



Cashmere Corners Starbucks

Traffic Impact Analysis

September 2024

Revised November 2024

Revised January 2025

Kimley»Horn

TRAFFIC IMPACT ANALYSIS

Cashmere Corners Starbucks

City of Port St. Lucie, FL

Prepared for:

Regency Centers

Prepared by:

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September 2024

Revised November 2024

Revised January 2025

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PE #91501

EXECUTIVE SUMMARY

Kimley-Horn has performed a Traffic Impact Analysis (TIA) for the proposed Cashmere Corners Starbucks. The project is generally located in the southwest quadrant of the intersection of St. Lucie W Boulevard & Cashmere Boulevard. The project's development program includes a 2,160 square foot coffee/donut shop with drive-through window. Access to the site will be provided via five (5) existing access connections summarized below:

- St Lucie W Boulevard & Right-in/Right-out Driveway
- Cashmere Boulevard & Right-in/Right-out Driveway
- Cashmere Boulevard & Full Access Driveway
- Wakulla River Trail & Full Access Driveway (North)
- Wakulla River Trail & Full Access Driveway (South)

The traffic analysis was performed considering a one-year (2025) buildout timeframe for the proposed development program. Study area intersections and roadways were evaluated for 2024 existing, 2025 future background (without project), and 2025 buildout (with project) traffic conditions. Study area intersections and roadways are anticipated to operate with acceptable LOS and volume to capacity (v/c) ratios during the 2024 existing, 2025 future background (without project), and 2025 buildout (with project) traffic conditions except for the following:

Roadway

- Cashmere Boulevard from Heatherwood Boulevard to St Lucie W Boulevard – 2024 existing traffic conditions

Intersection

- Cashmere Boulevard & Driveway #3 – 2025 background and buildout traffic conditions

The roadway segment of Cashmere Boulevard from Heatherwood Boulevard to St. Lucie W Boulevard operates with a failing LOS and v/c ratio greater than 1.0 during 2024 existing conditions. Therefore, proportionate share contribution is not required per Chapter 163.3180 of the Florida Statutes. Improvements are not recommended at the intersection of Cashmere Boulevard & Driveway #3 as the anticipated delay is below 100 seconds which is considered acceptable per guidance within the St Lucie TPO TIS Methodology (Section 13D).

A turn lane analysis was performed to determine if turn lanes are warranted at driveway connections where turn lanes are not provided. A southbound right turn lane is warranted at Project Driveway #2 per National Cooperative Highway Research Program (NCHRP) Report 457 thresholds. Although an ingress right-turn lane is warranted at Project Driveway #2, Project Driveway #3 is located approximately 250 feet south and provides additional access to the Starbucks and overall shopping center. Therefore, a turn lane at project Driveway #2 is not recommended. This analysis indicated all existing turn lanes are of sufficient length to operate acceptably upon buildout of the development.

The analysis has been performed in accordance with City of Port St Lucie and the St. Lucie Transportation Planning Organization (TPO) guidelines. The traffic analysis and results provided herein support the transportation concurrency reservation request for the Cashmere Corners Starbucks project.

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1.0 INTRODUCTION

Kimley-Horn has been retained to analyze and document the traffic impacts associated with the development of a proposed development in the City of Port St. Lucie, Florida. The project is generally located in the southwest quadrant of the intersection of St. Lucie W Boulevard & Cashmere Boulevard as shown in **Figure 1**. The project site is currently vacant. The assumed buildout timeframe for the project is 2025. Access to the site will be provided via five (5) access connections, as shown in **Figure 1** and summarized below. The conceptual site plan is provided in **Appendix A**.

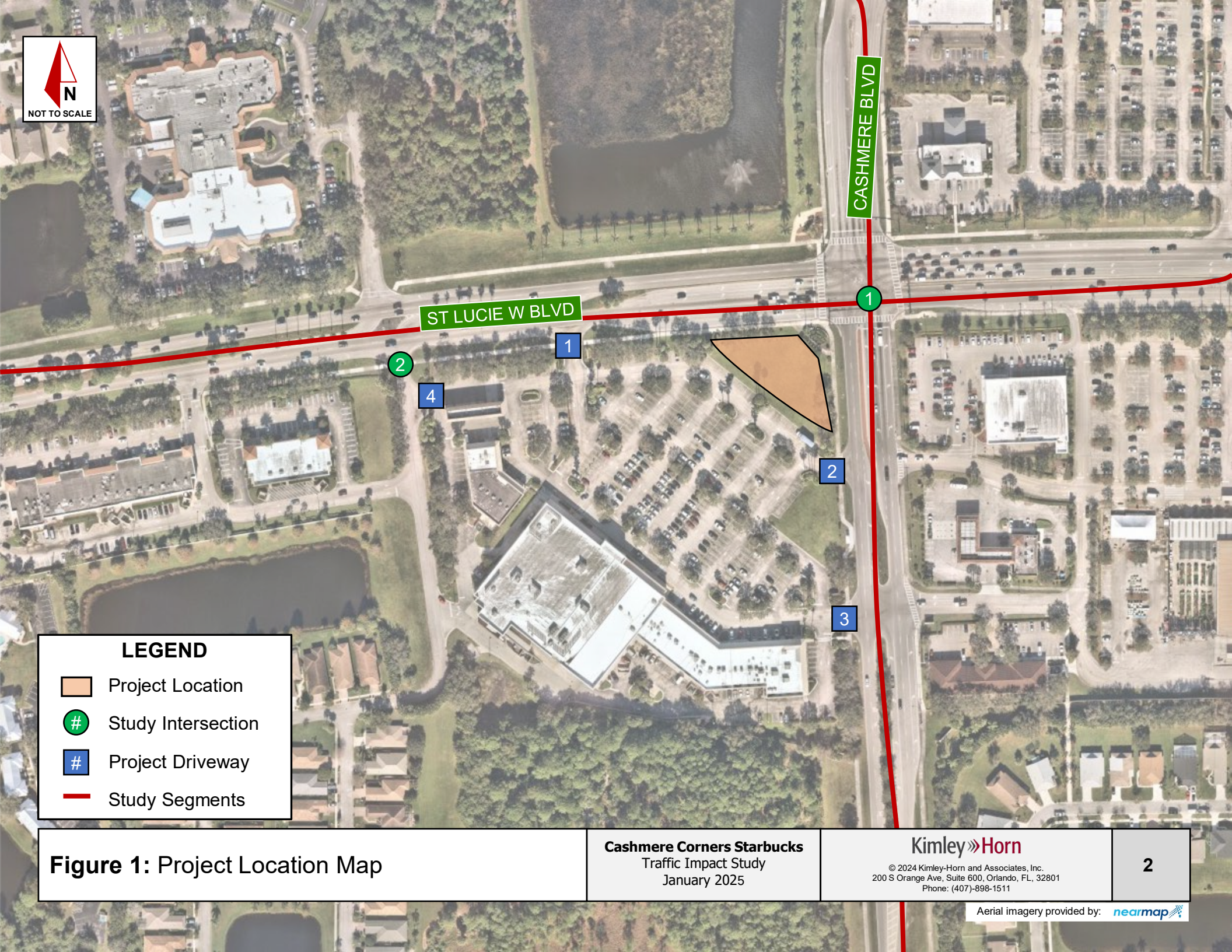
- St Lucie W Boulevard & Right-in/Right-out Driveway
- Cashmere Boulevard & Right-in/Right-out Driveway
- Cashmere Boulevard & Full Access Driveway
- Wakulla River Trail & Full Access Driveway (North)
- Wakulla River Trail & Full Access Driveway (South)

This TIA generally conforms to the guidelines established by the City of Port St Lucie and the St. Lucie Transportation Planning Organization (TPO). The purpose of this analysis is to identify the potential traffic impacts on the transportation system and if necessary develop mitigation strategies to offset those impacts. The analysis of the site will be based on the number of trips generated from the proposed land uses among the parcels of the ±1.02 acres project site.

1.1 STUDY AREA INTERSECTIONS

Per Port St Lucie TPO's *Standardized TIS Methodology and Procedures*, an operational analysis was conducted at all impacted intersections where project traffic consumes 5% or more of the peak hour capacity of the approach link. Therefore, the study area included an operational analysis at the intersections summarized below, as shown in **Figure 1**. For ease of review, the study intersection numbers shown in the list below correspond with the intersection numbering on all analysis outputs and figures.

1. Saint Lucie West Boulevard & Cashmere Boulevard (*signalized*)
2. Saint Lucie West Boulevard & Wakulla River Trail (*two-way stop-controlled*)
3. Saint Lucie West Boulevard & Project Driveway 1 (*right-in/right-out*)
4. Cashmere Boulevard & Project Driveway 2 (*right-in/right-out*)
5. Cashmere Boulevard & Project Driveway 3 (*two-way stop-controlled*)
6. Wakulla River Trail & Project Driveway 4 (*two-way stop-controlled*)



LEGEND

-  Project Location
-  Study Intersection
-  Project Driveway
-  Study Segments

Figure 1: Project Location Map

Cashmere Corners Starbucks
Traffic Impact Study
January 2025

Kimley»Horn

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1.2 STUDY AREA ROADWAY SEGMENTS

Per Port St Lucie TPO's *Standardized TIS Methodology and Procedures*, at all study area roadway impacted segments, based on data obtained from the St Lucie Transportation Planning Organization (TPO) 2023 Roadway Network Database (provided in **Appendix B**), where the project traffic exceeds 5% or more of the capacity for the minimum acceptable level of service as shown in **Table 1**. Since project traffic does not exceed 5% or more of the capacity for the minimum acceptable level of service only the directly accessed segments are analyzed.

- **St. Lucie West Boulevard** from County Club Drive to Cashmere Boulevard
- **Cashmere Boulevard** from Heatherwood Boulevard to St. Lucie West Boulevard

Table 1: Roadway Segment Significance

Roadway		Directional Peak Hour Service Capacity	% Project Distribution	Max Directional Peak Hour Project Trips (IN/OUT)	% Project Significance
From	To				
St. Lucie West Blvd					
Country Club Dr	Cashmere Blvd	2,100	50%	93	4.4%
Cashmere Blvd	Bayshore Blvd	3,170	38%	71	2.2%
Cashmere Blvd					
Heatherwood Blvd	St Lucie West Blvd	920	14%	40	4.3%
St Lucie West Blvd	Peacock Blvd	920	7%	13	1.4%

2.0 EXISTING CONDITIONS ANALYSIS – YEAR 2024

2.1 EXISTING TRAFFIC COUNTS

Turning movement counts (TMCs), collected Thursday, May 2, 2024, were obtained at the study intersections. Data was collected during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak period. Raw turning movement count data is provided in **Appendix C**. The counts were adjusted using 2022 seasonal factor data from Florida Department of Transportation's (FDOT) Florida Traffic Online (FTO) database. Relevant seasonal factor data is provided in **Appendix D**. Turning movement volume development worksheets, which include existing (2024) turning movement volumes for all intersections, are provided in **Appendix E**.

2.2 EXISTING INTERSECTION CONDITIONS

Intersection operational analyses were performed for existing (2024) conditions for the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 7th Edition* (HCM 7) with Synchro (v12). Since the signalized intersection of Saint Lucie West Boulevard & Cashmere Boulevard operates under Insync adaptive control, base signal timing values such as minimum green, yellow, and all-red times were programmed into Synchro. Splits were optimized and adjusted to achieve acceptable LOS and v/c ratios at all of the approaches and movements. This analysis is considered conservative since the adaptive control will adjust to traffic conditions in real-time to provide the most optimized performance at the intersection.

Signal timing data is provided in **Appendix F**.

The intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for existing conditions are provided in **Table 2** and **Table 3**. Synchro outputs are provided in **Appendix G**.

As shown in **Table 2** and **Table 3**, all study intersections operate with acceptable LOS and v/c ratios during the existing (2024) AM and PM peak hour conditions.

Table 2: Existing (2024) Intersection Conditions (AM Peak Hour)

Intersection	AM Peak Hour Existing Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie West Blvd & Cashmere Blvd	E	60.0	0.93
St Lucie W Blvd & Wakulla River Trail	C	15.6	0.18
St Lucie Blvd & Project Driveway #1	B	12.5	0.10
Cashmere Blvd & Project Driveway #2	B	10.8	0.06
Cashmere Blvd & Project Driveway #3	C	27.3	0.18
Wakulla River Trail & Project Driveway #4	A	9.9	0.08

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 3: Existing (2024) Intersection Conditions (PM Peak Hour)

Intersection	PM Peak Hour Existing Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie W Blvd & Cashmere Blvd	D	54.1	0.91
St Lucie W Blvd & Wakulla River Trail	C	18.2	0.35
St Lucie Blvd & Project Driveway #1	C	21.9	0.28
Cashmere Blvd & Project Driveway #2	B	12.9	0.22
Cashmere Blvd & Project Driveway #3	F	171.2	0.84
Wakulla River Trail & Project Driveway #4	B	10.9	0.13

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

3.0 DEVELOPMENT TRAFFIC

The proposed Cashmere Corner Starbucks is approximately 2,160 SF. The latest industry standards were referenced to evaluate the new external trips to be generated by the site at buildout in 2025. The latest adopted regional travel demand model was used to forecast the distribution of trips throughout the study area.

3.1 TRIP GENERATION

Trip generation rates for the proposed development at buildout were calculated using the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition*. ITE Land Use Code (LUC) 937 – Coffee/Donut Shop with Drive-Through Window was used to estimate the project trips.

The proposed Starbucks coffee shop is anticipated to generate approximately 1,153 daily trips, 186 AM peak hour trips (95 inbound / 91 outbound) and 84 PM peak hour trips (42 inbound / 42 outbound). **Table 4** provides the daily, AM and PM peak hour trip generation summaries for the project. ITE 11th Edition excerpts are provided in **Appendix D**.

3.2 TRIP DISTRIBUTION

Projected traffic demand of project trips on study roadways was derived with the use of the latest adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Treasure Coast Regional Planning Model (TCRPM 5.0) model set and situated within the existing roadway network. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project buildout year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic based on engineering judgement. The resulting model plot showing percent of daily project distribution is provided in **Appendix H**.

Daily model project distribution was referenced to manually assign project distribution at study area intersections and driveways in general accordance with model output. **Figure 2** displays the project distribution generated by the proposed development at study area intersections and driveways.

3.3 TRIP ASSIGNMENT

Project trips were assigned to the study area based on project trip distribution percentages. **Figure 3** shows the anticipated PM peak hour project movements at study area intersections and driveways generated by the proposed development.

3.4 PASS-BY

A pass-by reduction was applied to the trips generated. It is anticipated that the pass-by traffic distribution will follow existing traffic patterns. Therefore, half of pass-by trips are assumed coming to/from east of the development on Saint Lucie West Boulevard and half of pass-by trips were assumed coming to/from west of the development on Saint Lucie West Boulevard. Per St Lucie TPO's *Standardized Traffic Impact Study Methodology and Procedures*, pass-by is capped at 10% of the adjacent street traffic volume. Traffic volumes from the St Lucie TPO's Traffic Counts and Level of Service Report were used to determine the maximum pass-by trip reduction. Traffic volumes from the adjacent segment of St. Lucie W Blvd and the nearest segment of Cashmere Blvd were used. **Figure 4** and **Figure 5** display the pass-by trip distribution

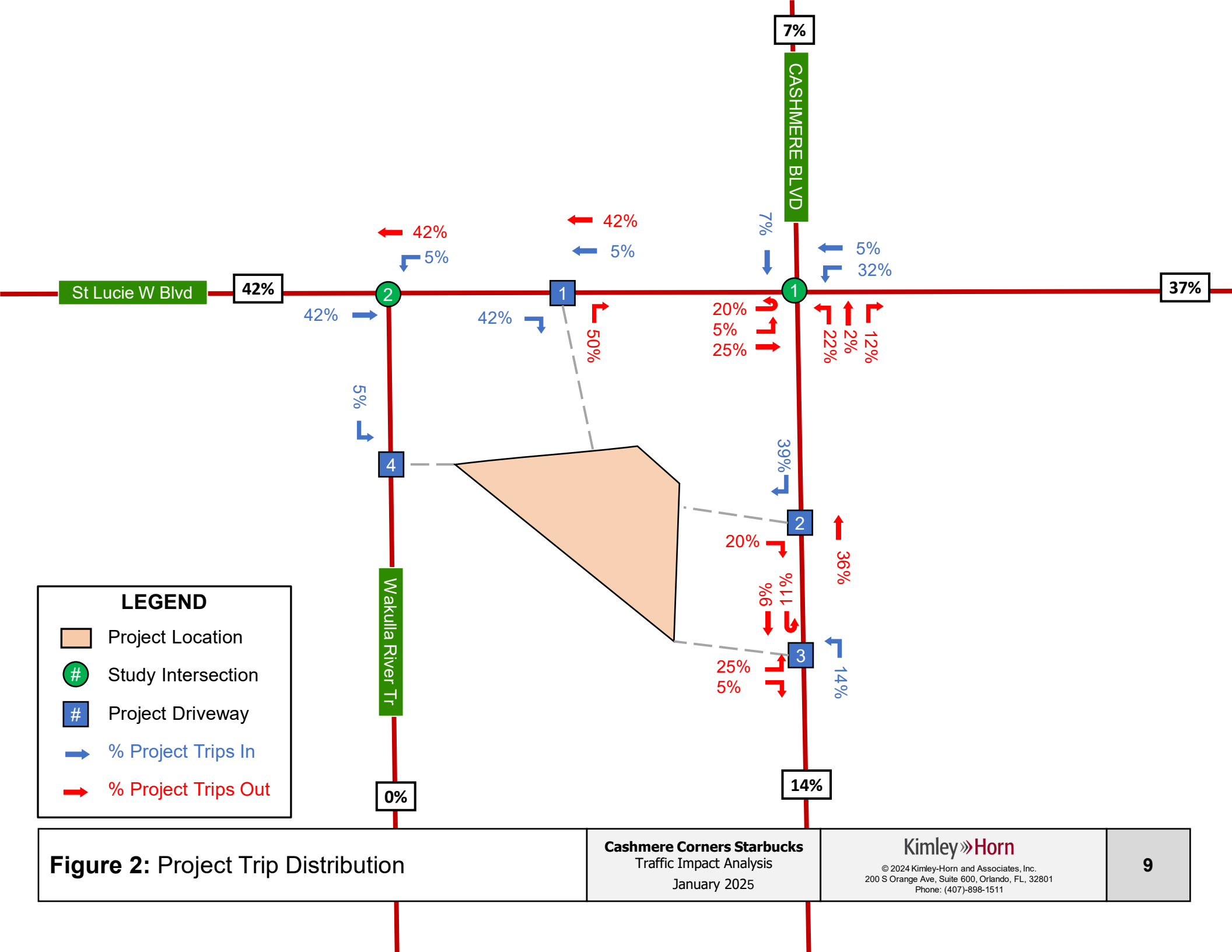
and assignment at the study area intersections and driveways, respectively. Pass-by excerpts provided in Appendix D.

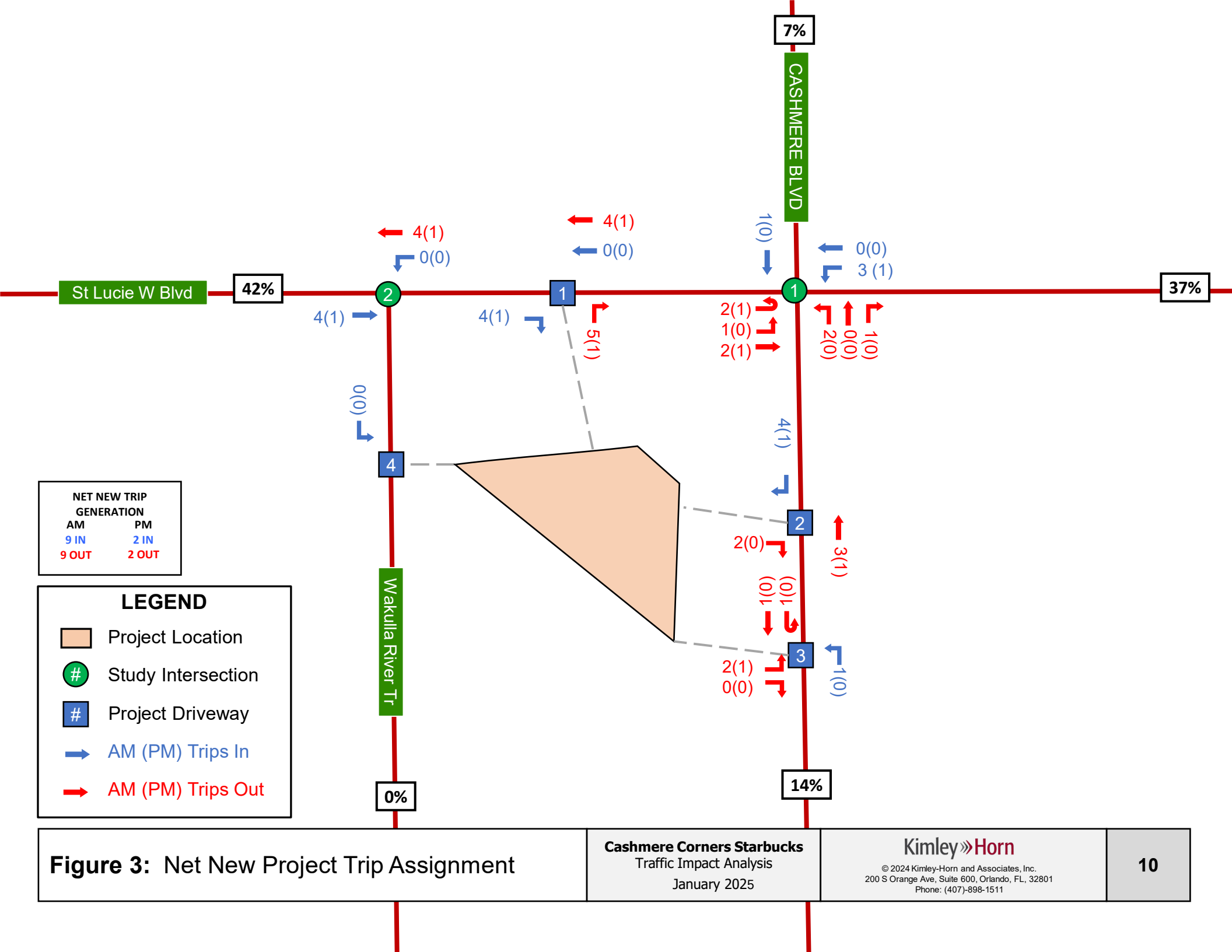
Table 4: Trip Generation Summary

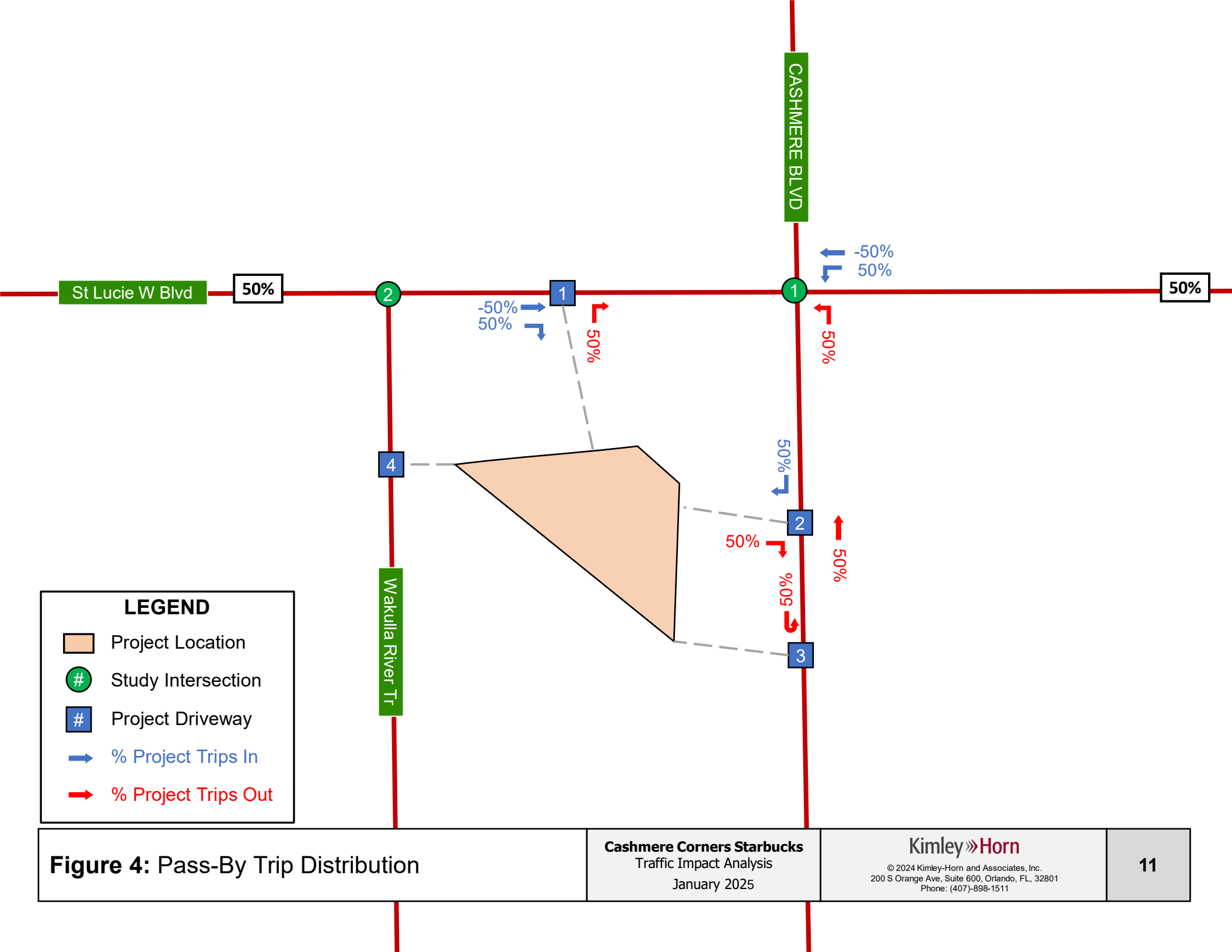
	Land Use	ITE LUC	Size	Units	ITE Trip Rate ¹	Daily Trip Generation				
						Total	In ¹		Out ¹	
Daily	Coffee/Donut Shop with Drive-Through Window	937	2.16	SF	533.57	1,153	50%	576	50%	577
	Total Generated Trips					1,153	576		577	
	Pass by Trips ² =	84%	of external trips			969	484		485	
	10% of Adjacent Street Traffic	10%	of external trips			5,670	2,835		2,835	
	Net New External Trips					185	93		93	
AM Peak Hour						AM Peak Hour Trip Generation				
	Land Use	ITE LUC	Size	Units	ITE Trip Rate ¹	Total	In ¹		Out ¹	
	Coffee/Donut Shop with Drive-Through Window	937	2.16	SF	85.88	186	51%	95	49%	91
	Total Generated Trips					186	95		91	
	Pass by Trips ² =	90%	of external trips			168	86		82	
PM Peak Hour	10% of Adjacent Street Traffic	10%	of external trips			255	128		128	
	Net New External Trips					18	9		9	
						PM Peak Hour Trip Generation				
	Land Use	ITE LUC	Size	Units	ITE Trip Rate ¹	Total	In ¹		Out ¹	
	Coffee/Donut Shop with Drive-Through Window	937	2.16	SF	38.99	84	50%	42	50%	42
	Total Generated Trips					84	42		42	
	Pass by Trips ² =	98%	of external trips			80	40		40	
	10% of Adjacent Street Traffic	10%	of external trips			255	128		128	
	Net New External Trips					4	2		2	

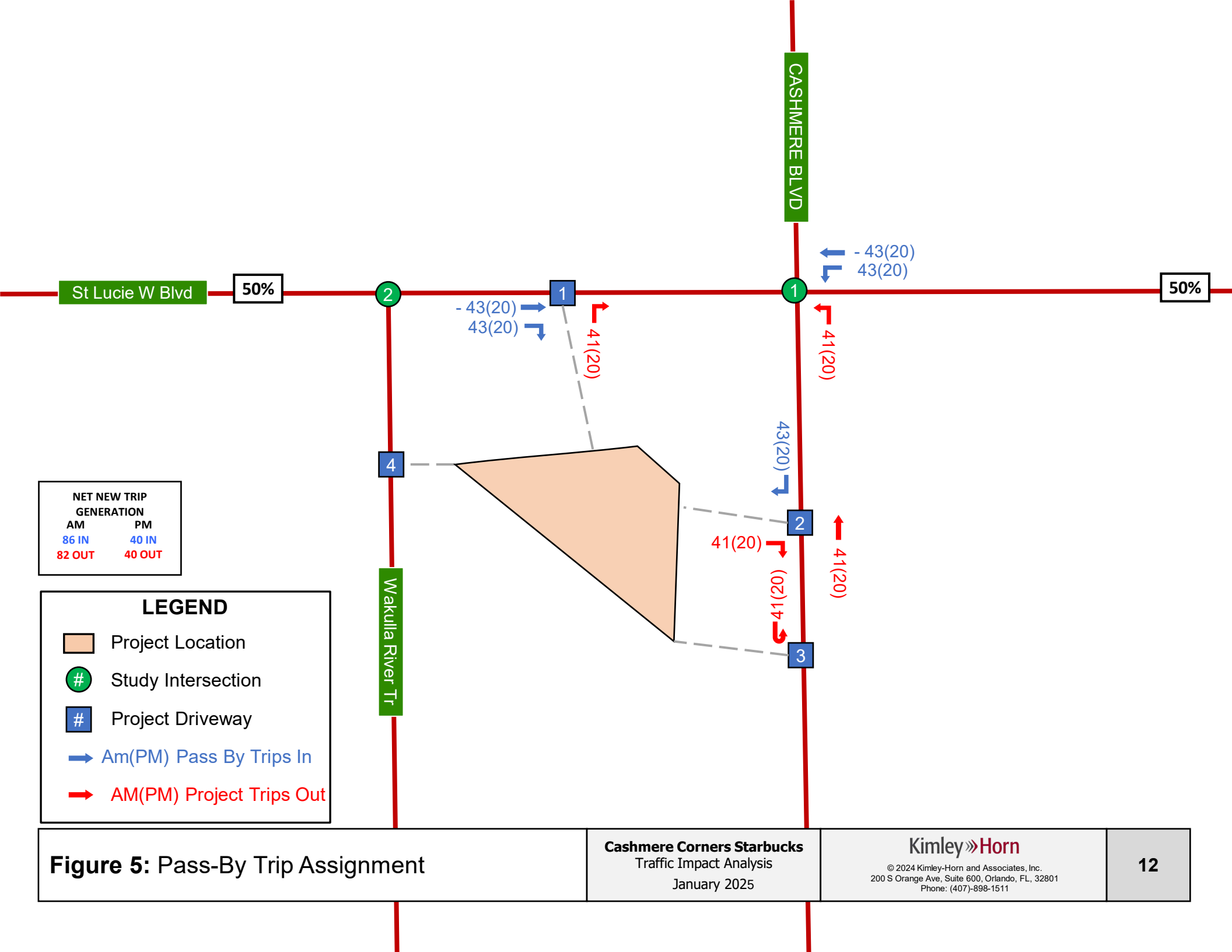
Notes: ¹ Vehicle trip rates, directional splits, and pass-by per data and procedures outlined in ITE Trip Generation Manual, 11th Edition

² Pass by assigned using pass-by percentages for LUC 938









4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025

4.1 BACKGROUND TRAFFIC

Traffic conditions were evaluated for year 2025 background conditions, without the impact of project trips on the roadway network. Background volumes at study intersections were grown by applying a growth rate to existing traffic volumes. The Bureau of Economic and Business Research (BEBR) provides low, medium, and high potential growth rates in five-year increments for each county in Florida. Under medium growth conditions, year-over-year population growth in St Lucie County from 2022 to 2025 is 1.15%, whereas under high growth conditions, year-over-year population growth is 2.36% for the same period. Therefore, the applied year-over-year growth rate shall not exceed 2.36%. BEBR growth rate calculations are provided within **Appendix I**.

Background growth is shown in the intersection turning movement volume development worksheets provided in **Appendix E**.

4.3 BACKGROUND INTERSECTION ANALYSIS

Intersection operational analyses were performed for background (2025) conditions for the AM & PM peak hour using procedures outlined in the *Highway Capacity Manual, 7th Edition* (HCM 7) with Synchro (v12) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for background conditions during the AM and PM peak hour background conditions are provided in **Table 5** and **Table 6**. Synchro outputs are provided in **Appendix G**.

As shown in **Table 5** and **Table 6**, all study intersections are anticipated to operate with acceptable LOS and v/c ratios during the background AM & PM peak hour conditions except for a PM peak hour LOS deficiency at WBL movement at the intersection of Cashmere Boulevard & Driveway #3. Per the St Lucie TPO TIS Methodology (Section 13D), “for site access driveways and local street connections serving site access traffic, delays of up to 100 seconds will be considered acceptable.” Therefore, no improvements are recommended at the intersection of Cashmere Boulevard & Driveway #3.

Table 5 Background AM Peak Hour Intersection Conditions (2025)

Intersection	AM Peak Hour Background Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie W Blvd & Wakulla River Trail	E	61.2	0.93
St Lucie W Blvd & Wakulla River Trail	C	16.1	0.19
St Lucie Blvd & Project Driveway #1	B	12.6	0.10
Cashmere Blvd & Project Driveway #2	B	10.9	0.06
Cashmere Blvd & Project Driveway #3	D	28.5	0.19
Wakulla River Trail & Project Driveway #4	A	10.0	0.09

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 6 Background PM Peak Hour Intersection Conditions (2025)

Intersection	PM Peak Hour Background Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie W Blvd & Cashmere Blvd	D	54.9	0.93
St Lucie W Blvd & Wakulla River Trail	C	18.9	0.36
St Lucie Blvd & Project Driveway #1	C	22.8	0.30
Cashmere Blvd & Project Driveway #2	B	13.1	0.23
Cashmere Blvd & Project Driveway #3	F	61.4	0.55
Wakulla River Trail & Project Driveway #4	B	11.0	0.14

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025

5.1 BUILDOUT TRAFFIC

Future traffic conditions for the proposed development were evaluated for year 2025 buildout conditions. Buildout volumes were developed by adding anticipated project trips to year 2025 background volumes. Intersection turning movement volume development worksheets for all intersections are provided in **Appendix E**.

5.2 BUILDOUT INTERSECTION ANALYSIS

Intersection operational analyses were performed for buildout (2025) conditions for the PM peak hour using procedures outlined in the *Highway Capacity Manual, 7th Edition* (HCM 7) with Synchro (v12) software.

Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the buildout conditions during the AM & PM peak hour are provided in **Table 7** and **Table 8**. Synchro outputs are provided in **Appendix G**. All study intersections are expected to operate with acceptable LOS and v/c ratios during the AM & PM peak hours except for a previously identified LOS deficiency at the intersection of Cashmere Boulevard & Driveway #3. **Figure 6** and **Figure 7** illustrate the turning movement volumes for buildout conditions at the study intersections and driveways.

Table 7: Buildout (2025) Intersection Conditions (AM Peak Hour)

Intersection	AM Peak Hour Buildout Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie W Blvd & Cashmere Blvd	E	60.8	0.92
St Lucie W Blvd & Wakulla River Trail	C	16.2	0.19
St Lucie Blvd & Project Driveway #1	B	13.1	0.19
Cashmere Blvd & Project Driveway #2	B	11.7	0.14
Cashmere Blvd & Project Driveway #3	D	33.8	0.22
Wakulla River Trail & Project Driveway #4	A	10.0	0.08

Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 8: Buildout (2025) Intersection Conditions (PM Peak Hour)

Intersection	PM Peak Hour Buildout Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
St Lucie W Blvd & Cashmere Blvd	E	55.4	0.91
St Lucie W Blvd & Wakulla River Trail	C	18.9	0.36
St Lucie Blvd & Project Driveway #1	C	24.5	0.37
Cashmere Blvd & Project Driveway #2	B	13.7	0.27
Cashmere Blvd & Project Driveway #3	F	73.6	0.61
Wakulla River Trail & Project Driveway #4	B	11.0	0.14

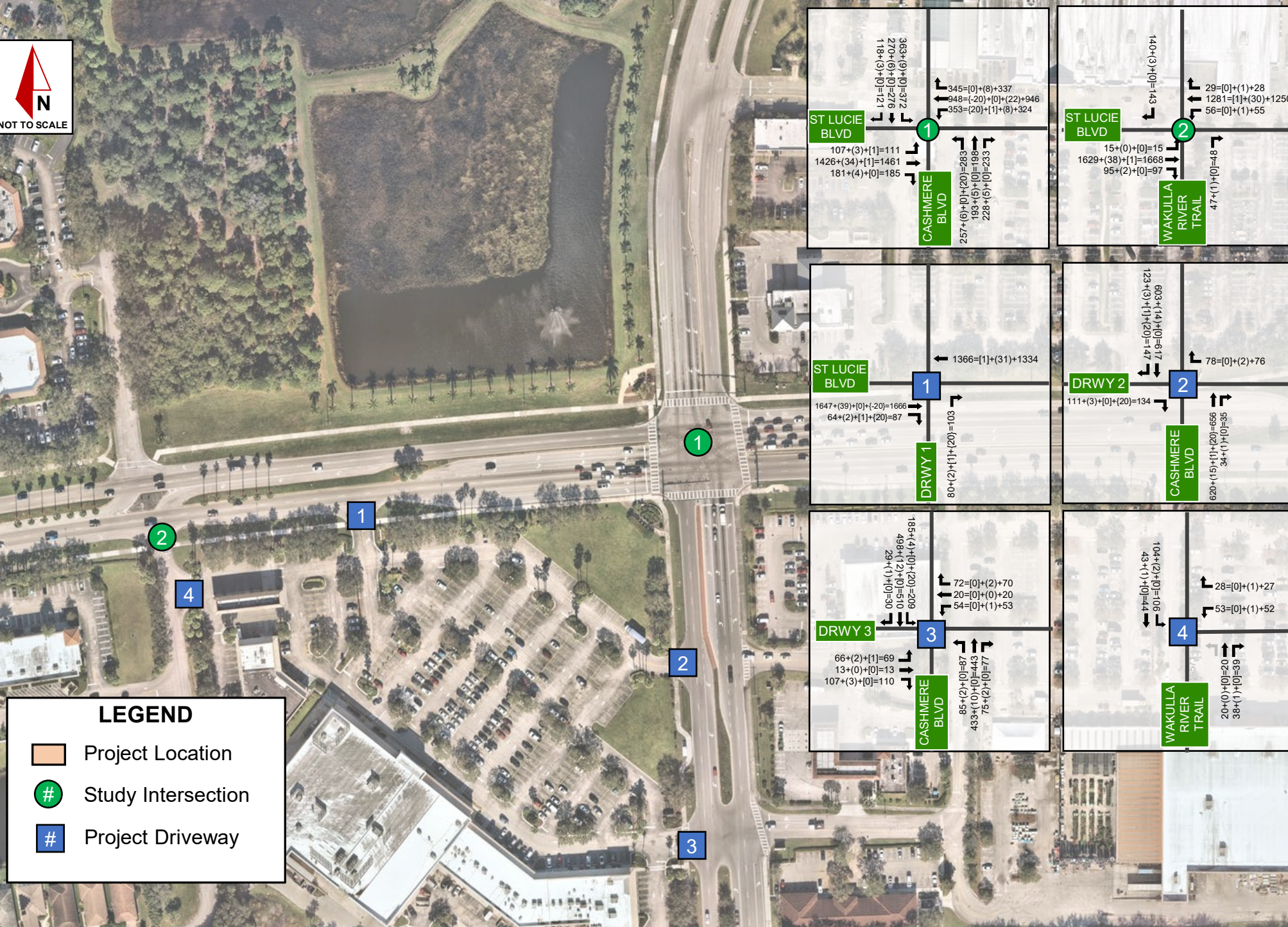
Notes:

1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.



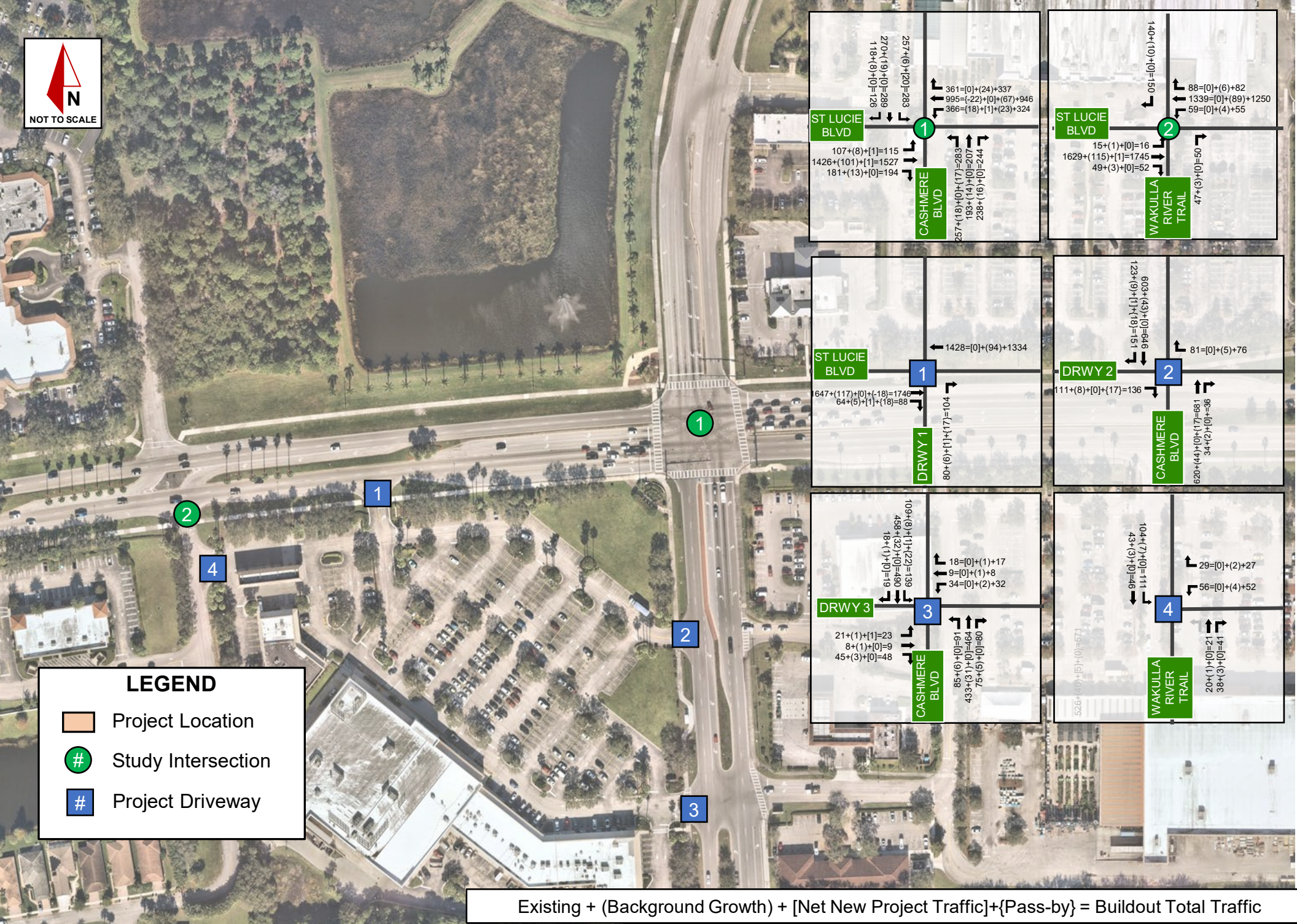
LEGEND

- Project Location
- Study Intersection
- Project Driveway



Existing + (Background Growth) + [Net New Project Traffic]+{Pass-by} = Buildout Total Traffic

Figure 6: AM Peak Hour Total Traffic Volumes



Existing + (Background Growth) + [Net New Project Traffic]+{Pass-by} = Buildout Total Traffic

Figure 7: PM Peak Hour Total Traffic Volumes

6.0 ROADWAY SEGMENT CAPACITY ANALYSIS

A peak hour roadway segment capacity analysis was performed for segments where the project traffic exceeds 5% or more of the segments capacity. Since Project traffic did not exceed 5% or more of any segments capacity only the directly accessed segments were analyzed.

Existing peak hour volumes for all study roadway segments were o from St Lucie TPO's Traffic Counts & Level of Service Report Fall 2023. Excerpts from the Traffic Counts & Level of Service Report Fall 2023 are included in **Appendix B**. Existing (2024) peak hour volumes were derived applying a 2.36% growth rate. This annual growth was then used to develop Background (2025) volumes. Buildout (2025) peak hour volumes were determined by applying project traffic to Background (2025) directional peak hour volumes. The projected traffic volumes on the study roadway segments were compared to the adopted peak hour, peak direction maximum service volume.

As shown in **Table 9** and **Table 10** all study segments are anticipated to operate with acceptable level of service during the AM & PM peak hour under existing conditions, background traffic conditions, and buildout traffic conditions except for the following deficiencies:

- Cashmere Blvd from Heatherwood Blvd to St Lucie W Blvd which operates with a v/c ratio greater than 1.0 during AM & PM existing traffic conditions.

No roadway capacity deficiencies were identified due to project traffic.

Table 9: Roadway Segment Analysis (AM Peak Hour)

Roadway Segment	Roadway Attributes ¹				Peak Hour Peak Direction (PHPD) Service Capacity ²	2023 AM PHPD ²	Growth Rate	2023 Existing AM PHPD ³	V/C Ratio	Exceeds Capacity?	2025 Background AM PHPD ³	V/C Ratio	Exceeds Capacity?	Project Dist.	Project Trips AM PHPD	2025 Buildout AM PHPD	V/C Ratio	Exceeds Capacity?
	Functional Classification	Area Type	Adopted LOS	Number of Lanes														
Saint Lucie West Blvd																		
Country Club Dr to Cashmere Blvd	Principal Arterial	Urban	D	6D	2,100	1,329	2.36%	1,360	0.65	No	1,392	0.66	No	50%	48	1,440	0.69	No
Cashmere Blvd																		
Heatherwood Blvd to St Lucie W Blvd	Major Collector	Urban	D	2D	920	1,078	2.36%	1,103	1.20	Yes	1,130	1.23	Yes	14%	13	1,143	1.24	Yes

1. Roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map and the St. Lucie County Comprehensive Plan Transportation Element (December 2022).

2. Obtained from the fall 2023 St. Lucie TPO Traffic Counts and Level of Service Report.

3. PHPD volumes were grown annually by the calculated linear historic growth rate to estimate future PHPD volumes.

Table 10: Roadway Segment Analysis (PM Peak Hour)

Roadway Segment	Roadway Attributes ¹				Peak Hour Peak Direction (PHPD) Service Capacity ²	2023 PM PHPD ²	Growth Rate	2023 Existing PM PHPD ³	V/C Ratio	Exceeds Capacity?	2025 Background PM PHPD ³	V/C Ratio	Exceeds Capacity?	Project Dist.	Project Trips PM PHPD	2025 Buildout PM PHPD	V/C Ratio	Exceeds Capacity?
	Functional Classification	Area Type	Adopted LOS	Number of Lanes														
Saint Lucie West Blvd																		
Country Club Dr to Cashmere Blvd	Principal Arterial	Urban	D	6D	2,100	1,395	2.36%	1,428	0.68	No	1,462	0.70	No	50%	21	1,483	0.71	No
Cashmere Blvd																		
Heatherwood Blvd to St Lucie W Blvd	Major Collector	Urban	D	2D	920	983	2.36%	1,006	1.09	Yes	1,030	1.12	Yes	14%	6	1,036	1.13	Yes

1. Roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map and the St. Lucie County Comprehensive Plan Transportation Element (December 2022).

2. Obtained from the fall 2023 St. Lucie TPO Traffic Counts and Level of Service Report.

3. PHPD volumes were grown annually by the calculated linear historic growth rate to estimate future PHPD volumes.

7.0 SITE ACCESS

Site access will be provided via driveways on Saint Lucie West Boulevard, Wakulla River Trail and Cashmere Boulevard, as follows:

- One (1) right-in/right-out driveway on Saint Lucie West Boulevard
- One (1) right-in/right-out driveway on Cashmere Boulevard
- One (1) full access driveway on Cashmere Boulevard
- One (1) full access driveway on Wakulla River Trail

Site access details are provided in the conceptual site plan in **Appendix A**.

8.0 TURN LANE ANALYSIS

The need for exclusive ingress right-turn lanes at the proposed project driveways on Cashmere Boulevard were evaluated using the NCHRP Report 457 thresholds, FDOT's Design Manual (FDM), and City of Port St Lucie's Engineering Standards for Land Development document.

The need for ingress right turn lanes at Project Driveways #2 and #3 were evaluated using NCHRP guidance by comparing the right turning volumes with the approach volume. Based on the project volumes shown in **Appendix E** and the thresholds specified by the NCHRP Report 457, a southbound right turn lane is warranted at Project Driveway #2 but not at Project Driveway #3. NCHRP Report 457 outputs are provided in **Appendix J**. Although an ingress right-turn lane is warranted at Project Driveway #2, Project Driveway #3 is located approximately 250 feet south and provides additional access to the Starbucks and overall shopping center. Therefore, a turn lane at project Driveway #2 is not recommended as project trips have multiple access points along Cashmere to enter the site without having to utilize Project Driveway #2.

The total turn lane length is required to accommodate the minimum deceleration required in the 2024 FDOT Design Manual (FDM), Exhibit 212-1 and the expected 95th percentile queue as calculated using Synchro 12. The summary of the turn lane length is provided in **Table 11**. All ingress turn lane provide sufficient length to accommodate the minimum deceleration and 95th percentile queue.

Table 11: Buildout Traffic Conditions – Ingress Turn Lane Summary

Intersection	Turn Lane	Existing Storage Length (feet)	Required Deceleration Length (feet) ¹	Buildout (2025) Conditions	Can existing storage length stack 95th percentile queue?
				95th Percentile Queue (feet) ²	
Saint Lucie West Boulevard & Wakulla River Trail	WBL	340	155	25	Yes
Saint Lucie West Boulevard & Project Driveway #1	EBR	230	155	45	Yes
Cashmere Boulevard & Project Driveway #3	NBL	400	155	25	Yes

Notes:

1. Based on the 2024 FDOT Design Manual, Exhibit 212-1
2. Based on the peak hour 95th percentile back of queue length as reported in Synchro for the

9.0 CONCLUSION

This traffic impact study was performed to analyze the traffic impacts associated with the Cashmere Corners Starbucks, a proposed development located in the City of Port St Lucie, Florida. The project is generally located in the Southwest quadrant of the St Lucie West Boulevard and Cashmere Boulevard. The project site is currently vacant. The analysis of the project site was based on the number of trips generated from the proposed land uses on the ±1.02-acre project site.

Operational analyses for existing, background, and buildout conditions during the AM & PM peak hours was performed at all intersections within the study area. The study area intersections are anticipated to operate with acceptable LOS and volume to capacity (v/c) ratios during the existing, background, and buildout conditions except for the intersections of Cashmere Boulevard & Project Driveway #3 during both 2025 background and buildout conditions. Per the St Lucie TPO TIS Methodology (Section 13D), “for site access driveways and local street connections serving site access traffic, delays of up to 100 seconds will be considered acceptable.” Therefore, no improvements are recommended at the intersection of Cashmere Boulevard & Driveway #3.

The roadway capacity analysis concludes that all study segments are anticipated to operate with acceptable level of service during the PM peak hour under existing conditions, future background traffic conditions, and buildout traffic conditions except for the following deficiencies:

- Cashmere Blvd from Heatherwood Blvd to St Lucie W Blvd which operates with a v/c ratio greater than 1.0 during AM & PM existing traffic conditions.

No roadway capacity deficiencies were identified due to project traffic.

A turn lane analysis was performed to determine if turn lanes are warranted at driveway connections where turn lanes are not provided. A southbound right turn lane is warranted at Project Driveway #2 per NCHRP Report 457 thresholds. Although an ingress right-turn lane is warranted at Project Driveway #2, Project Driveway #3 is located approximately 250 feet south and provides additional access to the Starbucks and overall shopping center. Therefore, a turn lane at project Driveway #2 is not recommended as project trips have multiple access points along Cashmere to enter the site without having to utilize Project Driveway #2. An additional analysis was conducted to evaluate existing ingress turn lanes. This analysis indicated all existing turn lanes are of sufficient length to operate acceptably upon buildout of the development.

APPENDIX A

Site Plan

CALL 48 HOURS
BEFORE YOU DIG

IT'S THE LAW!
DIAL 811

811

**Know what's below.
Call before you dig.**

SUNSHINE STATE ONE CALL OF FLORIDA, INC.



APPENDIX B

St Lucie Transportation Planning Organization's 2023 Traffic Counts and Level of Service Report Excerpt & Traffic Data Management System Excerpt

Traffic Counts and Level of Service Report 2023

Roadway Name	Location	STATION ID	2023 AADT *	Last Physical Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
BELL AVE	25TH ST to SUNRISE BLVD	104	5,500	2023	790	371	C	0.47	344	C	0.44
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	4,300	2023	600	262	C	0.44	239	C	0.40
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	8,284	2024	750	594	D	0.79	468	D	0.62
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	12,500	2023	920	749	C	0.81	687	C	0.75
CALIFORNIA BLVD	SAVONA BLVD to DEL RIO BLVD	635	11,000	2023	920	628	C	0.68	736	C	0.80
CALIFORNIA BLVD	DEL RIO BLVD to CROSSTOWN PKWY	636	16,000	2024	920	996	F	1.08	899	D	0.98
CALIFORNIA BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	234	19,000	2024	920	1,019	F	1.11	993	F	1.08
CALIFORNIA BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	234	19,000	2024	920	1,019	F	1.11	993	F	1.08
CALIFORNIA BLVD	ST LUCIE WEST BLVD to COUNTRY CLUB DR	233	8,888	2022	920	543	C	0.59	521	C	0.57
CALIFORNIA BLVD	COUNTRY CLUB DR to UNIVERSITY BLVD	724	7,178	2022	790	461	C	0.58	464	C	0.59
CALIFORNIA BLVD	UNIVERSITY BLVD to PEACOCK BLVD	724	7,178	2022	630	461	C	0.73	464	C	0.74
CALIFORNIA BLVD	PEACOCK BLVD to TORINO PKWY	637	12,000	2023	630	794	F	1.26	704	F	1.12
CAMEO BLVD	PORT ST LUICE BLVD to CALIFORNIA BLVD	638	4,600	2023	750	328	C	0.44	284	C	0.38
CAMEO BLVD	CALIFORNIA BLVD to CROSSTOWN PKWY	639	10,409	2021	790	736	D	0.93	619	D	0.78
CAMPBELL RD	PICOS RD to ORANGE AVE	640	725	2022	540	71	C	0.13	52	C	0.10
CANE SLOUGH RD	US 1 to LENNARD RD	167	9,637	2021	1,710	487	C	0.28	491	C	0.29
CARLTON RD	CARLTON RD (S) to OKEECHOBEE RD	641	587	2022	390	35	B	0.09	36	B	0.09
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	11,662	2024	630	827	F	1.31	726	F	1.15
CASHMERE BLVD	DEL RIO BLVD to CROSSTOWN PKWY	642	10,579	2024	920	667	C	0.73	805	C	0.88
CASHMERE BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	232	13,596	2024	920	1,078	F	1.17	983	F	1.07
CASHMERE BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	232	13,596	2024	920	1,078	F	1.17	983	F	1.07
CASHMERE BLVD	ST LUCIE WEST BLVD to PEACOCK BLVD	231	14,000	2024	920	983	F	1.07	1,037	F	1.13
CITRUS AVE	7TH ST to US 1	643	900	2023	750	133	C	0.18	133	C	0.18
CITRUS AVE	US 1 to 2ND ST	940160	4,252	2022							
CITRUS AVE	2ND ST to INDIAN RIVER DR	644	3,602	2022	540	218	C	0.40	231	C	0.43
COMMUNITY BLVD	DISCOVERY WAY to TRADITION PKWY	735	5,200	2024	920	365	C	0.40	302	C	0.33
COMMUNITY BLVD	WESTCLIFFE LN to TRADITION PKWY	647	6,204	2021	1,470	342	C	0.23	358	C	0.24
COMMERCE CENTER DR	CROSSTOWN PKWY to ST LUCIE WEST BLVD	645	5,342	2021	1,710	317	C	0.19	383	C	0.22
COMMERCE CENTER DR	ST LUCIE WEST BLVD to END OF 4 LANES	646	8,990	2022	1,710	517	C	0.30	489	C	0.29
COMMERCE CENTER DR	END OF 4 LANES to GLADES CUT-OFF RD	732	6,300	2024	630	453	C	0.72	423	C	0.67
CORTEZ BLVD	35TH ST to 25TH ST	948500	2,156	2022							
CORTEZ BLVD	25TH ST to SUNRISE BLVD	648	2,900	2023	750	203	C	0.27	185	C	0.25

* **NOTE:** A six digit number in the "STATION ID" column identifies segment counted by FDOT. Peak hour data is not available for these stations due to differences in data availability, LOS Methodologies, and service level thresholds. Please refer to FDOT sources for detailed data on FDOT traffic counts.

* Volumes shown were adjusted using FDOT Seasonal Factors

* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)

* **NOTE:** If the Last Count Year is older than the year of the report, the AADT is projected from historical traffic count data.

Traffic Counts and Level of Service Report 2023

Roadway Name	Location	STATION ID	2023 AADT *	Last Physical Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
SELVITZ RD	GLADES CUT-OFF RD to EDWARDS RD	704	13,500	2024	790	795	E	1.01	799	E	1.01
SHINN RD	MIDWAY RD to OKEECHOBEE RD	705	476	2022	580	39	C	0.07	32	C	0.06
SHINN RD	OKEECHOBEE RD to ORANGE AVE	149	1,300	2023	1,080	86	B	0.08	84	B	0.08
SNEED RD	OKEECHOBEE RD to ORANGE AVE	151	1,100	2023	670	75	B	0.11	78	B	0.12
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	337	14,500	2023	790	962	F	1.22	846	F	1.07
SR A1A NORTH	US 1 to OLD DIXIE HWY	940709	9,810	2022							
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	706	10,013	2024	920	575	C	0.63	588	C	0.64
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	940114	8,325	2022							
SR A1A SOUTH	MARTIN C.L. to NETTLES ISLAND	890157	16,913	2022							
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	940719	5,079	2022							
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	940116	4,342	2022							
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	945016	8,031	2022							
SR A1A SOUTH	OCEAN DR to BINNEY DR	940115	15,072	2022							
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	940115	15,072	2022							
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	940711	12,352	2022							
SR A1A SOUTH	INDIAN RIVER DR to US 1	940711	12,352	2022							
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	172	18,175	2024	2,100	1,206	C	0.57	1,226	C	0.58
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	239	19,500	2023	2,100	1,226	C	0.58	1,229	C	0.59
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	172	18,175	2024	1,800	1,206	C	0.67	1,226	C	0.68
ST JAMES DR	TELFORD AVE to MIDWAY RD	345	18,500	2023	2,100	1,042	C	0.50	1,089	C	0.52
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	707	5,068	2021	790	281	C	0.36	281	C	0.36
ST LUCIE BLVD	KINGS HWY to KEEN RD	156	6,087	2021	880	407	C	0.46	447	C	0.51
ST LUCIE BLVD	KEEN RD to 25TH ST	156	6,087	2021	880	407	C	0.46	447	C	0.51
ST LUCIE BLVD	25TH ST to SENECA AVE	940270	4,414	2022							
ST LUCIE BLVD	SENECA AVE to US 1	940270	4,414	2022							
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	152	14,139	2024	700	827	F	1.18	788	F	1.13
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	318	32,500	2023	2,100	1,329	C	0.63	1,395	C	0.66
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	318	32,500	2023	2,100	1,329	C	0.63	1,395	C	0.66
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	318	32,500	2023	2,100	1,329	C	0.63	1,395	C	0.66
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	49,000	2024	3,170	2,436	C	0.77	2,495	C	0.79
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,611	2021	540	218	C	0.40	230	C	0.43
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,852	2022	750	254	C	0.34	257	C	0.34

* **NOTE:** A six digit number in the "STATION ID" column identifies segment counted by FDOT. Peak hour data is not available for these stations due to differences in data availability, LOS Methodologies, and service level thresholds. Please refer to FDOT sources for detailed data on FDOT traffic counts.

* Volumes shown were adjusted using FDOT Seasonal Factors

* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)

* **NOTE:** If the Last Count Year is older than the year of the report, the AADT is projected from historical traffic count data.

APPENDIX C

Turning Movement Counts



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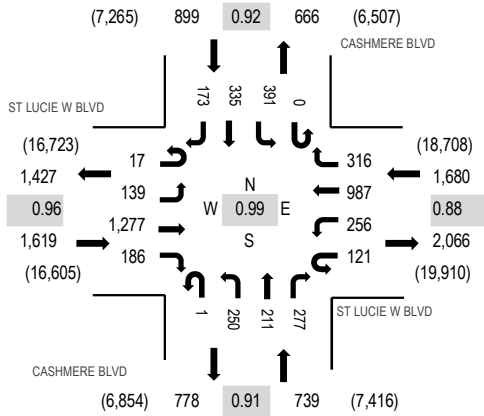
Location: 1 CASHMERE BLVD & ST LUCIE W BLVD AM

Date: Thursday, May 2, 2024

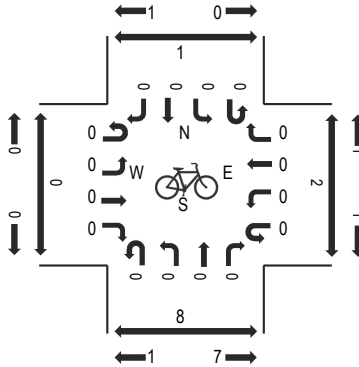
Peak Hour: 03:30 PM - 04:30 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

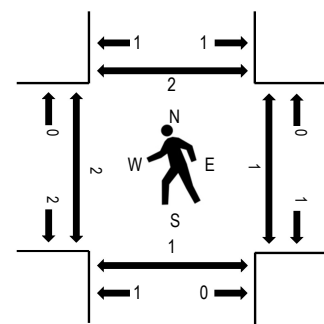
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ST LUCIE W BLVD Eastbound				ST LUCIE W BLVD Westbound				CASHMERE BLVD Northbound				CASHMERE BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	2	30	135	18	11	37	196	66	0	30	27	39	0	54	37	23	705	4,055	0	1	1	0
7:15 AM	1	31	174	31	13	57	285	95	0	29	35	61	0	106	80	52	1,050	4,418	0	0	0	0
7:30 AM	1	45	175	40	12	72	288	155	0	54	51	59	0	112	64	38	1,166	4,287	0	0	1	0
7:45 AM	1	35	176	25	11	48	288	120	0	72	36	59	0	109	95	59	1,134	4,054	0	0	0	0
8:00 AM	3	28	184	22	14	51	254	97	0	54	36	59	0	123	87	56	1,068	3,846	0	0	1	0
8:15 AM	3	24	193	30	14	46	237	72	0	53	42	49	0	86	48	22	919	3,730	0	0	0	0
8:30 AM	2	18	173	15	24	55	297	61	0	63	40	45	0	87	36	17	933	3,890	0	0	0	0
8:45 AM	2	13	152	41	15	44	302	71	0	68	49	28	0	80	32	29	926	3,911	0	0	0	0
9:00 AM	6	34	221	40	15	52	260	63	0	44	57	21	0	58	51	30	952	3,990	0	0	0	0
9:15 AM	3	28	261	30	24	43	276	58	0	61	76	46	1	71	53	48	1,079	3,933	0	2	3	0
9:30 AM	2	20	196	37	19	44	249	57	1	73	46	29	0	73	72	36	954	3,751	0	1	2	0
9:45 AM	1	26	262	43	14	43	263	62	1	88	34	30	0	75	32	31	1,005	3,681	0	1	1	0
10:00 AM	2	19	248	56	18	46	245	40	1	57	30	37	0	50	28	18	895	3,591	1	2	0	3
10:15 AM	3	24	255	34	26	41	228	34	0	61	32	31	0	76	22	30	897	3,654	0	0	0	0
10:30 AM	6	16	261	41	18	45	210	31	0	70	23	26	0	67	38	32	884	3,693	0	1	0	0
10:45 AM	6	20	220	40	30	39	234	31	0	75	41	40	1	60	47	31	915	3,765	0	1	0	0
11:00 AM	3	41	252	47	30	51	252	38	1	65	32	45	0	48	18	35	958	3,814	0	0	0	0
11:15 AM	4	25	241	50	23	55	234	33	0	82	32	48	0	56	26	27	936	3,844	0	0	0	0
11:30 AM	1	29	247	46	18	32	245	38	0	86	32	53	0	66	37	26	956	3,905	0	0	1	0
11:45 AM	8	22	278	56	26	26	265	30	2	75	29	46	0	53	23	25	964	3,951	0	0	0	0
12:00 PM	2	24	292	53	25	37	254	45	0	78	32	35	0	49	29	33	988	3,989	0	0	0	0
12:15 PM	4	23	282	46	22	58	252	36	0	84	36	40	0	59	31	24	997	4,022	0	0	0	0
12:30 PM	2	34	286	46	22	39	260	48	2	71	40	36	0	58	38	20	1,002	3,982	0	0	0	0
12:45 PM	6	24	265	53	29	42	287	45	1	88	31	43	0	41	17	30	1,002	3,986	0	0	1	0
1:00 PM	5	39	259	49	35	47	260	48	0	64	36	48	1	66	33	31	1,021	4,073	0	0	0	0
1:15 PM	3	32	247	47	23	46	258	50	0	59	27	39	1	58	34	33	957	4,185	0	0	1	0
1:30 PM	5	36	315	54	22	48	228	48	0	64	42	26	0	52	31	35	1,006	4,328	0	0	0	0
1:45 PM	7	23	277	36	33	76	306	65	0	73	32	51	0	52	24	34	1,089	4,392	0	0	0	0
2:00 PM	2	32	326	44	28	65	273	61	0	84	61	45	0	50	34	28	1,133	4,520	0	1	0	0
2:15 PM	1	34	278	42	21	70	284	56	0	80	43	51	0	69	46	25	1,100	4,562	0	0	0	0
2:30 PM	3	44	318	51	16	62	234	68	0	68	41	50	0	56	35	24	1,070	4,656	0	0	0	0
2:45 PM	1	61	352	58	29	52	276	74	0	72	44	74	1	58	38	27	1,217	4,835	0	0	0	0
3:00 PM	3	37	338	48	27	56	232	91	0	64	45	56	0	91	52	35	1,175	4,833	0	0	0	0
3:15 PM	5	47	303	54	30	50	217	69	1	71	49	67	0	98	90	43	1,194	4,899	0	1	2	0

3:30 PM	5	30	312	48	33	73	264	94	0	68	47	64	0	120	54	37	1,249	4,937	0	0	1	0
3:45 PM	1	52	321	42	30	69	258	80	1	48	53	75	0	75	74	36	1,215	4,828	0	0	0	0
4:00 PM	4	27	300	50	25	69	248	65	0	70	57	78	0	96	102	50	1,241	4,838	0	0	0	0
4:15 PM	7	30	344	46	33	45	217	77	0	64	54	60	0	100	105	50	1,232	4,846	2	1	0	2
4:30 PM	1	21	383	48	20	54	220	78	0	57	46	57	0	86	51	18	1,140	4,798	0	0	0	0
4:45 PM	1	28	360	41	23	68	274	74	0	72	50	60	0	86	57	31	1,225	4,824	2	0	0	0
5:00 PM	3	18	368	50	29	59	254	115	0	69	47	56	1	97	62	21	1,249	4,666	0	0	1	0
5:15 PM	1	16	383	64	18	49	208	77	0	74	52	43	0	105	66	28	1,184	4,432	0	0	0	0
5:30 PM	1	30	351	51	21	78	267	99	0	43	49	63	0	56	38	19	1,166	4,161	0	0	0	0
5:45 PM	3	16	325	32	20	57	226	76	0	62	44	49	0	94	48	15	1,067	3,946	0	0	0	0
6:00 PM	2	27	282	43	31	57	217	74	0	50	40	49	0	83	40	20	1,015	3,779	0	1	1	0
6:15 PM	2	25	275	36	19	50	201	60	0	50	47	42	0	54	36	16	913		0	0	0	0
6:30 PM	4	25	276	55	21	44	222	60	0	48	27	56	0	55	33	25	951		0	0	0	0
6:45 PM	2	17	273	55	20	57	183	51	0	67	33	34	0	63	31	14	900		2	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	1	2	1	0	0	0	2	0	0	0	0	1	0	0	0	1	8
Lights	16	130	1,258	184	121	255	974	306	1	248	196	272	0	381	320	171	4,833
Mediums	0	7	18	2	0	1	11	10	0	2	15	4	0	10	15	1	96
Total	17	139	1,277	186	121	256	987	316	1	250	211	277	0	391	335	173	4,937

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	1.9%				1.4%				3.0%				3.0%				2.1%
Heavy Vehicle %	5.9%	6.5%	1.5%	1.1%	0.0%	0.4%	1.3%	3.2%	0.0%	0.8%	7.1%	1.8%	0.0%	2.6%	4.5%	1.2%	2.1%
Peak Hour Factor	0.96				0.88				0.91				0.92				0.99
Peak Hour Factor	0.71	0.77	0.98	0.91	0.92	0.90	0.94	0.75	0.50	0.94	0.75	0.91	0.50	0.91	0.80	0.87	0.99



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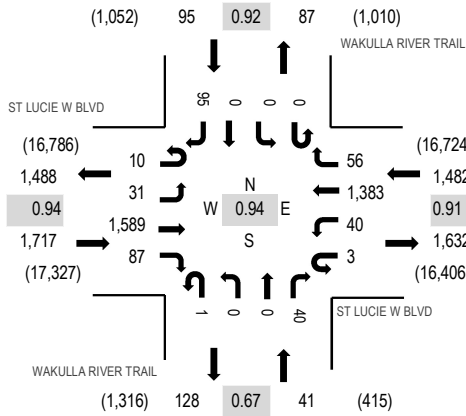
Location: 2 WAKULLA RIVER TRAIL & ST LUCIE W BLVD AM

Date: Thursday, May 2, 2024

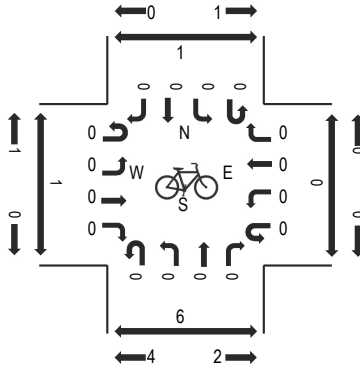
Peak Hour: 02:00 PM - 03:00 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

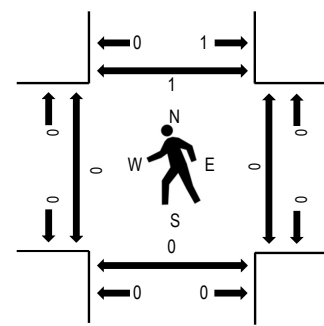
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ST LUCIE W BLVD Eastbound				ST LUCIE W BLVD Westbound				WAKULLA RIVER TRAIL Northbound				WAKULLA RIVER TRAIL Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	2	179	8	1	8	235	6	0	0	0	5	0	0	0	12	457	2,453	0	0	0	0
7:15 AM	1	11	231	17	1	10	337	17	0	0	0	7	0	0	0	7	639	2,640	0	0	0	0
7:30 AM	0	16	235	12	3	5	345	23	0	0	0	12	0	0	0	7	658	2,614	0	0	1	0
7:45 AM	1	20	234	9	4	8	383	25	0	0	0	3	0	0	0	12	699	2,568	0	0	0	0
8:00 AM	1	20	214	12	0	9	344	19	0	0	0	8	0	0	0	17	644	2,542	0	0	1	0
8:15 AM	2	17	235	16	3	8	286	23	0	0	0	8	0	0	0	15	613	2,569	0	0	0	0
8:30 AM	0	11	201	12	0	7	337	22	0	0	0	5	0	0	0	17	612	2,709	0	0	1	0
8:45 AM	1	7	202	20	2	14	375	26	0	0	0	7	0	0	0	19	673	2,781	0	0	0	2
9:00 AM	0	11	276	16	1	6	318	13	1	0	0	8	0	0	0	21	671	2,862	0	0	1	3
9:15 AM	0	10	312	17	1	5	354	25	0	0	0	7	0	0	0	22	753	2,892	1	0	1	0
9:30 AM	3	15	260	22	1	9	323	20	0	0	0	7	0	0	0	24	684	2,822	0	0	2	0
9:45 AM	2	9	306	16	2	9	353	27	0	0	0	7	0	0	0	23	754	2,831	0	0	1	1
10:00 AM	4	9	312	19	1	3	302	11	0	0	0	7	0	0	0	33	701	2,795	0	0	0	3
10:15 AM	3	5	305	23	0	3	300	14	0	0	0	6	0	0	0	24	683	2,837	0	0	0	0
10:30 AM	2	16	311	18	1	8	281	25	0	0	0	7	0	0	0	24	693	2,866	0	0	0	0
10:45 AM	8	8	285	17	1	7	323	24	0	0	0	8	0	0	0	37	718	2,920	0	0	0	0
11:00 AM	1	4	333	14	3	7	327	20	0	0	0	6	0	0	0	28	743	3,000	0	0	0	0
11:15 AM	3	13	316	19	2	8	309	14	0	0	0	7	0	0	0	21	712	3,048	0	0	0	0
11:30 AM	3	5	308	20	2	10	348	12	0	0	0	5	0	0	0	34	747	3,130	1	0	1	1
11:45 AM	1	5	354	19	0	8	356	9	0	0	0	12	0	0	0	34	798	3,144	0	0	0	0
12:00 PM	2	7	373	18	2	6	349	5	0	0	0	8	0	0	0	21	791	3,136	0	0	0	0
12:15 PM	4	9	361	18	1	11	347	7	0	0	0	5	0	0	0	31	794	3,129	0	0	0	0
12:30 PM	2	11	339	19	1	9	338	11	0	0	0	6	0	0	0	25	761	3,085	0	0	0	0
12:45 PM	2	10	320	23	1	12	368	17	0	0	0	13	0	0	0	24	790	3,105	0	0	0	0
1:00 PM	5	6	340	30	0	8	343	20	0	0	0	9	0	0	0	23	784	3,111	0	0	0	0
1:15 PM	2	14	338	16	1	6	330	11	0	0	0	8	0	0	0	24	750	3,178	1	0	0	0
1:30 PM	0	11	392	16	1	4	317	16	0	0	0	3	0	0	0	21	781	3,221	0	0	0	0
1:45 PM	3	13	322	15	0	5	395	12	0	0	0	14	0	0	0	17	796	3,242	0	0	0	0
2:00 PM	2	9	385	26	0	5	372	14	1	0	0	10	0	0	0	27	851	3,335	0	0	0	0
2:15 PM	5	9	349	17	0	11	361	17	0	0	0	5	0	0	0	19	793	3,303	0	0	0	0
2:30 PM	2	6	405	27	0	11	305	13	0	0	0	15	0	0	0	18	802	3,304	0	0	0	0
2:45 PM	1	7	450	17	3	13	345	12	0	0	0	10	0	0	0	31	889	3,314	0	0	0	1
3:00 PM	6	4	422	15	3	9	309	13	0	0	0	9	0	0	0	29	819	3,236	0	0	0	0
3:15 PM	5	9	393	16	1	5	315	13	0	0	0	16	0	0	0	21	794	3,212	0	0	2	0

3:30 PM	0	3	368	25	1	11	354	10	0	0	0	10	0	0	0	30	812	3,271	0	0	0	0
3:45 PM	1	5	408	22	1	13	319	10	0	0	0	7	0	0	0	25	811	3,242	2	0	0	0
4:00 PM	2	5	366	18	2	8	350	8	0	0	0	13	0	0	0	23	795	3,282	0	0	1	1
4:15 PM	2	5	421	30	1	16	313	8	0	0	0	19	0	0	0	38	853	3,326	0	0	0	0
4:30 PM	3	0	408	29	0	9	276	10	0	0	0	9	0	0	0	39	783	3,289	0	0	0	0
4:45 PM	1	2	413	14	2	8	370	4	0	0	0	10	0	0	0	27	851	3,278	0	2	0	3
5:00 PM	1	1	420	24	1	19	317	7	0	0	0	10	0	0	0	39	839	3,149	0	0	1	0
5:15 PM	3	3	461	12	1	7	301	4	0	0	0	9	0	0	0	15	816	2,963	0	0	0	0
5:30 PM	4	1	402	25	0	7	317	4	0	0	0	7	0	0	0	5	772	2,797	0	0	0	0
5:45 PM	0	1	364	16	4	6	299	2	0	0	0	12	0	0	0	18	722	2,705	0	0	0	0
6:00 PM	3	0	332	20	1	4	278	3	0	0	0	6	0	0	0	6	653	2,617	0	0	0	0
6:15 PM	2	5	310	36	0	10	267	1	0	0	0	10	0	0	0	9	650		0	0	0	1
6:30 PM	3	1	337	30	0	6	282	5	0	0	0	6	0	0	0	10	680		0	0	0	0
6:45 PM	2	4	327	12	1	11	256	3	0	0	0	12	0	0	0	6	634		0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	6
Lights	10	31	1,563	86	3	40	1,357	55	1	0	0	38	0	0	0	94	3,278
Mediums	0	0	22	0	0	0	25	1	0	0	0	2	0	0	0	1	51
Total	10	31	1,589	87	3	40	1,383	56	1	0	0	40	0	0	0	95	3,335

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	1.6%				1.8%				4.9%				1.1%				1.7%
Heavy Vehicle %	0.0%	0.0%	1.6%	1.1%	0.0%	0.0%	1.9%	1.8%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	1.1%	1.7%
Peak Hour Factor	0.94				0.91				0.67				0.92				0.94
Peak Hour Factor	0.53	0.91	0.92	0.71	0.63	0.68	0.91	0.87	0.25	0.00	0.00	0.67	0.00	0.00	0.00	0.92	0.94



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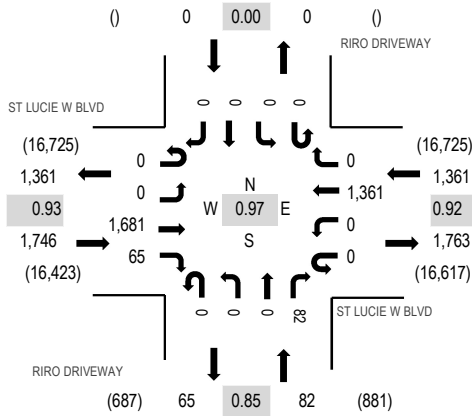
Location: 3 RIRO DRIVEWAY & ST LUCIE W BLVD AM

Date: Thursday, May 2, 2024

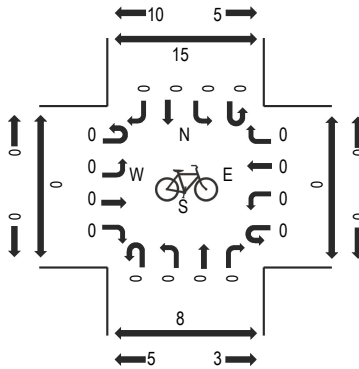
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

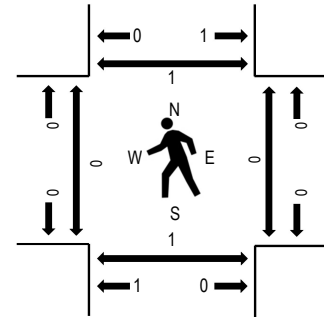
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ST LUCIE W BLVD Eastbound				ST LUCIE W BLVD Westbound				RIRO DRIVEWAY Northbound				RIRO DRIVEWAY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	178	7	0	0	250	0	0	0	0	9	0	0	0	0	444	2,375	0	0	0	0
7:15 AM	0	0	227	11	0	0	365	0	0	0	0	10	0	0	0	0	613	2,543	0	0	0	0
7:30 AM	0	0	247	7	0	0	382	0	0	0	0	13	0	0	0	0	649	2,507	0	0	1	0
7:45 AM	0	0	231	8	0	0	419	0	0	0	0	11	0	0	0	0	669	2,445	0	0	0	0
8:00 AM	0	0	214	8	0	0	372	0	0	0	0	18	0	0	0	0	612	2,412	0	0	1	0
8:15 AM	0	0	233	10	0	0	315	0	0	0	0	19	0	0	0	0	577	2,444	0	0	0	0
8:30 AM	0	0	198	11	0	0	369	0	0	0	0	9	0	0	0	0	587	2,587	0	0	1	0
8:45 AM	0	0	198	14	0	0	411	0	0	0	0	13	0	0	0	0	636	2,633	0	0	0	2
9:00 AM	0	0	282	4	0	0	339	0	0	0	0	19	0	0	0	0	644	2,717	0	0	1	0
9:15 AM	0	0	310	10	0	0	386	0	0	0	0	14	0	0	0	0	720	2,728	0	0	1	1
9:30 AM	0	0	261	7	0	0	354	0	0	0	0	11	0	0	0	0	633	2,658	0	0	2	0
9:45 AM	0	0	298	17	0	0	390	0	0	0	0	15	0	0	0	0	720	2,680	0	0	1	0
10:00 AM	0	0	305	15	0	0	319	0	0	0	0	16	0	0	0	0	655	2,623	0	0	0	2
10:15 AM	0	0	296	15	0	0	318	0	0	0	0	21	0	0	0	0	650	2,685	0	0	0	0
10:30 AM	0	0	308	11	0	0	315	0	0	0	0	21	0	0	0	0	655	2,715	0	0	0	0
10:45 AM	0	0	273	20	0	0	353	0	0	0	0	17	0	0	0	0	663	2,768	0	0	0	0
11:00 AM	0	0	315	27	0	0	356	0	0	0	0	19	0	0	0	0	717	2,860	0	0	0	0
11:15 AM	0	0	305	14	0	0	339	0	0	0	0	22	0	0	0	0	680	2,909	0	0	0	0
11:30 AM	0	0	300	23	0	0	367	0	0	0	0	18	0	0	0	0	708	2,984	0	0	1	1
11:45 AM	0	0	346	18	0	0	373	0	0	0	0	18	0	0	0	0	755	2,997	0	0	0	0
12:00 PM	0	0	363	24	0	0	366	0	0	0	0	13	0	0	0	0	766	2,998	0	0	0	0
12:15 PM	0	0	349	15	0	0	368	0	0	0	0	23	0	0	0	0	755	2,967	0	0	0	0
12:30 PM	0	0	334	15	0	0	353	0	0	0	0	19	0	0	0	0	721	2,927	0	0	0	0
12:45 PM	0	0	321	13	0	0	399	0	0	0	0	23	0	0	0	0	756	2,958	0	0	1	0
1:00 PM	0	0	332	16	0	0	370	0	0	0	0	17	0	0	0	0	735	2,976	0	0	0	0
1:15 PM	0	0	329	19	0	0	348	0	0	0	0	19	0	0	0	0	715	3,049	0	0	0	0
1:30 PM	0	0	373	21	0	0	338	0	0	0	0	20	0	0	0	0	752	3,094	0	0	0	0
1:45 PM	0	0	322	17	0	0	416	0	0	0	0	19	0	0	0	0	774	3,106	1	1	0	0
2:00 PM	0	0	377	13	0	0	391	0	0	0	0	27	0	0	0	0	808	3,186	0	0	1	1
2:15 PM	0	0	350	11	0	0	389	0	0	0	0	10	0	0	0	0	760	3,162	0	0	0	0
2:30 PM	0	0	402	16	0	0	329	0	0	0	0	17	0	0	0	0	764	3,169	0	0	0	0
2:45 PM	0	0	443	18	0	0	375	0	0	0	0	18	0	0	0	0	854	3,182	0	0	0	0
3:00 PM	0	0	409	20	0	0	334	0	0	0	0	21	0	0	0	0	784	3,109	0	0	0	0
3:15 PM	0	0	394	16	0	0	336	0	0	0	0	21	0	0	0	0	767	3,098	0	0	2	0

3:30 PM	0	0	368	17	0	0	374	0	0	0	0	18	0	0	0	0	777	3,132	0	0	0	0
3:45 PM	0	0	390	19	0	0	342	0	0	0	0	30	0	0	0	0	781	3,104	0	0	0	0
4:00 PM	0	0	361	13	0	0	374	0	0	0	0	25	0	0	0	0	773	3,145	0	0	0	1
4:15 PM	0	0	426	18	0	0	338	0	0	0	0	19	0	0	0	0	801	3,171	0	0	0	0
4:30 PM	0	0	413	12	0	0	296	0	0	0	0	28	0	0	0	0	749	3,176	0	0	0	0
4:45 PM	0	0	411	19	0	0	378	0	0	0	0	14	0	0	0	0	822	3,189	0	0	0	1
5:00 PM	0	0	416	14	0	0	347	0	0	0	0	22	0	0	0	0	799	3,072	0	0	1	0
5:15 PM	0	0	457	17	0	0	310	0	0	0	0	22	0	0	0	0	806	2,922	0	0	0	0
5:30 PM	0	0	397	15	0	0	326	0	0	0	0	24	0	0	0	0	762	2,736	0	0	0	0
5:45 PM	0	0	367	10	0	0	311	0	0	0	0	17	0	0	0	0	705	2,636	0	0	0	0
6:00 PM	0	0	326	12	0	0	289	0	0	0	0	22	0	0	0	0	649	2,556	0	0	1	0
6:15 PM	0	0	317	8	0	0	271	0	0	0	0	24	0	0	0	0	620		0	0	0	1
6:30 PM	0	0	332	13	0	0	297	0	0	0	0	20	0	0	0	0	662		0	0	0	0
6:45 PM	0	0	332	9	0	0	268	0	0	0	0	16	0	0	0	0	625		0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Lights	0	0	1,672	63	0	0	1,323	0	0	0	0	81	0	0	0	0	3,139
Mediums	0	0	9	2	0	0	34	0	0	0	0	1	0	0	0	0	46
Total	0	0	1,681	65	0	0	1,361	0	0	0	0	82	0	0	0	0	3,189

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.6%				2.8%				1.2%				0.0%				1.6%
Heavy Vehicle %	0.0%	0.0%	0.5%	3.1%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	1.6%
Peak Hour Factor	0.93				0.92				0.85				0.00				0.97
Peak Hour Factor	0.00	0.00	0.93	0.78	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.97



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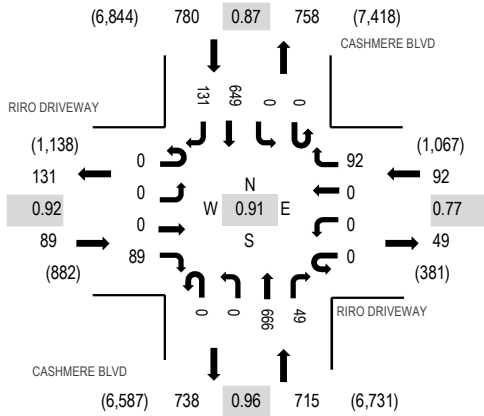
Location: 4 CASHMERE BLVD & RIRO DRIVEWAY AM

Date: Thursday, May 2, 2024

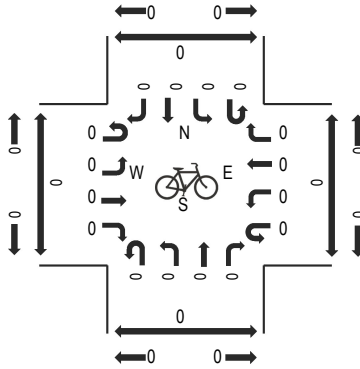
Peak Hour: 03:15 PM - 04:15 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

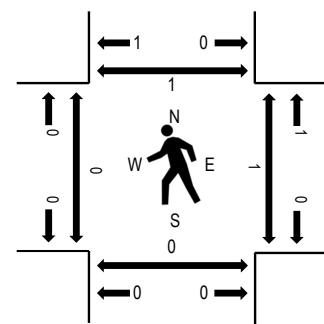
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RIRO DRIVEWAY Eastbound				RIRO DRIVEWAY Westbound				CASHMERE BLVD Northbound				CASHMERE BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	5	0	0	0	3	0	0	93	0	0	0	82	11	194	1,181	0	1	0	0
7:15 AM	0	0	0	6	0	0	0	6	0	0	123	2	0	0	153	11	301	1,321	0	0	0	0
7:30 AM	0	0	0	5	0	0	0	4	0	0	159	1	0	0	166	8	343	1,307	0	1	0	0
7:45 AM	0	0	0	8	0	0	0	12	0	0	153	3	0	0	143	24	343	1,226	0	0	0	0
8:00 AM	0	0	0	20	0	0	0	8	0	0	143	3	0	0	137	23	334	1,151	2	0	0	0
8:15 AM	0	0	0	10	0	0	0	9	0	0	137	3	0	0	111	17	287	1,103	0	0	0	0
8:30 AM	0	0	0	9	0	0	0	14	0	0	133	3	0	0	85	18	262	1,136	0	0	0	0
8:45 AM	0	0	0	5	0	0	0	10	0	0	133	4	0	0	99	17	268	1,197	0	1	0	0
9:00 AM	0	0	0	5	0	0	0	18	0	0	116	8	0	0	114	25	286	1,229	0	0	0	0
9:15 AM	0	0	0	13	0	0	0	22	0	0	152	7	0	0	96	30	320	1,232	0	0	0	0
9:30 AM	0	0	0	12	0	0	0	28	0	0	121	8	0	0	131	23	323	1,145	0	0	0	0
9:45 AM	0	0	0	20	0	0	0	36	0	0	113	11	0	0	92	28	300	1,098	1	0	0	2
10:00 AM	0	0	0	15	0	0	0	19	0	0	112	12	0	0	109	22	289	1,098	0	0	0	0
10:15 AM	0	0	0	8	0	0	0	30	0	0	88	9	0	0	81	17	233	1,111	1	0	0	0
10:30 AM	0	0	0	18	0	0	0	30	0	0	93	11	0	0	103	21	276	1,179	0	0	0	0
10:45 AM	0	0	0	15	0	0	0	28	0	0	121	8	0	0	109	19	300	1,210	0	0	0	0
11:00 AM	0	0	0	24	0	0	0	28	0	0	125	10	0	0	97	18	302	1,210	0	0	0	0
11:15 AM	0	0	0	11	0	0	0	37	0	0	118	3	0	0	107	25	301	1,218	0	0	0	0
11:30 AM	0	0	0	11	0	0	0	33	0	0	138	10	0	0	98	17	307	1,233	0	0	0	0
11:45 AM	0	0	0	26	0	0	0	31	0	0	126	17	0	0	85	15	300	1,223	1	0	0	0
12:00 PM	0	0	0	21	1	0	0	26	0	0	126	18	0	0	102	16	310	1,230	0	0	0	0
12:15 PM	0	0	0	22	0	0	0	30	0	0	121	7	0	0	112	24	316	1,230	0	0	0	0
12:30 PM	0	0	0	21	0	0	0	42	0	0	106	5	0	0	106	17	297	1,183	0	0	0	0
12:45 PM	0	0	0	19	0	0	0	28	0	0	136	11	0	0	96	17	307	1,171	0	0	0	0
1:00 PM	0	0	0	24	0	0	0	27	0	0	123	7	0	0	105	24	310	1,185	0	0	0	0
1:15 PM	0	0	0	7	0	0	0	29	0	0	99	8	0	0	110	16	269	1,246	1	0	0	0
1:30 PM	0	0	0	20	0	0	0	30	0	0	94	7	0	0	110	24	285	1,329	0	0	0	0
1:45 PM	0	0	0	17	0	0	0	26	0	0	138	4	0	0	106	30	321	1,371	0	0	0	0
2:00 PM	0	0	0	25	0	0	0	24	0	0	171	8	0	0	121	22	371	1,420	1	1	0	0
2:15 PM	0	0	0	24	0	0	0	26	0	0	135	9	0	0	133	25	352	1,403	0	0	0	0
2:30 PM	0	0	0	10	0	0	0	25	0	0	137	8	0	0	115	32	327	1,459	0	0	0	0
2:45 PM	0	0	0	22	0	0	0	23	0	0	168	8	0	0	125	24	370	1,532	0	0	0	0
3:00 PM	0	0	0	24	0	0	0	18	0	0	149	7	0	0	124	32	354	1,571	0	1	0	0
3:15 PM	0	0	0	18	0	0	0	20	0	0	166	9	0	0	167	28	408	1,676	0	0	0	0

3:30 PM	0	0	0	27	0	0	0	19	0	0	161	18	0	0	140	35	400	1,662	0	0	0	0
3:45 PM	0	0	0	23	0	0	0	26	0	0	166	9	0	0	148	37	409	1,628	0	1	0	0
4:00 PM	0	0	0	21	0	0	0	27	0	0	173	13	0	0	194	31	459	1,599	0	0	0	1
4:15 PM	0	0	0	25	0	0	0	16	0	0	151	9	0	0	165	28	394	1,527	2	1	0	0
4:30 PM	0	0	0	36	0	0	0	18	0	0	151	7	0	0	130	24	366	1,516	0	0	1	0
4:45 PM	0	0	0	31	0	0	0	17	0	0	158	6	0	0	126	42	380	1,507	1	0	0	0
5:00 PM	0	0	0	35	0	0	0	19	0	0	153	8	0	0	137	35	387	1,448	0	0	0	0
5:15 PM	0	0	0	30	0	0	0	21	0	0	143	10	0	0	157	22	383	1,379	0	0	0	0
5:30 PM	0	0	0	26	0	0	0	20	0	0	140	6	0	0	129	36	357	1,288	0	0	0	0
5:45 PM	0	0	0	22	0	0	0	22	0	0	132	6	0	0	120	19	321	1,224	0	0	0	0
6:00 PM	0	0	0	22	0	0	0	16	0	0	121	16	0	0	115	28	318	1,202	0	1	0	0
6:15 PM	0	1	0	25	0	0	0	25	0	0	110	14	0	0	93	24	292		0	17	0	0
6:30 PM	0	0	0	20	0	0	0	20	0	0	111	4	0	0	110	28	293		0	0	0	1
6:45 PM	0	0	0	18	0	0	0	20	0	0	115	5	0	0	112	29	299		1	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	0	0	89	0	0	0	92	0	0	648	49	0	0	635	130	1,643
Mediums	0	0	0	0	0	0	0	0	0	0	17	0	0	0	14	1	32
Total	0	0	0	89	0	0	0	92	0	0	666	49	0	0	649	131	1,676

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%				0.0%				2.5%				1.9%				2.0%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	2.2%	0.8%	2.0%
Peak Hour Factor	0.92				0.77				0.96				0.87				0.91
Peak Hour Factor	0.00	0.25	0.00	0.92	0.25	0.00	0.00	0.77	0.00	0.00	0.96	0.72	0.00	0.00	0.84	0.80	0.91



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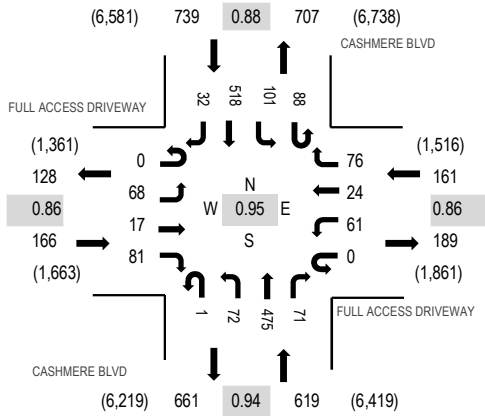
Location: 5 CASHMERE BLVD & FULL ACCESS DRIVEWAY AM

Date: Thursday, May 2, 2024

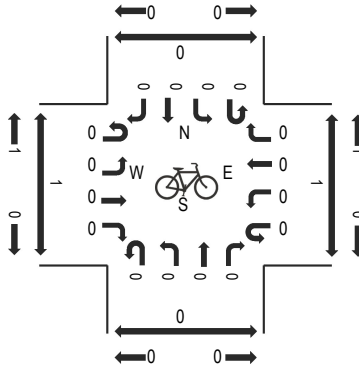
Peak Hour: 03:30 PM - 04:30 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

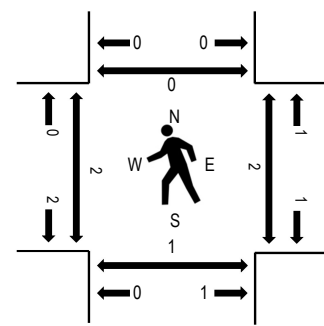
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FULL ACCESS DRIVEWAY				FULL ACCESS DRIVEWAY				CASHMERE BLVD				CASHMERE BLVD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	10	2	13	0	7	0	2	0	12	76	8	6	7	71	3	217	1,240	0	1	0	0
7:15 AM	0	5	0	9	0	2	1	2	0	17	100	7	20	7	127	4	301	1,366	0	0	0	0
7:30 AM	0	5	3	12	0	7	3	4	0	22	140	6	12	15	138	4	371	1,385	0	3	2	0
7:45 AM	0	3	0	11	0	6	2	2	0	29	132	13	17	19	113	4	351	1,317	0	0	0	0
8:00 AM	0	2	2	12	1	7	1	9	0	19	125	13	16	12	119	5	343	1,257	0	0	0	0
8:15 AM	0	11	3	11	0	12	2	2	0	21	125	11	3	17	97	5	320	1,205	1	0	0	0
8:30 AM	0	11	1	18	0	16	2	7	1	27	108	17	4	10	73	8	303	1,207	0	0	0	0
8:45 AM	0	11	3	12	0	4	2	6	0	21	118	13	2	15	77	7	291	1,226	0	2	0	0
9:00 AM	0	8	2	11	0	7	2	7	0	17	106	11	5	15	96	4	291	1,233	1	0	0	0
9:15 AM	0	10	0	11	0	13	2	7	0	11	136	21	7	26	73	5	322	1,225	0	0	0	0
9:30 AM	0	15	2	9	0	15	5	17	0	15	81	21	12	21	99	10	322	1,134	0	0	0	0
9:45 AM	0	15	5	20	0	15	4	6	1	11	92	16	14	17	72	10	298	1,079	1	0	0	0
10:00 AM	0	14	1	11	0	15	4	11	0	11	85	9	11	16	89	6	283	1,096	0	0	0	0
10:15 AM	0	16	3	10	0	12	2	9	0	14	64	10	8	24	53	6	231	1,136	0	0	0	0
10:30 AM	0	12	4	14	0	13	1	12	0	8	69	14	11	13	91	5	267	1,191	0	0	0	0
10:45 AM	0	15	4	14	0	15	3	12	0	26	90	13	13	26	81	3	315	1,237	0	0	1	0
11:00 AM	0	22	1	24	0	11	9	13	0	10	82	29	19	22	75	6	323	1,228	0	0	0	0
11:15 AM	0	13	2	14	0	10	5	21	0	10	76	16	9	22	80	8	286	1,231	0	0	0	0
11:30 AM	0	11	3	9	0	13	4	18	0	16	109	21	13	17	73	6	313	1,287	0	0	0	0
11:45 AM	0	15	1	18	0	15	3	13	0	12	98	21	16	17	71	6	306	1,299	0	0	0	0
12:00 PM	0	16	2	16	0	27	2	11	0	8	98	22	17	19	80	8	326	1,325	0	0	0	0
12:15 PM	0	15	1	20	0	20	4	18	0	20	82	28	13	24	92	5	342	1,301	1	0	0	0
12:30 PM	0	12	4	18	0	24	7	17	0	24	68	24	15	26	77	9	325	1,253	0	0	0	0
12:45 PM	0	14	3	17	0	16	4	21	1	15	98	28	13	23	75	4	332	1,229	0	0	0	0
1:00 PM	0	18	2	13	0	7	5	13	0	12	87	16	12	24	90	3	302	1,246	0	0	0	0
1:15 PM	0	11	5	22	0	17	3	15	0	13	75	17	6	19	83	8	294	1,330	1	0	0	0
1:30 PM	0	12	1	13	0	21	6	15	0	22	63	19	11	21	86	11	301	1,398	0	0	0	0
1:45 PM	0	13	1	22	0	16	7	15	0	20	114	16	13	21	82	9	349	1,445	0	0	0	0
2:00 PM	0	14	7	18	0	13	4	24	1	22	117	20	15	24	98	9	386	1,498	1	1	0	0
2:15 PM	0	13	4	20	0	19	5	16	0	17	95	19	17	24	108	5	362	1,464	0	0	0	0
2:30 PM	0	10	5	22	0	13	3	8	1	20	121	17	6	17	95	10	348	1,517	0	0	0	0
2:45 PM	0	16	2	14	0	23	7	18	1	20	139	15	15	17	107	8	402	1,588	0	0	0	0
3:00 PM	0	17	4	25	0	17	4	11	0	11	101	14	15	12	114	7	352	1,584	0	2	0	0
3:15 PM	0	20	4	19	0	20	4	19	1	11	115	17	21	21	138	5	415	1,674	0	0	0	0

3:30 PM	0	21	5	22	0	18	7	17	1	22	123	16	19	20	121	7	419	1,685	0	0	0	0
3:45 PM	0	22	3	15	0	16	3	17	0	13	123	15	18	26	122	5	398	1,681	0	1	0	0
4:00 PM	0	14	7	16	0	14	5	21	0	16	114	24	31	25	145	10	442	1,667	0	0	1	0
4:15 PM	0	11	2	28	0	13	9	21	0	21	115	16	20	30	130	10	426	1,650	2	1	0	0
4:30 PM	1	20	3	38	0	14	2	14	0	26	113	17	19	26	115	7	415	1,622	0	0	0	1
4:45 PM	0	21	1	27	0	13	4	15	0	24	100	20	20	18	118	3	384	1,566	1	0	0	0
5:00 PM	0	16	4	44	0	12	6	14	0	32	106	19	22	19	120	11	425	1,535	0	0	0	0
5:15 PM	0	14	2	30	0	7	8	20	0	22	96	13	24	24	129	9	398	1,457	0	0	0	0
5:30 PM	0	21	6	15	0	9	4	14	0	21	95	19	19	14	114	8	359	1,371	0	0	0	0
5:45 PM	0	14	3	24	0	20	2	16	0	17	91	24	14	28	94	6	353	1,312	0	0	0	0
6:00 PM	0	19	1	26	0	24	6	20	0	26	82	9	16	17	97	4	347	1,270	0	1	0	0
6:15 PM	0	15	2	22	0	23	4	11	0	19	80	16	18	14	81	7	312		0	17	1	0
6:30 PM	0	18	3	16	0	20	5	21	1	11	63	12	14	19	89	8	300		0	0	1	0
6:45 PM	0	16	3	18	0	17	5	13	0	12	81	15	8	21	91	11	311		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	65	17	81	0	60	24	75	1	71	457	71	87	101	502	32	1,644
Mediums	0	2	0	0	0	1	0	1	0	1	18	0	1	0	16	0	40
Total	0	68	17	81	0	61	24	76	1	72	475	71	88	101	518	32	1,685

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	1.8%				1.2%				3.1%				2.3%				2.4%
Heavy Vehicle %	0.0%	4.4%	0.0%	0.0%	0.0%	1.6%	0.0%	1.3%	0.0%	1.4%	3.8%	0.0%	1.1%	0.0%	3.1%	0.0%	2.4%
Peak Hour Factor	0.86				0.86				0.94				0.88				0.95
Peak Hour Factor	0.25	0.91	0.68	0.79	0.25	0.81	0.67	0.90	0.75	0.81	0.93	0.91	0.73	0.89	0.91	0.84	0.95



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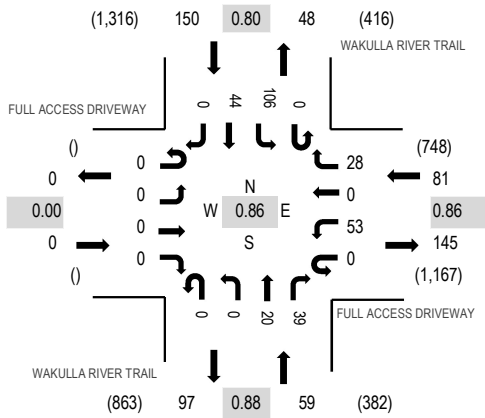
Location: 6 WAKULLA RIVER TRAIL & FULL ACCESS DRIVEWAY AM

Date: Thursday, May 2, 2024

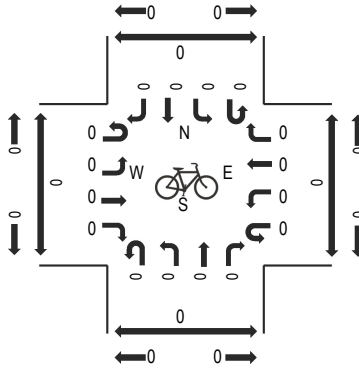
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

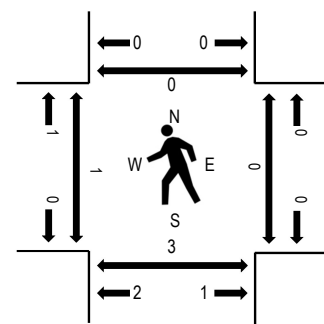
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FULL ACCESS DRIVEWAY				FULL ACCESS DRIVEWAY				WAKULLA RIVER TRAIL				WAKULLA RIVER TRAIL				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	0	0	0	8	0	1	0	0	4	2	0	11	5	0	31	159	0	0	0	0
7:15 AM	0	0	0	0	0	7	0	3	0	0	4	5	0	21	6	0	46	169	0	0	0	0
7:30 AM	0	0	0	0	0	10	0	7	0	0	5	5	0	15	2	0	44	167	0	0	0	0
7:45 AM	0	0	0	0	0	17	0	4	0	0	0	0	0	12	5	0	38	156	0	0	0	0
8:00 AM	0	0	0	0	0	12	0	4	0	0	3	1	0	17	4	0	41	170	0	0	0	0
8:15 AM	0	0	0	0	0	10	0	4	0	0	4	2	0	21	3	0	44	174	0	0	0	0
8:30 AM	0	0	0	0	0	8	0	2	0	0	3	1	0	13	6	0	33	173	4	3	2	2
8:45 AM	0	0	0	0	0	8	0	5	0	0	2	3	0	20	14	0	52	193	3	1	1	0
9:00 AM	0	0	0	0	0	11	0	4	0	0	5	2	0	16	7	0	45	181	1	0	1	0
9:15 AM	0	0	0	0	0	12	0	5	0	0	2	2	0	19	3	0	43	175	0	1	2	1
9:30 AM	0	0	0	0	0	9	0	3	0	0	4	6	0	24	7	0	53	177	0	0	0	0
9:45 AM	0	0	0	0	0	9	0	6	0	0	1	1	0	17	6	0	40	168	0	0	1	0
10:00 AM	0	0	0	0	0	6	0	2	0	0	5	2	0	16	8	0	39	175	0	0	1	0
10:15 AM	0	0	0	0	0	11	0	5	0	0	1	2	0	18	8	0	45	175	0	0	2	2
10:30 AM	0	0	0	0	0	5	0	6	0	0	1	6	0	16	10	0	44	174	0	0	1	0
10:45 AM	0	0	0	0	0	10	0	4	0	0	4	5	0	18	6	0	47	177	0	0	6	0
11:00 AM	0	0	0	0	0	11	0	2	0	0	4	1	0	15	6	0	39	181	0	0	1	0
11:15 AM	0	0	0	0	0	9	0	6	0	0	1	1	0	17	10	0	44	191	0	0	1	0
11:30 AM	0	0	0	0	0	6	0	4	0	0	1	6	0	25	5	0	47	202	0	1	1	0
11:45 AM	0	0	0	0	0	10	0	7	0	0	5	3	0	22	4	0	51	211	0	0	1	0
12:00 PM	0	0	0	0	0	10	0	1	0	0	6	7	1	17	7	0	49	223	0	0	0	0
12:15 PM	0	0	0	0	0	15	0	3	0	0	2	6	0	21	8	0	55	241	0	0	2	0
12:30 PM	0	0	0	0	0	15	0	3	0	0	3	7	0	22	6	0	56	230	0	0	0	0
12:45 PM	0	0	0	0	0	13	0	7	0	0	6	2	0	27	8	0	63	209	0	1	3	0
1:00 PM	0	0	0	0	0	14	0	5	0	0	5	5	0	31	7	0	67	199	0	0	0	0
1:15 PM	0	0	0	0	0	12	0	3	0	0	4	3	0	16	6	0	44	197	0	0	1	0
1:30 PM	0	0	0	0	0	10	0	2	0	0	1	2	0	11	9	0	35	198	0	0	0	0
1:45 PM	0	0	0	0	0	14	0	9	0	0	5	5	0	14	6	0	53	229	0	0	0	0
2:00 PM	0	0	0	0	0	15	0	7	0	0	3	8	1	20	11	0	65	229	0	1	0	0
2:15 PM	0	0	0	0	0	10	0	2	0	0	3	2	0	17	11	0	45	214	1	0	1	0
2:30 PM	0	0	0	0	0	8	0	7	0	0	8	5	0	29	9	0	66	218	0	0	0	0
2:45 PM	0	0	0	0	0	10	0	3	0	0	7	5	0	20	8	0	53	218	0	0	2	0
3:00 PM	0	0	0	0	0	7	0	10	0	0	2	5	0	19	7	0	50	217	0	0	0	0
3:15 PM	0	0	0	0	0	13	0	8	0	0	5	2	0	16	5	0	49	224	0	1	0	1

3:30 PM	0	0	0	0	0	16	0	6	0	0	4	4	0	24	12	0	66	259	0	0	2	0
3:45 PM	0	0	0	0	0	9	0	6	0	0	2	0	0	23	12	0	52	263	0	2	2	2
4:00 PM	0	0	0	0	0	15	0	7	0	0	5	5	0	22	3	0	57	267	0	0	0	0
4:15 PM	0	0	0	0	0	12	0	12	0	0	8	5	0	32	15	0	84	290	1	0	0	0
4:30 PM	0	0	0	0	0	14	0	5	0	0	3	10	0	28	10	0	70	256	0	0	0	0
4:45 PM	0	0	0	0	0	11	0	6	0	0	4	13	0	16	6	0	56	242	0	0	3	0
5:00 PM	0	0	0	0	0	16	0	5	0	0	5	11	0	30	13	0	80	234	0	0	0	0
5:15 PM	0	0	0	0	0	12	0	5	0	0	4	10	0	14	5	0	50	200	0	0	2	0
5:30 PM	0	0	0	0	0	7	0	5	0	0	2	10	0	28	4	0	56	215	0	0	0	0
5:45 PM	0	0	0	0	0	8	0	9	0	0	3	6	0	16	6	0	48	212	0	0	0	0
6:00 PM	0	0	0	0	0	11	0	5	0	0	2	4	0	21	3	0	46	211	0	0	0	0
6:15 PM	0	0	0	0	0	9	0	4	0	0	5	1	0	32	14	0	65		0	0	0	0
6:30 PM	0	0	0	0	0	9	0	2	0	0	4	2	0	26	10	0	53		0	0	1	0
6:45 PM	0	0	0	0	0	7	0	6	0	0	7	4	0	17	6	0	47		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Lights	0	0	0	0	0	53	0	28	0	0	19	39	0	105	43	0	287
Mediums	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2
Total	0	0	0	0	0	53	0	28	0	0	20	39	0	106	44	0	290

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%				0.0%				1.7%				1.3%				1.0%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.9%	2.3%	0.0%	1.0%
Peak Hour Factor	0.00				0.86				0.88				0.80				0.86
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.65	0.00	0.00	0.69	0.85	0.25	0.83	0.73	0.00	0.86

APPENDIX D

FDOT's Florida Traffic Online (FTO) Data & ITE 11th Edition Excerpts

2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9401 CEN.-W OF US1 TO I95

WEEK	DATES	SF	MOCF: 0.93 PSCF
1	01/01/2023 - 01/07/2023	1.00	1.08
2	01/08/2023 - 01/14/2023	0.98	1.05
* 3	01/15/2023 - 01/21/2023	0.95	1.02
* 4	01/22/2023 - 01/28/2023	0.94	1.01
* 5	01/29/2023 - 02/04/2023	0.93	1.00
* 6	02/05/2023 - 02/11/2023	0.92	0.99
* 7	02/12/2023 - 02/18/2023	0.91	0.98
* 8	02/19/2023 - 02/25/2023	0.91	0.98
* 9	02/26/2023 - 03/04/2023	0.92	0.99
*10	03/05/2023 - 03/11/2023	0.92	0.99
*11	03/12/2023 - 03/18/2023	0.92	0.99
*12	03/19/2023 - 03/25/2023	0.93	1.00
*13	03/26/2023 - 04/01/2023	0.94	1.01
*14	04/02/2023 - 04/08/2023	0.95	1.02
*15	04/09/2023 - 04/15/2023	0.96	1.03
16	04/16/2023 - 04/22/2023	0.97	1.04
17	04/23/2023 - 04/29/2023	0.98	1.05
18	04/30/2023 - 05/06/2023	0.98	1.05
19	05/07/2023 - 05/13/2023	0.99	1.06
20	05/14/2023 - 05/20/2023	1.00	1.08
21	05/21/2023 - 05/27/2023	1.01	1.09
22	05/28/2023 - 06/03/2023	1.02	1.10
23	06/04/2023 - 06/10/2023	1.03	1.11
24	06/11/2023 - 06/17/2023	1.04	1.12
25	06/18/2023 - 06/24/2023	1.05	1.13
26	06/25/2023 - 07/01/2023	1.06	1.14
27	07/02/2023 - 07/08/2023	1.06	1.14
28	07/09/2023 - 07/15/2023	1.07	1.15
29	07/16/2023 - 07/22/2023	1.07	1.15
30	07/23/2023 - 07/29/2023	1.07	1.15
31	07/30/2023 - 08/05/2023	1.06	1.14
32	08/06/2023 - 08/12/2023	1.06	1.14
33	08/13/2023 - 08/19/2023	1.06	1.14
34	08/20/2023 - 08/26/2023	1.06	1.14
35	08/27/2023 - 09/02/2023	1.07	1.15
36	09/03/2023 - 09/09/2023	1.07	1.15
37	09/10/2023 - 09/16/2023	1.07	1.15
38	09/17/2023 - 09/23/2023	1.06	1.14
39	09/24/2023 - 09/30/2023	1.06	1.14
40	10/01/2023 - 10/07/2023	1.05	1.13
41	10/08/2023 - 10/14/2023	1.05	1.13
42	10/15/2023 - 10/21/2023	1.04	1.12
43	10/22/2023 - 10/28/2023	1.04	1.12
44	10/29/2023 - 11/04/2023	1.03	1.11
45	11/05/2023 - 11/11/2023	1.03	1.11
46	11/12/2023 - 11/18/2023	1.02	1.10
47	11/19/2023 - 11/25/2023	1.02	1.10
48	11/26/2023 - 12/02/2023	1.01	1.09
49	12/03/2023 - 12/09/2023	1.01	1.09
50	12/10/2023 - 12/16/2023	1.00	1.08
51	12/17/2023 - 12/23/2023	0.98	1.05
52	12/24/2023 - 12/30/2023	0.97	1.04
53	12/31/2023 - 12/31/2023	0.95	1.02

* PEAK SEASON

09-MAR-2024 18:41:41

830UPD

4_9401_PKSEASON.TXT

Land Use: 937

Coffee/Donut Shop with Drive-Through Window

Description

This land use includes any coffee and donut restaurant that has a drive-through window as well as a walk-in entrance area at which a patron can purchase and consume items. The restaurant sells freshly brewed coffee (along with coffee-related accessories) and a variety of food/drink products such as donuts, bagels, breads, muffins, cakes, sandwiches, wraps, salads, and other hot and cold beverages. The restaurant marketing and sales may emphasize coffee beverages over food (or vice versa).

A coffee/donut shop typically holds long store hours (more than 15 hours) with an early morning opening. Limited indoor seating is generally provided for patrons, but table service is not provided.

Coffee/donut shop without drive-through window (Land Use 936) and coffee/donut shop with drive-through window and no indoor seating (Land Use 938) are related uses.

Additional Data

The sites were surveyed in the 1990s, the 2000s, and the 2010s in California, Colorado, Connecticut, Illinois, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New York, Ontario (CAN), Pennsylvania, Quebec (CAN), Tennessee, Vermont, Washington, and Wisconsin.

Specialized Land Use Data

One study was conducted during the pandemic in 2020. Twelve sites were counted in Illinois and Missouri during the AM and PM adjacent street peak hours. The data have not been incorporated within the overall ITE trip generation database and are not reflected in the data plots for this land use. Consideration for their inclusion will be given for the 12th Edition of *Trip Generation Manual* after additional post-pandemic data are collected. Overall, the pandemic counts yielded an AM adjacent street peak weighted average rate of 84 vehicle trips per 1,000 square feet GFA, roughly equivalent to the pre-pandemic average. The PM adjacent street peak rate was 56 (roughly 40 percent higher than the pre-pandemic value). The higher PM peak rate for these coffee/donut shops conforms with anecdotal observations that with the temporary or permanent closures of many restaurants during the pandemic, the drive-through restaurants that were open did a brisk business even during their off-peak periods.

Source Numbers

594, 599, 615, 617, 618, 621, 622, 635, 639, 712, 714, 725, 726, 728, 853, 854, 892, 903, 928, 959, 979, 982, 1004, 1042, 1044

Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 6

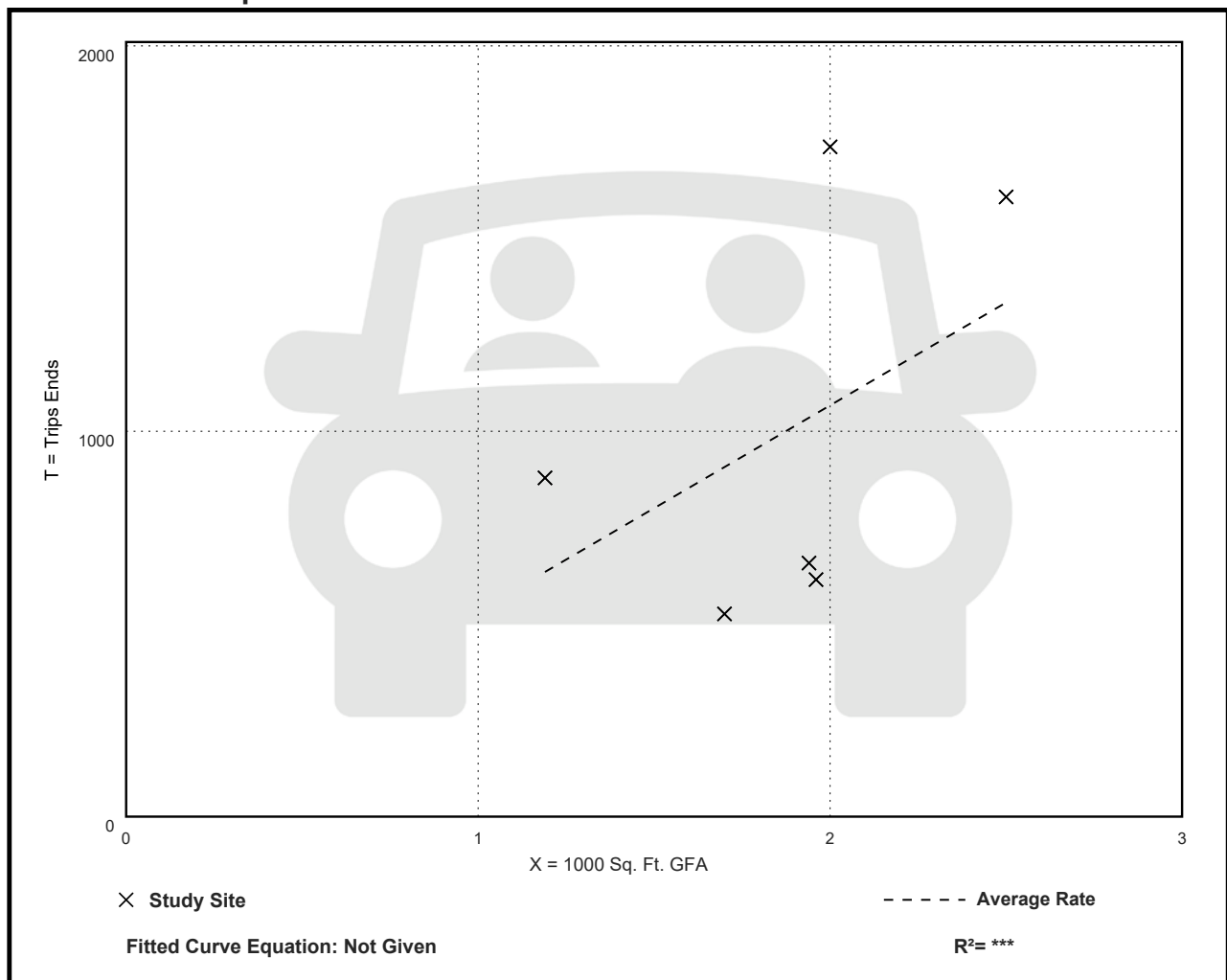
Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
533.57	309.41 - 869.00	243.65

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 78

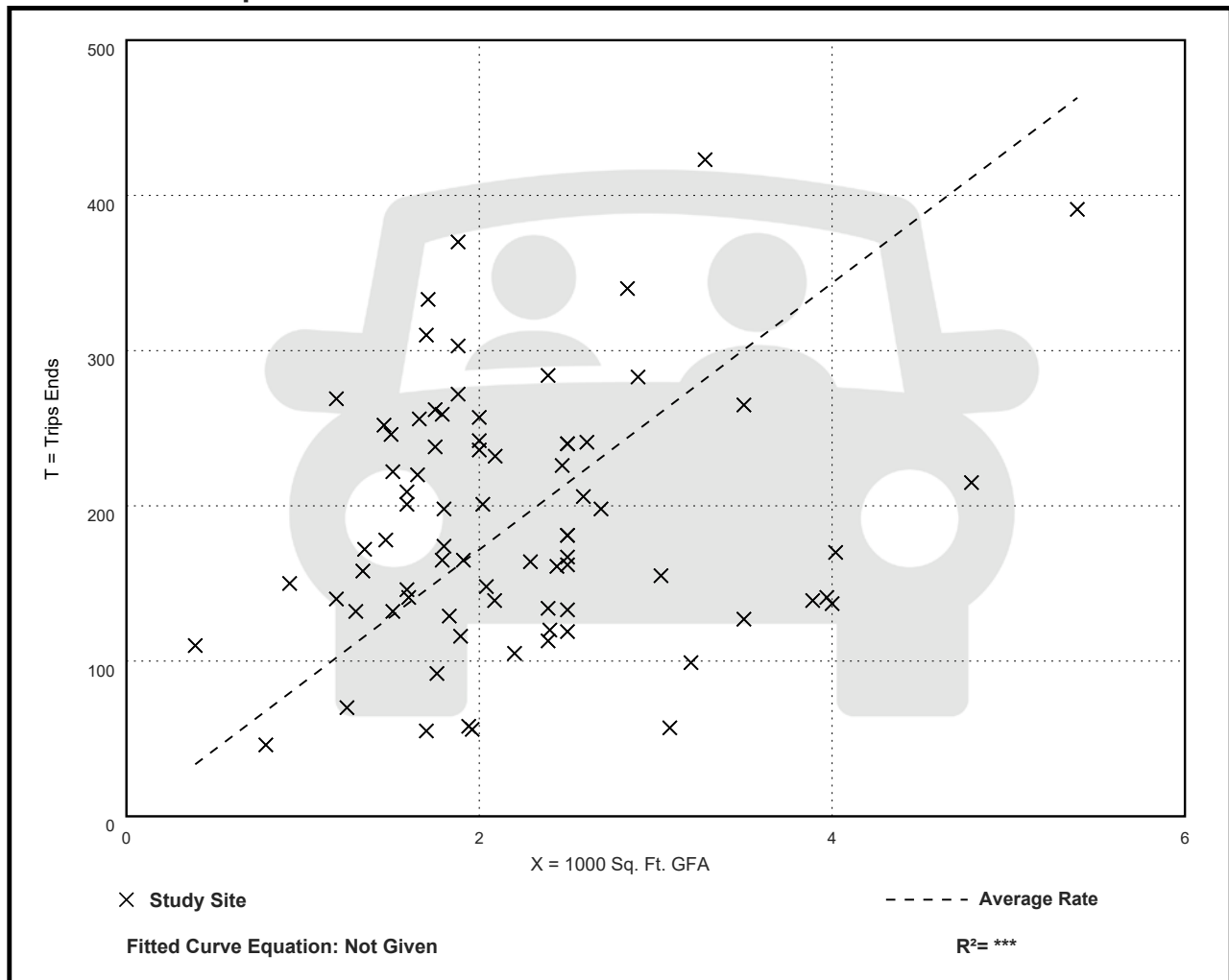
Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
85.88	18.51 - 282.05	44.92

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 36

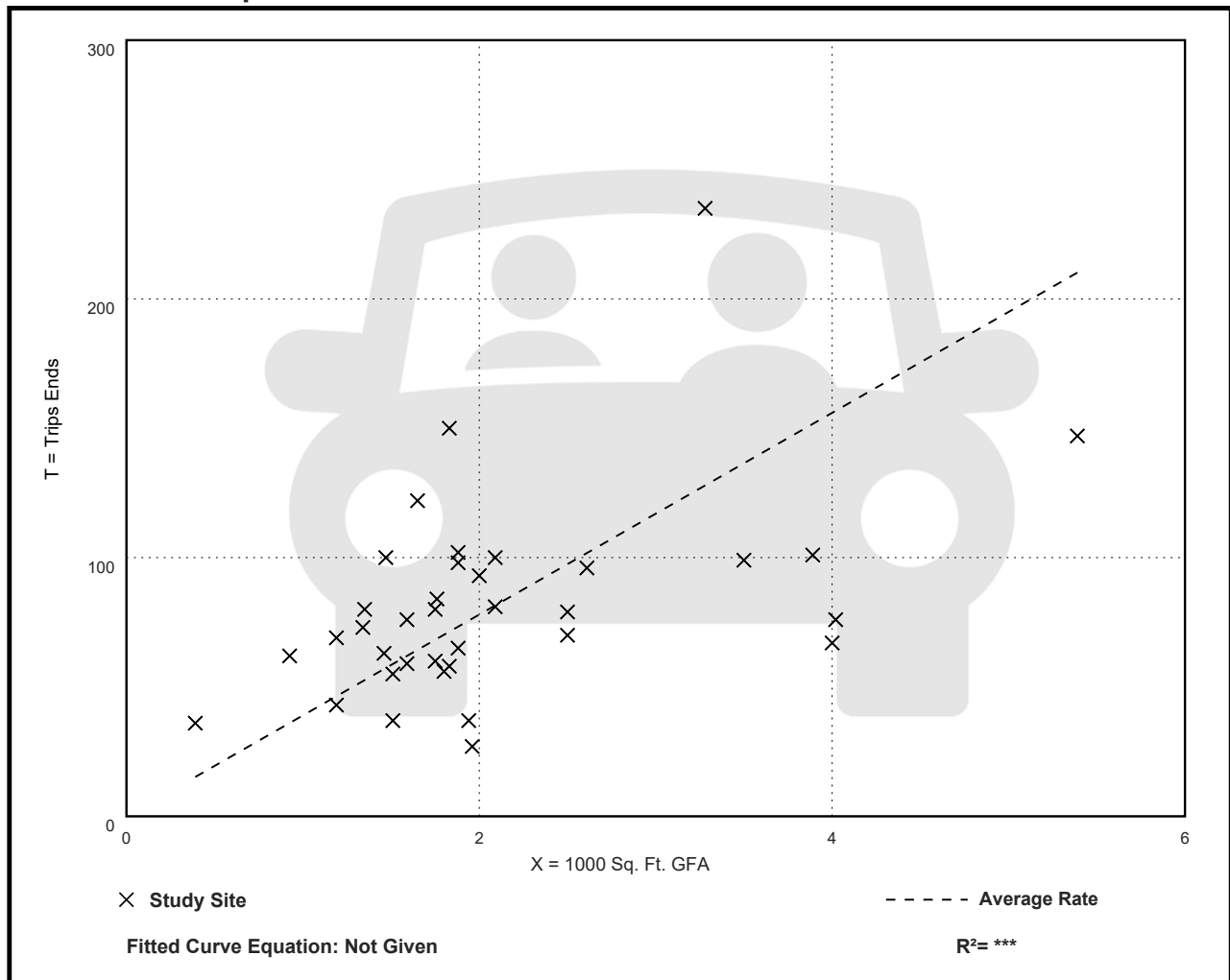
Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
38.99	13.78 - 92.31	17.79

Data Plot and Equation



Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

[illegible]

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

[illegible]

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

[illegible]

APPENDIX E

Turning Movement Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

St Lucie W Blvd & Cashmere Blvd

WEEKDAY AM PEAK HOUR (7:15 AM to 8:15 AM)	Cashmere Blvd			Cashmere Blvd			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/2/24	209	158	238	450	326	205	145	709	118	278	1,115	467
Peak Season 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
2024 Total Existing Traffic	205	155	233	441	319	201	142	695	116	272	1,093	458
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	5	4	6	10	8	5	3	16	3	6	26	11
Project Traffic % Assignment	22%	2%	12%		7%		25%	25%		32%	5%	
Project Traffic Direction	OUT	OUT	OUT		IN		OUT	OUT		IN	IN	
Project Trips	20	2	11		7		23	23		30	5	
Net New Project Trips	2		1		1		2	2		3		
Pass-By Traffic Assignment	50%									50%	-50%	
Pass-By Traffic Direction	OUT									IN	IN	
Pass-By Trips	41									43	-43	
2025 Total Background Traffic	210	159	239	451	327	206	145	711	119	278	1,119	469
2025 Total Traffic	253	159	240	451	328	206	147	713	119	324	1,076	469

WEEKDAY PM PEAK HOUR (4:15 PM to 5:15 PM)	Cashmere Blvd			Cashmere Blvd			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/2/24	262	197	233	370	275	120	109	1,455	185	331	965	344
Peak Season 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
2024 Total Existing Traffic	257	193	228	363	270	118	107	1,426	181	324	946	337
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	6	5	5	9	6	3	3	34	4	8	22	8
Project Traffic % Assignment	22%	2%	12%		7%		25%	25%		32%	5%	
Project Traffic Direction	OUT	OUT	OUT		IN		OUT	OUT		IN	IN	
Project Traffic	9	1	5		3		11	11		13	2	
Net New Project Traffic	0	0	0				1	1		1		
Pass-By Traffic Assignment	50%									50%	-50%	
Pass-By Traffic Direction	OUT									IN	IN	
Pass-By Trips	20									20	-20	
2025 Total Background Traffic	263	198	233	372	276	121	110	1,460	185	332	968	345
2025 Total Traffic	283	198	233	372	276	121	111	1,461	185	353	948	345

INTERSECTION VOLUME DEVELOPMENT

St Lucie W Blvd & Wakulla River Trail

WEEKDAY AM PEAK HOUR (7:15 AM to 8:15 AM)	Wakulla River Trail			Wakulla River Trail			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	0	30	0	0	43	70	914	50	40	1,409	84
Peak Season 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
2024 Total Existing Traffic	0	0	29	0	0	42	69	896	49	39	1,381	82
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	1	0	0	1	2	21	1	1	33	2
Project Traffic % Assignment								42%		5%	42%	
Project Traffic Direction								IN		IN	OUT	
Project Trips								40		5	38	
Net New Project Trips								4			4	
Pass-By Traffic Assignment												
Pass-By Traffic Direction												
Pass-By Trips												
2025 Total Background Traffic	0	0	30	0	0	43	71	917	50	40	1,414	84
2025 Total Traffic	0	0	30	0	0	43	71	921	50	40	1,418	84

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Wakulla River Trail			Wakulla River Trail			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	0	48	0	0	143	15	1,662	97	56	1,276	29
Peak Season 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
2024 Total Existing Traffic	0	0	47	0	0	140	15	1,629	95	55	1,250	28
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	1	0	0	3	0	38	2	1	30	1
Project Traffic % Assignment								42%		5%	42%	
Project Traffic Direction								IN		IN	OUT	
Project Traffic								18		2	18	
Net New Project Traffic								1			1	
Pass-By Traffic Assignment												
Pass-By Traffic Direction												
Pass-By Trips												
2025 Total Background Traffic	0	0	48	0	0	143	15	1,667	97	56	1,280	29
2025 Total Traffic	0	0	48	0	0	143	15	1,668	97	56	1,281	29

INTERSECTION VOLUME DEVELOPMENT

St Lucie Blvd & Project Driveway #1

WEEKDAY AM PEAK HOUR (7:30 AM to 8:30 AM)	Project Driveway #1			Project Driveway #1			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	0	52	0	0	0	0	919	34	0	1,538	0
Peak Season 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
2024 Total Existing Traffic	0	0	51	0	0	0	0	901	33	0	1,507	0
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	1	0	0	0	0	21	1	0	36	0
Project Traffic % Assignment			50%						42%		42%	
Project Traffic Direction			OUT						IN		OUT	
Project Trips			46						40		38	
Net New Project Trips			5						4		4	
Pass-By Traffic Assignment			50%					-50%	50%			
Pass-By Traffic Direction			OUT					IN	IN			
Pass-By Trips			41					-43	43			
2025 Total Background Traffic	0	0	52	0	0	0	0	922	34	0	1,543	0
2025 Total Traffic	0	0	98	0	0	0	0	879	81	0	1,547	0

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Project Driveway #1			Project Driveway #1			St Lucie W Blvd			St Lucie W Blvd		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	0	82	0	0	0	0	1,681	65	0	1,361	0
Peak Season 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
2024 Total Existing Traffic	0	0	80	0	0	0	0	1,647	64	0	1,334	0
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	2	0	0	0	0	39	2	0	31	0
Project Traffic % Assignment			50%						42%		42%	
Project Traffic Direction			OUT						IN		OUT	
Project Traffic			21						18		18	
Net New Project Traffic			1						1		1	
Pass-By Traffic Assignment			50%					-50%	50%			
Pass-By Traffic Direction			OUT					IN	IN			
Pass-By Trips			20					-20	20			
2025 Total Background Traffic	0	0	82	0	0	0	0	1,686	66	0	1,365	0
2025 Total Traffic	0	0	103	0	0	0	0	1,666	87	0	1,366	0

INTERSECTION VOLUME DEVELOPMENT

Cashmere Blvd & Project Driveway #2

WEEKDAY AM PEAK HOUR (7:30 AM to 8:30 AM)	Cashmere Blvd			Cashmere Blvd			Project Driveway #2			Project Driveway #2		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	578	9	0	599	66	0	0	39	0	0	30
Peak Season 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
2024 Total Existing Traffic	0	566	9	0	587	65	0	0	38	0	0	29
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	13	0	0	14	2	0	0	1	0	0	1
Project Traffic % Assignment		36%				39%			20%			
Project Traffic Direction		OUT				IN			OUT			
Project Trips		33				37			18			
Net New Project Trips		3				4			2			
Pass-By Traffic Assignment		50%				50%			50%			
Pass-By Traffic Direction		OUT				IN			OUT			
Pass-By Trips		41				43			41			
2025 Total Background Traffic	0	579	9	0	601	67	0	0	39	0	0	30
2025 Total Traffic	0	623	9	0	601	114	0	0	82	0	0	30

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Cashmere Blvd			Cashmere Blvd			Project Driveway #2			Project Driveway #2		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	633	35	0	615	125	0	0	113	0	0	78
Peak Season 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
2024 Total Existing Traffic	0	620	34	0	603	123	0	0	111	0	0	76
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	15	1	0	14	3	0	0	3	0	0	2
Project Traffic % Assignment		36%				39%			20%			
Project Traffic Direction		OUT				IN			OUT			
Project Traffic		15				16			8			
Net New Project Traffic		1				1			0			
Pass-By Traffic Assignment		50.0%				50.0%			50%			
Pass-By Traffic Direction		OUT				IN			OUT			
Pass-By Trips	0	20	0	0	0	20	0	0	20	0	0	0
2025 Total Background Traffic	0	635	35	0	617	126	0	0	114	0	0	78
2025 Total Traffic	0	656	35	0	617	147	0	0	134	0	0	78

INTERSECTION VOLUME DEVELOPMENT

Cashmere Blvd & Project Driveway #3

WEEKDAY AM PEAK HOUR (7:30 AM to 8:30 AM)	Cashmere Blvd			Cashmere Blvd			Project Driveway #3			Project Driveway #3		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	91	522	43	111	467	18	21	8	46	33	8	17
Peak Season 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
2024 Total Existing Traffic	89	512	42	109	458	18	21	8	45	32	8	17
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	2	12	1	3	11	0	0	0	1	1	0	0
Project Traffic % Assignment	14%			11%	9%	9%	25%		5%			
Project Traffic Direction	IN			OUT	OUT	OUT	OUT		OUT			
Project Trips	13			10	8	8	23		5			
Net New Project Trips	1			1	1	1	2					
Pass-By Traffic Assignment				50%								
Pass-By Traffic Direction				OUT								
Pass-By Trips				41								
2025 Total Background Traffic	91	524	43	112	469	18	21	8	46	33	8	17
2025 Total Traffic	92	524	43	154	470	19	23	8	46	33	8	17

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Cashmere Blvd			Cashmere Blvd			Project Driveway #3			Project Driveway #3		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	87	442	77	189	508	30	67	13	109	54	20	71
Peak Season 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
2024 Total Existing Traffic	85	433	75	185	498	29	66	13	107	53	20	70
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	2	10	2	4	12	1	2	0	3	1	0	2
Project Traffic % Assignment	14%			11%	9%		25%		5%			
Project Traffic Direction	IN			OUT	Out	OUT	OUT		OUT			
Project Traffic	6			5	4		11		2			
Net New Project Traffic				0	0		1		0			
Pass-By Traffic Assignment				50%								
Pass-By Traffic Direction				OUT								
Pass-By Trips	0	0	0	20	0	0	0	0	0	0	0	0
2025 Total Background Traffic	87	443	77	189	510	30	68	13	110	54	20	72
2025 Total Traffic	87	443	77	209	510	30	69	13	110	54	20	72

INTERSECTION VOLUME DEVELOPMENT

Wakulla River Trail & Project Driveway #4

WEEKDAY AM PEAK HOUR (7:30 AM to 8:30 AM)	Wakulla River Trail			Wakulla River Trail			-			Project Driveway #4		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	12	7	71	27	0	0	0	0	38	0	15
Peak Season 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
2024 Total Existing Traffic	0	12	7	70	26	0	0	0	0	37	0	15
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	0	2	1	0	0	0	0	1	0	0
Project Traffic % Assignment				5%								
Project Traffic Direction				IN								
Project Trips				5								
Net New Project Trips												
Pass-By Traffic Assignment												
Pass-By Traffic Direction												
Pass-By Trips												
2025 Total Background Traffic	0	12	7	72	27	0	0	0	0	38	0	15
2025 Total Traffic	0	12	7	72	27	0	0	0	0	38	0	15

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Wakulla River Trail			Wakulla River Trail			-			Project Driveway #4		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 5/02/24	0	20	39	106	44	0	0	0	0	53	0	28
Peak Season 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
2024 Total Existing Traffic	0	20	38	104	43	0	0	0	0	52	0	27
Annual Growth Rate	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
2025 Background Growth	0	0	1	2	1	0	0	0	0	1	0	1
Project Traffic % Assignment				5%								
Project Traffic Direction				IN								
Project Traffic				2								
Net New Project Traffic												
Pass-By Traffic Assignment												
Pass-By Traffic Direction												
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
2025 Total Background Traffic	0	20	39	106	44	0	0	0	0	53	0	28
2025 Total Traffic	0	20	39	106	44	0	0	0	0	53	0	28

APPENDIX F

Existing Signal Timings

Station : 87 - SLW @ Cashmere (Upload File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	25	0	28	0	25	0	28	0	0	0	0	0	0	0	0
Min Green	5	10	5	5	5	10	5	5	5	5	5	5	5	5	5	5
Passage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max1	25	45	25	30	30	45	25	30	25	25	25	25	25	25	25	25
Max2	25	45	25	30	30	45	25	30	50	50	50	50	50	50	50	50
Yellow	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Entry				ON				ON								
Non Act1																
Non Act2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall																
Max Recall																
Ped Recall																
Soft Recall		ON				ON										
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
7	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
7	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	7	3	25	25	4.8	2	1	0
2	7	25	10	3	45	45	4.8	2	2	0
3	0	0	7	3	25	25	4.8	2	3	0
4	7	28	7	3	30	30	4.8	2	4	0
5	0	0	7	3	30	30	4.8	2	5	0
6	7	25	10	3	45	45	4.8	2	6	0
7	0	0	7	3	25	25	4.8	2	7	0
8	7	28	7	3	30	30	4.8	2	8	0

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Station : 87 - SLW @ Cashmere (Upload File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Backup Time	Red Revert	Console Timeout	Tone Disable	Feature Profile	Phase Mode	Diamond Mode	SDLC Retry Time	TS2 Det Faults	Cycle Fault Action	Max Cycle Time	Max Seek Track Time	Max Seek Dwell Time	Enable Run	Local Flash Start	Start Red Time	Disable Init Ped	Yellow 3 Second Disable	Omit Yellow Enable	Free Ring Sequence
	OFF		3	10	OFF		STD8	4PH		ON	ALARM				ON	OFF		OFF	OFF	OFF	1

COMM, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	PORT	System-Up	Sys-Down	PC/Print	Aux 232
87			OFF					

Port Parameters [6.2]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	OFF	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases							Modifier Phases							Type	Green	Yellow	Red
Overlap 1	2														NORMAL		3.5	1.5
Overlap 2	4														NORMAL		3.5	1.5
Overlap 3	6														NORMAL		3.5	1.5
Overlap 4	8														NORMAL		3.5	1.5
Overlap 5															NORMAL		3.5	1.5
Overlap 6															NORMAL		3.5	1.5
Overlap 7															NORMAL		3.5	1.5
Overlap 8															NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases				Conflicting Overlaps				Conflicting Peds							
Overlap 1														OFF	OFF	R-TURN
Overlap 2														OFF	OFF	R-TURN
Overlap 3														OFF	OFF	R-TURN
Overlap 4														OFF	OFF	R-TURN
Overlap 5														OFF	OFF	R-TURN
Overlap 6														OFF	OFF	R-TURN
Overlap 7														OFF	OFF	R-TURN
Overlap 8														OFF	OFF	R-TURN

Detector, Vehicle Parameters 1-16 [5.1]

	1 (SL1)	2 (ST1)	3 (EL1)	4 (ET1)	5 (NL1)	6 (NT1)	7 (WL1)	8 (WT1)	9	10	11	12	13	14	15	16
Call Phase	1	2	3	4	5	6	7	8	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

[illegible]

Station : 87 - SLW @ Cashmere (Upload File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1 (SL1)	2 (ST1)	3 (EL1)	4 (ET1)	5 (NL1)	6 (NT1)	7 (WL1)	8 (WT1)	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2 V14	ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1							1	1			
3	1								1	1					
4	1		1						1	1					
5				1											
6		1		1											
7			1												
8	1		1												
9															
10															
11															
12															
13		1													
14	1														
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU DIAG	
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON	ON	ON	ON	ON
Override Higher	ON	ON	ON	ON	ON	ON
Flash Dwell	ON	ON	ON	ON	ON	ON
Link						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Auto Flash Parameter

Alarms, Parameters [1.6.7]

Alarms, Phases/Overlaps [1.4.2]

[illegible]

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON	ON	ON	ON	ON	ON
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Off	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active
FRC	TIMED	TIMED	P3478 INH	ON	OFF	OFF	OFF	OFF	0	+	OFF

[illegible][illegible]

Coordination, Splits [2.7.1]

[illegible]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

[illegible][illegible][illegible][illegible][illegible]

TB Coor, Advanced Scheduler [4.3]

TB Coor, Day Plan [4.4][illegible]

Station : 87 - SLW @ Cashmere (Upload File)

5/13/2024 11:22:45 AM

[illegible]

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25	255											
26	1											
27	2											
28	3											
29	4											
30	5											
31	6											
32	7											
33	8											
34	9											
35	10											
36	11											
37	12											
38	13											
39	14											
40	15											
41	16											
42	17											
43	18											
44	19											
45	20											
46	21											
47	22											
48	23											
49	24											
50	100											
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
99												
100	254											

APPENDIX G

Synchro Outputs

Timings

1: Saint Lucie West Blvd & Cashmere Blvd

Existing Conditions

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	695	116	272	1093	458	205	155	233	441	319	201
Future Volume (vph)	142	695	116	272	1093	458	205	155	233	441	319	201
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	24.8	24.8	11.8	38.8	38.8	11.8	11.8	11.8	11.8	24.8	24.8
Total Split (s)	29.0	65.3	65.3	27.7	64.0	64.0	28.6	35.0	35.0	32.0	38.4	38.4
Total Split (%)	18.1%	40.8%	40.8%	17.3%	40.0%	40.0%	17.9%	21.9%	21.9%	20.0%	24.0%	24.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effect Green (s)	31.7	70.5	70.5	18.3	57.2	57.2	15.5	19.6	19.6	24.4	28.5	28.5
Actuated g/C Ratio	0.20	0.44	0.44	0.11	0.36	0.36	0.10	0.12	0.12	0.15	0.18	0.18
v/c Ratio	0.43	0.33	0.16	0.72	0.90	0.55	0.65	0.72	0.60	0.88	0.53	0.46
Control Delay (s/veh)	62.9	31.1	5.4	79.2	60.3	5.3	79.2	85.0	13.0	85.7	62.6	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.9	31.1	5.4	79.2	60.3	5.3	79.2	85.0	13.0	85.7	62.6	9.7
LOS	E	C	A	E	E	A	E	F	B	F	E	A
Approach Delay (s/veh)		32.8			49.3			54.8			62.2	
Approach LOS		C			D			D			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 49.3

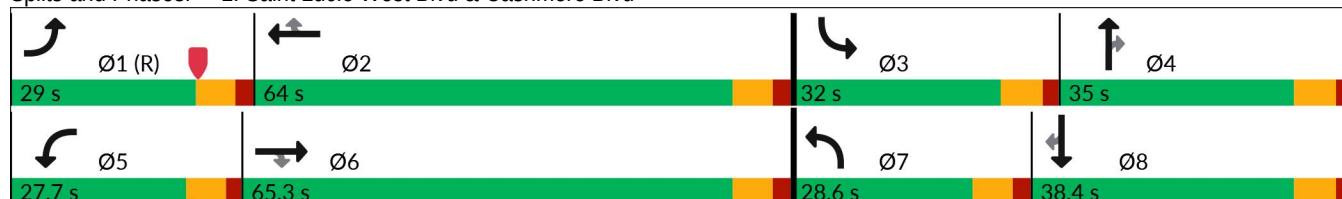
Intersection LOS: D

Intersection Capacity Utilization 81.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Existing Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 		 			 	 	
Traffic Volume (veh/h)	142	695	116	272	1093	458	205	155	233	441	319	201
Future Volume (veh/h)	142	695	116	272	1093	458	205	155	233	441	319	201
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	1841	1841	1841	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	149	732	122	286	1151	482	216	163	245	464	336	212
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, %	4	4	4	2	2	2	3	3	3	2	2	2
Cap, veh/h	255	2100	652	335	1313	586	266	312	264	509	845	377
Arrive On Green	0.15	0.42	0.42	0.10	0.37	0.37	0.08	0.17	0.17	0.15	0.24	0.24
Sat Flow, veh/h	1753	5025	1560	3456	3554	1585	3428	1856	1572	3456	3554	1585
Grp Volume(v), veh/h	149	732	122	286	1151	482	216	163	245	464	336	212
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1728	1777	1585	1714	1856	1572	1728	1777	1585
Q Serve(g_s), s	12.7	15.9	7.9	13.0	48.3	44.1	9.9	12.8	24.6	21.2	12.7	18.8
Cycle Q Clear(g_c), s	12.7	15.9	7.9	13.0	48.3	44.1	9.9	12.8	24.6	21.2	12.7	18.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	2100	652	335	1313	586	266	312	264	509	845	377
V/C Ratio(X)	0.59	0.35	0.19	0.85	0.88	0.82	0.81	0.52	0.93	0.91	0.40	0.56
Avail Cap(c_a), veh/h	255	2100	652	451	1313	586	467	327	277	544	845	377
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	63.9	31.7	29.4	71.1	47.0	45.7	72.7	60.7	65.6	67.2	51.3	53.7
Incr Delay (d2), s/veh	3.4	0.5	0.6	11.3	8.4	12.4	6.0	1.4	34.6	19.1	0.3	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	6.5	3.1	6.3	22.5	19.1	4.6	6.1	12.3	10.6	5.7	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	67.3	32.2	30.0	82.5	55.5	58.0	78.6	62.1	100.2	86.3	51.6	55.6
LnGrp LOS	E	C	C	F	E	E	E	E	F	F	D	E
Approach Vol, veh/h	1003			1919			624			1012		
Approach Delay, s/veh	37.1			60.1			82.8			68.3		
Approach LOS	D			E			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	65.9	30.4	33.7	22.3	73.7	19.2	44.8				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	22.2	57.2	25.2	28.2	20.9	58.5	21.8	31.6				
Max Q Clear Time (g_c+I1), s	14.7	50.3	23.2	26.6	15.0	17.9	11.9	20.8				
Green Ext Time (p_c), s	0.2	4.7	0.4	0.3	0.5	5.9	0.5	2.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	60.0											
HCM 7th LOS	E											

HCM 7th TWSC
2: Saint Lucie West Blvd

Existing Conditions
AM Peak Hour

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	69	896	49	39	1381	82	0	0	29	0	0	42
Future Vol, veh/h	69	896	49	39	1381	82	0	0	29	0	0	42
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	4	4	4	2	2	2	4	4	4	2	2	2
Mvmt Flow	73	953	52	41	1469	87	0	0	31	0	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1556	0	0	1005	0	0	-	-	477	-	-	735
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.18	-	-	4.14	-	-	-	-	6.98	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	-	-	3.34	-	-	3.32
Pot Cap-1 Maneuver	412	-	-	685	-	-	0	0	529	0	0	362
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	412	-	-	685	-	-	-	-	529	-	-	362
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.06			0.28			12.22			16.33		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	529	412	-	-	685	-	-	362
HCM Lane V/C Ratio	0.058	0.178	-	-	0.061	-	-	0.123
HCM Control Delay (s/veh)	12.2	15.6	-	-	10.6	-	-	16.3
HCM Lane LOS	B	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.2	0.6	-	-	0.2	-	-	0.4

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Exisitng Condtions
AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	901	33	0	1507	0	51
Future Vol, veh/h	901	33	0	1507	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	948	35	0	1586	0	54

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 474
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 537
Stage 1	-	-	0 - 0 -
Stage 2	-	-	0 - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 537
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.45
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	537	-	-	-
HCM Lane V/C Ratio	0.1	-	-	-
HCM Control Delay (s/veh)	12.5	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↕			↕	
Traffic Vol, veh/h	0	0	38	0	0	29	0	566	9	0	587	65
Future Vol, veh/h	0	0	38	0	0	29	0	566	9	0	587	65
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	-	-	0	-	-	0	-	-	-	-	-	-
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, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	0	0	40	0	0	30	0	590	9	0	611	68

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	340	-	-	299	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-
Pot Cap-1 Maneuver	0	0	656	0	0	697	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	656	-	-	697	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v10.84		10.4	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	656	697	-
HCM Lane V/C Ratio	-	-	0.06	0.043	-
HCM Control Delay (s/veh)	-	-	10.8	10.4	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	8	45	32	8	17	89	512	42	109	458	18
Future Vol, veh/h	21	8	45	32	8	17	89	512	42	109	458	18
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	2	2	2	3	3	3
Mvmt Flow	23	9	48	34	9	18	96	551	45	117	492	19

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1208	1524	256	1227	1488	275	512	0	0	596	0	0
Stage 1	737	737	-	742	742	-	-	-	-	-	-	-
Stage 2	471	787	-	485	746	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.22	-	-	2.23	-	-
Pot Cap-1 Maneuver	138	116	740	133	122	719	1050	-	-	970	-	-
Stage 1	374	421	-	371	418	-	-	-	-	-	-	-
Stage 2	540	399	-	530	416	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	103	93	740	96	97	719	1050	-	-	970	-	-
Mov Cap-2 Maneuver	202	174	-	196	187	-	-	-	-	-	-	-
Stage 1	329	370	-	338	380	-	-	-	-	-	-	-
Stage 2	467	362	-	425	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v14.93		22.02	1.21	1.72
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	202	740	196	376	970	-	-
HCM Lane V/C Ratio	0.091	-	-	0.112	0.065	0.176	0.071	0.121	-	-
HCM Control Delay (s/veh)	8.8	-	-	25.1	10.2	27.3	15.3	9.2	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.2	0.6	0.2	0.4	-	-

HCM 7th TWSC
6: Wakulla River Tr & Drwy #4

Existing Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			A
Traffic Vol, veh/h	37	15	12	7	70	26
Future Vol, veh/h	37	15	12	7	70	26
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	82	82	82	82	82	82
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	45	18	15	9	85	32
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	221	19	0	0	23	0
Stage 1	19	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	762	1054	-	-	1592	-
Stage 1	999	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	721	1054	-	-	1592	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.93	0		5.39		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		793	1312	
HCM Lane V/C Ratio	-	-		0.08	0.054	
HCM Control Delay (s/veh)	-	-		9.9	7.4	
HCM Lane LOS	-	-		A	A	
HCM 95th %tile Q(veh)	-	-		0.3	0.2	

Timings

1: Saint Lucie West Blvd & Cashmere Blvd

Existing Conditions

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1426	181	324	946	337	257	193	228	363	270	118
Future Volume (vph)	107	1426	181	324	946	337	257	193	228	363	270	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	38.8	38.8	24.8	38.8	38.8	24.8	11.8	11.8	24.8	11.8	11.8
Total Split (s)	25.4	66.0	66.0	29.0	69.6	69.6	26.7	33.0	33.0	32.0	38.3	38.3
Total Split (%)	15.9%	41.3%	41.3%	18.1%	43.5%	43.5%	16.7%	20.6%	20.6%	20.0%	23.9%	23.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	Max	Max	None	Max	Max
Act Effect Green (s)	18.6	61.5	61.5	19.9	62.8	62.8	17.2	29.1	29.1	22.3	34.2	34.2
Actuated g/C Ratio	0.12	0.38	0.38	0.12	0.39	0.39	0.11	0.18	0.18	0.14	0.21	0.21
v/c Ratio	0.53	0.75	0.26	0.78	0.70	0.41	0.72	0.59	0.50	0.79	0.37	0.28
Control Delay (s/veh)	77.0	45.9	6.2	81.1	44.1	4.4	80.7	69.0	12.9	79.8	56.1	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.0	45.9	6.2	81.1	44.1	4.4	80.7	69.0	12.9	79.8	56.1	10.0
LOS	E	D	A	F	D	A	F	E	B	E	E	B
Approach Delay (s/veh)		43.7			43.3			54.6			60.3	
Approach LOS		D			D			D			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 47.7

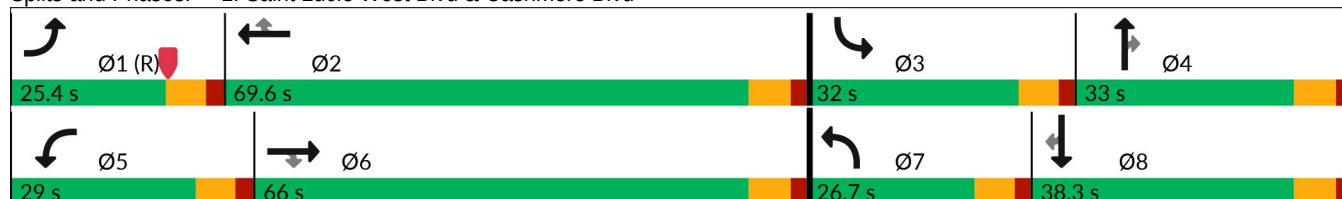
Intersection LOS: D

Intersection Capacity Utilization 80.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Existing Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 		 			 	 	
Traffic Volume (veh/h)	107	1426	181	324	946	337	257	193	228	363	270	118
Future Volume (veh/h)	107	1426	181	324	946	337	257	193	228	363	270	118
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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	110	1470	187	334	975	347	265	199	235	374	278	122
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	232	2198	682	383	1460	651	313	304	257	425	690	308
Arrive On Green	0.13	0.43	0.43	0.11	0.41	0.41	0.09	0.16	0.16	0.12	0.20	0.20
Sat Flow, veh/h	1781	5106	1585	3456	3554	1585	3428	1856	1572	3401	3497	1560
Grp Volume(v), veh/h	110	1470	187	334	975	347	265	199	235	374	278	122
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1777	1585	1714	1856	1572	1700	1749	1560
Q Serve(g_s), s	9.2	36.8	12.2	15.2	35.6	26.4	12.2	16.1	23.5	17.3	11.1	10.9
Cycle Q Clear(g_c), s	9.2	36.8	12.2	15.2	35.6	26.4	12.2	16.1	23.5	17.3	11.1	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	2198	682	383	1460	651	313	304	257	425	690	308
V/C Ratio(X)	0.47	0.67	0.27	0.87	0.67	0.53	0.85	0.65	0.91	0.88	0.40	0.40
Avail Cap(c_a), veh/h	232	2198	682	479	1460	651	426	304	257	536	690	308
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	64.5	36.4	29.4	70.0	38.3	35.5	71.6	62.7	65.8	68.8	56.0	55.9
Incr Delay (d2), s/veh	1.5	1.6	1.0	13.5	2.4	3.1	11.1	10.5	37.4	13.2	1.7	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	15.5	4.8	7.4	15.8	10.7	5.8	8.4	12.0	8.3	5.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.0	38.1	30.4	83.5	40.7	38.6	82.7	73.2	103.2	82.0	57.7	59.7
LnGrp LOS	E	D	C	F	D	D	F	E	F	F	E	E
Approach Vol, veh/h	1767			1656			699			774		
Approach Delay, s/veh	39.0			48.9			86.9			69.8		
Approach LOS	D			D			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.7	72.5	26.8	33.0	24.5	75.7	21.4	38.4				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	18.6	62.8	25.2	26.2	22.2	59.2	19.9	31.5				
Max Q Clear Time (g_c+I1), s	11.2	37.6	19.3	25.5	17.2	38.8	14.2	13.1				
Green Ext Time (p_c), s	0.1	8.7	0.7	0.2	0.5	11.1	0.4	1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	54.1											
HCM 7th LOS	D											

HCM 7th TWSC
2: Saint Lucie West Blvd

Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↰	↰	↰	↰↰	↰			↰			↰
Traffic Vol, veh/h	15	1629	95	55	1250	28	0	0	47	0	0	140
Future Vol, veh/h	15	1629	95	55	1250	28	0	0	47	0	0	140
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	1679	98	57	1289	29	0	0	48	0	0	144

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1318	0	0	1777	0	0	-	-	840	-	-	644
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	521	-	-	346	-	-	0	0	309	0	0	415
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	521	-	-	346	-	-	-	-	309	-	-	415
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.72			18.82			18.21		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	309	521	-	-	346	-	-	415
HCM Lane V/C Ratio	0.157	0.03	-	-	0.164	-	-	0.348
HCM Control Delay (s/veh)	18.8	12.1	-	-	17.4	-	-	18.2
HCM Lane LOS	C	B	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.6	-	-	1.5

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Exisitng Condtions
PM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	1647	64	0	1334	0	80
Future Vol, veh/h	1647	64	0	1334	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	1734	67	0	1404	0	84

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 867
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 296
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 296
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	21.92
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	296	-	-	-
HCM Lane V/C Ratio	0.284	-	-	-
HCM Control Delay (s/veh)	21.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Existing Conditions
PM Peak Hour

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	0	0	111	0	0	76	0	620	34	0	603	123
Future Vol, veh/h	0	0	111	0	0	76	0	620	34	0	603	123
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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	0	0	128	0	0	87	0	713	39	0	693	141
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	417	-	-	376	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	584	0	0	622	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	584	-	-	622	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v12.87			11.73		0		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBT		NBR		EBLn1WBLn1		SBT		SBR			
Capacity (veh/h)	-		-		584 622		-		-			
HCM Lane V/C Ratio	-		-		0.218 0.141		-		-			
HCM Control Delay (s/veh)	-		-		12.9 11.7		-		-			
HCM Lane LOS	-		-		B B		-		-			
HCM 95th %tile Q(veh)	-		-		0.8 0.5		-		-			

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	13	107	53	20	70	85	433	75	185	498	29
Future Vol, veh/h	66	13	107	53	20	70	85	433	75	185	498	29
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	70	14	114	56	21	74	90	461	80	197	530	31
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1361	1660	280	1307	1596	230	561	0	0	540	0	0
Stage 1	939	939	-	641	641	-	-	-	-	-	-	-
Stage 2	422	721	-	665	954	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	107	96	717	117	106	772	1000	-	-	1017	-	-
Stage 1	284	341	-	429	467	-	-	-	-	-	-	-
Stage 2	580	430	-	415	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 63	71	717	67	78	772	1000	-	-	1017	-	-
Mov Cap-2 Maneuver	139	135	-	136	143	-	-	-	-	-	-	-
Stage 1	229	275	-	390	425	-	-	-	-	-	-	-
Stage 2	453	391	-	268	270	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	27.7		28.98			1.28			2.44			
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1000	-	-	139	717	136	390	1017	-	-		
HCM Lane V/C Ratio	0.09	-	-	0.505	0.159	0.414	0.245	0.193	-	-		
HCM Control Delay (s/veh)	9	-	-	54.8	11	49	17.2	9.4	-	-		
HCM Lane LOS	A	-	-	F	B	E	C	A	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	2.4	0.6	1.8	1	0.7	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

HCM 7th TWSC
6: Wakulla River Tr & Drwy #4

Existing Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	27	20	38	104	43
Future Vol, veh/h	52	27	20	38	104	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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	31	23	44	121	50
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	337	45	0	0	67	0
Stage 1	45	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	1024	-	-	1534	-
Stage 1	977	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	605	1024	-	-	1534	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.89		0		5.34		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	703	1273	-	
HCM Lane V/C Ratio	-	-	0.131	0.079	-	
HCM Control Delay (s/veh)	-	-	10.9	7.5	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.3	-	

Timings

1: Saint Lucie West Blvd & Cashmere Blvd

Background Conditions

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	711	119	278	1119	469	210	159	239	451	327	206
Future Volume (vph)	145	711	119	278	1119	469	210	159	239	451	327	206
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	24.8	24.8	11.8	38.8	38.8	11.8	11.8	11.8	11.8	24.8	24.8
Total Split (s)	29.0	65.3	65.3	27.7	64.0	64.0	28.6	35.0	35.0	32.0	38.4	38.4
Total Split (%)	18.1%	40.8%	40.8%	17.3%	40.0%	40.0%	17.9%	21.9%	21.9%	20.0%	24.0%	24.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effect Green (s)	31.1	69.8	69.8	18.5	57.2	57.2	15.7	19.9	19.9	24.6	28.8	28.8
Actuated g/C Ratio	0.19	0.44	0.44	0.12	0.36	0.36	0.10	0.12	0.12	0.15	0.18	0.18
v/c Ratio	0.45	0.34	0.16	0.73	0.93	0.55	0.66	0.72	0.60	0.90	0.54	0.46
Control Delay (s/veh)	63.9	31.7	5.4	79.8	62.9	5.3	79.2	84.9	12.9	87.4	62.5	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.9	31.7	5.4	79.8	62.9	5.3	79.2	84.9	12.9	87.4	62.5	9.7
LOS	E	C	A	E	E	A	E	F	B	F	E	A
Approach Delay (s/veh)		33.3			51.0			54.6			62.9	
Approach LOS		C			D			D			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 50.3

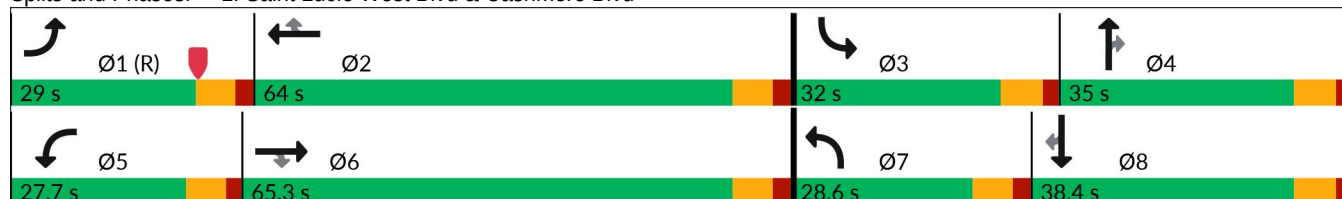
Intersection LOS: D

Intersection Capacity Utilization 82.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Background Conditions

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 		 			 	 	
Traffic Volume (veh/h)	145	711	119	278	1119	469	210	159	239	451	327	206
Future Volume (veh/h)	145	711	119	278	1119	469	210	159	239	451	327	206
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	1841	1841	1841	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	153	748	125	293	1178	494	221	167	252	475	344	217
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, %	4	4	4	2	2	2	3	3	3	2	2	2
Cap, veh/h	245	2057	639	342	1310	584	271	319	270	518	862	385
Arrive On Green	0.14	0.41	0.41	0.10	0.37	0.37	0.08	0.17	0.17	0.15	0.24	0.24
Sat Flow, veh/h	1753	5025	1560	3456	3554	1585	3428	1856	1572	3456	3554	1585
Grp Volume(v), veh/h	153	748	125	293	1178	494	221	167	252	475	344	217
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1728	1777	1585	1714	1856	1572	1728	1777	1585
Q Serve(g_s), s	13.2	16.5	8.2	13.4	50.1	45.7	10.2	13.1	25.3	21.7	13.0	19.2
Cycle Q Clear(g_c), s	13.2	16.5	8.2	13.4	50.1	45.7	10.2	13.1	25.3	21.7	13.0	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	2057	639	342	1310	584	271	319	270	518	862	385
V/C Ratio(X)	0.62	0.36	0.20	0.86	0.90	0.85	0.82	0.52	0.93	0.92	0.40	0.56
Avail Cap(c_a), veh/h	245	2057	639	451	1310	584	467	327	277	544	862	385
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	64.9	32.8	30.3	71.0	47.7	46.3	72.5	60.3	65.4	67.0	50.8	53.2
Incr Delay (d2), s/veh	4.9	0.5	0.7	11.9	10.0	14.0	6.0	1.4	36.2	20.0	0.3	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.8	3.2	6.4	23.6	20.0	4.7	6.3	12.8	10.9	5.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.8	33.3	31.0	82.9	57.7	60.3	78.5	61.8	101.6	87.0	51.1	55.1
LnGrp LOS	E	C	C	F	E	E	E	E	F	F	D	E
Approach Vol, veh/h	1026			1965			640			1036		
Approach Delay, s/veh	38.4			62.1			83.2			68.4		
Approach LOS	D			E			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.2	65.8	30.8	34.3	22.6	72.3	19.4	45.6				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	22.2	57.2	25.2	28.2	20.9	58.5	21.8	31.6				
Max Q Clear Time (g_c+I1), s	15.2	52.1	23.7	27.3	15.4	18.5	12.2	21.2				
Green Ext Time (p_c), s	0.2	3.7	0.3	0.2	0.5	6.1	0.5	2.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	61.2											
HCM 7th LOS	E											

HCM 7th TWSC
2: Saint Lucie West Blvd & Wakulla River Trail

Background Conditions
AM Peak Hour

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	71	917	50	40	1414	84	0	0	30	0	0	43
Future Vol, veh/h	71	917	50	40	1414	84	0	0	30	0	0	43
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	4	4	4	2	2	2	4	4	4	2	2	2
Mvmt Flow	76	976	53	43	1504	89	0	0	32	0	0	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1594	0	0	1029	0	0	-	-	488	-	-	752
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.18	-	-	4.14	-	-	-	-	6.98	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	-	-	3.34	-	-	3.32
Pot Cap-1 Maneuver	398	-	-	671	-	-	0	0	520	0	0	353
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	398	-	-	671	-	-	-	-	520	-	-	353
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.1			0.28			12.37			16.72		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	520	398	-	-	671	-	-	353
HCM Lane V/C Ratio	0.061	0.19	-	-	0.063	-	-	0.13
HCM Control Delay (s/veh)	12.4	16.1	-	-	10.7	-	-	16.7
HCM Lane LOS	B	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.2	0.7	-	-	0.2	-	-	0.4

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Background Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	922	34	0	1543	0	52
Future Vol, veh/h	922	34	0	1543	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	971	36	0	1624	0	55

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	485
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	528
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	528
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.61
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	528	-	-	-
HCM Lane V/C Ratio	0.104	-	-	-
HCM Control Delay (s/veh)	12.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Background Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↕			↕	
Traffic Vol, veh/h	0	0	39	0	0	30	0	579	9	0	601	67
Future Vol, veh/h	0	0	39	0	0	30	0	579	9	0	601	67
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	-	-	0	-	-	0	-	-	-	-	-	-
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, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	0	0	41	0	0	31	0	603	9	0	626	70

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	348	-	-	306	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-
Pot Cap-1 Maneuver	0	0	648	0	0	690	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	648	-	-	690	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v10.93		10.47	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	648 690	-	-
HCM Lane V/C Ratio	-	-	0.063 0.045	-	-
HCM Control Delay (s/veh)	-	-	10.9 10.5	-	-
HCM Lane LOS	-	-	B B	-	-
HCM 95th %tile Q(veh)	-	-	0.2 0.1	-	-

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Background Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱	↰	↱		↰	↱↱	↱	↰	↱↱	
Traffic Vol, veh/h	21	8	46	33	8	17	91	524	43	112	469	18
Future Vol, veh/h	21	8	46	33	8	17	91	524	43	112	469	18
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	2	2	2	3	3	3
Mvmt Flow	23	9	49	35	9	18	98	563	46	120	504	19

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1237	1560	262	1256	1524	282	524	0	0	610	0	0
Stage 1	755	755	-	759	759	-	-	-	-	-	-	-
Stage 2	482	805	-	497	765	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.22	-	-	2.23	-	-
Pot Cap-1 Maneuver	131	110	734	127	116	712	1039	-	-	958	-	-
Stage 1	365	412	-	363	411	-	-	-	-	-	-	-
Stage 2	532	391	-	521	408	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	87	734	90	92	712	1039	-	-	958	-	-
Mov Cap-2 Maneuver	194	167	-	188	179	-	-	-	-	-	-	-
Stage 1	319	361	-	328	372	-	-	-	-	-	-	-
Stage 2	459	354	-	414	357	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v15.18		22.98	1.22	1.74
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1039	-	-	194	734	188	365	958	-	-
HCM Lane V/C Ratio	0.094	-	-	0.116	0.067	0.189	0.074	0.126	-	-
HCM Control Delay (s/veh)	8.8	-	-	26	10.3	28.5	15.6	9.3	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.2	0.7	0.2	0.4	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			A
Traffic Vol, veh/h	38	15	12	7	72	27
Future Vol, veh/h	38	15	12	7	72	27
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	82	82	82	82	82	82
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	46	18	15	9	88	33

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	227	19	0
Stage 1	19	-	-
Stage 2	209	-	-
Critical Hdwy	6.44	6.24	-
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.336	-
Pot Cap-1 Maneuver	756	1054	-
Stage 1	999	-	-
Stage 2	822	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	714	1054	-
Mov Cap-2 Maneuver	714	-	-
Stage 1	999	-	-
Stage 2	775	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.99	0	5.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1309
HCM Lane V/C Ratio	-	-	0.082	0.055
HCM Control Delay (s/veh)	-	-	10	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Timings

1: Saint Lucie West Blvd & Cashmere Blvd

Background Conditions

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1460	185	332	968	345	263	198	233	372	276	121
Future Volume (vph)	110	1460	185	332	968	345	263	198	233	372	276	121
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	38.8	38.8	24.8	38.8	38.8	24.8	11.8	11.8	24.8	11.8	11.8
Total Split (s)	25.4	66.0	66.0	29.0	69.6	69.6	26.7	33.0	33.0	32.0	38.3	38.3
Total Split (%)	15.9%	41.3%	41.3%	18.1%	43.5%	43.5%	16.7%	20.6%	20.6%	20.0%	23.9%	23.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	Max	Max	None	Max	Max
Act Effect Green (s)	18.6	61.3	61.3	20.1	62.8	62.8	17.5	28.8	28.8	22.6	33.9	33.9
Actuated g/C Ratio	0.12	0.38	0.38	0.13	0.39	0.39	0.11	0.18	0.18	0.14	0.21	0.21
v/c Ratio	0.55	0.77	0.26	0.79	0.71	0.42	0.73	0.61	0.52	0.81	0.38	0.29
Control Delay (s/veh)	77.7	46.8	6.6	81.8	44.7	4.4	80.8	70.1	14.0	80.3	56.4	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.7	46.8	6.6	81.8	44.7	4.4	80.8	70.1	14.0	80.3	56.4	9.9
LOS	E	D	A	F	D	A	F	E	B	F	E	A
Approach Delay (s/veh)		44.6			43.8			55.4			60.7	
Approach LOS		D			D			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay (s/veh): 48.4

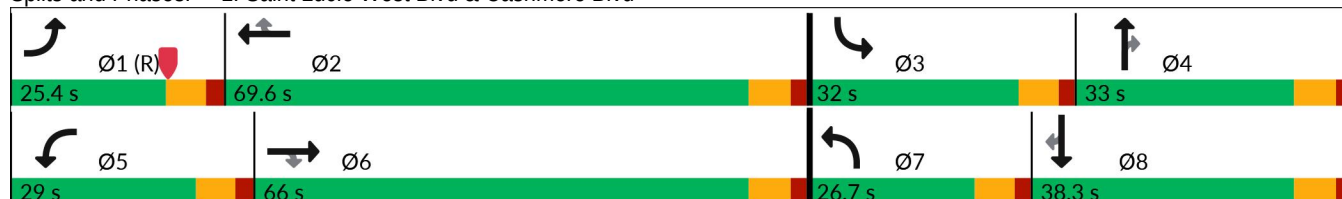
Intersection LOS: D

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Background Conditions

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 		 			 	 	
Traffic Volume (veh/h)	110	1460	185	332	968	345	263	198	233	372	276	121
Future Volume (veh/h)	110	1460	185	332	968	345	263	198	233	372	276	121
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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	113	1505	191	342	998	356	271	204	240	384	285	125
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	227	2172	674	391	1461	652	319	304	257	434	694	310
Arrive On Green	0.13	0.43	0.43	0.11	0.41	0.41	0.09	0.16	0.16	0.13	0.20	0.20
Sat Flow, veh/h	1781	5106	1585	3456	3554	1585	3428	1856	1572	3401	3497	1560
Grp Volume(v), veh/h	113	1505	191	342	998	356	271	204	240	384	285	125
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1777	1585	1714	1856	1572	1700	1749	1560
Q Serve(g_s), s	9.5	38.4	12.6	15.6	36.8	27.3	12.5	16.5	24.1	17.8	11.4	11.2
Cycle Q Clear(g_c), s	9.5	38.4	12.6	15.6	36.8	27.3	12.5	16.5	24.1	17.8	11.4	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	2172	674	391	1461	652	319	304	257	434	694	310
V/C Ratio(X)	0.50	0.69	0.28	0.87	0.68	0.55	0.85	0.67	0.93	0.88	0.41	0.40
Avail Cap(c_a), veh/h	227	2172	674	479	1461	652	426	304	257	536	694	310
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	65.0	37.5	30.0	69.8	38.6	35.8	71.5	62.9	66.0	68.6	56.0	55.9
Incr Delay (d2), s/veh	1.7	1.8	1.1	14.2	2.6	3.3	11.7	11.2	41.0	13.9	1.8	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	16.2	5.0	7.6	16.4	11.1	6.0	8.7	12.5	8.5	5.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.7	39.3	31.1	84.0	41.2	39.0	83.1	74.1	107.0	82.5	57.8	59.8
LnGrp LOS	E	D	C	F	D	D	F	E	F	F	E	E
Approach Vol, veh/h	1809			1696			715			794		
Approach Delay, s/veh	40.1			49.4			88.6			70.0		
Approach LOS	D			D			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.2	72.6	27.2	33.0	24.9	74.9	21.7	38.6				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	18.6	62.8	25.2	26.2	22.2	59.2	19.9	31.5				
Max Q Clear Time (g_c+I1), s	11.5	38.8	19.8	26.1	17.6	40.4	14.5	13.4				
Green Ext Time (p_c), s	0.1	8.8	0.7	0.0	0.5	10.8	0.4	1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	54.9											
HCM 7th LOS	D											

HCM 7th TWSC
2: Saint Lucie West Blvd & Wakulla River Trail

Background Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↗↗	↗	↰	↗↗	↗			↗			↗
Traffic Vol, veh/h	15	1667	97	56	1280	29	0	0	48	0	0	143
Future Vol, veh/h	15	1667	97	56	1280	29	0	0	48	0	0	143
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	1719	100	58	1320	30	0	0	49	0	0	147

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1349	0	0	1819	0	0	-	-	859	-	-	660
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	506	-	-	333	-	-	0	0	300	0	0	406
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	506	-	-	333	-	-	-	-	300	-	-	406
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.74			19.38			18.85		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	300	506	-	-	333	-	-	406
HCM Lane V/C Ratio	0.165	0.031	-	-	0.173	-	-	0.363
HCM Control Delay (s/veh)	19.4	12.3	-	-	18.1	-	-	18.9
HCM Lane LOS	C	B	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.6	-	-	1.6

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Background Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	1686	66	0	1365	0	82
Future Vol, veh/h	1686	66	0	1365	0	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	1775	69	0	1437	0	86

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 887
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 287
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 287
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	22.85
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	287	-	-	-
HCM Lane V/C Ratio	0.301	-	-	-
HCM Control Delay (s/veh)	22.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.2	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Background Conditions
PM Peak Hour

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	0	0	114	0	0	78	0	635	35	0	617	126
Future Vol, veh/h	0	0	114	0	0	78	0	635	35	0	617	126
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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	0	0	131	0	0	90	0	730	40	0	709	145

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	427	-	-	385	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-
Pot Cap-1 Maneuver	0	0	576	0	0	613	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	576	-	-	613	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v13.08		11.87	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	576 613	-	-
HCM Lane V/C Ratio	-	-	0.228 0.146	-	-
HCM Control Delay (s/veh)	-	-	13.1 11.9	-	-
HCM Lane LOS	-	-	B B	-	-
HCM 95th %tile Q(veh)	-	-	0.9 0.5	-	-

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Background Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱	↰	↱		↰	↱↱	↱	↰	↱↱	
Traffic Vol, veh/h	68	13	110	54	20	72	87	443	77	189	510	30
Future Vol, veh/h	68	13	110	54	20	72	87	443	77	189	510	30
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	72	14	117	57	21	77	93	471	82	201	543	32

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1392	1699	287	1337	1633	236	574	0	0	553	0	0
Stage 1	961	961	-	656	656	-	-	-	-	-	-	-
Stage 2	431	738	-	680	977	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	101	91	709	111	100	766	988	-	-	1006	-	-
Stage 1	275	333	-	421	460	-	-	-	-	-	-	-
Stage 2	573	422	-	407	327	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 58	66	709	62	73	766	988	-	-	1006	-	-
Mov Cap-2 Maneuver	132	127	-	128	135	-	-	-	-	-	-	-
Stage 1	220	266	-	381	417	-	-	-	-	-	-	-
Stage 2	443	383	-	258	262	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v30.28		31.27	1.29	2.46
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	988	-	-	132	709	128	380	1006	-	-
HCM Lane V/C Ratio	0.094	-	-	0.549	0.165	0.45	0.257	0.2	-	-
HCM Control Delay (s/veh)	9	-	-	61.4	11.1	54.4	17.7	9.5	-	-
HCM Lane LOS	A	-	-	F	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	2.7	0.6	2	1	0.7	-	-

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

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			A
Traffic Vol, veh/h	53	28	20	39	106	44
Future Vol, veh/h	53	28	20	39	106	44
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	33	23	45	123	51
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	344	46	0	0	69	0
Stage 1	46	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	653	1024	-	-	1532	-
Stage 1	977	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	599	1024	-	-	1532	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.95		0		5.34		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	699	1272	-	
HCM Lane V/C Ratio	-	-	0.135	0.08	-	
HCM Control Delay (s/veh)	-	-	11	7.6	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-	

Timings

Buildout Conditions

1: Saint Lucie West Blvd & Cashmere Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	713	119	324	1076	469	253	159	240	451	328	206
Future Volume (vph)	147	713	119	324	1076	469	253	159	240	451	328	206
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	24.8	24.8	11.8	38.8	38.8	11.8	11.8	11.8	11.8	24.8	24.8
Total Split (s)	29.0	65.3	65.3	27.7	64.0	64.0	28.6	35.0	35.0	32.0	38.4	38.4
Total Split (%)	18.1%	40.8%	40.8%	17.3%	40.0%	40.0%	17.9%	21.9%	21.9%	20.0%	24.0%	24.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effect Green (s)	31.1	68.1	68.1	20.2	57.2	57.2	17.7	19.9	19.9	24.6	26.8	26.8
Actuated g/C Ratio	0.19	0.43	0.43	0.13	0.36	0.36	0.11	0.12	0.12	0.15	0.17	0.17
v/c Ratio	0.45	0.35	0.17	0.78	0.89	0.55	0.70	0.72	0.60	0.90	0.58	0.48
Control Delay (s/veh)	64.1	32.8	5.5	81.1	58.8	5.3	79.0	84.9	12.9	87.4	65.3	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	64.1	32.8	5.5	81.1	58.8	5.3	79.0	84.9	12.9	87.4	65.3	10.3
LOS	E	C	A	F	E	A	E	F	B	F	E	B
Approach Delay (s/veh)		34.2			49.3			56.1			63.9	
Approach LOS		C			D			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 50.2

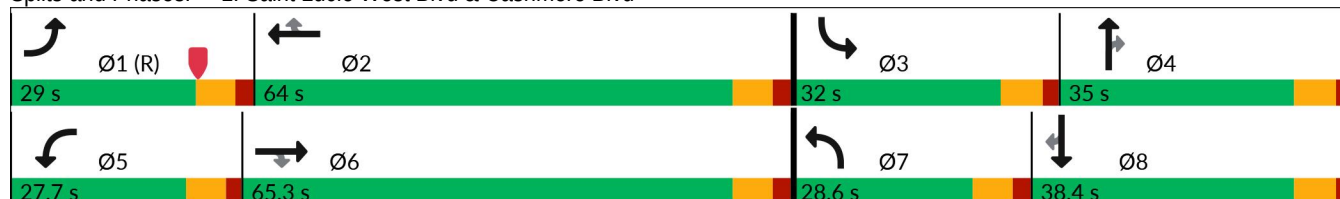
Intersection LOS: D

Intersection Capacity Utilization 81.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Buildout Conditions

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	713	119	324	1076	469	253	159	240	451	328	206
Future Volume (veh/h)	147	713	119	324	1076	469	253	159	240	451	328	206
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	1841	1841	1841	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	155	751	125	341	1133	494	266	167	253	475	345	217
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, %	4	4	4	2	2	2	3	3	3	2	2	2
Cap, veh/h	225	1988	617	388	1349	602	316	320	271	518	817	365
Arrive On Green	0.13	0.40	0.40	0.11	0.38	0.38	0.09	0.17	0.17	0.15	0.23	0.23
Sat Flow, veh/h	1753	5025	1560	3456	3554	1585	3428	1856	1572	3456	3554	1585
Grp Volume(v), veh/h	155	751	125	341	1133	494	266	167	253	475	345	217
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1728	1777	1585	1714	1856	1572	1728	1777	1585
Q Serve(g_s), s	13.5	17.0	8.4	15.6	46.5	44.9	12.2	13.1	25.4	21.7	13.2	19.5
Cycle Q Clear(g_c), s	13.5	17.0	8.4	15.6	46.5	44.9	12.2	13.1	25.4	21.7	13.2	19.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	1988	617	388	1349	602	316	320	271	518	817	365
V/C Ratio(X)	0.69	0.38	0.20	0.88	0.84	0.82	0.84	0.52	0.93	0.92	0.42	0.60
Avail Cap(c_a), veh/h	243	1988	617	451	1349	602	467	327	277	544	817	365
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	66.7	34.4	31.8	70.0	45.2	44.7	71.5	60.2	65.3	67.0	52.5	55.0
Incr Delay (d2), s/veh	7.3	0.5	0.7	16.1	6.4	11.9	8.8	1.4	36.5	20.0	0.3	2.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.0	3.3	7.7	21.3	19.4	5.7	6.3	12.8	10.9	5.9	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	74.0	34.9	32.5	86.1	51.6	56.7	80.3	61.7	101.8	87.0	52.9	57.6
LnGrp LOS	E	C	C	F	D	E	F	E	F	F	D	E
Approach Vol, veh/h	1031			1968			686			1037		
Approach Delay, s/veh	40.5			58.9			83.7			69.5		
Approach LOS	D			E			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.3	67.5	30.8	34.4	24.7	70.1	21.5	43.6				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	22.2	57.2	25.2	28.2	20.9	58.5	21.8	31.6				
Max Q Clear Time (g_c+I1), s	15.5	48.5	23.7	27.4	17.6	19.0	14.2	21.5				
Green Ext Time (p_c), s	0.2	5.7	0.3	0.2	0.4	6.1	0.5	2.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	60.8											
HCM 7th LOS	E											

HCM 7th TWSC
2: Saint Lucie West Blvd & Wakulla River Trail

Buildout Conditions
AM Peak Hour

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	71	921	50	40	1418	84	0	0	30	0	0	43
Future Vol, veh/h	71	921	50	40	1418	84	0	0	30	0	0	43
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	4	4	4	2	2	2	4	4	4	2	2	2
Mvmt Flow	76	980	53	43	1509	89	0	0	32	0	0	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1598	0	0	1033	0	0	-	-	490	-	-	754
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.18	-	-	4.14	-	-	-	-	6.98	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	-	-	3.34	-	-	3.32
Pot Cap-1 Maneuver	397	-	-	668	-	-	0	0	519	0	0	352
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	397	-	-	668	-	-	-	-	519	-	-	352
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.1			0.28			12.39			16.77		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	519	397	-	-	668	-	-	352
HCM Lane V/C Ratio	0.062	0.19	-	-	0.064	-	-	0.13
HCM Control Delay (s/veh)	12.4	16.2	-	-	10.8	-	-	16.8
HCM Lane LOS	B	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.2	0.7	-	-	0.2	-	-	0.4

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Buildout Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	879	81	0	1547	0	98
Future Vol, veh/h	879	81	0	1547	0	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	925	85	0	1628	0	103

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 463
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 546
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 546
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	13.12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	546	-	-	-
HCM Lane V/C Ratio	0.189	-	-	-
HCM Control Delay (s/veh)	13.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Buildout Conditions
AM Peak Hour

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	0	82	0	0	30	0	623	9	0	601	114
Future Vol, veh/h	0	0	82	0	0	30	0	623	9	0	601	114
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	-	-	0	-	-	0	-	-	-	-	-	-
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, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	0	0	85	0	0	31	0	649	9	0	626	119

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	372	-	-	329	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-
Pot Cap-1 Maneuver	0	0	625	0	0	667	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	625	-	-	667	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.67		10.67	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	625 667	-	-
HCM Lane V/C Ratio	-	-	0.137 0.047	-	-
HCM Control Delay (s/veh)	-	-	11.7 10.7	-	-
HCM Lane LOS	-	-	B B	-	-
HCM 95th %tile Q(veh)	-	-	0.5 0.1	-	-

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Buildout Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	8	46	33	8	17	92	524	43	154	470	19
Future Vol, veh/h	23	8	46	33	8	17	92	524	43	154	470	19
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	2	2	2	3	3	3
Mvmt Flow	25	9	49	35	9	18	99	563	46	166	505	20

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1331	1654	263	1349	1618	282	526	0	0	610	0	0
Stage 1	847	847	-	761	761	-	-	-	-	-	-	-
Stage 2	484	808	-	588	857	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.22	-	-	2.23	-	-
Pot Cap-1 Maneuver	112	96	733	108	101	712	1037	-	-	958	-	-
Stage 1	321	374	-	362	410	-	-	-	-	-	-	-
Stage 2	530	390	-	460	370	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	78	72	733	72	76	712	1037	-	-	958	-	-
Mov Cap-2 Maneuver	162	136	-	160	152	-	-	-	-	-	-	-
Stage 1	265	309	-	327	371	-	-	-	-	-	-	-
Stage 2	457	353	-	345	306	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v17.23			26.56		1.23		2.28	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1037	-	-	162	733	160	327	958	-	-
HCM Lane V/C Ratio	0.095	-	-	0.153	0.068	0.222	0.082	0.173	-	-
HCM Control Delay (s/veh)	8.8	-	-	31.2	10.3	33.8	17	9.5	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.2	0.8	0.3	0.6	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			A
Traffic Vol, veh/h	38	15	12	7	72	27
Future Vol, veh/h	38	15	12	7	72	27
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	82	82	82	82	82	82
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	46	18	15	9	88	33

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	227	19	0
Stage 1	19	-	-
Stage 2	209	-	-
Critical Hdwy	6.44	6.24	-
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.336	-
Pot Cap-1 Maneuver	756	1054	-
Stage 1	999	-	-
Stage 2	822	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	714	1054	-
Mov Cap-2 Maneuver	714	-	-
Stage 1	999	-	-
Stage 2	775	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.99	0	5.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1309
HCM Lane V/C Ratio	-	-	0.082	0.055
HCM Control Delay (s/veh)	-	-	10	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Timings

1: Saint Lucie West Blvd & Cashmere Blvd

Buildout Conditions

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	1461	185	353	948	345	283	198	233	372	276	121
Future Volume (vph)	111	1461	185	353	948	345	283	198	233	372	276	121
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.8	38.8	38.8	24.8	38.8	38.8	24.8	11.8	11.8	24.8	11.8	11.8
Total Split (s)	25.4	66.0	66.0	29.0	69.6	69.6	26.7	33.0	33.0	32.0	38.3	38.3
Total Split (%)	15.9%	41.3%	41.3%	18.1%	43.5%	43.5%	16.7%	20.6%	20.6%	20.0%	23.9%	23.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	Max	Max	None	Max	Max	None	Max	Max	None	Max	Max
Act Effect Green (s)	18.6	60.7	60.7	20.7	62.8	62.8	18.0	28.8	28.8	22.6	33.4	33.4
Actuated g/C Ratio	0.12	0.38	0.38	0.13	0.39	0.39	0.11	0.18	0.18	0.14	0.21	0.21
v/c Ratio	0.55	0.78	0.26	0.81	0.70	0.42	0.76	0.61	0.52	0.81	0.39	0.29
Control Delay (s/veh)	77.9	47.5	6.7	83.2	44.1	4.4	82.4	70.1	14.0	80.3	56.9	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.9	47.5	6.7	83.2	44.1	4.4	82.4	70.1	14.0	80.3	56.9	10.0
LOS	E	D	A	F	D	A	F	E	B	F	E	B
Approach Delay (s/veh)		45.2			44.2			56.7			60.9	
Approach LOS		D			D			E			E	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 46 (29%), Referenced to phase 1:EBL, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay (s/veh): 49.0

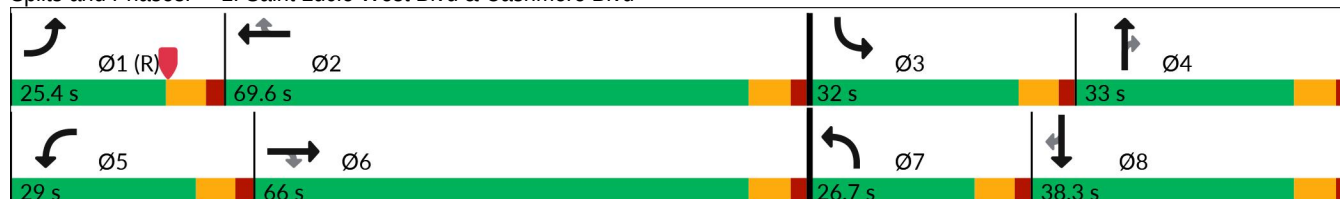
Intersection LOS: D

Intersection Capacity Utilization 82.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Saint Lucie West Blvd & Cashmere Blvd



HCM 7th Signalized Intersection Summary

1: Saint Lucie West Blvd & Cashmere Blvd

Buildout Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 		 			 	 	
Traffic Volume (veh/h)	111	1461	185	353	948	345	283	198	233	372	276	121
Future Volume (veh/h)	111	1461	185	353	948	345	283	198	233	372	276	121
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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	114	1506	191	364	977	356	292	204	240	384	285	125
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	4	4	4
Cap, veh/h	211	2120	658	412	1478	659	339	312	264	434	689	307
Arrive On Green	0.12	0.42	0.42	0.12	0.42	0.42	0.10	0.17	0.17	0.13	0.20	0.20
Sat Flow, veh/h	1781	5106	1585	3456	3554	1585	3428	1856	1572	3401	3497	1560
Grp Volume(v), veh/h	114	1506	191	364	977	356	292	204	240	384	285	125
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1777	1585	1714	1856	1572	1700	1749	1560
Q Serve(g_s), s	9.6	39.1	12.8	16.6	35.4	27.1	13.4	16.4	24.0	17.8	11.4	11.2
Cycle Q Clear(g_c), s	9.6	39.1	12.8	16.6	35.4	27.1	13.4	16.4	24.0	17.8	11.4	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	2120	658	412	1478	659	339	312	264	434	689	307
V/C Ratio(X)	0.54	0.71	0.29	0.88	0.66	0.54	0.86	0.65	0.91	0.88	0.41	0.41
Avail Cap(c_a), veh/h	211	2120	658	479	1478	659	426	312	264	536	689	307
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	66.5	38.8	31.1	69.4	37.6	35.2	71.0	62.2	65.3	68.6	56.2	56.1
Incr Delay (d2), s/veh	2.8	2.1	1.1	16.0	2.3	3.2	13.6	10.2	36.0	13.9	1.8	4.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	16.5	5.1	8.2	15.7	11.0	6.5	8.6	12.2	8.5	5.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.2	40.9	32.2	85.3	40.0	38.3	84.6	72.4	101.3	82.5	58.0	60.1
LnGrp LOS	E	D	C	F	D	D	F	E	F	F	E	E
Approach Vol, veh/h	1811		1697			736			794			
Approach Delay, s/veh	41.7		49.4			86.7			70.2			
Approach LOS	D		D			F			E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.7	73.4	27.2	33.7	25.9	73.2	22.6	38.3				
Change Period (Y+Rc), s	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8				
Max Green Setting (Gmax), s	18.6	62.8	25.2	26.2	22.2	59.2	19.9	31.5				
Max Q Clear Time (g_c+I1), s	11.6	37.4	19.8	26.0	18.6	41.1	15.4	13.4				
Green Ext Time (p_c), s	0.1	8.8	0.7	0.1	0.5	10.5	0.4	1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	55.4											
HCM 7th LOS	E											

HCM 7th TWSC
2: Saint Lucie West Blvd & Wakulla River Trail

Buildout Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↗↗	↗	↰	↗↗	↗			↗			↗
Traffic Vol, veh/h	15	1668	97	56	1281	29	0	0	48	0	0	143
Future Vol, veh/h	15	1668	97	56	1281	29	0	0	48	0	0	143
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	240	-	325	335	-	205	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	1720	100	58	1321	30	0	0	49	0	0	147

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1351	0	0	1820	0	0	-	-	860	-	-	660
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	506	-	-	333	-	-	0	0	299	0	0	405
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	506	-	-	333	-	-	-	-	299	-	-	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.74			19.39			18.87		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	299	506	-	-	333	-	-	405
HCM Lane V/C Ratio	0.165	0.031	-	-	0.173	-	-	0.364
HCM Control Delay (s/veh)	19.4	12.3	-	-	18.1	-	-	18.9
HCM Lane LOS	C	B	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.6	-	-	1.6

HCM 7th TWSC
3: Drwy #1 & Saint Lucie West Blvd

Buildout Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	1666	87	0	1366	0	103
Future Vol, veh/h	1666	87	0	1366	0	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	215	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	1754	92	0	1438	0	108

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 877
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 292
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 292
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	24.47
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	292	-	-	-
HCM Lane V/C Ratio	0.372	-	-	-
HCM Control Delay (s/veh)	24.5	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.7	-	-	-

HCM 7th TWSC
4: Cashmere Blvd & Drwy #2

Buildout Conditions
PM Peak Hour

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	0	134	0	0	78	0	656	35	0	617	147
Future Vol, veh/h	0	0	134	0	0	78	0	656	35	0	617	147
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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	0	0	154	0	0	90	0	754	40	0	709	169
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	439	-	-	397	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	566	0	0	602	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	566	-	-	602	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v13.73			12.02		0		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBT		NBR		EBLn1WBLn1		SBT		SBR			
Capacity (veh/h)	-		-		566		602		-		-	
HCM Lane V/C Ratio	-		-		0.272		0.149		-		-	
HCM Control Delay (s/veh)	-		-		13.7		12		-		-	
HCM Lane LOS	-		-		B		B		-		-	
HCM 95th %tile Q(veh)	-		-		1.1		0.5		-		-	

HCM 7th TWSC
5: Drwy #3 & Cashmere Blvd

Buildout Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱	↰	↱		↰	↱↱	↱	↰	↱↱	
Traffic Vol, veh/h	69	13	110	54	20	72	87	443	77	209	510	30
Future Vol, veh/h	69	13	110	54	20	72	87	443	77	209	510	30
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	0	-	0	0	-	-	-	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	73	14	117	57	21	77	93	471	82	222	543	32

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1435	1741	287	1379	1676	236	574	0	0	553	0	0
Stage 1	1003	1003	-	656	656	-	-	-	-	-	-	-
Stage 2	431	738	-	723	1019	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	94	86	709	104	94	766	988	-	-	1006	-	-
Stage 1	259	318	-	421	460	-	-	-	-	-	-	-
Stage 2	573	422	-	384	313	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 52	61	709	~ 56	67	766	988	-	-	1006	-	-
Mov Cap-2 Maneuver	120	115	-	114	123	-	-	-	-	-	-	-
Stage 1	202	248	-	381	417	-	-	-	-	-	-	-
Stage 2	443	383	-	236	243	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v35.18		35.98	1.29	2.68
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	988	-	-	120	709	114	358	1006	-	-
HCM Lane V/C Ratio	0.094	-	-	0.611	0.165	0.505	0.273	0.221	-	-
HCM Control Delay (s/veh)	9	-	-	73.6	11.1	65.3	18.8	9.6	-	-
HCM Lane LOS	A	-	-	F	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.1	0.6	2.3	1.1	0.8	-	-

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

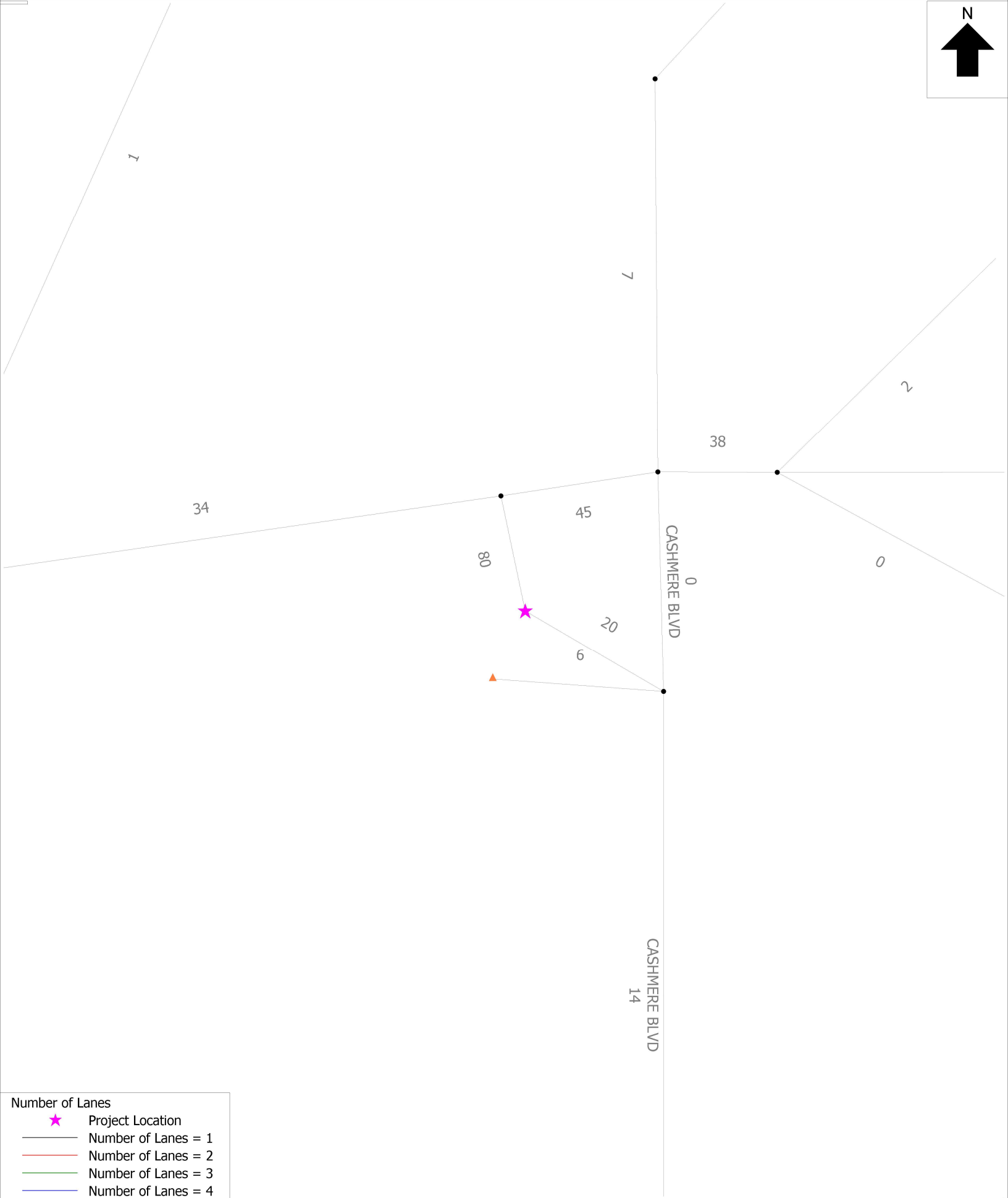
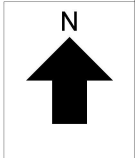
HCM 7th TWSC
6: Wakulla River Tr & Drwy #4

Buildout Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	28	20	39	106	44
Future Vol, veh/h	53	28	20	39	106	44
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	33	23	45	123	51
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	344	46	0	0	69	0
Stage 1	46	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	653	1024	-	-	1532	-
Stage 1	977	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	599	1024	-	-	1532	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v10.95			0		5.34	
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1		SBL	SBT
Capacity (veh/h)		-	-	699	1272	-
HCM Lane V/C Ratio		-	-	0.135	0.08	-
HCM Control Delay (s/veh)		-	-	11	7.6	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.5	0.3	-

APPENDIX H

TCRPM 5.0 Model Plot



Number of Lanes

- ★ Project Location
- Number of Lanes = 1
- Number of Lanes = 2
- Number of Lanes = 3
- Number of Lanes = 4

APPENDIX I

Historical Growth Rate Calculations

Projections of Florida Population by County, 2025–2050, with Estimates for 2023

County and State	Estimates April 1, 2023	Projections, April 1					
		2025	2030	2035	2040	2045	2050
MIAMI-DADE	2,768,954						
Low		2,673,300	2,663,100	2,630,800	2,587,800	2,543,600	2,501,800
Medium		2,814,000	2,910,500	2,981,000	3,035,500	3,083,200	3,127,200
High		2,954,700	3,157,900	3,331,300	3,483,200	3,622,700	3,752,700
MONROE	84,511						
Low		80,300	78,400	76,000	73,300	70,700	68,100
Medium		85,400	87,100	88,100	88,600	88,900	89,000
High		90,600	95,800	100,200	103,900	107,100	110,000
NASSAU	100,763						
Low		97,300	101,400	103,400	103,800	102,800	101,300
Medium		105,700	116,600	125,700	133,500	139,900	145,800
High		114,200	131,700	148,000	163,200	177,000	190,200
OKALOOSA	219,260						
Low		211,400	212,900	211,500	208,500	204,700	200,600
Medium		224,900	236,500	245,200	251,900	257,500	262,200
High		238,400	260,200	278,900	295,400	310,300	323,800
OKEECHOBEE	39,591						
Low		37,800	36,600	35,500	34,500	33,500	32,600
Medium		39,800	40,000	40,300	40,500	40,600	40,800
High		41,800	43,400	45,000	46,400	47,700	48,900
ORANGE	1,492,951						
Low		1,454,400	1,497,700	1,513,900	1,510,700	1,496,500	1,479,200
Medium		1,547,200	1,664,100	1,755,300	1,825,600	1,882,400	1,933,600
High		1,640,000	1,830,500	1,996,600	2,140,500	2,268,300	2,388,000
OSCEOLA	439,225						
Low		436,200	470,500	490,600	500,600	505,200	507,300
Medium		469,000	531,600	582,300	623,800	660,500	695,000
High		501,900	592,800	674,000	747,000	815,700	882,600
PALM BEACH	1,532,718						
Low		1,489,100	1,503,700	1,500,300	1,485,500	1,463,900	1,440,800
Medium		1,567,500	1,643,400	1,700,000	1,742,500	1,774,400	1,801,100
High		1,645,800	1,783,100	1,899,800	1,999,500	2,084,900	2,161,300
PASCO	610,743						
Low		598,400	624,100	640,000	644,400	644,100	642,200
Medium		636,600	693,400	742,100	778,700	810,200	839,500
High		674,800	762,800	844,100	913,000	976,300	1,036,700
PINELLAS	974,689						
Low		943,000	926,100	909,600	893,000	877,200	862,600
Medium		982,200	995,900	1,007,800	1,017,600	1,025,900	1,033,000
High		1,021,500	1,065,600	1,106,100	1,142,300	1,174,700	1,203,500
POLK	797,616						
Low		782,400	817,400	838,800	845,700	846,100	844,100
Medium		832,400	908,200	972,600	1,022,000	1,064,300	1,103,400
High		882,300	999,000	1,106,300	1,198,400	1,282,500	1,362,700
PUTNAM	75,906						
Low		72,600	71,000	69,000	66,900	65,100	63,500
Medium		76,400	77,600	78,100	78,500	79,000	79,400
High		80,300	84,200	87,300	90,100	92,800	95,300
ST. JOHNS	315,317						
Low		313,800	341,200	359,500	368,300	372,800	375,100
Medium		337,400	385,500	426,700	459,000	487,300	513,900
High		361,000	429,800	493,900	549,600	601,800	652,600
ST. LUCIE	368,628						
Low		362,300	381,600	394,000	400,600	404,500	406,000
Medium		385,400	423,900	456,800	484,200	508,800	530,700
High		408,600	466,300	519,600	567,700	613,100	655,400

County	BEBR Pop Estimate April 1, 2023	BEBR Population Projections (April 1, 2023) ¹			Growth Rate ²		
		Range	2025	2030	2025	2030	2027
St. Lucie	368,628	Low	362,300	381,600	-0.34%	0.35%	-0.07%
		Medium	385,400	423,900	0.91%	1.50%	1.15%
		High	408,600	466,300	2.17%	2.65%	2.36%

Notes:

1. Obtained from the Bureau of Economic and Business Research (BEBR), Projections of Florida Population by County, 2025-2050, with Estimates for 2023

2. The 2026 growth rate was interpolated between 2025 and 2030 growth rates based on BEBR population estimates.

APPENDIX J
NCHRP Report 457

Intersection 5: Southbound right turn lane

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:	4-lane roadway
Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	712
Right-turn volume, veh/h:	29

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	93
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Do NOT add right-turn bay.	

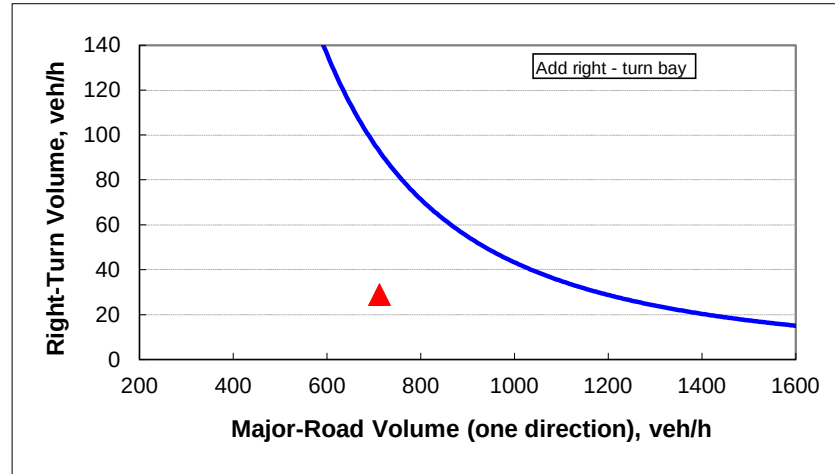


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	4-lane roadway
Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	723
Right-turn volume, veh/h:	123

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	89
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Add right-turn bay.	

