	96.9	67.6	67.4
LnGrp LOS	E		F	F	C	C	F	D	D	F	E	E
Approach Vol, veh/h		576			761			873			1198	
Approach Delay, s/veh		223.8			115.8			54.1			70.9	
Approach LOS		F			F			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	62.4		84.0	22.7	59.7	42.5	41.5				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	17.0	65.0		35.0	21.0	65.0	35.2	35.0				
Max Q Clear Time (g_c+I1), s	11.5	49.6		9.7	14.9	33.8	37.2	37.0				
Green Ext Time (p_c), s	0.1	5.3		1.0	0.2	3.8	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			102.5									
HCM 7th LOS			F									

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

PM Peak Hour - Future Background

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	323	109	521	367	201	139	1015	657	332	394	65
Future Volume (veh/h)	82	323	109	521	367	201	139	1015	657	332	394	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1826	1856	1796	1870	1767	1826	1752	1826	1856	1811	1826	1781
Adj Flow Rate, veh/h	86	340	92	548	386	128	146	1068	561	349	415	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	3	7	2	9	5	10	5	3	6	5	8
Cap, veh/h	202	266	72	377	739	648	153	1218	552	196	1179	110
Arrive On Green	0.19	0.19	0.19	0.19	0.42	0.42	0.09	0.35	0.35	0.11	0.37	0.37
Sat Flow, veh/h	865	1406	381	1781	1767	1547	1668	3469	1572	1725	3207	300
Grp Volume(v), veh/h	86	0	432	548	386	128	146	1068	561	349	224	230
Grp Sat Flow(s),veh/h/ln	865	0	1787	1781	1767	1547	1668	1735	1572	1725	1735	1772
Q Serve(g_s), s	16.6	0.0	35.0	35.2	30.1	9.7	16.1	53.5	65.0	21.0	17.3	17.5
Cycle Q Clear(g_c), s	16.6	0.0	35.0	35.2	30.1	9.7	16.1	53.5	65.0	21.0	17.3	17.5
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	202	0	338	377	739	648	153	1218	552	196	638	652
V/C Ratio(X)	0.42	0.00	1.28	1.45	0.52	0.20	0.95	0.88	1.02	1.78	0.35	0.35
Avail Cap(c_a), veh/h	202	0	338	377	739	648	153	1218	552	196	638	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	0.0	75.1	61.5	40.1	34.1	83.7	56.4	60.1	82.1	42.5	42.6
Incr Delay (d2), s/veh	1.4	0.0	146.6	217.7	0.7	0.1	58.7	7.5	42.5	372.8	0.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.7	0.0	43.5	54.5	19.2	6.7	14.3	32.0	41.6	46.0	11.8	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.0	0.0	221.7	279.2	40.7	34.3	142.4	63.9	102.6	454.9	42.8	42.9
LnGrp LOS	E		F	F	D	C	F	E	F	F	D	D
Approach Vol, veh/h	518			1062			1775			803		
Approach Delay, s/veh	196.3			163.0			82.6			221.9		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.6	75.6		84.0	28.7	72.5	42.5	41.5				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	17.0	65.0		35.0	21.0	65.0	35.2	35.0				
Max Q Clear Time (g_c+I1), s	18.1	19.5		32.1	23.0	67.0	37.2	37.0				
Green Ext Time (p_c), s	0.0	2.4		0.8	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	144.2											
HCM 7th LOS	F											

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

AM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	921	0	0	726	5	0	0	0	3	0	6
Future Vol, veh/h	8	921	0	0	726	5	0	0	0	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	969	0	0	764	5	0	0	0	3	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	769	0	0	969	0	0	1368	1756	485	1268	1753	385
Stage 1	-	-	-	-	-	-	986	986	-	767	767	-
Stage 2	-	-	-	-	-	-	382	769	-	502	986	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	854	-	-	719	-	-	108	86	534	127	86	619
Stage 1	-	-	-	-	-	-	269	328	-	365	414	-
Stage 2	-	-	-	-	-	-	618	413	-	525	328	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	854	-	-	719	-	-	105	85	534	126	85	619
Mov Cap-2 Maneuver	-	-	-	-	-	-	105	85	-	126	85	-
Stage 1	-	-	-	-	-	-	267	325	-	365	414	-
Stage 2	-	-	-	-	-	-	611	413	-	520	325	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.08	0	0	18.88
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	854	-	-	719	-	-	269
HCM Lane V/C Ratio	-	0.01	-	-	-	-	-	0.035
HCM Ctrl Dly (s/v)	0	9.3	-	-	0	-	-	18.9
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

PM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1351	0	0	1145	5	0	0	0	1	0	12
Future Vol, veh/h	4	1351	0	0	1145	5	0	0	0	1	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	4	1422	0	0	1205	5	0	0	0	1	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1211	0	0	1422	0	0	2033	2641	711	1927	2638	605
Stage 1	-	-	-	-	-	-	1431	1431	-	1208	1208	-
Stage 2	-	-	-	-	-	-	603	1211	-	719	1431	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	583	-	-	485	-	-	34	24	380	41	24	446
Stage 1	-	-	-	-	-	-	144	202	-	197	258	-
Stage 2	-	-	-	-	-	-	458	258	-	390	202	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	583	-	-	485	-	-	33	24	380	41	24	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	24	-	41	24	-
Stage 1	-	-	-	-	-	-	143	201	-	197	258	-
Stage 2	-	-	-	-	-	-	445	258	-	387	201	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.03	0	0	20.06
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	583	-	-	485	-	-	253
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.054
HCM Ctrl Dly (s/v)	0	11.2	-	-	0	-	-	20.1
HCM Lane LOS	A	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2

HCM 7th TWSC
8: SE 73 Ave & CR 42

AM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	868	0	0	694	12	0	0	2	23	0	39
Future Vol, veh/h	16	868	0	0	694	12	0	0	2	23	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	185	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	7	2	0	0	2	9	0	0	0	10	0	3
Mvmt Flow	17	904	0	0	723	13	0	0	2	24	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	735	0	0	904	0	0	1299	1673	452	1215	1667	368
Stage 1	-	-	-	-	-	-	938	938	-	729	729	-
Stage 2	-	-	-	-	-	-	361	735	-	485	938	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.27	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.33
Pot Cap-1 Maneuver	834	-	-	761	-	-	121	97	560	129	98	626
Stage 1	-	-	-	-	-	-	288	346	-	363	431	-
Stage 2	-	-	-	-	-	-	635	428	-	511	346	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	834	-	-	761	-	-	111	95	560	126	96	626
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	95	-	126	96	-
Stage 1	-	-	-	-	-	-	283	339	-	363	431	-
Stage 2	-	-	-	-	-	-	594	428	-	499	339	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	0	11.45	24.08
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	560	834	-	-	761	-	-	253
HCM Lane V/C Ratio	0.004	0.02	-	-	-	-	-	0.256
HCM Ctrl Dly (s/v)	11.5	9.4	-	-	0	-	-	24.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1

HCM 7th TWSC
8: SE 73 Ave & CR 42

PM Peak Hour - Future Background

Intersection												
Int Delay, s/veh	1225.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	313	1148	0	2	999	187	1	0	0	159	0	149
Future Vol, veh/h	313	1148	0	2	999	187	1	0	0	159	0	149
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	185	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	5	0	0	5	5	0	0	0	0	0	8
Mvmt Flow	329	1208	0	2	1052	197	1	0	0	167	0	157

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1248	0	0	1208	0	0	2397	3120	604	2417	3022	624
Stage 1	-	-	-	-	-	-	1867	1867	-	1154	1154	-
Stage 2	-	-	-	-	-	-	530	1253	-	1263	1867	-
Critical Hdwy	4.22	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.26	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.38
Pot Cap-1 Maneuver	532	-	-	584	-	-	18	12	446	~17	13	414
Stage 1	-	-	-	-	-	-	77	123	-	213	274	-
Stage 2	-	-	-	-	-	-	506	246	-	183	123	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	532	-	-	584	-	-	4	4	446	~7	5	414
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	4	-	~7	5	-
Stage 1	-	-	-	-	-	-	29	47	-	212	273	-
Stage 2	-	-	-	-	-	-	313	245	-	~69	47	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.75	0.02	\$ 1037.51	\$ 11743.26
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	4	532	-	-	584	-	-	13
HCM Lane V/C Ratio	0.249	0.62	-	-	0.004	-	-	25.803
HCM Ctrl Dly (s/v)	\$ 1037.5	22.2	-	-	11.2	-	-	\$ 11743.3
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	4.2	-	-	0	-	-	41.9

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

HCM 7th Signalized Intersection Summary

9: Buena Vista Blvd/SE 83 Ave & CR 42

PM Peak Hour - Future Background

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	833	87	197	760	37	185	268	156	43	178	91
Future Volume (veh/h)	102	833	87	197	760	37	185	268	156	43	178	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1796	1885	1811	1693	1856	1826	1856	1856	1900	1900
Adj Flow Rate, veh/h	107	877	0	207	800	33	195	282	130	45	187	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	4	7	1	6	14	3	5	3	3	0	0
Cap, veh/h	358	1217		380	1289	53	250	435	375	89	210	76
Arrive On Green	0.07	0.35	0.00	0.10	0.38	0.38	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1767	3497	1522	1795	3368	139	1109	1826	1572	98	882	317
Grp Volume(v), veh/h	107	877	0	207	409	424	195	282	130	307	0	0
Grp Sat Flow(s),veh/h/ln	1767	1749	1522	1795	1721	1786	1109	1826	1572	1297	0	0
Q Serve(g_s), s	2.4	13.7	0.0	4.5	12.1	12.1	0.1	8.8	4.3	6.1	0.0	0.0
Cycle Q Clear(g_c), s	2.4	13.7	0.0	4.5	12.1	12.1	15.0	8.8	4.3	14.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	0.15		0.24
Lane Grp Cap(c), veh/h	358	1217		380	659	684	250	435	375	375	0	0
V/C Ratio(X)	0.30	0.72		0.54	0.62	0.62	0.78	0.65	0.35	0.82	0.00	0.00
Avail Cap(c_a), veh/h	469	2401		431	1181	1226	250	435	375	375	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.4	17.9	0.0	13.0	15.7	15.7	26.3	21.6	19.9	23.8	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.8	0.0	1.2	1.0	0.9	14.5	3.3	0.5	13.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	8.3	0.0	2.8	7.3	7.6	6.9	7.0	2.8	9.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.8	18.7	0.0	14.2	16.7	16.6	40.8	24.9	20.4	37.1	0.0	0.0
LnGrp LOS	B	B		B	B	B	D	C	C	D		
Approach Vol, veh/h		984			1040			607			307	
Approach Delay, s/veh		18.0			16.2			29.0			37.1	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	30.9		21.0	13.2	28.7		21.0				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	8.2	43.2		15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I1), s	4.4	14.1		17.0	6.5	15.7		16.9				
Green Ext Time (p_c), s	0.1	5.1		0.0	0.1	6.2		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	21.6
HCM 7th LOS	C

Notes

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

HCM 7th Signalized Intersection Summary

10: SE 86 Ct & CR 42

PM Peak Hour - Future Background



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	934	147	131	1063	39	190	36	102	37	24	48
Future Volume (veh/h)	77	934	147	131	1063	39	190	36	102	37	24	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1811	1885	1826	1856	1811	1841	1900	1811	1767	1900	1737
Adj Flow Rate, veh/h	81	983	140	138	1119	35	200	38	83	39	25	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	6	1	5	3	6	4	0	6	9	0	11
Cap, veh/h	286	1262	180	295	1497	47	266	32	341	73	53	36
Arrive On Green	0.06	0.42	0.42	0.07	0.43	0.43	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1767	3024	430	1739	3490	109	754	143	1535	0	238	160
Grp Volume(v), veh/h	81	559	564	138	565	589	238	0	83	107	0	0
Grp Sat Flow(s),veh/h/ln	1767	1721	1734	1739	1763	1836	898	0	1535	398	0	0
Q Serve(g_s), s	1.7	18.9	18.9	3.0	18.2	18.2	0.0	0.0	3.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	18.9	18.9	3.0	18.2	18.2	15.0	0.0	3.0	15.0	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.06	0.84		1.00	0.36		0.40
Lane Grp Cap(c), veh/h	286	718	724	295	756	788	298	0	341	161	0	0
V/C Ratio(X)	0.28	0.78	0.78	0.47	0.75	0.75	0.80	0.00	0.24	0.66	0.00	0.00
Avail Cap(c_a), veh/h	399	1102	1111	385	1129	1176	298	0	341	161	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.4	17.0	17.0	13.3	16.2	16.2	27.4	0.0	21.6	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.5	2.0	2.0	1.2	1.5	1.5	14.2	0.0	0.4	9.7	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	10.6	10.7	1.8	10.4	10.7	8.6	0.0	1.9	3.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.0	18.9	18.9	14.5	17.7	17.6	41.6	0.0	21.9	32.4	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	D		C	C		
Approach Vol, veh/h	1204			1292			321			107		
Approach Delay, s/veh	18.5			17.3			36.5			32.4		
Approach LOS	B			B			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	35.7			21.0	11.5	34.9		21.0				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	43.2			15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I), s	20.2			17.0	5.0	20.9		17.0				
Green Ext Time (p_c), s	0.1	7.4		0.0	0.1	7.2		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	20.5											
HCM 7th LOS	C											

HCM 7th Signalized Intersection Summary

11: SE 89 Ter & CR 42

PM Peak Hour - Future Background



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	942	66	81	1103	18	131	21	78	13	11	53
Future Volume (veh/h)	45	942	66	81	1103	18	131	21	78	13	11	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1811	1870	1841	1856	1722	1841	1737	1826	1648	1900	1870
Adj Flow Rate, veh/h	47	992	63	85	1161	16	138	22	62	14	12	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	6	2	4	3	12	4	11	5	17	0	2
Cap, veh/h	301	1428	658	349	1561	22	360	67	190	96	70	181
Arrive On Green	0.05	0.41	0.41	0.08	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	3441	1585	1753	3560	49	1319	402	1132	144	419	1082
Grp Volume(v), veh/h	47	992	63	85	575	602	138	0	84	76	0	0
Grp Sat Flow(s),veh/h/ln	1721	1585	1753	1763	1847	1319	0	1533	1644	0	0	0
Q Serve(g_s), s	0.8	14.0	1.4	1.5	16.1	16.1	2.6	0.0	2.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	14.0	1.4	1.5	16.1	16.1	4.9	0.0	2.9	2.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.74	0.18		0.66
Lane Grp Cap(c), veh/h	301	1428	658	349	773	809	360	0	257	348	0	0
V/C Ratio(X)	0.16	0.69	0.10	0.24	0.74	0.74	0.38	0.00	0.33	0.22	0.00	0.00
Avail Cap(c_a), veh/h	453	2511	1157	455	1286	1347	439	0	350	444	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	14.2	10.6	10.0	13.9	13.9	22.4	0.0	21.7	21.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.1	0.4	1.4	1.4	0.7	0.0	0.7	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	7.8	0.7	0.8	8.9	9.2	3.1	0.0	1.8	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.8	14.9	10.6	10.4	15.3	15.2	23.1	0.0	22.4	21.8	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	C		C	C		
Approach Vol, veh/h	1102			1262			222			76		
Approach Delay, s/veh	14.4			14.9			22.8			21.8		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.8			16.4	11.4	31.4		16.4				
Change Period (Y+Rc), s	6.8			6.5	6.9	6.8		6.5				
Max Green Setting (Gmax), s	43.2			13.5	8.1	43.2		13.5				
Max Q Clear Time (g_c+I), s	18.1			6.9	3.5	16.0		4.3				
Green Ext Time (p_c), s	0.0	7.9		0.5	0.1	7.5		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.6											
HCM 7th LOS	B											

HCM 7th Signalized Intersection Summary

12: US 441 & CR 42

PM Peak Hour - Future Background



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	230	647	165	254	216	638	1114	204	226	1156	318
Future Volume (veh/h)	198	230	647	165	254	216	638	1114	204	226	1156	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1841	1752	1752	1752	1856	1811	1841	1781	1826	1752
Adj Flow Rate, veh/h	208	242	620	174	267	184	672	1173	0	238	1217	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	4	10	10	10	3	6	4	8	5	10
Cap, veh/h	245	319	268	193	234	198	602	1289		287	1268	
Arrive On Green	0.11	0.17	0.17	0.07	0.13	0.13	0.18	0.37	0.00	0.17	0.37	0.00
Sat Flow, veh/h	1767	1856	1560	1668	1752	1485	3428	3441	1560	1697	3469	1485
Grp Volume(v), veh/h	208	242	620	174	267	184	672	1173	0	238	1217	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1560	1668	1752	1485	1714	1721	1560	1697	1735	1485
Q Serve(g_s), s	15.9	19.9	27.5	11.4	21.4	13.4	28.1	51.8	0.0	21.7	54.8	0.0
Cycle Q Clear(g_c), s	15.9	19.9	27.5	11.4	21.4	13.4	28.1	51.8	0.0	21.7	54.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	319	268	193	234	198	602	1289		287	1268	
V/C Ratio(X)	0.85	0.76	2.31	0.90	1.14	0.93	1.12	0.91		0.83	0.96	
Avail Cap(c_a), veh/h	288	319	268	193	234	198	602	1452		287	1268	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.1	63.1	66.2	60.9	69.3	31.9	65.9	47.5	0.0	64.2	49.6	0.0
Incr Delay (d2), s/veh	14.2	7.6	599.2	39.2	102.1	43.9	72.9	8.2	0.0	18.0	17.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	14.4	85.3	7.1	24.0	11.6	26.4	30.5	0.0	15.9	34.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.3	70.7	665.5	100.1	171.4	75.8	138.8	55.7	0.0	82.3	66.8	0.0
LnGrp LOS	E	E	F	F	F	E	F	E		F	E	
Approach Vol, veh/h	1070			625			1845			1455		
Approach Delay, s/veh	414.5			123.4			86.0			69.4		
Approach LOS	F			F			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.0	68.0	25.1	28.9	36.6	69.4	19.0	35.0				
Change Period (Y+Rc), s	9.9	9.5	7.0	7.5	9.5	9.5	7.6	7.5				
Max Green Setting (Gmax), s	28.5	58.5	22.0	17.5	19.5	67.5	11.4	27.5				
Max Q Clear Time (g_c+Q), s	30.5	56.8	17.9	23.4	23.7	53.8	13.4	29.5				
Green Ext Time (p_c), s	0.0	1.1	0.2	0.0	0.0	6.2	0.0	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 156.2

HCM 7th LOS F

Notes

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

2028 No-Buildout Mitigation HCM Reports

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

AM Peak Hour - Future Background with Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	22	39	0	88	8	625	33	86	1119	5
Future Volume (veh/h)	8	12	22	39	0	88	8	625	33	86	1119	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1693	1752	1811	1900	1811	1900
Adj Flow Rate, veh/h	8	13	23	41	0	93	8	658	35	91	1178	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	14	10	6	0	6	0
Cap, veh/h	64	76	101	94	12	121	122	1091	956	492	1209	5
Arrive On Green	0.11	0.11	0.11	0.11	0.00	0.11	0.01	0.62	0.62	0.06	0.67	0.67
Sat Flow, veh/h	148	681	908	368	112	1090	1612	1752	1535	1810	1802	8
Grp Volume(v), veh/h	44	0	0	134	0	0	8	658	35	91	0	1183
Grp Sat Flow(s),veh/h/ln	1737	0	0	1570	0	0	1612	1752	1535	1810	0	1810
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	20.2	0.8	1.5	0.0	55.2
Cycle Q Clear(g_c), s	2.1	0.0	0.0	7.3	0.0	0.0	0.1	20.2	0.8	1.5	0.0	55.2
Prop In Lane	0.18		0.52	0.31		0.69	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	241	0	0	227	0	0	122	1091	956	492	0	1215
V/C Ratio(X)	0.18	0.00	0.00	0.59	0.00	0.00	0.07	0.60	0.04	0.18	0.00	0.97
Avail Cap(c_a), veh/h	267	0	0	252	0	0	224	1156	1013	560	0	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	0.0	38.3	0.0	0.0	21.9	10.1	6.5	7.3	0.0	13.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	3.0	0.0	0.0	0.2	0.8	0.0	0.2	0.0	19.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0	5.4	0.0	0.0	0.2	10.1	0.4	0.7	0.0	29.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.4	0.0	0.0	41.3	0.0	0.0	22.2	10.9	6.5	7.5	0.0	33.4
LnGrp LOS	D			D			C	B	A	A		C
Approach Vol, veh/h		44			134			701			1274	
Approach Delay, s/veh		36.4			41.3			10.8			31.5	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	66.0		15.6	11.7	61.7		15.6				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	6.7	60.7		11.3	8.7	58.7		11.3				
Max Q Clear Time (g_c+I1), s	2.1	57.2		9.3	3.5	22.2		4.1				
Green Ext Time (p_c), s	0.0	2.5		0.1	0.1	4.5		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				25.5								
HCM 7th LOS				C								

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

PM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	44	19	13	83	19	1258	25	140	685	6
Future Volume (veh/h)	1	2	44	19	13	83	19	1258	25	140	685	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1811	1826	1767	1841	1811	1648
Adj Flow Rate, veh/h	1	2	46	20	14	87	20	1324	26	147	721	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	2	6	5	9	4	6	17
Cap, veh/h	29	7	125	47	22	93	513	1339	1098	149	1356	11
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.73	0.73	0.05	0.76	0.76
Sat Flow, veh/h	11	92	1581	187	274	1178	1725	1826	1497	1753	1793	15
Grp Volume(v), veh/h	49	0	0	121	0	0	20	1324	26	147	0	727
Grp Sat Flow(s),veh/h/ln	1684	0	0	1638	0	0	1725	1826	1497	1753	0	1808
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.0	0.4	91.3	0.6	5.9	0.0	21.3
Cycle Q Clear(g_c), s	3.7	0.0	0.0	9.5	0.0	0.0	0.4	91.3	0.6	5.9	0.0	21.3
Prop In Lane	0.02		0.94	0.17		0.72	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	162	0	0	162	0	0	513	1339	1098	149	0	1367
V/C Ratio(X)	0.30	0.00	0.00	0.75	0.00	0.00	0.04	0.99	0.02	0.99	0.00	0.53
Avail Cap(c_a), veh/h	162	0	0	162	0	0	554	1346	1103	149	0	1367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.7	0.0	0.0	59.3	0.0	0.0	5.2	16.8	4.7	47.2	0.0	6.5
Incr Delay (d2), s/veh	1.0	0.0	0.0	17.1	0.0	0.0	0.0	21.7	0.0	70.3	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	0.0	8.3	0.0	0.0	0.2	46.1	0.3	12.1	0.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.8	0.0	0.0	76.4	0.0	0.0	5.2	38.5	4.7	117.5	0.0	6.9
LnGrp LOS	E			E			A	D	A	F		A
Approach Vol, veh/h		49			121			1370			874	
Approach Delay, s/veh		57.8			76.4			37.3			25.5	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	104.5		16.0	12.3	101.6		16.0				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	6.1	95.3		10.3	6.0	95.7		10.3				
Max Q Clear Time (g_c+I1), s	2.4	23.3		11.5	7.9	93.3		5.7				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.0	2.0		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			35.4									
HCM 7th LOS			D									

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

PM Peak Hour - Future Background with Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	44	19	0	67	19	1233	25	113	642	6
Future Volume (veh/h)	1	2	44	19	0	67	19	1233	25	113	642	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1811	1826	1767	1841	1811	1648
Adj Flow Rate, veh/h	1	2	46	20	0	71	20	1298	26	119	676	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	2	6	5	9	4	6	17
Cap, veh/h	30	7	120	54	9	99	541	1331	1092	165	1348	12
Arrive On Green	0.08	0.08	0.08	0.08	0.00	0.08	0.02	0.73	0.73	0.05	0.75	0.75
Sat Flow, veh/h	10	89	1523	243	110	1254	1725	1826	1497	1753	1792	16
Grp Volume(v), veh/h	49	0	0	91	0	0	20	1298	26	119	0	682
Grp Sat Flow(s),veh/h/ln	1622	0	0	1607	0	0	1725	1826	1497	1753	0	1808
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	0.3	83.9	0.6	2.4	0.0	18.9
Cycle Q Clear(g_c), s	3.6	0.0	0.0	6.9	0.0	0.0	0.3	83.9	0.6	2.4	0.0	18.9
Prop In Lane	0.02		0.94	0.22		0.78	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	157	0	0	161	0	0	541	1331	1092	165	0	1360
V/C Ratio(X)	0.31	0.00	0.00	0.56	0.00	0.00	0.04	0.97	0.02	0.72	0.00	0.50
Avail Cap(c_a), veh/h	162	0	0	166	0	0	583	1366	1120	182	0	1367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	0.0	56.6	0.0	0.0	4.7	16.0	4.7	37.0	0.0	6.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	4.1	0.0	0.0	0.0	18.4	0.0	11.8	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	0.0	5.4	0.0	0.0	0.2	41.8	0.3	5.6	0.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.3	0.0	0.0	60.7	0.0	0.0	4.7	34.4	4.7	48.8	0.0	6.5
LnGrp LOS	E			E			A	C	A	D		A
Approach Vol, veh/h		49			91			1344			801	
Approach Delay, s/veh		56.3			60.7			33.4			12.8	
Approach LOS		E			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	101.1		15.6	12.2	98.2		15.6				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	6.1	95.3		10.3	7.1	94.3		10.3				
Max Q Clear Time (g_c+I1), s	2.3	20.9		8.9	4.4	85.9		5.6				
Green Ext Time (p_c), s	0.0	4.7		0.0	0.1	6.0		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				27.7								
HCM 7th LOS				C								

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

AM Peak Hour - Future Background with Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	335	162	484	127	159	95	415	371	134	936	100
Future Volume (veh/h)	65	335	162	484	127	159	95	415	371	134	936	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1870	1841	1885	1841	1856	1796	1707	1856	1870	1841	1752
Adj Flow Rate, veh/h	68	349	159	504	132	125	99	432	342	140	975	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	2	4	1	4	3	7	13	3	2	4	10
Cap, veh/h	281	375	313	564	792	677	120	1002	740	202	1068	91
Arrive On Green	0.20	0.20	0.20	0.16	0.43	0.43	0.07	0.31	0.31	0.06	0.33	0.33
Sat Flow, veh/h	1069	1870	1560	3483	1841	1572	1711	3244	1572	3456	3262	278
Grp Volume(v), veh/h	68	349	159	504	132	125	99	432	342	140	523	535
Grp Sat Flow(s),veh/h/ln	1069	1870	1560	1742	1841	1572	1711	1622	1572	1728	1749	1791
Q Serve(g_s), s	5.8	19.7	9.7	15.2	4.7	5.3	6.1	11.4	15.8	4.3	30.8	30.8
Cycle Q Clear(g_c), s	5.8	19.7	9.7	15.2	4.7	5.3	6.1	11.4	15.8	4.3	30.8	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	281	375	313	564	792	677	120	1002	740	202	573	586
V/C Ratio(X)	0.24	0.93	0.51	0.89	0.17	0.18	0.83	0.43	0.46	0.69	0.91	0.91
Avail Cap(c_a), veh/h	281	375	313	581	801	684	120	1002	740	319	608	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	42.2	38.2	44.1	18.8	18.9	49.3	29.6	19.2	49.6	34.6	34.6
Incr Delay (d2), s/veh	0.4	29.6	1.4	15.9	0.1	0.1	36.1	0.3	0.5	4.2	17.7	17.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	17.4	6.7	12.1	3.5	3.3	6.6	7.5	9.3	3.4	21.1	21.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.1	71.8	39.6	60.0	18.9	19.0	85.3	29.9	19.7	53.7	52.3	52.0
LnGrp LOS	D	E	D	E	B	B	F	C	B	D	D	D
Approach Vol, veh/h		576			761			873			1198	
Approach Delay, s/veh		58.8			46.1			32.2			52.4	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	42.6		52.7	14.0	40.6	24.7	28.0				
Change Period (Y+Rc), s	4.5	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	7.5	37.3		46.7	9.9	31.7	17.9	21.5				
Max Q Clear Time (g_c+I1), s	8.1	32.8		7.3	6.3	17.8	17.2	21.7				
Green Ext Time (p_c), s	0.0	2.4		1.1	0.1	3.1	0.2	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			46.9									
HCM 7th LOS			D									

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

PM Peak Hour - Future Background with Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	323	109	521	367	201	139	1015	657	332	394	65
Future Volume (veh/h)	82	323	109	521	367	201	139	1015	657	332	394	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1856	1796	1870	1767	1826	1752	1826	1856	1811	1826	1781
Adj Flow Rate, veh/h	86	340	92	548	386	128	146	1068	561	349	415	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	3	7	2	9	5	10	5	3	6	5	8
Cap, veh/h	219	363	297	588	735	644	169	1096	764	393	1045	98
Arrive On Green	0.20	0.20	0.20	0.17	0.42	0.42	0.10	0.32	0.32	0.12	0.33	0.33
Sat Flow, veh/h	865	1856	1522	3456	1767	1547	1668	3469	1572	3346	3207	300
Grp Volume(v), veh/h	86	340	92	548	386	128	146	1068	561	349	224	230
Grp Sat Flow(s),veh/h/ln	865	1856	1522	1728	1767	1547	1668	1735	1572	1673	1735	1772
Q Serve(g_s), s	12.8	26.0	7.5	22.5	23.5	7.6	12.4	43.8	41.1	14.8	14.4	14.5
Cycle Q Clear(g_c), s	12.8	26.0	7.5	22.5	23.5	7.6	12.4	43.8	41.1	14.8	14.4	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	219	363	297	588	735	644	169	1096	764	393	565	577
V/C Ratio(X)	0.39	0.94	0.31	0.93	0.53	0.20	0.87	0.97	0.73	0.89	0.40	0.40
Avail Cap(c_a), veh/h	221	367	301	588	739	648	258	1096	764	407	565	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	57.1	49.6	59.0	31.4	26.8	63.8	48.7	29.6	62.7	37.6	37.6
Incr Delay (d2), s/veh	1.1	31.2	0.6	21.9	0.7	0.1	17.0	21.2	3.7	20.3	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	21.4	5.1	17.1	15.2	5.0	9.9	28.8	22.1	11.6	10.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.9	88.3	50.2	80.9	32.1	26.9	80.8	69.9	33.3	83.0	38.0	38.1
LnGrp LOS	D	F	D	F	C	C	F	E	C	F	D	D
Approach Vol, veh/h		518			1062			1775			803	
Approach Delay, s/veh		75.7			56.7			59.2			57.6	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.2	54.4		66.5	24.6	53.0	31.8	34.7				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	22.3	39.8		60.3	17.5	45.5	24.5	28.5				
Max Q Clear Time (g_c+I1), s	14.4	16.5		25.5	16.8	45.8	24.5	28.0				
Green Ext Time (p_c), s	0.2	2.2		2.8	0.1	0.0	0.0	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			60.3									
HCM 7th LOS			E									

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

AM Peak Hour - Future Background with Improvements

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	121	8	3	107	1	22	1	1	0	0	1
Future Vol, veh/h	0	121	8	3	107	1	22	1	1	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	130	9	3	115	1	24	1	1	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	139	0	0	256	257	134	253	261	116
Stage 1	-	-	-	-	-	-	134	134	-	122	122	-
Stage 2	-	-	-	-	-	-	122	123	-	131	139	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1485	-	-	1457	-	-	701	651	920	705	647	942
Stage 1	-	-	-	-	-	-	874	789	-	887	799	-
Stage 2	-	-	-	-	-	-	888	798	-	878	786	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1485	-	-	1457	-	-	699	649	920	701	646	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	649	-	701	646	-
Stage 1	-	-	-	-	-	-	874	789	-	885	797	-
Stage 2	-	-	-	-	-	-	884	796	-	876	786	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.2	10.31	8.83
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	704	1485	-	-	49	-	-	942
HCM Lane V/C Ratio	0.037	-	-	-	0.002	-	-	0.001
HCM Ctrl Dly (s/v)	10.3	0	-	-	7.5	0	-	8.8
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

8: SE 73 Ave & CR 42

PM Peak Hour - Future Background with Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1148	0	2	999	187	1	0	0	159	0	149
Future Volume (veh/h)	313	1148	0	2	999	187	1	0	0	159	0	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1811	1826	1900	1900	1826	1826	1900	1900	1900	1900	1900	1781
Adj Flow Rate, veh/h	329	1208	0	2	1052	197	1	0	0	167	0	157
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	5	0	0	5	5	0	0	0	0	0	8
Cap, veh/h	444	1883	0	278	1386	618	205	0	0	383	0	241
Arrive On Green	0.15	0.54	0.00	0.00	0.40	0.40	0.15	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	1725	3561	0	1810	3469	1547	482	0	0	1440	0	1610
Grp Volume(v), veh/h	329	1208	0	2	1052	197	1	0	0	167	0	157
Grp Sat Flow(s),veh/h/ln	1725	1735	0	1810	1735	1547	482	0	0	1440	0	1610
Q Serve(g_s), s	5.3	13.2	0.0	0.0	14.1	4.7	0.0	0.0	0.0	0.0	0.0	5.0
Cycle Q Clear(g_c), s	5.3	13.2	0.0	0.0	14.1	4.7	5.0	0.0	0.0	4.7	0.0	5.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	1883	0	278	1386	618	205	0	0	383	0	241
V/C Ratio(X)	0.74	0.64	0.00	0.01	0.76	0.32	0.00	0.00	0.00	0.44	0.00	0.65
Avail Cap(c_a), veh/h	687	2405	0	441	1731	772	503	0	0	726	0	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.3	8.7	0.0	10.0	14.0	11.2	24.0	0.0	0.0	21.5	0.0	21.7
Incr Delay (d2), s/veh	2.4	0.4	0.0	0.0	1.6	0.3	0.0	0.0	0.0	0.8	0.0	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	5.7	0.0	0.0	7.9	2.3	0.0	0.0	0.0	3.4	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.8	9.1	0.0	10.0	15.6	11.5	24.0	0.0	0.0	22.3	0.0	24.6
LnGrp LOS	B	A		A	B	B	C			C		C
Approach Vol, veh/h	1537			1251			1			324		
Approach Delay, s/veh	9.8			14.9			24.0			23.5		
Approach LOS	A			B			C			C		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	14.1		4.6	35.4		14.1		12.4	27.6			
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0		4.5	6.0			
Max Green Setting (Gmax), s	21.0		5.0	37.5		21.0		15.5	27.0			
Max Q Clear Time (g_c+I1), s	7.0		2.0	15.2		7.0		7.3	16.1			
Green Ext Time (p_c), s	0.0		0.0	8.6		1.2		0.6	5.5			

Intersection Summary

HCM 7th Control Delay, s/veh

13.3

HCM 7th LOS

B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 7th Signalized Intersection Summary

12: US 441 & CR 42

PM Peak Hour - Future Background with Improvements



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑	↱	↰↱	↑	↱	↰↱	↑↑↑	↱	↰↱	↑↑↑	↱
Traffic Volume (veh/h)	198	230	647	165	254	216	638	1114	204	226	1156	318
Future Volume (veh/h)	198	230	647	165	254	216	638	1114	204	226	1156	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1856	1856	1841	1752	1752	1752	1856	1811	1841	1781	1826	1752
Adj Flow Rate, veh/h	208	242	620	174	267	184	672	1173	0	238	1217	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	4	10	10	10	3	6	4	8	5	10
Cap, veh/h	378	379	651	335	345	292	731	1376		440	1604	
Arrive On Green	0.06	0.20	0.20	0.04	0.20	0.20	0.21	0.28	0.00	0.26	0.32	0.00
Sat Flow, veh/h	3428	1856	1560	3237	1752	1485	3428	4944	1560	1697	4985	1485
Grp Volume(v), veh/h	208	242	620	174	267	184	672	1173	0	238	1217	0
Grp Sat Flow(s),veh/h/ln	1714	1856	1560	1618	1752	1485	1714	1648	1560	1697	1662	1485
Q Serve(g_s), s	7.7	19.1	32.7	6.9	23.1	9.9	30.7	35.9	0.0	19.3	35.1	0.0
Cycle Q Clear(g_c), s	7.7	19.1	32.7	6.9	23.1	9.9	30.7	35.9	0.0	19.3	35.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	378	379	651	335	345	292	731	1376		440	1604	
V/C Ratio(X)	0.55	0.64	0.95	0.52	0.77	0.63	0.92	0.85		0.54	0.76	
Avail Cap(c_a), veh/h	378	379	651	335	345	292	838	1672		440	1604	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.4	58.2	45.0	49.8	60.9	17.5	61.6	54.6	0.0	51.1	48.7	0.0
Incr Delay (d2), s/veh	1.3	2.6	19.6	1.4	10.5	4.3	14.0	3.8	0.0	1.3	3.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	13.4	33.8	5.1	16.6	6.6	20.6	21.2	0.0	12.9	20.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.7	60.9	64.6	51.2	71.4	21.8	75.6	58.4	0.0	52.4	52.1	0.0
LnGrp LOS	D	E	E	D	E	C	E	E		D	D	
Approach Vol, veh/h	1070			625			1845			1455		
Approach Delay, s/veh	61.1			51.1			64.7			52.2		
Approach LOS	E			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.0	61.0	16.0	39.0	51.0	54.0	14.8	40.2				
Change Period (Y+Rc), s	9.9	9.5	7.0	7.5	9.5	9.5	7.6	7.5				
Max Green Setting (Gmax), s	39.5	46.5	9.0	31.5	31.9	54.1	7.2	32.7				
Max Q Clear Time (g_c+1.2), s	32.7	37.1	9.7	25.1	21.3	37.9	8.9	34.7				
Green Ext Time (p_c), s	1.4	4.9	0.0	1.1	0.5	6.6	0.0	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 58.6

HCM 7th LOS E

Notes

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

2028 Buildout HCM Reports

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

AM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	22	39	0	111	8	662	33	94	1131	5
Future Volume (veh/h)	8	12	22	39	0	111	8	662	33	94	1131	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1811	1826	1767	1841	1811	1648
Adj Flow Rate, veh/h	8	13	23	41	0	117	8	697	35	99	1191	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	2	6	5	9	4	6	17
Cap, veh/h	65	80	106	87	11	135	111	1130	926	461	1204	5
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.01	0.62	0.62	0.06	0.67	0.67
Sat Flow, veh/h	151	691	922	311	98	1168	1725	1826	1497	1753	1802	8
Grp Volume(v), veh/h	44	0	0	158	0	0	8	697	35	99	0	1196
Grp Sat Flow(s),veh/h/ln	1764	0	0	1577	0	0	1725	1826	1497	1753	0	1810
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	0.1	21.0	0.8	1.7	0.0	57.8
Cycle Q Clear(g_c), s	2.1	0.0	0.0	8.8	0.0	0.0	0.1	21.0	0.8	1.7	0.0	57.8
Prop In Lane	0.18		0.52	0.26		0.74	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	251	0	0	232	0	0	111	1130	926	461	0	1209
V/C Ratio(X)	0.18	0.00	0.00	0.68	0.00	0.00	0.07	0.62	0.04	0.21	0.00	0.99
Avail Cap(c_a), veh/h	251	0	0	232	0	0	258	1220	1000	524	0	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	0.0	38.8	0.0	0.0	23.6	10.5	6.7	7.7	0.0	14.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	7.8	0.0	0.0	0.3	0.8	0.0	0.2	0.0	23.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0	6.9	0.0	0.0	0.2	10.9	0.4	0.8	0.0	31.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.2	0.0	0.0	46.6	0.0	0.0	23.9	11.4	6.7	8.0	0.0	37.8
LnGrp LOS	D			D			C	B	A	A		D
Approach Vol, veh/h		44			158			740			1295	
Approach Delay, s/veh		36.2			46.6			11.3			35.5	
Approach LOS		D			D			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	66.0		16.0	11.8	61.6		16.0				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	8.7	59.7		10.3	8.7	59.7		10.3				
Max Q Clear Time (g_c+I1), s	2.1	59.8		10.8	3.7	23.0		4.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	4.8		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				28.3								
HCM 7th LOS				C								

HCM 7th Signalized Intersection Summary

1: US 301 & SE 147 St

PM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2	44	19	13	83	19	1258	25	140	685	6
Future Volume (veh/h)	1	2	44	19	13	83	19	1258	25	140	685	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1811	1826	1767	1841	1811	1648
Adj Flow Rate, veh/h	1	2	46	20	14	87	20	1324	26	147	721	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	2	6	5	9	4	6	17
Cap, veh/h	29	7	125	47	22	93	513	1339	1098	149	1356	11
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.73	0.73	0.05	0.76	0.76
Sat Flow, veh/h	11	92	1581	187	274	1178	1725	1826	1497	1753	1793	15
Grp Volume(v), veh/h	49	0	0	121	0	0	20	1324	26	147	0	727
Grp Sat Flow(s),veh/h/ln	1684	0	0	1638	0	0	1725	1826	1497	1753	0	1808
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.0	0.4	91.3	0.6	5.9	0.0	21.3
Cycle Q Clear(g_c), s	3.7	0.0	0.0	9.5	0.0	0.0	0.4	91.3	0.6	5.9	0.0	21.3
Prop In Lane	0.02		0.94	0.17		0.72	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	162	0	0	162	0	0	513	1339	1098	149	0	1367
V/C Ratio(X)	0.30	0.00	0.00	0.75	0.00	0.00	0.04	0.99	0.02	0.99	0.00	0.53
Avail Cap(c_a), veh/h	162	0	0	162	0	0	554	1346	1103	149	0	1367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.7	0.0	0.0	59.3	0.0	0.0	5.2	16.8	4.7	47.2	0.0	6.5
Incr Delay (d2), s/veh	1.0	0.0	0.0	17.1	0.0	0.0	0.0	21.7	0.0	70.3	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	0.0	8.3	0.0	0.0	0.2	46.1	0.3	12.1	0.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.8	0.0	0.0	76.4	0.0	0.0	5.2	38.5	4.7	117.5	0.0	6.9
LnGrp LOS	E			E			A	D	A	F		A
Approach Vol, veh/h		49			121			1370			874	
Approach Delay, s/veh		57.8			76.4			37.3			25.5	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	104.5		16.0	12.3	101.6		16.0				
Change Period (Y+Rc), s	6.3	6.3		5.7	6.3	6.3		5.7				
Max Green Setting (Gmax), s	6.1	95.3		10.3	6.0	95.7		10.3				
Max Q Clear Time (g_c+I1), s	2.4	23.3		11.5	7.9	93.3		5.7				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.0	2.0		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			35.4									
HCM 7th LOS			D									

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

AM Peak Hour - Future Buildout

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	121	16	15	107	1	45	1	38	0	0	1
Future Vol, veh/h	0	121	16	15	107	1	45	1	38	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	127	17	16	113	1	47	1	40	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	144	0	0	280	281	136	273	289	113
Stage 1	-	-	-	-	-	-	136	136	-	145	145	-
Stage 2	-	-	-	-	-	-	144	145	-	128	144	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1488	-	-	1451	-	-	676	631	918	684	624	945
Stage 1	-	-	-	-	-	-	872	788	-	863	781	-
Stage 2	-	-	-	-	-	-	863	781	-	881	781	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1488	-	-	1451	-	-	668	623	918	645	617	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	668	623	-	645	617	-
Stage 1	-	-	-	-	-	-	872	788	-	853	772	-
Stage 2	-	-	-	-	-	-	852	772	-	841	781	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.92	10.35	8.81
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	761	1488	-	-	219	-	-	945
HCM Lane V/C Ratio	0.116	-	-	-	0.011	-	-	0.001
HCM Ctrl Dly (s/v)	10.4	0	-	-	7.5	0	-	8.8
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0

HCM 7th TWSC

2: SE 73 Ave & SE 147 St

PM Peak Hour - Future Buildout

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	82	48	45	107	2	34	2	25	2	0	1
Future Vol, veh/h	0	82	48	45	107	2	34	2	25	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	86	51	47	113	2	36	2	26	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	137	0	0	319	321	112	296	345	114
Stage 1	-	-	-	-	-	-	112	112	-	208	208	-
Stage 2	-	-	-	-	-	-	207	209	-	87	137	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1487	-	-	1460	-	-	638	599	947	660	581	944
Stage 1	-	-	-	-	-	-	898	807	-	798	733	-
Stage 2	-	-	-	-	-	-	799	733	-	925	787	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1487	-	-	1460	-	-	615	579	947	618	561	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	615	579	-	618	561	-
Stage 1	-	-	-	-	-	-	898	807	-	771	708	-
Stage 2	-	-	-	-	-	-	771	707	-	897	787	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.21	10.52	10.18
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	716	1487	-	-	524	-	-	698
HCM Lane V/C Ratio	0.09	-	-	-	0.032	-	-	0.005
HCM Ctrl Dly (s/v)	10.5	0	-	-	7.5	0	-	10.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0

HCM 7th TWSC

3: SE 73 Ave & North Access Dwy

AM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	12	32	11	84	81	4
Future Vol, veh/h	12	32	11	84	81	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	13	34	12	88	85	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	199	87	89	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	112	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	794	977	1519	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	788	977	1519	-	-	-
Mov Cap-2 Maneuver	788	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.14	0.86		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	208	-	917	-	-	
HCM Lane V/C Ratio	0.008	-	0.051	-	-	
HCM Ctrl Dly (s/v)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC

3: SE 73 Ave & North Access Dwy

PM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	22	38	92	87	14
Future Vol, veh/h	8	22	38	92	87	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	8	23	40	97	92	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	276	99	106	0	-	0
Stage 1	99	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	718	962	1497	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	698	962	1497	-	-	-
Mov Cap-2 Maneuver	698	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.27	2.18		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	526	-	874	-	-	
HCM Lane V/C Ratio	0.027	-	0.036	-	-	
HCM Ctrl Dly (s/v)	7.5	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

HCM 7th TWSC

4: SE 73 Ave & Middle Access Dwy

AM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	12	30	10	83	109	4
Future Vol, veh/h	12	30	10	83	109	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	13	32	11	87	115	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	225	117	119	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	767	941	1482	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	762	941	1482	-	-	-
Mov Cap-2 Maneuver	762	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.3	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	194	-	881	-	-	
HCM Lane V/C Ratio	0.007	-	0.05	-	-	
HCM Ctrl Dly (s/v)	7.4	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC

4: SE 73 Ave & Middle Access Dwy

PM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	21	35	122	95	14
Future Vol, veh/h	8	21	35	122	95	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	8	22	37	128	100	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	309	107	115	0	-	0
Stage 1	107	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	687	952	1487	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	669	952	1487	-	-	-
Mov Cap-2 Maneuver	669	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.38	1.67		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	401	-	852	-	-	
HCM Lane V/C Ratio	0.025	-	0.036	-	-	
HCM Ctrl Dly (s/v)	7.5	0	9.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

HCM 7th TWSC

5: SE 73 Ave & South Access Dwy

AM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	37	44	15	56	127	12
Future Vol, veh/h	37	44	15	56	127	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	39	46	16	59	134	13
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	231	140	146	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	762	913	1448	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	754	913	1448	-	-	-
Mov Cap-2 Maneuver	754	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.82	1.59		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	380	-	833	-	-	
HCM Lane V/C Ratio	0.011	-	0.102	-	-	
HCM Ctrl Dly (s/v)	7.5	0	9.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

HCM 7th TWSC

5: SE 73 Ave & South Access Dwy

PM Peak Hour - Future Buildout

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	30	51	132	73	43
Future Vol, veh/h	25	30	51	132	73	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	26	32	54	139	77	45
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	346	99	122	0	-	0
Stage 1	99	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	655	962	1478	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	629	962	1478	-	-	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	10.02	2.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	502	-	775	-	-	
HCM Lane V/C Ratio	0.036	-	0.075	-	-	
HCM Ctrl Dly (s/v)	7.5	0	10	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

AM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	337	162	521	134	198	95	415	384	146	936	100
Future Volume (veh/h)	65	337	162	521	134	198	95	415	384	146	936	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1856	1796	1870	1767	1826	1752	1826	1856	1811	1826	1781
Adj Flow Rate, veh/h	68	355	148	548	141	113	100	437	264	154	985	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	3	7	2	9	5	10	5	3	6	5	8
Cap, veh/h	285	369	302	572	762	668	116	1054	738	214	1071	83
Arrive On Green	0.20	0.20	0.20	0.17	0.43	0.43	0.07	0.30	0.30	0.06	0.33	0.33
Sat Flow, veh/h	1099	1856	1522	3456	1767	1547	1668	3469	1572	3346	3263	252
Grp Volume(v), veh/h	68	355	148	548	141	113	100	437	264	154	524	537
Grp Sat Flow(s),veh/h/ln	1099	1856	1522	1728	1767	1547	1668	1735	1572	1673	1735	1781
Q Serve(g_s), s	5.7	20.5	9.3	17.0	5.3	4.8	6.4	10.9	11.6	4.9	31.4	31.4
Cycle Q Clear(g_c), s	5.7	20.5	9.3	17.0	5.3	4.8	6.4	10.9	11.6	4.9	31.4	31.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	285	369	302	572	762	668	116	1054	738	214	569	584
V/C Ratio(X)	0.24	0.96	0.49	0.96	0.18	0.17	0.86	0.41	0.36	0.72	0.92	0.92
Avail Cap(c_a), veh/h	285	369	302	572	762	668	116	1054	738	306	598	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	43.0	38.5	44.8	19.0	18.9	49.9	30.0	18.3	49.7	35.0	35.0
Incr Delay (d2), s/veh	0.4	37.1	1.2	27.5	0.1	0.1	45.1	0.3	0.3	4.6	19.1	18.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	18.7	6.2	14.3	3.8	3.0	7.2	7.6	7.2	3.7	21.5	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.5	80.0	39.7	72.3	19.1	19.0	94.9	30.3	18.6	54.2	54.1	53.7
LnGrp LOS	D	F	D	E	B	B	F	C	B	D	D	D
Approach Vol, veh/h		571			802			801			1215	
Approach Delay, s/veh		64.5			55.4			34.5			53.9	
Approach LOS		E			E			C			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	43.0		53.2	14.6	40.4	25.2	28.0				
Change Period (Y+Rc), s	4.5	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	7.5	37.3		46.7	9.9	31.7	17.9	21.5				
Max Q Clear Time (g_c+I1), s	8.4	33.4		7.3	6.9	13.6	19.0	22.5				
Green Ext Time (p_c), s	0.0	2.1		1.1	0.1	3.1	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			51.5									
HCM 7th LOS			D									

HCM 7th Signalized Intersection Summary

6: US 301 & CR 42

PM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	332	109	546	372	228	139	1015	703	375	394	65
Future Volume (veh/h)	82	332	109	546	372	228	139	1015	703	375	394	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1856	1796	1870	1767	1826	1752	1826	1856	1811	1826	1781
Adj Flow Rate, veh/h	86	349	92	575	392	145	146	1068	600	395	415	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	3	7	2	9	5	10	5	3	6	5	8
Cap, veh/h	216	365	299	584	735	643	169	1089	759	404	1049	98
Arrive On Green	0.20	0.20	0.20	0.17	0.42	0.42	0.10	0.31	0.31	0.12	0.33	0.33
Sat Flow, veh/h	847	1856	1522	3456	1767	1547	1668	3469	1572	3346	3207	300
Grp Volume(v), veh/h	86	349	92	575	392	145	146	1068	600	395	224	230
Grp Sat Flow(s),veh/h/ln	847	1856	1522	1728	1767	1547	1668	1735	1572	1673	1735	1772
Q Serve(g_s), s	13.2	27.0	7.5	24.1	24.2	8.8	12.5	44.3	45.5	17.1	14.4	14.6
Cycle Q Clear(g_c), s	13.2	27.0	7.5	24.1	24.2	8.8	12.5	44.3	45.5	17.1	14.4	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	216	365	299	584	735	643	169	1089	759	404	568	580
V/C Ratio(X)	0.40	0.96	0.31	0.98	0.53	0.23	0.87	0.98	0.79	0.98	0.39	0.40
Avail Cap(c_a), veh/h	216	365	299	584	735	643	257	1089	759	404	568	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	57.6	49.8	60.1	31.8	27.3	64.2	49.3	31.4	63.6	37.7	37.7
Incr Delay (d2), s/veh	1.2	35.9	0.6	33.2	0.8	0.2	17.4	22.7	5.7	38.9	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	22.6	5.2	19.0	15.6	5.8	10.0	29.3	24.9	14.2	10.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.3	93.5	50.4	93.3	32.5	27.5	81.6	72.0	37.0	102.4	38.1	38.2
LnGrp LOS	D	F	D	F	C	C	F	E	D	F	D	D
Approach Vol, veh/h		527			1112			1814			849	
Approach Delay, s/veh		79.4			63.3			61.2			68.1	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.3	54.9		66.8	25.2	53.0	31.8	35.0				
Change Period (Y+Rc), s	8.6	7.5		6.5	7.7	7.5	7.3	6.5				
Max Green Setting (Gmax), s	22.3	39.8		60.3	17.5	45.5	24.5	28.5				
Max Q Clear Time (g_c+I1), s	14.5	16.6		26.2	19.1	47.5	26.1	29.0				
Green Ext Time (p_c), s	0.2	2.2		2.9	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				65.3								
HCM 7th LOS				E								

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

AM Peak Hour - Future Buildout

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	937	0	0	775	15	0	0	0	33	0	41
Future Vol, veh/h	20	937	0	0	775	15	0	0	0	33	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	21	986	0	0	816	16	0	0	0	35	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	832	0	0	986	0	0	1436	1860	493	1359	1852	416
Stage 1	-	-	-	-	-	-	1028	1028	-	824	824	-
Stage 2	-	-	-	-	-	-	408	832	-	535	1028	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	810	-	-	709	-	-	96	74	527	109	75	591
Stage 1	-	-	-	-	-	-	254	314	-	338	390	-
Stage 2	-	-	-	-	-	-	597	387	-	502	314	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	810	-	-	709	-	-	86	72	527	106	73	591
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	72	-	106	73	-
Stage 1	-	-	-	-	-	-	247	306	-	338	390	-
Stage 2	-	-	-	-	-	-	553	387	-	489	306	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0	0	35.22
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	810	-	-	709	-	-	195
HCM Lane V/C Ratio	-	0.026	-	-	-	-	-	0.399
HCM Ctrl Dly (s/v)	0	9.6	-	-	0	-	-	35.2
HCM Lane LOS	A	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	1.8

HCM 7th TWSC

7: St Mark the Evangelist Dwy & CR 42

PM Peak Hour - Future Buildout

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	1408	0	0	1178	40	0	0	0	22	0	36
Future Vol, veh/h	45	1408	0	0	1178	40	0	0	0	22	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	185	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	47	1482	0	0	1240	42	0	0	0	23	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1282	0	0	1482	0	0	2197	2859	741	2097	2838	641
Stage 1	-	-	-	-	-	-	1577	1577	-	1261	1261	-
Stage 2	-	-	-	-	-	-	620	1282	-	836	1577	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	548	-	-	460	-	-	26	17	363	31	18	422
Stage 1	-	-	-	-	-	-	117	171	-	183	244	-
Stage 2	-	-	-	-	-	-	447	238	-	332	171	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	548	-	-	460	-	-	21	16	363	28	16	422
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	16	-	28	16	-
Stage 1	-	-	-	-	-	-	107	157	-	183	244	-
Stage 2	-	-	-	-	-	-	407	238	-	304	157	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.38	0	0	192.01
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	548	-	-	460	-	-	66
HCM Lane V/C Ratio	-	0.086	-	-	-	-	-	0.92
HCM Ctrl Dly (s/v)	0	12.2	-	-	0	-	-	192
HCM Lane LOS	A	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	4.5

HCM 7th Signalized Intersection Summary

8: SE 73 Ave & CR 42

AM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	898	0	0	704	31	0	0	2	81	0	88
Future Volume (veh/h)	32	898	0	0	704	31	0	0	2	81	0	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1811	1826	1900	1900	1826	1826	1900	1900	1900	1900	1900	1781
Adj Flow Rate, veh/h	34	945	0	0	741	33	0	0	2	85	0	93
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	5	0	0	5	5	0	0	0	0	0	8
Cap, veh/h	322	1817	0	295	1060	473	0	0	194	385	0	194
Arrive On Green	0.04	0.52	0.00	0.00	0.31	0.31	0.00	0.00	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1725	3561	0	1810	3469	1547	0	0	1610	1437	0	1610
Grp Volume(v), veh/h	34	945	0	0	741	33	0	0	2	85	0	93
Grp Sat Flow(s),veh/h/ln	1725	1735	0	1810	1735	1547	0	0	1610	1437	0	1610
Q Serve(g_s), s	0.0	6.0	0.0	0.0	6.4	0.5	0.0	0.0	0.0	1.9	0.0	1.8
Cycle Q Clear(g_c), s	0.0	6.0	0.0	0.0	6.4	0.5	0.0	0.0	0.0	1.9	0.0	1.8
Prop In Lane	1.00		0.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	1817	0	295	1060	473	0	0	194	385	0	194
V/C Ratio(X)	0.11	0.52	0.00	0.00	0.70	0.07	0.00	0.00	0.01	0.22	0.00	0.48
Avail Cap(c_a), veh/h	508	1817	0	558	1336	596	0	0	262	446	0	262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	5.3	0.0	0.0	10.3	8.3	0.0	0.0	13.1	13.9	0.0	13.8
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	1.2	0.1	0.0	0.0	0.0	0.3	0.0	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	1.2	0.0	0.0	2.8	0.2	0.0	0.0	0.0	0.9	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.6	5.5	0.0	0.0	11.5	8.4	0.0	0.0	13.1	14.2	0.0	15.7
LnGrp LOS	B	A			B	A			B	B		B
Approach Vol, veh/h	979			774			2			178		
Approach Delay, s/veh	5.8			11.4			13.1			15.0		
Approach LOS	A			B			B			B		
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s	10.1	0.0	23.7		10.1	7.4	16.3					
Change Period (Y+Rc), s	6.0	4.5	6.0		6.0	6.0	* 6					
Max Green Setting (Gmax), s	5.5	5.0	13.0		5.5	5.0	* 13					
Max Q Clear Time (g_c+I1), s	2.0	0.0	8.0		3.9	2.0	8.4					
Green Ext Time (p_c), s	0.0	0.0	2.5		0.1	0.0	1.9					

Intersection Summary

HCM 7th Control Delay, s/veh

8.9

HCM 7th LOS

A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary

8: SE 73 Ave & CR 42

PM Peak Hour - Future Buildout

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	370	1169	0	2	1034	255	1	0	0	199	0	182
Future Volume (veh/h)	370	1169	0	2	1034	255	1	0	0	199	0	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1811	1826	1900	1900	1826	1826	1900	1900	1900	1900	1900	1781
Adj Flow Rate, veh/h	389	1231	0	2	1088	268	1	0	0	209	0	192
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	5	0	0	5	5	0	0	0	0	0	8
Cap, veh/h	448	1919	0	266	1358	606	189	0	0	406	0	273
Arrive On Green	0.16	0.55	0.00	0.00	0.39	0.39	0.17	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1725	3561	0	1810	3469	1547	406	0	0	1440	0	1610
Grp Volume(v), veh/h	389	1231	0	2	1088	268	1	0	0	209	0	192
Grp Sat Flow(s),veh/h/ln	1725	1735	0	1810	1735	1547	407	0	0	1440	0	1610
Q Serve(g_s), s	7.2	14.8	0.0	0.0	16.7	7.7	0.0	0.0	0.0	0.0	0.0	6.8
Cycle Q Clear(g_c), s	7.2	14.8	0.0	0.0	16.7	7.7	6.8	0.0	0.0	6.5	0.0	6.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1919	0	266	1358	606	189	0	0	406	0	273
V/C Ratio(X)	0.87	0.64	0.00	0.01	0.80	0.44	0.01	0.00	0.00	0.52	0.00	0.70
Avail Cap(c_a), veh/h	609	2166	0	412	1559	696	407	0	0	665	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	9.3	0.0	11.3	16.2	13.5	26.7	0.0	0.0	23.4	0.0	23.5
Incr Delay (d2), s/veh	9.9	0.5	0.0	0.0	2.7	0.5	0.0	0.0	0.0	1.0	0.0	3.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	7.0	0.0	0.0	9.7	4.0	0.0	0.0	0.0	4.9	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.5	9.8	0.0	11.3	18.9	14.0	26.7	0.0	0.0	24.4	0.0	26.8
LnGrp LOS	C	A		B	B	B	C			C		C
Approach Vol, veh/h	1620			1358			1			401		
Approach Delay, s/veh	12.6			17.9			26.7			25.6		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	2			3			4			6		
Phs Duration (G+Y+Rc), s	16.2			4.7			39.2			16.2		
Change Period (Y+Rc), s	6.0			4.5			6.0			6.0		
Max Green Setting (Gmax), s	21.0			5.0			37.5			21.0		
Max Q Clear Time (g_c+I1), s	8.8			2.0			16.8			8.8		
Green Ext Time (p_c), s	0.0			0.0			8.6			1.4		

Intersection Summary

HCM 7th Control Delay, s/veh

16.3

HCM 7th LOS

B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 7th Signalized Intersection Summary

9: Buena Vista Blvd/SE 83 Ave & CR 42

PM Peak Hour - Future Buildout



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	881	100	197	841	37	207	268	156	43	178	91
Future Volume (veh/h)	102	881	100	197	841	37	207	268	156	43	178	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1841	1796	1885	1811	1693	1856	1826	1856	1856	1900	1900
Adj Flow Rate, veh/h	107	927	0	207	885	33	218	282	130	45	187	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	4	7	1	6	14	3	5	3	3	0	0
Cap, veh/h	339	1268		372	1341	50	243	425	366	86	200	72
Arrive On Green	0.07	0.36	0.00	0.10	0.40	0.40	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1767	3497	1522	1795	3383	126	1109	1826	1572	94	858	308
Grp Volume(v), veh/h	107	927	0	207	450	468	218	282	130	307	0	0
Grp Sat Flow(s),veh/h/ln	1767	1749	1522	1795	1721	1788	1109	1826	1572	1259	0	0
Q Serve(g_s), s	2.4	14.8	0.0	4.5	13.8	13.8	0.0	9.0	4.5	6.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	14.8	0.0	4.5	13.8	13.8	15.0	9.0	4.5	15.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	0.15		0.24
Lane Grp Cap(c), veh/h	339	1268		372	682	709	243	425	366	358	0	0
V/C Ratio(X)	0.32	0.73		0.56	0.66	0.66	0.90	0.66	0.35	0.86	0.00	0.00
Avail Cap(c_a), veh/h	447	2347		421	1154	1200	243	425	366	358	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.4	17.8	0.0	13.1	15.9	15.9	27.7	22.4	20.6	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.8	0.0	1.3	1.1	1.1	32.1	3.8	0.6	18.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	8.8	0.0	2.8	8.1	8.4	9.3	7.3	2.9	10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.0	18.6	0.0	14.4	17.0	16.9	59.8	26.2	21.2	43.4	0.0	0.0
LnGrp LOS	B	B		B	B	B	E	C	C	D		
Approach Vol, veh/h	1034			1125			630			307		
Approach Delay, s/veh	18.0			16.5			36.8			43.4		
Approach LOS	B			B			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	32.3		21.0	13.2	30.1		21.0				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	32.3	43.2		15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I14), s	14.4	15.8		17.0	6.5	16.8		17.0				
Green Ext Time (p_c), s	0.1	5.8		0.0	0.1	6.5		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 23.8

HCM 7th LOS C

Notes

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

HCM 7th Signalized Intersection Summary

10: SE 86 Ct & CR 42

PM Peak Hour - Future Buildout



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	982	147	131	1144	39	190	36	102	37	24	48
Future Volume (veh/h)	77	982	147	131	1144	39	190	36	102	37	24	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1811	1885	1826	1856	1811	1841	1900	1811	1767	1900	1737
Adj Flow Rate, veh/h	81	1034	140	138	1204	35	200	38	83	39	25	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	6	1	5	3	6	4	0	6	9	0	11
Cap, veh/h	271	1311	177	287	1545	45	260	31	334	71	52	35
Arrive On Green	0.06	0.43	0.43	0.07	0.44	0.44	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1767	3046	412	1739	3498	102	754	143	1535	0	238	160
Grp Volume(v), veh/h	81	584	590	138	606	633	238	0	83	107	0	0
Grp Sat Flow(s),veh/h/ln	1767	1721	1737	1739	1763	1837	898	0	1535	398	0	0
Q Serve(g_s), s	1.7	20.2	20.2	3.0	20.2	20.2	0.0	0.0	3.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	20.2	20.2	3.0	20.2	20.2	15.0	0.0	3.1	15.0	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.06	0.84		1.00	0.36		0.40
Lane Grp Cap(c), veh/h	271	740	747	287	778	811	291	0	334	158	0	0
V/C Ratio(X)	0.30	0.79	0.79	0.48	0.78	0.78	0.82	0.00	0.25	0.68	0.00	0.00
Avail Cap(c_a), veh/h	380	1077	1087	375	1103	1150	291	0	334	158	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.9	16.9	17.0	13.6	16.4	16.4	28.4	0.0	22.3	23.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	2.5	2.5	1.2	2.3	2.3	16.5	0.0	0.4	11.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	11.4	11.5	1.8	11.5	11.9	8.9	0.0	2.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.5	19.4	19.5	14.9	18.7	18.7	44.8	0.0	22.7	34.8	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	D		C	C		
Approach Vol, veh/h	1255			1377			321			107		
Approach Delay, s/veh	19.1			18.3			39.1			34.8		
Approach LOS	B			B			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), \$0.7	37.3			21.0	11.5	36.5		21.0				
Change Period (Y+Rc), s	6.8	6.8		6.0	6.8	6.8		6.0				
Max Green Setting (Gmax), s	43.2			15.0	8.2	43.2		15.0				
Max Q Clear Time (g_c+I1), s	22.2			17.0	5.0	22.2		17.0				
Green Ext Time (p_c), s	0.1	7.9		0.0	0.1	7.5		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	21.4											
HCM 7th LOS	C											

HCM 7th Signalized Intersection Summary

11: SE 89 Ter & CR 42

PM Peak Hour - Future Buildout



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↗	↘	↰	↗	↘	↰	↗	↘	↰	↗	↘
Traffic Volume (veh/h)	45	990	66	81	1184	18	131	21	78	13	11	53
Future Volume (veh/h)	45	990	66	81	1184	18	131	21	78	13	11	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1811	1870	1841	1856	1722	1841	1737	1826	1648	1900	1870
Adj Flow Rate, veh/h	47	1042	63	85	1246	16	138	22	62	14	12	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	6	2	4	3	12	4	11	5	17	0	2
Cap, veh/h	289	1504	693	344	1638	21	346	65	182	92	67	174
Arrive On Green	0.05	0.44	0.44	0.07	0.46	0.46	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	3441	1585	1753	3564	46	1319	402	1132	145	417	1081
Grp Volume(v), veh/h	47	1042	63	85	616	646	138	0	84	76	0	0
Grp Sat Flow(s),veh/h/ln	1810	1721	1585	1753	1763	1847	1319	0	1533	1644	0	0
Q Serve(g_s), s	0.8	15.1	1.4	1.5	17.9	17.9	2.7	0.0	3.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	15.1	1.4	1.5	17.9	17.9	5.2	0.0	3.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.74	0.18		0.66
Lane Grp Cap(c), veh/h	289	1504	693	344	810	849	346	0	247	334	0	0
V/C Ratio(X)	0.16	0.69	0.09	0.25	0.76	0.76	0.40	0.00	0.34	0.23	0.00	0.00
Avail Cap(c_a), veh/h	432	2409	1109	443	1234	1293	422	0	335	425	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.7	14.0	10.2	10.0	13.9	13.9	23.7	0.0	23.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.6	0.1	0.4	1.5	1.4	0.7	0.0	0.8	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	8.2	0.7	0.8	9.7	10.0	3.3	0.0	1.9	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.0	14.6	10.2	10.3	15.4	15.3	24.5	0.0	23.8	23.1	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	C		C	C		
Approach Vol, veh/h	1152			1347			222			76		
Approach Delay, s/veh	14.2			15.0			24.2			23.1		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	35.2			16.4	11.5	33.8		16.4				
Change Period (Y+Rc), s	6.8			6.5	6.9	6.8		6.5				
Max Green Setting (Gmax), s	43.2			13.5	8.1	43.2		13.5				
Max Q Clear Time (g_c+I), s	19.9			7.2	3.5	17.1		4.4				
Green Ext Time (p_c), s	0.0	8.4		0.4	0.1	7.8		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.6											
HCM 7th LOS	B											

HCM 7th Signalized Intersection Summary

12: US 441 & CR 42

PM Peak Hour - Future Buildout



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖	↖↗	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	200	235	672	165	262	216	681	1114	204	226	1156	321
Future Volume (veh/h)	200	235	672	165	262	216	681	1114	204	226	1156	321
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1841	1752	1752	1752	1856	1811	1841	1781	1826	1752
Adj Flow Rate, veh/h	211	247	643	174	276	184	717	1173	0	238	1217	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	4	10	10	10	3	6	4	8	5	10
Cap, veh/h	236	342	648	210	323	274	793	1356		447	1514	
Arrive On Green	0.07	0.18	0.18	0.06	0.18	0.18	0.23	0.27	0.00	0.26	0.30	0.00
Sat Flow, veh/h	3428	1856	1560	3237	1752	1485	3428	4944	1560	1697	4985	1485
Grp Volume(v), veh/h	211	247	643	174	276	184	717	1173	0	238	1217	0
Grp Sat Flow(s),veh/h/ln	1714	1856	1560	1618	1752	1485	1714	1648	1560	1697	1662	1485
Q Serve(g_s), s	9.8	20.0	29.5	8.5	24.4	10.1	32.5	36.1	0.0	19.2	36.0	0.0
Cycle Q Clear(g_c), s	9.8	20.0	29.5	8.5	24.4	10.1	32.5	36.1	0.0	19.2	36.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	342	648	210	323	274	793	1356		447	1514	
V/C Ratio(X)	0.90	0.72	0.99	0.83	0.85	0.67	0.90	0.86		0.53	0.80	
Avail Cap(c_a), veh/h	236	342	648	210	323	274	1159	1570		447	1514	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	73.9	61.4	46.5	73.9	63.2	18.2	59.8	55.2	0.0	50.5	51.3	0.0
Incr Delay (d2), s/veh	25.7	5.4	28.1	23.0	19.5	6.3	7.4	4.8	0.0	1.2	4.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	14.2	37.2	7.5	18.2	7.0	20.7	21.5	0.0	12.8	21.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.7	66.8	74.6	96.9	82.6	24.5	67.2	60.0	0.0	51.7	55.9	0.0
LnGrp LOS	F	E	E	F	F	C	E	E		D	E	
Approach Vol, veh/h	1101			634			1890			1455		
Approach Delay, s/veh	77.6			69.7			62.7			55.2		
Approach LOS	E			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.9	58.1	18.0	37.0	51.6	53.4	18.0	37.0				
Change Period (Y+Rc), s	9.9	9.5	7.0	7.5	9.5	9.5	7.6	7.5				
Max Green Setting (Gmax), s	54.5	31.5	11.0	29.5	35.2	50.8	10.4	29.5				
Max Q Clear Time (g_c+I), s	34.5	38.0	11.8	26.4	21.2	38.1	10.5	31.5				
Green Ext Time (p_c), s	2.5	0.0	0.0	0.7	0.5	5.8	0.0	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 64.7

HCM 7th LOS E

Notes

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

Appendix L: Turn Lane Warrants Analysis

North Access – Left Turn Lane Warrants Analysis

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

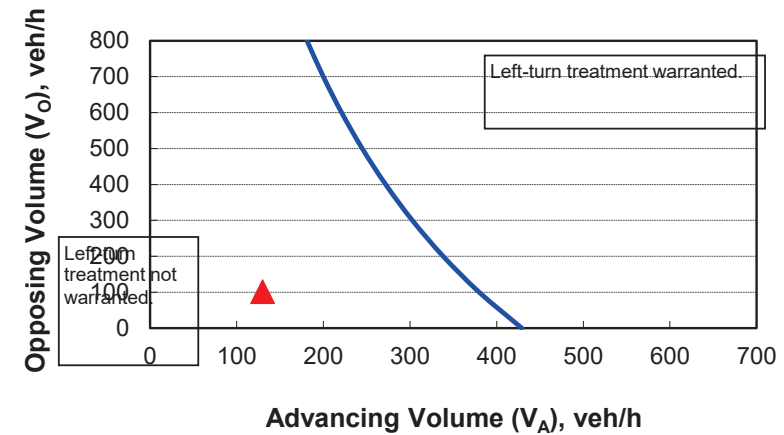
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	29%
Advancing volume (V_A), veh/h:	130
Opposing volume (V_O), veh/h:	101

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	379
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

North Access – Right Turn Lane Warrants Analysis

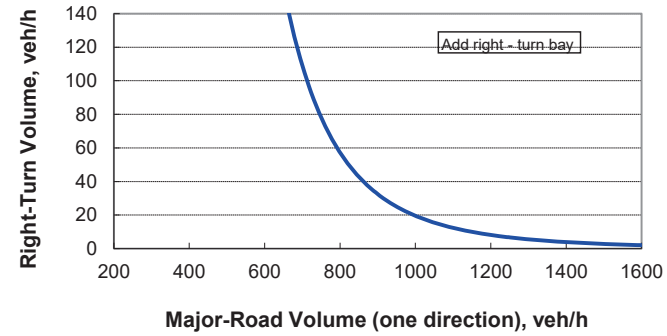
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	101
Right-turn volume, veh/h:	14

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1227702
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Middle Access – Left Turn Lane Warrants Analysis

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

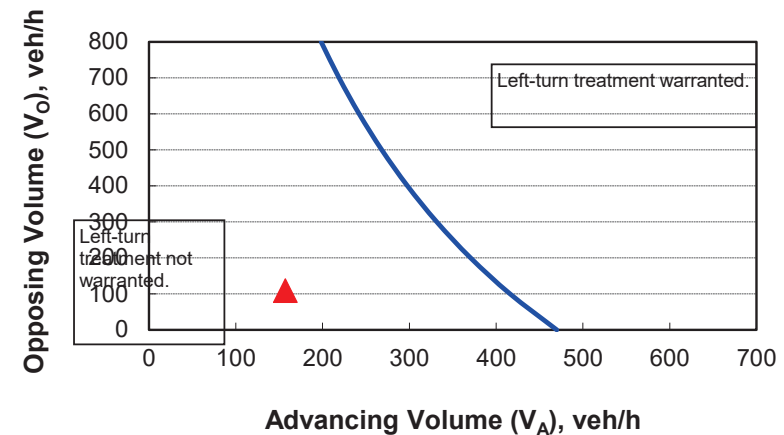
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	22%
Advancing volume (V_A), veh/h:	157
Opposing volume (V_O), veh/h:	109

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	412
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Middle Access – Right Turn Lane Warrants Analysis

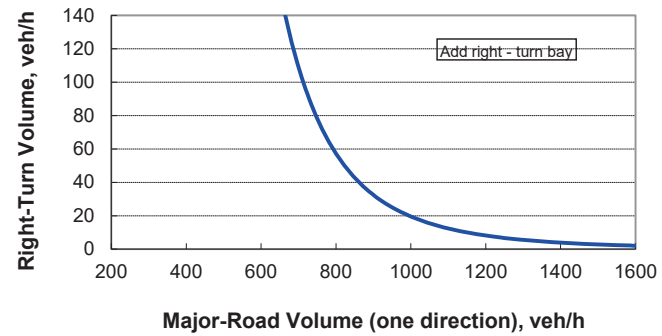
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	109
Right-turn volume, veh/h:	14

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	850273
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Southern Access – Left Turn Lane Warrants Analysis

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

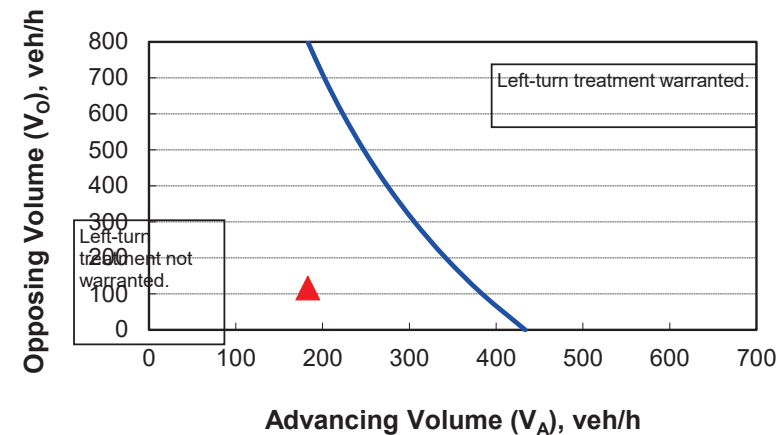
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	28%
Advancing volume (V_A), veh/h:	183
Opposing volume (V_O), veh/h:	116

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	377
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Southern Access – Right Turn Lane Warrants Analysis

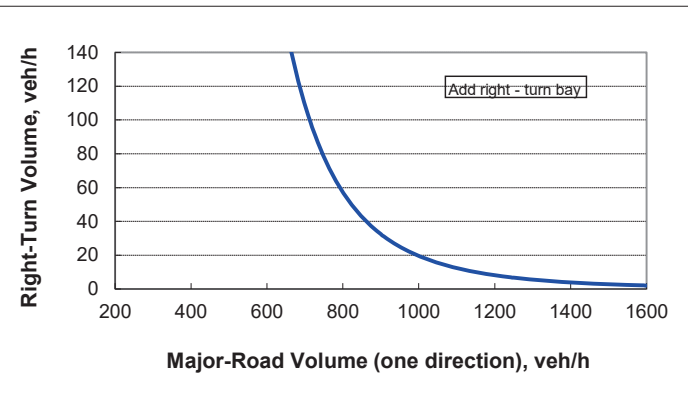
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	109
Right-turn volume, veh/h:	43

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	850273
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Appendix M: Raw 12-Hour Turning Movement Counts

DE TRAFFIC

detraffic.com

(386)341-4186

SE 73rd Ave at CR 42

Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 1

Groups Printed- Automobiles - Commercial

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:00 AM	2	0	2	4	0	72	1	73	0	0	0	0	1	54	0	55	132
06:15 AM	1	0	1	2	0	73	2	75	0	0	0	0	2	56	0	58	135
06:30 AM	1	0	2	3	0	114	0	114	1	0	0	1	1	73	0	74	192
06:45 AM	2	0	1	3	0	110	1	111	0	0	0	0	2	70	0	72	186
Total	6	0	6	12	0	369	4	373	1	0	0	1	6	253	0	259	645
07:00 AM	6	0	6	12	0	111	2	113	0	0	0	0	2	114	0	116	241
07:15 AM	4	0	4	8	0	118	4	122	0	0	0	0	3	172	0	175	305
07:30 AM	8	0	9	17	0	130	4	134	0	0	0	0	5	187	1	193	344
07:45 AM	5	0	7	12	0	161	2	163	0	0	0	0	5	189	0	194	369
Total	23	0	26	49	0	520	12	532	0	0	0	0	15	662	1	678	1259
08:00 AM	5	0	11	16	0	127	1	128	0	0	1	1	4	181	0	185	330
08:15 AM	6	0	10	16	0	166	3	169	0	0	0	0	2	191	0	193	378
08:30 AM	5	0	8	13	0	160	5	165	0	0	1	1	4	190	0	194	373
08:45 AM	2	0	7	9	0	136	5	141	0	0	0	0	4	180	0	184	334
Total	18	0	36	54	0	589	14	603	0	0	2	2	14	742	0	756	1415
09:00 AM	3	0	6	9	0	117	1	118	0	0	0	0	1	101	0	102	229
09:15 AM	4	0	3	7	0	128	3	131	0	0	0	0	3	116	0	119	257
09:30 AM	2	0	4	6	0	115	2	117	0	0	0	0	1	115	0	116	239
09:45 AM	1	0	3	4	0	124	3	127	0	0	0	0	2	131	0	133	264
Total	10	0	16	26	0	484	9	493	0	0	0	0	7	463	0	470	989
10:00 AM	2	0	3	5	0	102	4	106	0	0	0	0	2	106	0	108	219
10:15 AM	0	0	4	4	0	107	3	110	0	0	0	0	1	118	0	119	233
10:30 AM	3	0	3	6	0	106	1	107	0	0	0	0	3	130	0	133	246
10:45 AM	3	0	3	6	0	113	5	118	1	0	0	1	1	106	0	107	232
Total	8	0	13	21	0	428	13	441	1	0	0	1	7	460	0	467	930
11:00 AM	1	0	4	5	0	119	4	123	0	0	0	0	1	119	0	120	248
11:15 AM	3	0	3	6	0	106	3	109	0	0	0	0	2	110	0	112	227
11:30 AM	0	0	2	2	0	116	3	119	0	0	0	0	5	109	0	114	235
11:45 AM	2	0	1	3	0	119	4	123	0	0	0	0	3	109	0	112	238
Total	6	0	10	16	0	460	14	474	0	0	0	0	11	447	0	458	948
12:00 PM	2	0	5	7	0	115	5	120	0	0	0	0	4	128	0	132	259
12:15 PM	2	0	2	4	0	108	2	110	0	0	0	0	3	105	0	108	222
12:30 PM	1	0	5	6	0	119	2	121	0	0	0	0	2	118	0	120	247
12:45 PM	3	0	3	6	0	108	4	112	0	0	0	0	1	106	0	107	225
Total	8	0	15	23	0	450	13	463	0	0	0	0	10	457	0	467	953

DE TRAFFIC

detraffic.com

(386)341-4186

SE 73rd Ave at CR 42

Marion County, FL

File Name : 03 73rd at Hwy 42

Site Code : 00000003

Start Date : 2/27/2025

Page No : 2

Groups Printed- Automobiles - Commercial

	SE 73rd Ave Southbound				CR 42 Westbound				Drwy Northbound				CR 42 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	1	0	3	4	0	104	4	108	0	0	0	0	4	116	0	120	232
01:15 PM	1	0	5	6	0	103	5	108	0	0	0	0	3	130	0	133	247
01:30 PM	2	0	2	4	0	103	5	108	0	0	0	0	3	134	0	137	249
01:45 PM	3	0	3	6	0	78	3	81	0	0	0	0	4	109	0	113	200
Total	7	0	13	20	0	388	17	405	0	0	0	0	14	489	0	503	928
02:00 PM	3	0	4	7	0	118	4	122	0	0	0	0	2	136	0	138	267
02:15 PM	2	0	2	4	0	110	6	116	0	0	0	0	4	130	0	134	254
02:30 PM	2	0	4	6	0	133	4	137	0	0	0	0	4	145	0	149	292
02:45 PM	3	0	4	7	0	99	2	101	0	0	0	0	2	127	0	129	237
Total	10	0	14	24	0	460	16	476	0	0	0	0	12	538	0	550	1050
03:00 PM	0	0	2	2	0	141	3	144	0	0	0	0	3	135	0	138	284
03:15 PM	3	0	2	5	0	110	6	116	0	0	0	0	4	147	0	151	272
03:30 PM	1	0	2	3	0	129	4	133	0	0	0	0	2	129	0	131	267
03:45 PM	0	0	1	1	0	129	2	131	0	0	0	0	2	134	1	137	269
Total	4	0	7	11	0	509	15	524	0	0	0	0	11	545	1	557	1092
04:00 PM	3	0	1	4	0	163	7	170	0	0	0	0	3	163	0	166	340
04:15 PM	5	0	3	8	0	173	11	184	0	0	0	0	3	206	0	209	401
04:30 PM	2	0	5	7	2	199	3	204	1	0	0	1	7	203	0	210	422
04:45 PM	0	0	2	2	0	195	5	200	0	0	0	0	12	233	0	245	447
Total	10	0	11	21	2	730	26	758	1	0	0	1	25	805	0	830	1610
05:00 PM	2	0	2	4	0	211	1	212	0	0	0	0	9	199	0	208	424
05:15 PM	0	0	7	7	0	157	2	159	0	0	0	0	6	199	0	205	371
05:30 PM	1	0	4	5	0	169	3	172	0	0	0	0	7	186	0	193	370
05:45 PM	2	0	3	5	0	143	2	145	0	0	0	0	9	180	0	189	339
Total	5	0	16	21	0	680	8	688	0	0	0	0	31	764	0	795	1504
Grand Total	115	0	183	298	2	6067	161	6230	3	0	2	5	163	6625	2	6790	13323
Apprch %	38.6	0	61.4		0	97.4	2.6		60	0	40		2.4	97.6	0		
Total %	0.9	0	1.4	2.2	0	45.5	1.2	46.8	0	0	0	0	1.2	49.7	0	51	
Automobiles	102	0	171	273	2	5820	148	5970	3	0	2	5	153	6390	2	6545	12793
% Automobiles	88.7	0	93.4	91.6	100	95.9	91.9	95.8	100	0	100	100	93.9	96.5	100	96.4	96
Commercial	13	0	12	25	0	247	13	260	0	0	0	0	10	235	0	245	530
% Commercial	11.3	0	6.6	8.4	0	4.1	8.1	4.2	0	0	0	0	6.1	3.5	0	3.6	4

Appendix N: ITE Hourly Trip Generation Tables

Source: ITE Trip Generation Manual , 11th Edition			
Land Use Code	210		
Land Use	Single-Family Detached Housing		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	7		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.3%	0.5%	0.2%
1:00 - 2:00 AM	0.2%	0.2%	0.1%
2:00 - 3:00 AM	0.2%	0.3%	0.1%
3:00 - 4:00 AM	0.2%	0.2%	0.2%
4:00 - 5:00 AM	0.6%	0.3%	0.8%
5:00 - 6:00 AM	1.2%	0.5%	2.0%
6:00 - 7:00 AM	3.7%	1.6%	5.8%
7:00 - 8:00 AM	6.5%	3.1%	10.0%
8:00 - 9:00 AM	6.2%	3.8%	8.5%
9:00 - 10:00 AM	4.6%	3.3%	5.8%
10:00 - 11:00 AM	4.9%	4.2%	5.6%
11:00 - 12:00 PM	5.3%	5.4%	5.1%
12:00 - 1:00 PM	5.7%	5.7%	5.7%
1:00 - 2:00 PM	6.1%	6.1%	6.0%
2:00 - 3:00 PM	6.6%	7.1%	6.1%
3:00 - 4:00 PM	7.5%	8.7%	6.2%
4:00 - 5:00 PM	8.9%	10.5%	7.4%
5:00 - 6:00 PM	8.7%	10.0%	7.3%
6:00 - 7:00 PM	7.2%	8.5%	5.9%
7:00 - 8:00 PM	5.1%	6.1%	4.2%
8:00 - 9:00 PM	4.6%	6.1%	3.1%
9:00 - 10:00 PM	3.3%	4.4%	2.3%
10:00 - 11:00 PM	1.6%	2.1%	1.0%
11:00 - 12:00 AM	1.0%	1.3%	0.6%

Source: ITE Trip Generation Manual , 11th Edition			
Land Use Code	151		
Land Use	Mini-Warehouse		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	9		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.0%	0.0%	0.0%
1:00 - 2:00 AM	0.0%	0.0%	0.0%
2:00 - 3:00 AM	0.0%	0.0%	0.0%
3:00 - 4:00 AM	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.0%	0.0%	0.0%
5:00 - 6:00 AM	0.8%	0.8%	0.8%
6:00 - 7:00 AM	0.0%	0.0%	0.0%
7:00 - 8:00 AM	2.4%	3.2%	1.6%
8:00 - 9:00 AM	8.7%	11.9%	5.6%
9:00 - 10:00 AM	5.2%	4.0%	6.3%
10:00 - 11:00 AM	7.9%	9.5%	6.3%
11:00 - 12:00 PM	11.5%	10.3%	12.7%
12:00 - 1:00 PM	8.3%	8.7%	7.9%
1:00 - 2:00 PM	11.1%	11.1%	11.1%
2:00 - 3:00 PM	11.9%	12.7%	11.1%
3:00 - 4:00 PM	6.0%	5.6%	6.3%
4:00 - 5:00 PM	8.7%	10.3%	7.1%
5:00 - 6:00 PM	10.3%	5.6%	15.1%
6:00 - 7:00 PM	4.8%	4.0%	5.6%
7:00 - 8:00 PM	0.8%	0.8%	0.8%
8:00 - 9:00 PM	1.6%	1.6%	1.6%
9:00 - 10:00 PM	0.0%	0.0%	0.0%
10:00 - 11:00 PM	0.0%	0.0%	0.0%
11:00 - 12:00 AM	0.0%	0.0%	0.0%

Source: ITE Trip Generation Manual , 11th Edition			
Land Use Code	220		
Land Use	Multifamily Housing (Low-Rise)		
Subcategory	Not Close to Rail Transit		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	6		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.7%	0.9%	0.4%
1:00 - 2:00 AM	0.4%	0.5%	0.3%
2:00 - 3:00 AM	0.4%	0.4%	0.4%
3:00 - 4:00 AM	0.4%	0.4%	0.3%
4:00 - 5:00 AM	0.9%	0.3%	1.4%
5:00 - 6:00 AM	1.6%	0.5%	2.6%
6:00 - 7:00 AM	4.2%	1.4%	6.9%
7:00 - 8:00 AM	6.5%	2.0%	10.8%
8:00 - 9:00 AM	5.8%	3.1%	8.5%
9:00 - 10:00 AM	3.9%	2.9%	4.9%
10:00 - 11:00 AM	3.6%	2.4%	4.8%
11:00 - 12:00 PM	4.3%	3.8%	4.7%
12:00 - 1:00 PM	4.3%	4.5%	4.1%
1:00 - 2:00 PM	4.2%	4.0%	4.4%
2:00 - 3:00 PM	5.2%	5.6%	4.9%
3:00 - 4:00 PM	6.1%	6.9%	5.3%
4:00 - 5:00 PM	7.9%	10.1%	5.6%
5:00 - 6:00 PM	9.5%	11.4%	7.6%
6:00 - 7:00 PM	8.2%	9.7%	6.7%
7:00 - 8:00 PM	6.4%	8.1%	4.7%
8:00 - 9:00 PM	5.9%	7.7%	4.2%
9:00 - 10:00 PM	4.4%	6.0%	2.7%
10:00 - 11:00 PM	3.5%	4.7%	2.4%
11:00 - 12:00 AM	1.9%	2.5%	1.4%

Source: ITE Trip Generation Manual , 11th Edition			
Land Use Code	710		
Land Use	General Office Building		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	11		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.1%	0.2%	0.1%
1:00 - 2:00 AM	0.0%	0.0%	0.1%
2:00 - 3:00 AM	0.0%	0.0%	0.0%
3:00 - 4:00 AM	0.1%	0.0%	0.1%
4:00 - 5:00 AM	0.2%	0.2%	0.2%
5:00 - 6:00 AM	0.3%	0.4%	0.1%
6:00 - 7:00 AM	2.6%	4.8%	0.5%
7:00 - 8:00 AM	7.8%	13.6%	2.0%
8:00 - 9:00 AM	8.9%	14.3%	3.4%
9:00 - 10:00 AM	5.3%	6.3%	4.4%
10:00 - 11:00 AM	5.7%	5.5%	6.0%
11:00 - 12:00 PM	8.1%	6.0%	10.3%
12:00 - 1:00 PM	10.2%	10.2%	10.1%
1:00 - 2:00 PM	7.8%	9.0%	6.6%
2:00 - 3:00 PM	7.4%	8.3%	6.5%
3:00 - 4:00 PM	7.8%	7.3%	8.4%
4:00 - 5:00 PM	10.3%	5.4%	15.2%
5:00 - 6:00 PM	9.9%	4.0%	15.8%
6:00 - 7:00 PM	2.1%	1.7%	2.6%
7:00 - 8:00 PM	1.6%	0.9%	2.3%
8:00 - 9:00 PM	1.0%	0.7%	1.3%
9:00 - 10:00 PM	1.1%	0.5%	1.6%
10:00 - 11:00 PM	1.2%	0.3%	2.1%
11:00 - 12:00 AM	0.3%	0.4%	0.2%

Land Use Code	820		
Land Use	Shopping Center (>150k)		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	24		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.1%	0.1%	0.1%
1:00 - 2:00 AM	0.1%	0.1%	0.1%
2:00 - 3:00 AM	0.1%	0.1%	0.1%
3:00 - 4:00 AM	0.1%	0.1%	0.1%
4:00 - 5:00 AM	0.1%	0.1%	0.1%
5:00 - 6:00 AM	0.4%	0.4%	0.5%
6:00 - 7:00 AM	0.6%	0.8%	0.5%
7:00 - 8:00 AM	1.5%	1.9%	1.2%
8:00 - 9:00 AM	2.3%	2.8%	1.8%
9:00 - 10:00 AM	3.9%	4.8%	3.0%
10:00 - 11:00 AM	5.9%	6.8%	5.0%
11:00 - 12:00 PM	7.5%	8.2%	7.0%
12:00 - 1:00 PM	8.9%	9.3%	8.5%
1:00 - 2:00 PM	8.5%	8.4%	8.6%
2:00 - 3:00 PM	7.9%	7.5%	8.2%
3:00 - 4:00 PM	7.9%	7.8%	8.1%
4:00 - 5:00 PM	8.3%	8.3%	8.3%
5:00 - 6:00 PM	8.5%	8.4%	8.5%
6:00 - 7:00 PM	7.4%	7.4%	7.5%
7:00 - 8:00 PM	6.5%	6.3%	6.6%
8:00 - 9:00 PM	5.1%	4.1%	6.1%
9:00 - 10:00 PM	3.1%	1.8%	4.4%
10:00 - 11:00 PM	3.6%	3.2%	4.0%
11:00 - 12:00 AM	1.8%	1.6%	2.1%

Land Use Code	820		
Land Use	Shopping Center (>150k)		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	24		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.1%	0.1%	0.1%
1:00 - 2:00 AM	0.1%	0.1%	0.1%
2:00 - 3:00 AM	0.1%	0.1%	0.1%
3:00 - 4:00 AM	0.1%	0.1%	0.1%
4:00 - 5:00 AM	0.1%	0.1%	0.1%
5:00 - 6:00 AM	0.4%	0.4%	0.5%
6:00 - 7:00 AM	0.6%	0.8%	0.5%
7:00 - 8:00 AM	1.5%	1.9%	1.2%
8:00 - 9:00 AM	2.3%	2.8%	1.8%
9:00 - 10:00 AM	3.9%	4.8%	3.0%
10:00 - 11:00 AM	5.9%	6.8%	5.0%
11:00 - 12:00 PM	7.5%	8.2%	7.0%
12:00 - 1:00 PM	8.9%	9.3%	8.5%
1:00 - 2:00 PM	8.5%	8.4%	8.6%
2:00 - 3:00 PM	7.9%	7.5%	8.2%
3:00 - 4:00 PM	7.9%	7.8%	8.1%
4:00 - 5:00 PM	8.3%	8.3%	8.3%
5:00 - 6:00 PM	8.5%	8.4%	8.5%
6:00 - 7:00 PM	7.4%	7.4%	7.5%
7:00 - 8:00 PM	6.5%	6.3%	6.6%
8:00 - 9:00 PM	5.1%	4.1%	6.1%
9:00 - 10:00 PM	3.1%	1.8%	4.4%
10:00 - 11:00 PM	3.6%	3.2%	4.0%
11:00 - 12:00 AM	1.8%	1.6%	2.1%

Appendix O: 12-Hour Turning Movement Volume Calculations

Existing & Background Volume

Committed Trips Calculations

Summerfield

in
26% out
26%

Begin Time	Mini-Warehouse	
	Enter	Exit
0:00	0.0%	0.0%
1:00	0.0%	0.0%
2:00	0.0%	0.0%
3:00	0.0%	0.0%
4:00	0.0%	0.0%
5:00	0.8%	0.8%
6:00	0.0%	0.0%
7:00	3.2%	1.6%
8:00	11.9%	5.6%
9:00	4.0%	6.3%
10:00	9.5%	6.3%
11:00	10.3%	12.7%
12:00	8.7%	7.9%
13:00	11.1%	11.1%
14:00	12.7%	11.1%
15:00	5.6%	6.3%
16:00	10.3%	7.1%
17:00	5.6%	15.1%
18:00	4.0%	5.6%
19:00	0.8%	0.8%
20:00	1.6%	1.6%
21:00	0.0%	0.0%
22:00	0.0%	0.0%
23:00	0.0%	0.0%
% of Daily	100%	100%

Begin Time	CR 42	
	EBT	WBT
0:00	0.0%	0.0%
1:00	0.0%	0.0%
2:00	0.0%	0.0%
3:00	0.0%	0.0%
4:00	0.0%	0.0%
5:00	0.2%	0.2%
6:00	0.0%	0.0%
7:00	0.8%	0.4%
8:00	3.1%	1.4%
9:00	1.0%	1.7%
10:00	2.5%	1.7%
11:00	2.7%	3.3%
12:00	2.3%	2.1%
13:00	2.9%	2.9%
14:00	3.3%	2.9%
15:00	1.4%	1.7%
16:00	2.7%	1.9%
17:00	1.4%	3.9%
18:00	1.0%	1.4%
19:00	0.2%	0.2%
20:00	0.4%	0.4%
21:00	0.0%	0.0%
22:00	0.0%	0.0%
23:00	0.0%	0.0%
% of Daily	26.0%	26.0%

Daily Trips 291 146

Begin Time	CR 42	
	EBT	WBT
0:00	0	0
1:00	0	0
2:00	0	0
3:00	0	0
4:00	0	0
5:00	0	0
6:00	0	0
7:00	1	1
8:00	5	2
9:00	2	2
10:00	4	2
11:00	4	5
12:00	3	3
13:00	4	4
14:00	5	4
15:00	2	2
16:00	4	3
17:00	2	6
18:00	2	2
19:00	0	0
20:00	1	1
21:00	0	0
22:00	0	0
23:00	0	0
Total Daily	39	37

Temporal Distribution Based on 11th Edition ITE

Summerfield

Begin Time	Single Family Housing (Detached)	
	Enter	Exit
0:00	0.5%	0.2%
1:00	0.2%	0.1%
2:00	0.3%	0.1%
3:00	0.2%	0.2%
4:00	0.3%	0.8%
5:00	0.5%	2.0%
6:00	1.6%	5.8%
7:00	3.1%	10.0%
8:00	3.8%	8.5%
9:00	3.3%	5.8%
10:00	4.2%	5.6%
11:00	5.4%	5.1%
12:00	5.7%	5.7%
13:00	6.1%	6.0%
14:00	7.1%	6.1%
15:00	8.7%	6.2%
16:00	10.5%	7.4%
17:00	10.0%	7.3%
18:00	8.5%	5.9%
19:00	6.1%	4.2%
20:00	6.1%	3.1%
21:00	4.4%	2.3%
22:00	2.1%	1.0%
23:00	1.3%	0.6%
% of Daily	100%	100%

Temporal Distribution Based on 11th Edition ITE

in
26%

out
26%

Begin Time	CR 42	
	EBT	WBT
0:00	0.1%	0.0%
1:00	0.1%	0.0%
2:00	0.1%	0.0%
3:00	0.0%	0.0%
4:00	0.1%	0.2%
5:00	0.1%	0.5%
6:00	0.4%	1.5%
7:00	0.8%	2.6%
8:00	1.0%	2.2%
9:00	0.9%	1.5%
10:00	1.1%	1.4%
11:00	1.4%	1.3%
12:00	1.5%	1.5%
13:00	1.6%	1.6%
14:00	1.9%	1.6%
15:00	2.3%	1.6%
16:00	2.7%	1.9%
17:00	2.6%	1.9%
18:00	2.2%	1.5%
19:00	1.6%	1.1%
20:00	1.6%	0.8%
21:00	1.1%	0.6%
22:00	0.6%	0.3%
23:00	0.3%	0.2%
% of Daily	26.0%	26.0%

Daily Trips 803 402

Begin Time	CR 42	
	EBT	WBT
0:00	1	0
1:00	0	0
2:00	0	0
3:00	0	0
4:00	0	1
5:00	0	2
6:00	2	6
7:00	3	10
8:00	4	9
9:00	3	6
10:00	4	6
11:00	6	5
12:00	6	6
13:00	6	6
14:00	7	6
15:00	9	7
16:00	11	8
17:00	10	8
18:00	9	6
19:00	6	4
20:00	6	3
21:00	5	2
22:00	2	1
23:00	1	1
Total Daily	101	103

Summerfield

in
26%

out
26%

Begin Time	General Office	
	Enter	Exit
0:00	0.2%	0.1%
1:00	0.0%	0.1%
2:00	0.0%	0.0%
3:00	0.0%	0.1%
4:00	0.2%	0.2%
5:00	0.4%	0.1%
6:00	4.8%	0.5%
7:00	13.6%	2.0%
8:00	14.3%	3.4%
9:00	6.3%	4.4%
10:00	5.5%	6.0%
11:00	6.0%	10.3%
12:00	10.2%	10.1%
13:00	9.0%	6.6%
14:00	8.3%	6.5%
15:00	7.3%	8.4%
16:00	5.4%	15.2%
17:00	4.0%	15.8%
18:00	1.7%	2.6%
19:00	0.9%	2.3%
20:00	0.7%	1.3%
21:00	0.5%	1.6%
22:00	0.3%	2.1%
23:00	0.4%	0.2%
% of Daily	100%	100%

Begin Time	CR 42	
	EBT	WBT
0:00	0.0%	0.0%
1:00	0.0%	0.0%
2:00	0.0%	0.0%
3:00	0.0%	0.0%
4:00	0.0%	0.0%
5:00	0.1%	0.0%
6:00	1.2%	0.1%
7:00	3.5%	0.5%
8:00	3.7%	0.9%
9:00	1.6%	1.1%
10:00	1.4%	1.6%
11:00	1.6%	2.7%
12:00	2.7%	2.6%
13:00	2.3%	1.7%
14:00	2.1%	1.7%
15:00	1.9%	2.2%
16:00	1.4%	4.0%
17:00	1.0%	4.1%
18:00	0.4%	0.7%
19:00	0.2%	0.6%
20:00	0.2%	0.3%
21:00	0.1%	0.4%
22:00	0.1%	0.5%
23:00	0.1%	0.1%
% of Daily	26.0%	26.0%

Daily Trips 129 65

Begin Time	CR 42	
	EBT	WBT
0:00	0	0
1:00	0	0
2:00	0	0
3:00	0	0
4:00	0	0
5:00	0	0
6:00	1	0
7:00	2	0
8:00	2	1
9:00	1	1
10:00	1	1
11:00	1	2
12:00	2	2
13:00	2	1
14:00	1	1
15:00	1	1
16:00	1	3
17:00	1	3
18:00	0	0
19:00	0	0
20:00	0	0
21:00	0	0
22:00	0	0
23:00	0	0
Total Daily	16	16

Temporal Distribution Based on 11th Edition ITE

Utopia

Begin Time	Single Family Housing (Detached)	
	Enter	Exit
0:00	0.5%	0.2%
1:00	0.2%	0.1%
2:00	0.3%	0.1%
3:00	0.2%	0.2%
4:00	0.3%	0.8%
5:00	0.5%	2.0%
6:00	1.6%	5.8%
7:00	3.1%	10.0%
8:00	3.8%	8.5%
9:00	3.3%	5.8%
10:00	4.2%	5.6%
11:00	5.4%	5.1%
12:00	5.7%	5.7%
13:00	6.1%	6.0%
14:00	7.1%	6.1%
15:00	8.7%	6.2%
16:00	10.5%	7.4%
17:00	10.0%	7.3%
18:00	8.5%	5.9%
19:00	6.1%	4.2%
20:00	6.1%	3.1%
21:00	4.4%	2.3%
22:00	2.1%	1.0%
23:00	1.3%	0.6%
% of Daily	100%	100%

Temporal Distribution Based on 11th Edition ITE

	in 36%	in 16%	out 21%	in 25%	out 30%	out 27%
Begin Time	CR 42				SE 73 Ave	
	EBLT	EBT	WBT	WBRT	SBLT	SBRT
0:00	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%
1:00	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
2:00	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
3:00	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%
4:00	0.1%	0.0%	0.2%	0.1%	0.2%	0.2%
5:00	0.2%	0.1%	0.4%	0.1%	0.6%	0.5%
6:00	0.6%	0.2%	1.2%	0.4%	1.8%	1.6%
7:00	1.1%	0.5%	2.1%	0.8%	3.0%	2.7%
8:00	1.4%	0.6%	1.8%	0.9%	2.6%	2.3%
9:00	1.2%	0.5%	1.2%	0.8%	1.7%	1.6%
10:00	1.5%	0.7%	1.2%	1.1%	1.7%	1.5%
11:00	2.0%	0.9%	1.1%	1.4%	1.5%	1.4%
12:00	2.1%	0.9%	1.2%	1.4%	1.7%	1.5%
13:00	2.2%	1.0%	1.3%	1.5%	1.8%	1.6%
14:00	2.6%	1.1%	1.3%	1.8%	1.8%	1.7%
15:00	3.1%	1.4%	1.3%	2.2%	1.9%	1.7%
16:00	3.8%	1.7%	1.6%	2.6%	2.2%	2.0%
17:00	3.6%	1.6%	1.5%	2.5%	2.2%	2.0%
18:00	3.1%	1.4%	1.2%	2.1%	1.8%	1.6%
19:00	2.2%	1.0%	0.9%	1.5%	1.3%	1.1%
20:00	2.2%	1.0%	0.6%	1.5%	0.9%	0.8%
21:00	1.6%	0.7%	0.5%	1.1%	0.7%	0.6%
22:00	0.8%	0.3%	0.2%	0.5%	0.3%	0.3%
23:00	0.5%	0.2%	0.1%	0.3%	0.2%	0.2%
% of Daily	36.0%	16.0%	21.0%	25.0%	30.0%	27.0%

Daily Trips 6394 3197

Begin Time	CR 42				SE 73 Ave	
	EBLT	EBT	WBT	WBRT	SBLT	SBRT
0:00	6	3	1	4	1	1
1:00	3	1	1	2	1	1
2:00	3	1	0	2	1	1
3:00	2	1	1	1	2	1
4:00	4	2	5	2	8	7
5:00	5	2	13	4	19	17
6:00	18	8	39	12	56	50
7:00	35	16	67	25	96	86
8:00	43	19	57	30	82	74
9:00	39	17	39	27	55	50
10:00	48	22	37	34	53	48
11:00	62	28	34	43	49	44
12:00	66	29	38	46	55	49
13:00	70	31	40	49	58	52
14:00	82	36	41	57	59	53
15:00	100	45	42	70	60	54
16:00	121	54	50	84	71	64
17:00	115	51	49	80	70	63
18:00	98	44	39	68	56	51
19:00	70	31	28	48	41	37
20:00	71	31	21	49	30	27
21:00	51	23	15	35	22	20
22:00	24	11	7	17	10	9
23:00	15	7	4	10	6	6
Total Daily	1151	513	668	799	961	865

Utopia

Begin Time	Multi-Family Housing	
	Enter	Exit
0:00	0.9%	0.4%
1:00	0.5%	0.3%
2:00	0.4%	0.4%
3:00	0.4%	0.3%
4:00	0.3%	1.4%
5:00	0.5%	2.6%
6:00	1.4%	6.9%
7:00	2.0%	10.8%
8:00	3.1%	8.5%
9:00	2.9%	4.9%
10:00	2.4%	4.8%
11:00	3.8%	4.7%
12:00	4.5%	4.1%
13:00	4.0%	4.4%
14:00	5.6%	4.9%
15:00	6.9%	5.3%
16:00	10.1%	5.6%
17:00	11.4%	7.6%
18:00	9.7%	6.7%
19:00	8.1%	4.7%
20:00	7.7%	4.2%
21:00	6.0%	2.7%
22:00	4.7%	2.4%
23:00	2.5%	1.4%
% of Daily	100%	100%

Temporal Distribution Based on 11th Edition ITE

Begin Time	in 36%	in 16%	out 21%	in 25%	out 30%	out 27%
	CR 42				SE 73 Ave	
Begin Time	EBLT	EBT	WBT	WBRT	SBLT	SBRT
0:00	0.3%	0.1%	0.1%	0.2%	0.1%	0.1%
1:00	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
2:00	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
3:00	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
4:00	0.1%	0.1%	0.3%	0.1%	0.4%	0.4%
5:00	0.2%	0.1%	0.5%	0.1%	0.8%	0.7%
6:00	0.5%	0.2%	1.4%	0.3%	2.1%	1.9%
7:00	0.7%	0.3%	2.3%	0.5%	3.2%	2.9%
8:00	1.1%	0.5%	1.8%	0.8%	2.5%	2.3%
9:00	1.0%	0.5%	1.0%	0.7%	1.5%	1.3%
10:00	0.9%	0.4%	1.0%	0.6%	1.4%	1.3%
11:00	1.4%	0.6%	1.0%	1.0%	1.4%	1.3%
12:00	1.6%	0.7%	0.9%	1.1%	1.2%	1.1%
13:00	1.4%	0.6%	0.9%	1.0%	1.3%	1.2%
14:00	2.0%	0.9%	1.0%	1.4%	1.5%	1.3%
15:00	2.5%	1.1%	1.1%	1.7%	1.6%	1.4%
16:00	3.6%	1.6%	1.2%	2.5%	1.7%	1.5%
17:00	4.1%	1.8%	1.6%	2.9%	2.3%	2.0%
18:00	3.5%	1.6%	1.4%	2.4%	2.0%	1.8%
19:00	2.9%	1.3%	1.0%	2.0%	1.4%	1.3%
20:00	2.8%	1.2%	0.9%	1.9%	1.2%	1.1%
21:00	2.2%	1.0%	0.6%	1.5%	0.8%	0.7%
22:00	1.7%	0.7%	0.5%	1.2%	0.7%	0.6%
23:00	0.9%	0.4%	0.3%	0.6%	0.4%	0.4%
% of Daily	36.0%	16.0%	21.0%	25.0%	30.0%	27.0%

Daily Trips 5011 2506

Begin Time	CR 42				SE 73 Ave	
	EBLT	EBT	WBT	WBRT	SBLT	SBRT
0:00	8	4	2	6	3	3
1:00	5	2	2	3	2	2
2:00	4	2	2	2	3	2
3:00	4	2	2	2	2	2
4:00	3	1	8	2	11	10
5:00	5	2	14	3	19	17
6:00	12	5	36	9	52	47
7:00	18	8	57	13	81	73
8:00	28	13	45	20	64	57
9:00	26	11	26	18	37	33
10:00	22	10	25	15	36	32
11:00	34	15	25	24	36	32
12:00	41	18	22	28	31	28
13:00	36	16	23	25	33	30
14:00	51	23	26	35	37	33
15:00	63	28	28	43	40	36
16:00	91	41	30	63	42	38
17:00	103	46	40	71	57	51
18:00	88	39	35	61	50	45
19:00	73	32	25	51	35	32
20:00	69	31	22	48	31	28
21:00	54	24	14	38	21	19
22:00	42	19	13	29	18	16
23:00	23	10	7	16	11	9
Total Daily	903	402	529	625	752	675

Utopia Heritage Oaks

Begin Time	Begin Time	Single Family Housing (Detached)	
		Enter	Exit
0:00	0:00	0.5%	0.2%
1:00	1:00	0.2%	0.1%
2:00	2:00	0.3%	0.1%
3:00	3:00	0.2%	0.2%
4:00	4:00	0.3%	0.8%
5:00	5:00	0.5%	2.0%
6:00	6:00	1.6%	5.8%
7:00	7:00	3.1%	10.0%
8:00	8:00	3.8%	8.5%
9:00	9:00	3.3%	5.8%
10:00	10:00	4.2%	5.6%
11:00	11:00	5.4%	5.1%
12:00	12:00	5.7%	5.7%
13:00	13:00	6.1%	6.0%
14:00	14:00	7.1%	6.1%
15:00	15:00	8.7%	6.2%
16:00	16:00	10.5%	7.4%
17:00	17:00	10.0%	7.3%
18:00	18:00	8.5%	5.9%
19:00	19:00	6.1%	4.2%
20:00	20:00	6.1%	3.1%
21:00	21:00	4.4%	2.3%
22:00	22:00	2.1%	1.0%
23:00	23:00	1.3%	0.6%
% of Daily	% of Daily	100%	100%

Temporal Distri Temporal Distribution Based on 11th Edition ITE

in in out out
44% 44% 44% 44%

Begin Time	CR 42		SE 73 Ave	
	EBLT	WBRT	SBLT	SBRT
0:00	0.2%	0.2%	0.1%	0.1%
1:00	0.1%	0.1%	0.1%	0.1%
2:00	0.1%	0.1%	0.0%	0.0%
3:00	0.1%	0.1%	0.1%	0.1%
4:00	0.1%	0.1%	0.4%	0.4%
5:00	0.2%	0.2%	0.9%	0.9%
6:00	0.7%	0.7%	2.6%	2.6%
7:00	1.3%	1.3%	4.4%	4.4%
8:00	1.7%	1.7%	3.7%	3.7%
9:00	1.5%	1.5%	2.5%	2.5%
10:00	1.9%	1.9%	2.5%	2.5%
11:00	2.4%	2.4%	2.2%	2.2%
12:00	2.5%	2.5%	2.5%	2.5%
13:00	2.7%	2.7%	2.6%	2.6%
14:00	3.1%	3.1%	2.7%	2.7%
15:00	3.8%	3.8%	2.7%	2.7%
16:00	4.6%	4.6%	3.3%	3.3%
17:00	4.4%	4.4%	3.2%	3.2%
18:00	3.8%	3.8%	2.6%	2.6%
19:00	2.7%	2.7%	1.9%	1.9%
20:00	2.7%	2.7%	1.4%	1.4%
21:00	1.9%	1.9%	1.0%	1.0%
22:00	0.9%	0.9%	0.4%	0.4%
23:00	0.6%	0.6%	0.3%	0.3%
% of Daily	44.0%	44.0%	44.0%	44.0%

Daily Trips 1537 769

Begin Time	CR 42		SE 73 Ave	
	EBLT	WBRT	SBLT	SBRT
0:00	2	2	1	1
1:00	1	1	1	1
2:00	1	1	0	0
3:00	1	1	1	1
4:00	1	1	3	3
5:00	2	2	7	7
6:00	5	5	20	20
7:00	10	10	34	34
8:00	13	13	29	29
9:00	11	11	20	20
10:00	14	14	19	19
11:00	18	18	17	17
12:00	19	19	19	19
13:00	21	21	20	20
14:00	24	24	21	21
15:00	29	29	21	21
16:00	36	36	25	25
17:00	34	34	25	25
18:00	29	29	20	20
19:00	20	20	14	14
20:00	21	21	10	10
21:00	15	15	8	8
22:00	7	7	3	3
23:00	4	4	2	2
Total Daily	338	338	340	340

Total Committed Trips

Begin Time	CR 42				SE 73 Ave	
	EBLT	EBT	WBT	WBRT	SBLT	SBRT
0:00	16	8	3	12	5	5
1:00	9	3	3	6	4	4
2:00	8	3	2	5	4	3
3:00	7	3	3	4	5	4
4:00	8	3	14	5	22	20
5:00	15	6	32	11	47	43
6:00	40	20	84	30	130	119
7:00	75	39	142	56	217	199
8:00	102	57	125	76	184	168
9:00	107	59	91	77	128	118
10:00	128	75	101	93	135	123
11:00	167	95	112	122	139	127
12:00	186	106	121	135	150	137
13:00	181	102	124	133	157	143
14:00	206	111	127	150	161	147
15:00	242	124	127	177	164	150
16:00	301	153	143	220	183	167
17:00	306	153	156	223	198	180
18:00	263	131	126	191	166	152
19:00	204	101	96	147	126	115
20:00	188	90	83	136	104	94
21:00	132	61	57	96	75	68
22:00	94	48	45	67	53	47
23:00	52	25	24	37	30	27
Total Daily	3037	1576	1941	2209	2587	2360

Project Trips Calculations

Begin Time	Single Family Housing (Detached)	
	Enter	Exit
0:00	0.5%	0.2%
1:00	0.2%	0.1%
2:00	0.3%	0.1%
3:00	0.2%	0.2%
4:00	0.3%	0.8%
5:00	0.5%	2.0%
6:00	1.6%	5.8%
7:00	3.1%	10.0%
8:00	3.8%	8.5%
9:00	3.3%	5.8%
10:00	4.2%	5.6%
11:00	5.4%	5.1%
12:00	5.7%	5.7%
13:00	6.1%	6.0%
14:00	7.1%	6.1%
15:00	8.7%	6.2%
16:00	10.5%	7.4%
17:00	10.0%	7.3%
18:00	8.5%	5.9%
19:00	6.1%	4.2%
20:00	6.1%	3.1%
21:00	4.4%	2.3%
22:00	2.1%	1.0%
23:00	1.3%	0.6%
% of Daily	100%	100%

Temporal Distribution Based on 10th Edition ITE

Begin Time	in 21%	out 13%	in 25%	in 13%	out 25%	out 21%
	CR 42				Full Access	
Begin Time	EBLT	EBT	WBRT	WBT	Left	Right
0:00	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%
1:00	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
2:00	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
3:00	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4:00	0.1%	0.1%	0.1%	0.0%	0.2%	0.2%
5:00	0.1%	0.3%	0.1%	0.1%	0.5%	0.4%
6:00	0.3%	0.8%	0.4%	0.2%	1.5%	1.2%
7:00	0.64%	1.3%	0.8%	0.4%	2.5%	2.1%
8:00	0.8%	1.1%	0.9%	0.5%	2.1%	1.8%
9:00	0.7%	0.7%	0.8%	0.4%	1.4%	1.2%
10:00	0.9%	0.7%	1.1%	0.5%	1.4%	1.2%
11:00	1.1%	0.7%	1.4%	0.7%	1.3%	1.1%
12:00	1.2%	0.7%	1.4%	0.7%	1.4%	1.2%
13:00	1.3%	0.8%	1.5%	0.8%	1.5%	1.3%
14:00	1.5%	0.8%	1.8%	0.9%	1.5%	1.3%
15:00	1.8%	0.8%	2.2%	1.1%	1.6%	1.3%
16:00	2.2%	1.0%	2.6%	1.4%	1.8%	1.6%
17:00	2.1%	1.0%	2.5%	1.3%	1.8%	1.5%
18:00	1.8%	0.8%	2.1%	1.1%	1.5%	1.2%
19:00	1.3%	0.6%	1.5%	0.8%	1.1%	0.9%
20:00	1.3%	0.4%	1.5%	0.8%	0.8%	0.6%
21:00	0.9%	0.3%	1.1%	0.6%	0.6%	0.5%
22:00	0.4%	0.1%	0.5%	0.3%	0.3%	0.2%
23:00	0.3%	0.1%	0.3%	0.2%	0.2%	0.1%
% of Daily	21.0%	13.0%	25.0%	13.0%	25.0%	21.0%

Daily Trips 4231

2116

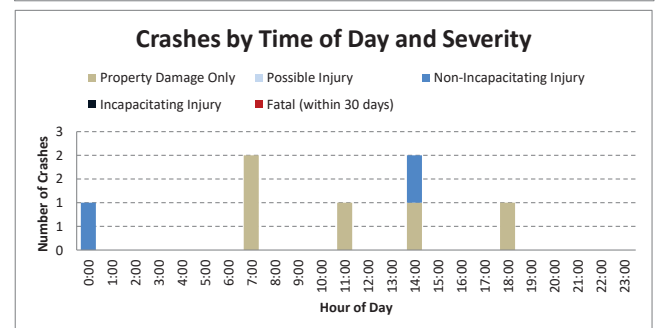
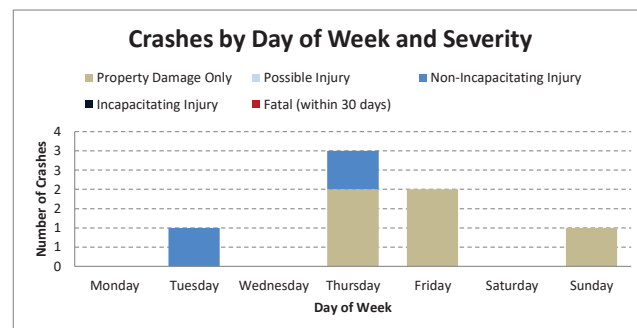
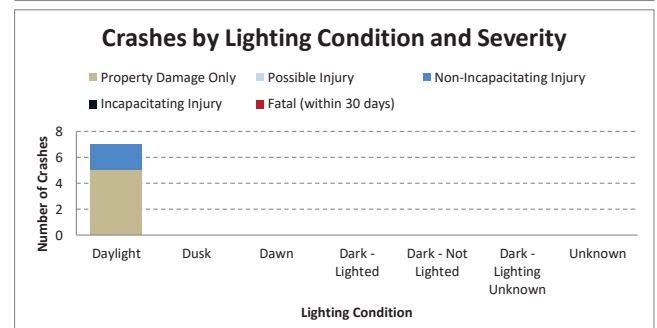
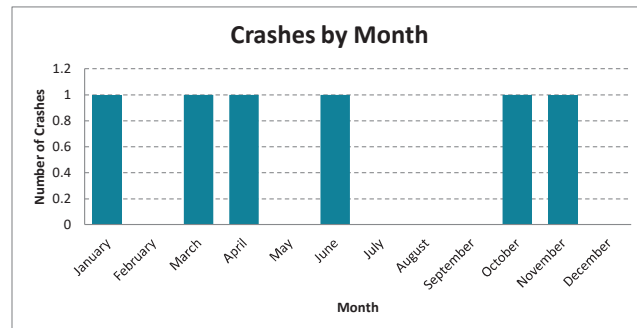
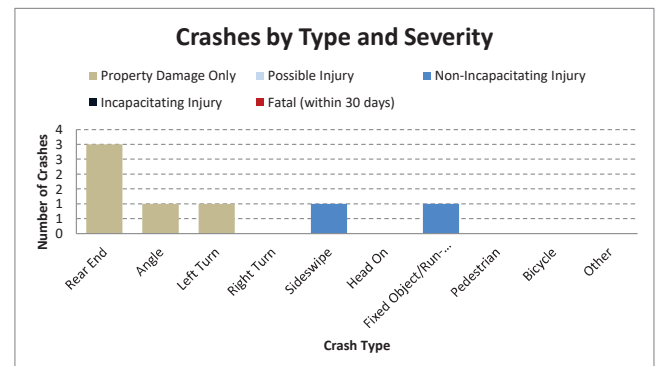
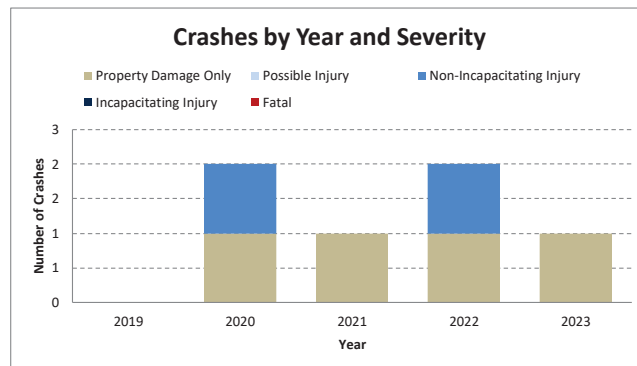
Begin Time	CR 42				Full Access	
	EBLT	EBT	WBRT	WBT	SBLT	SBRT
0:00	2	0	3	1	1	1
1:00	1	0	1	1	1	1
2:00	1	0	1	1	0	0
3:00	1	0	1	0	1	1
4:00	1	2	2	1	4	4
5:00	2	5	2	1	11	9
6:00	7	16	8	4	31	26
7:00	14	27	16	8	53	44
8:00	17	23	20	10	45	38
9:00	15	16	18	9	30	26
10:00	19	15	22	12	29	25
11:00	24	14	29	15	27	23
12:00	26	16	30	16	30	25
13:00	27	17	32	17	32	27
14:00	32	17	38	20	32	27
15:00	39	17	46	24	33	28
16:00	47	20	56	29	39	33
17:00	45	20	53	28	39	33
18:00	38	16	45	23	31	26
19:00	27	12	32	17	22	19
20:00	27	8	32	17	16	14
21:00	20	6	23	12	12	10
22:00	9	3	11	6	5	4
23:00	6	2	7	3	3	3
Total Daily	447	272	528	275	527	447

Total Future Volume

Appendix P: Crash Summary

CRASH ANALYSIS - SE 73rd Avenue & CR 42

		Analysis Year*						Severity					Total	Annual Average	Percent
		2020	2021	2022	2023	2024	2025	Property Damage Only	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal (within 30 days)			
Type of Crash	Rear End	0	0	1	0	1	1	3	0	0	0	0	3	0.5	42.9%
	Angle	0	0	0	1	0	0	1	0	0	0	0	1	0.2	14.3%
	Left Turn	0	1	0	0	0	0	1	0	0	0	0	1	0.2	14.3%
	Right Turn	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Sideswipe	0	0	0	0	0	0	0	0	0	0	0	1	0.2	14.3%
	Head On	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Fixed Object/Run-Off Road	0	1	0	0	0	0	0	0	1	0	0	1	0.2	14.3%
	Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
Total Crashes		0	2	1	2	1	1	5	0	2	0	0	7	1.2	100.0%
Crash Severity	Property Damage Only	0	1	1	1	1	1						5	0.8	71.4%
	Possible Injury	0	0	0	0	0	0						0	0.0	0.0%
	Non-Incapacitating Injury	0	1	0	1	0	0						2	0.3	28.6%
	Incapacitating Injury	0	0	0	0	0	0						0	0.0	0.0%
Fatal		0	0	0	0	0	0						0	0.0	0.0%
Light Conditions	Daylight	0	2	1	2	1	1	5	0	2	0	0	7	1.2	100.0%
	Dusk	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Dawn	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Dark - Lighting Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
Surface Condition	Dry	0	1	1	2	1	1	5	0	1	0	0	6	1.0	85.7%
	Wet	0	1	0	0	0	0	0	0	1	0	0	1	0.2	14.3%
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
Month	January	0	0	0	0	0	0						0	0.0	0.0%
	February	0	0	0	0	0	1						1	0.2	14.3%
	March	0	0	0	0	0	0						0	0.0	0.0%
	April	0	1	0	0	0	0						1	0.2	14.3%
	May	0	0	0	0	0	0						0	0.0	0.0%
	June	0	1	0	0	0	0						1	0.2	14.3%
	July	0	0	0	0	0	0						0	0.0	0.0%
	August	0	0	0	0	1	0						1	0.2	14.3%
	September	0	0	0	0	0	0						0	0.0	0.0%
	October	0	0	0	1	0	0						1	0.2	14.3%
	November	0	0	1	0	0	0						1	0.2	14.3%
	December	0	0	0	0	0	0						0	0.0	0.0%
Day of Week	Monday	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Tuesday	0	1	0	0	0	0	0	0	1	0	0	1	0.2	14.3%
	Wednesday	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Thursday	0	0	0	2	0	1	2	0	1	0	0	3	0.5	42.9%
	Friday	0	1	1	0	0	0	2	0	0	0	0	2	0.3	28.6%
	Saturday	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Sunday	0	0	0	0	1	0	1	0	0	0	0	1	0.2	14.3%
		0	0	0	1	0	0	0	0	1	0	0	1	0.2	14.3%
Hour of Day	0:00	0	0	0	1	0	0	0	0	1	0	0	1	0.2	14.3%
	1:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	2:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	3:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	4:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	5:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	6:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	7:00	0	0	1	0	0	1	2	0	0	0	0	2	0.3	28.6%
	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	9:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	11:00	0	0	0	0	1	0	1	0	0	0	0	1	0.2	14.3%
	12:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	13:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	14:00	0	2	0	0	0	0	1	0	1	0	0	2	0.3	28.6%
	15:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	16:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	17:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	18:00	0	0	0	1	0	0	0	0	0	0	0	1	0.2	14.3%
	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	20:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	21:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	22:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%	
Time Period	12AM-6AM	0	0	0	1	0	0	0	0	1	0	0	1	0.2	14.3%
	6AM-12PM	0	0	1	0	1	1	3	0	0	0	0	3	0.5	42.9%
	12PM-6PM	0	2	0	0	0	0	1	0	1	0	0	2	0.3	28.6%
	6PM-12AM	0	0	0	1	0	0	1	0	0	0	0	1	0.2	14.3%
Alcohol & Drugs	None	0	2	1	2	1	1	5	0	2	0	0	7	1.2	100.0%
	Alcohol Involved	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Drugs Involved	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	Alcohol and Drugs	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
Distraction Related	Yes	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0%
	No	0	2	1	2	1	1	5	0	2	0	0	7	1.2	100.0%

CRASH ANALYSIS - SE 73rd Avenue & CR 42

Appendix Q: Sensitivity Analysis

80% Heritage Oaks + 0% Utopia PUD + 0%
Enclave Housing

Committed Devs Trip

Start Time	CR 42					SR 73rd Ave		
	EBLT	EBT	WBT	WBRT	Total	SBLT	SBRT	Total
6:00 AM	4	0	0	4	8	16	16	32
7:00 AM	8	0	0	8	16	27	27	54
8:00 AM	10	0	0	10	20	23	23	46
9:00 AM	9	0	0	9	18	16	16	32
10:00 AM	11	0	0	11	22	15	15	30
11:00 AM	15	0	0	15	30	14	14	28
12:00 PM	16	0	0	16	32	15	15	30
1:00 PM	17	0	0	17	34	16	16	32
2:00 PM	19	0	0	19	38	17	17	34
3:00 PM	24	0	0	24	48	17	17	34
4:00 PM	28	0	0	28	56	20	20	40
5:00 PM	27	0	0	27	54	20	20	40
Total	188	0	0	188	376	216	216	432

2026 Total Volume

Start Time	CR 42							Private Dwy				SE 73rd Ave			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	10	273	0	0	398	8	689	1	0	0	1	22	0	22	44
7:00 AM	24	715	1	0	561	21	1322	0	0	0	0	52	0	55	107
8:00 AM	25	801	0	0	636	25	1487	0	0	2	2	42	0	62	104
9:00 AM	17	500	0	0	522	19	1058	0	0	0	0	27	0	33	60
10:00 AM	19	497	0	0	462	25	1003	1	0	0	1	24	0	29	53
11:00 AM	27	483	0	0	497	30	1,037	0	0	0	0	20	0	25	45
12:00 PM	27	493	0	0	486	30	1036	0	0	0	0	24	0	31	55
1:00 PM	32	528	0	0	419	35	1014	0	0	0	0	24	0	30	54
2:00 PM	32	581	0	0	497	36	1,146	0	0	0	0	28	0	32	60
3:00 PM	36	588	1	0	549	40	1,214	0	0	0	0	21	0	25	46
4:00 PM	55	869	0	2	788	56	1,770	1	0	0	1	31	0	32	63
5:00 PM	60	825	0	0	734	36	1,655	0	0	0	0	25	0	37	62
Total	364	7,153	2	2	6,549	361	14,431	3	0	2	5	340	0	413	753

Begin Time	CR 42	SE 73rd Ave	Warrant 1		
	Major Approach	Minor Approach	Condition A	Condition B	Both A & B
6:00 AM	689	44			
7:00 AM	1,322	107	X	X	X
8:00 AM	1,487	104		X	
9:00 AM	1,058	60		X	
10:00 AM	1,003	53		X	
11:00 AM	1,037	45			
12:00 PM	1,036	55		X	
1:00 PM	1,014	54		X	
2:00 PM	1,146	60		X	
3:00 PM	1,214	46			
4:00 PM	1,770	63		X	
5:00 PM	1,655	62		X	
Hours Required			8	8	8
Hours Satisfied			1	9	1
Volume Threshold Satisfied			N	Y	N
Warrant Results			Satisfied		

50% Heritage Oaks + 20% Utopia PUD + 0%
Enclave Housing

Committed Devs Trip

Start Time	CR 42					SR 73rd Ave		
	EBLT	EBT	WBT	WBRT	Total	SBLT	SBRT	Total
6:00 AM	5	1	7	5	18	20	19	39
7:00 AM	9	2	11	8	30	33	32	65
8:00 AM	12	3	9	10	34	27	25	52
9:00 AM	11	2	5	10	28	17	17	34
10:00 AM	11	2	5	10	28	16	15	31
11:00 AM	16	3	5	14	38	16	15	31
12:00 PM	18	4	4	16	42	16	16	32
1:00 PM	17	3	5	15	40	17	16	33
2:00 PM	22	5	5	19	51	17	17	34
3:00 PM	28	6	6	24	64	19	18	37
4:00 PM	36	8	6	31	81	20	20	40
5:00 PM	38	9	8	31	86	23	22	45
Total	223	48	76	193	540	241	232	473

2026 Total Volume

Start Time	CR 42							Private Dwy				SE 73rd Ave			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	11	274	0	0	405	9	699	1	0	0	1	26	0	25	51
7:00 AM	25	717	1	0	572	21	1336	0	0	0	0	58	0	60	118
8:00 AM	27	804	0	0	645	25	1501	0	0	2	2	46	0	64	110
9:00 AM	19	502	0	0	527	20	1068	0	0	0	0	28	0	34	62
10:00 AM	19	499	0	0	467	24	1009	1	0	0	1	25	0	29	54
11:00 AM	28	486	0	0	502	29	1,045	0	0	0	0	22	0	26	48
12:00 PM	29	497	0	0	490	30	1046	0	0	0	0	25	0	32	57
1:00 PM	32	531	0	0	424	33	1020	0	0	0	0	25	0	30	55
2:00 PM	35	586	0	0	502	36	1,159	0	0	0	0	28	0	32	60
3:00 PM	40	594	1	0	555	40	1,230	0	0	0	0	23	0	26	49
4:00 PM	63	877	0	2	794	59	1,795	1	0	0	1	31	0	32	63
5:00 PM	71	834	0	0	742	40	1,687	0	0	0	0	28	0	39	67
Total	399	7,201	2	2	6,625	366	14,595	3	0	2	5	365	0	429	794

Begin Time	CR 42	SE 73rd Ave	Warrant 1		
	Major Approach	Minor Approach	Condition A	Condition B	Both A & B
6:00 AM	699	51			
7:00 AM	1,336	118	X	X	X
8:00 AM	1,501	110	X	X	X
9:00 AM	1,068	62		X	
10:00 AM	1,009	54		X	
11:00 AM	1,045	48			
12:00 PM	1,046	57		X	
1:00 PM	1,020	55		X	
2:00 PM	1,159	60		X	
3:00 PM	1,230	49			
4:00 PM	1,795	63		X	
5:00 PM	1,687	67		X	
Hours Required			8	8	8
Hours Satisfied			2	9	2
Volume Threshold Satisfied			N	Y	N
Warrant Results			Satisfied		

20% Heritage Oaks + 20% Utopia PUD + 20%
Enclave Housing

Committed Devs Trip

Start Time	CR 42					SR 73rd Ave		
	EBLT	EBT	WBT	WBRT	Total	SBLT	SBRT	Total
6:00 AM	3	1	7	3	14	14	13	27
7:00 AM	6	2	11	5	24	23	22	45
8:00 AM	9	3	9	7	28	19	17	36
9:00 AM	7	2	5	6	20	11	11	22
10:00 AM	7	2	5	6	20	11	10	21
11:00 AM	11	3	5	9	28	10	9	19
12:00 PM	12	4	4	10	30	10	10	20
1:00 PM	11	3	5	9	28	11	10	21
2:00 PM	15	5	5	12	37	11	11	22
3:00 PM	19	6	6	15	46	12	11	23
4:00 PM	25	8	6	20	59	13	13	26
5:00 PM	28	9	8	21	66	16	15	31
Total	153	48	76	123	400	161	152	313

2026 Total Volume

Start Time	CR 42							Private Dwy				SE 73rd Ave			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	12	275	0	0	406	9	702	1	0	0	1	26	0	24	50
7:00 AM	27	720	1	0	574	21	1343	0	0	0	0	59	0	59	118
8:00 AM	29	807	0	0	647	26	1509	0	0	2	2	47	0	64	111
9:00 AM	18	505	0	0	529	20	1072	0	0	0	0	28	0	33	61
10:00 AM	18	503	0	0	469	24	1014	1	0	0	1	26	0	29	55
11:00 AM	26	491	0	0	505	30	1,052	0	0	0	0	21	0	25	46
12:00 PM	26	502	0	0	493	30	1051	0	0	0	0	25	0	31	56
1:00 PM	29	536	0	0	427	33	1025	0	0	0	0	25	0	29	54
2:00 PM	31	592	0	0	506	37	1,166	0	0	0	0	28	0	31	59
3:00 PM	34	602	1	0	560	40	1,237	0	0	0	0	23	0	25	48
4:00 PM	56	886	0	2	800	59	1,803	1	0	0	1	32	0	32	64
5:00 PM	65	843	0	0	748	41	1,697	0	0	0	0	29	0	38	67
Total	371	7,262	2	2	6,664	370	14,671	3	0	2	5	369	0	420	789

Begin Time	CR 42	SE 73rd Ave	Warrant 1		
	Major Approach	Minor Approach	Condition A	Condition B	Both A & B
6:00 AM	702	50			
7:00 AM	1,343	118	X	X	X
8:00 AM	1,509	111	X	X	X
9:00 AM	1,072	61		X	
10:00 AM	1,014	55		X	
11:00 AM	1,052	46			
12:00 PM	1,051	56		X	
1:00 PM	1,025	54		X	
2:00 PM	1,166	59		X	
3:00 PM	1,237	48			
4:00 PM	1,803	64		X	
5:00 PM	1,697	67		X	
Hours Required			8	8	8
Hours Satisfied			2	9	2
Volume Threshold Satisfied			N	Y	N
Warrant Results			Satisfied		

0% Heritage Oaks + 0% Utopia PUD + 55%
Enclave Housing

Committed Devs Trip

Start Time	CR 42					SR 73rd Ave		
	EBLT	EBT	WBT	WBRT	Total	SBLT	SBRT	Total
6:00 AM	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0

2026 Total Volume

Start Time	CR 42							Private Dwy				SE 73rd Ave			
	EBL	EBT	EBR	WBL	WBT	WBR	Total	NBL	NBT	NBR	Total	SBL	SBT	SBR	Total
6:00 AM	15	277	0	0	400	9	701	1	0	0	1	23	0	20	43
7:00 AM	31	722	1	0	566	22	1342	0	0	0	0	54	0	52	106
8:00 AM	28	810	0	0	642	26	1506	0	0	2	2	44	0	60	104
9:00 AM	17	508	0	0	527	20	1072	0	0	0	0	28	0	31	59
10:00 AM	16	507	0	0	468	26	1017	1	0	0	1	25	0	28	53
11:00 AM	20	496	0	0	505	31	1,052	0	0	0	0	21	0	23	44
12:00 PM	20	507	0	0	495	31	1053	0	0	0	0	26	0	30	56
1:00 PM	24	543	0	0	428	36	1031	0	0	0	0	25	0	29	54
2:00 PM	22	598	0	0	508	38	1,166	0	0	0	0	29	0	30	59
3:00 PM	21	609	1	0	562	41	1,234	0	0	0	0	22	0	23	45
4:00 PM	38	895	0	2	804	59	1,798	1	0	0	1	33	0	30	63
5:00 PM	44	849	0	0	749	38	1,680	0	0	0	0	26	0	35	61
Total	296	7,321	2	2	6,654	377	14,652	3	0	2	5	356	0	391	747