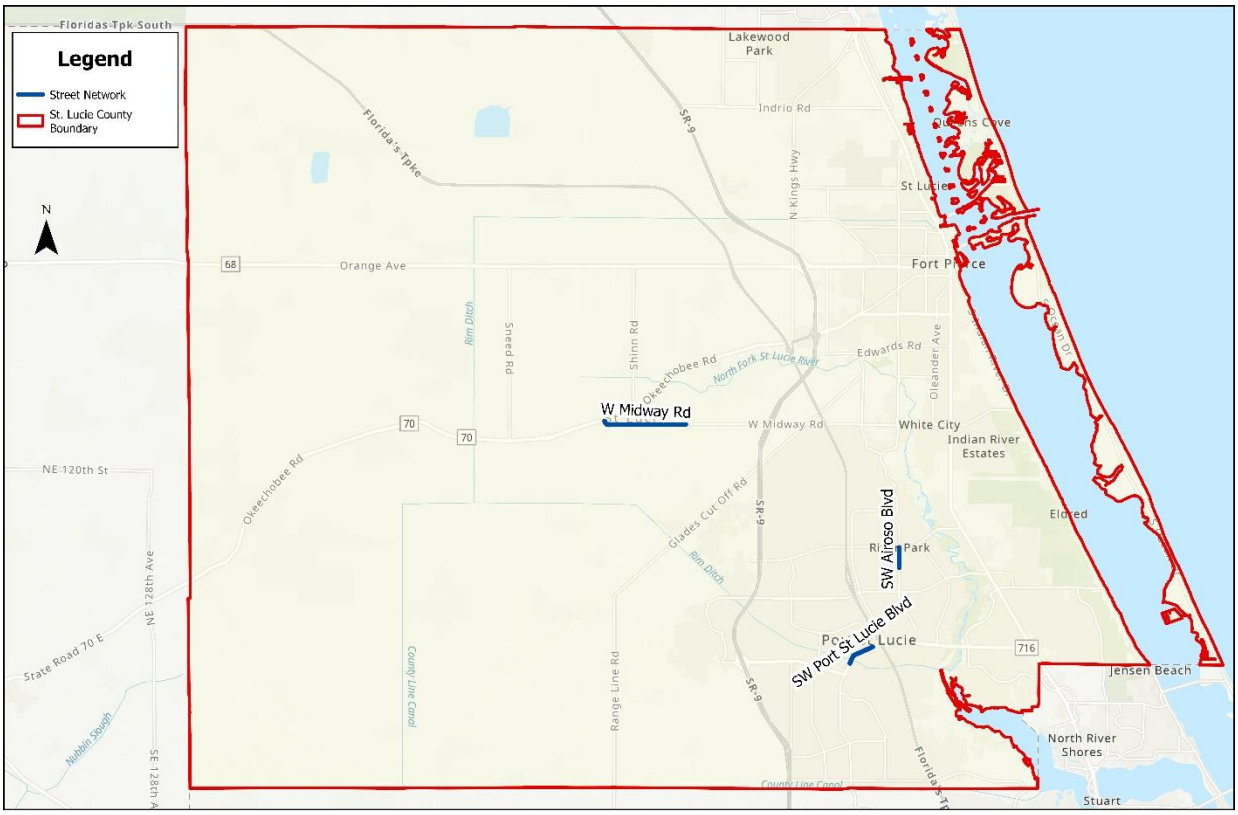
Spot Speed Studies

St. Lucie County, Florida



Kimley»Horn

February 2023

042504025

Spot Speed Studies
for Submittal to
St. Lucie TPO

Spot Speed Studies

Prepared for:
St. Lucie TPO

Prepared by:
Kimley-Horn and Associates, Inc.

February 2023
042504025

Executive Summary

Kimley-Horn was retained by the St. Lucie TPO to conduct *Spot Speed Studies* to evaluate speed limits and travel speeds for three (3) arterial roads within St. Lucie County.

According to the National Highway Traffic Safety Administration (NHTSA), one of the top reasons for traffic crashes and fatalities is driving too fast for the roadway conditions. In 2021, the St. Lucie TPO staff conducted a *Speed Kills Analysis* to examine the link between vehicle speed and crash severity and identify high crash locations within the TPO area. The *Speed Kills Analysis* identified that 75 percent of all fatal crashes in the TPO area occur on roadways with posted speeds of 40 miles per hour (MPH) or higher. The *Speed Kills Analysis* identified high crash locations on the roadway network where the posted speeds are 40 MPH or higher.

The analysis described in this report follows the speed zoning policy contained within Florida Statutes (F.S.) 316.189. Local governments may set speed limits after investigation determines such a change is reasonable and in conformity to criteria promulgated by the Florida Department of Transportation (FDOT) consistent with Section 316.189, F.S, published in the FDOT *Speed Zoning for Highways, Roads, and Streets* manual (August 2018). The FDOT manual also includes information on Target Speed. Target speed is the highest speed at which vehicles should operate on a thoroughfare in a specific context, consistent with the level of multi-modal activity generated by adjacent land uses, to provide both mobility for motor vehicles and a safe environment for pedestrians, bicyclists, and public transit users. If measured speeds are significantly exceeding the Target Speed of a roadway, physical changes to the roadway may be necessary to bring actual travel speeds more in line with the Target Speed.

Continuous 24-hour weekday (Tuesday, Wednesday, or Thursday) spot speed data and volume counts were collected within the County for two (2) arterial roads identified in the TPO's *Speed Kills Analysis* (Airoso Boulevard and Port St. Lucie Boulevard) and one (1) arterial road that the TPO Technical Advisory Committee (TAC) recommended, and the Board approved (Midway Road) due to ongoing construction on St. Lucie West Boulevard. Recommendations are made for speed management strategies based on the results of the data analysis.

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Introduction

Spot speed studies were completed to evaluate operating speeds and speed limits on three (3) arterial roads within St. Lucie County. Two (2) of the locations were identified by the St. Lucie TPO in the *Speed Kills Analysis* and one (1) location was identified by the TPO TAC.

The study area is shown in Figure 1 and is comprised of three (3) roadway segments. Figure 2 shows the segment of Airoso Boulevard from Lakehurst Drive to Prima Vista Boulevard. Figure 3 shows the segment of Port St. Lucie Boulevard from Cameo Boulevard to Dalton Avenue. Figure 4 shows the segment of Midway Road from Okeechobee Road (State Road 70) to McCarty Road. Six (6) locations on the three (3) arterial roads were selected to gather speed and volume counts. Data collection locations are written available in Table 1 under the "Location" column.

The study methodology is based on criteria promulgated by FDOT consistent with Section 316.189, F.S. This analysis follows the process established in the FDOT *Speed Zoning for Highways, Roads, and Streets* manual (August 2018) and is consistent with comparable efforts recently performed in other municipalities.

The Federal Highway Administration (FHWA) Safe Systems Approach aims to eliminate fatal and serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.

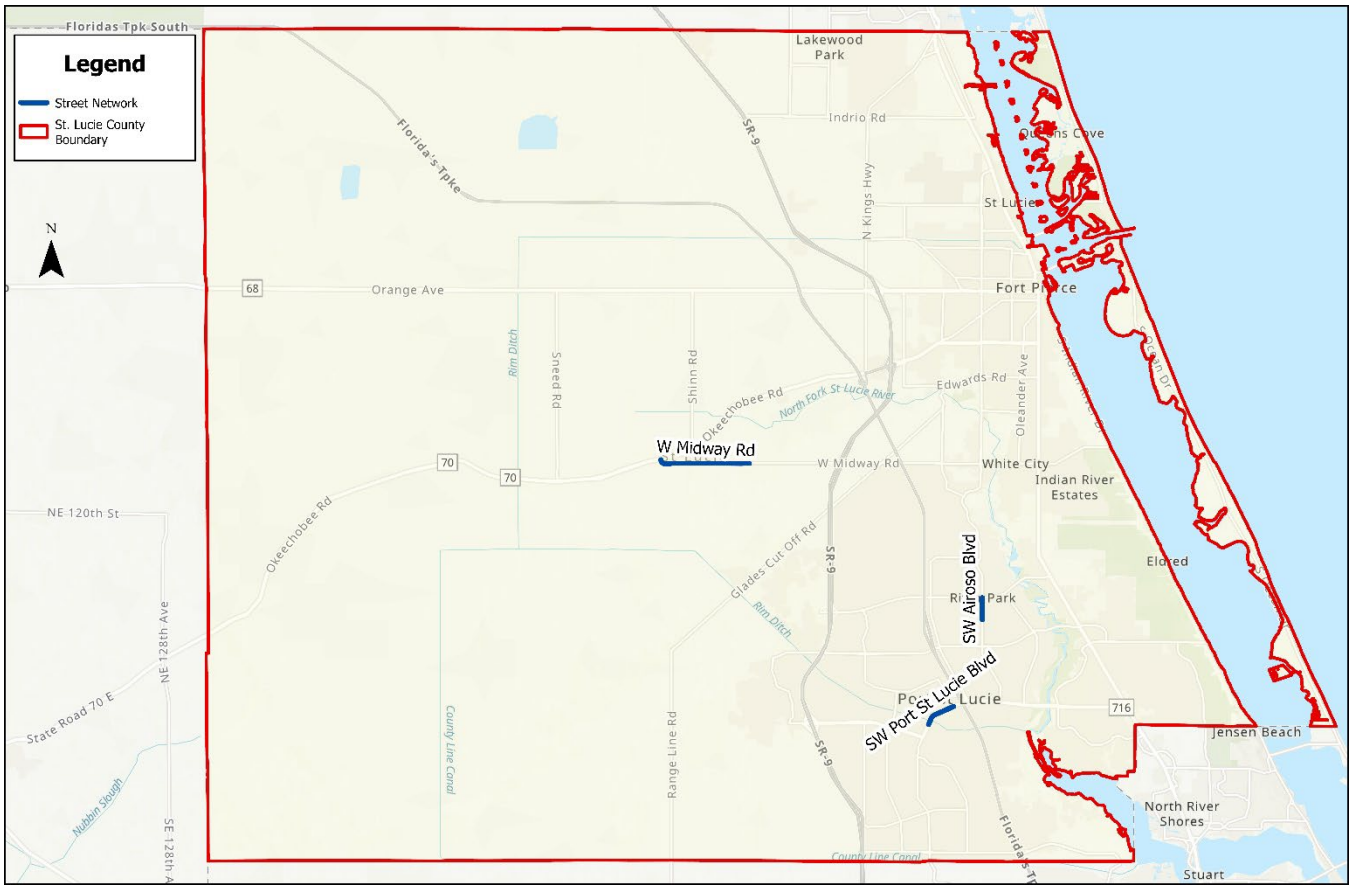

Figure 1: Study Roadway Segments
(See also Appendix A)

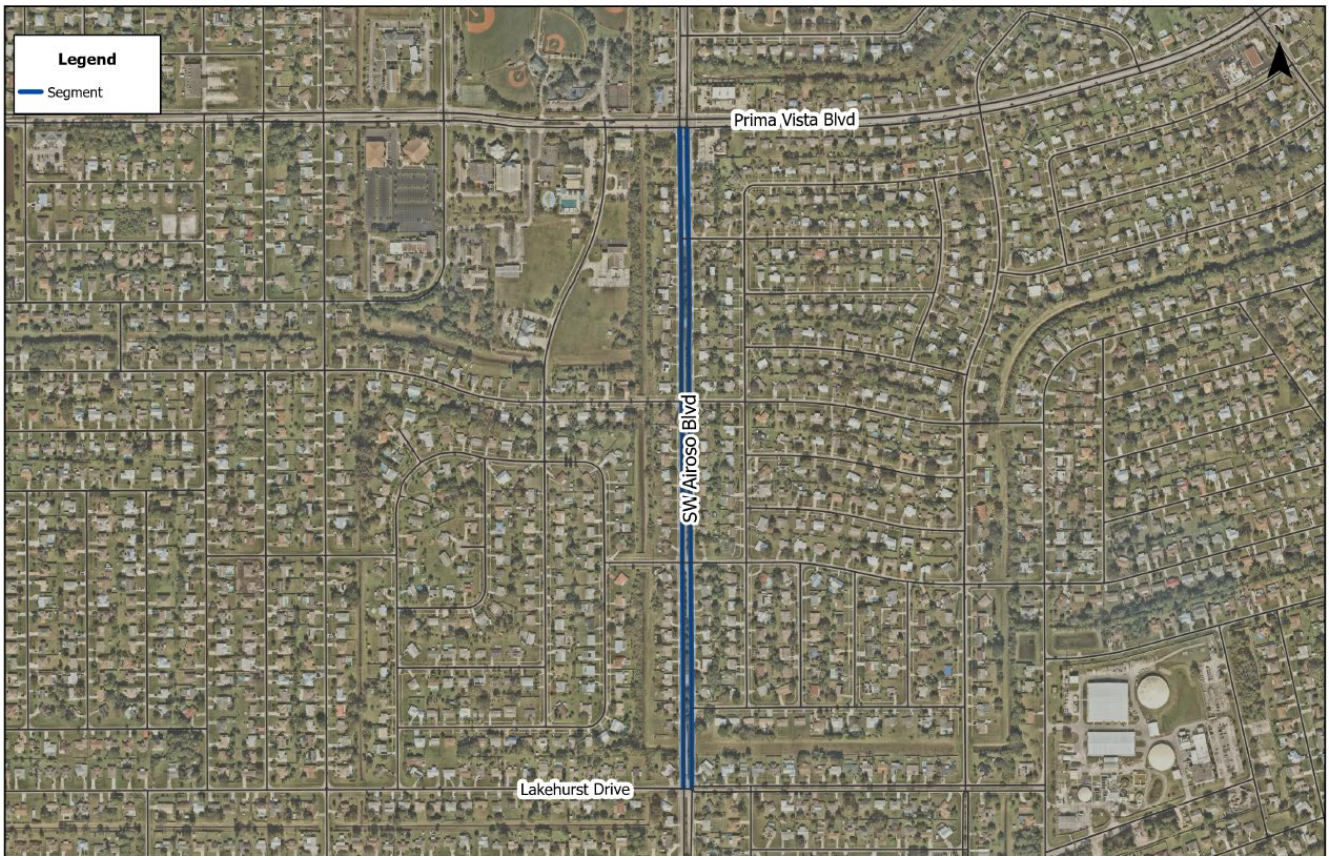

Figure 2: Airoso Boulevard Segment Limits
(See also Appendix A)

Figure 3: Port St. Lucie Boulevard Segment Limits
(See also Appendix A)

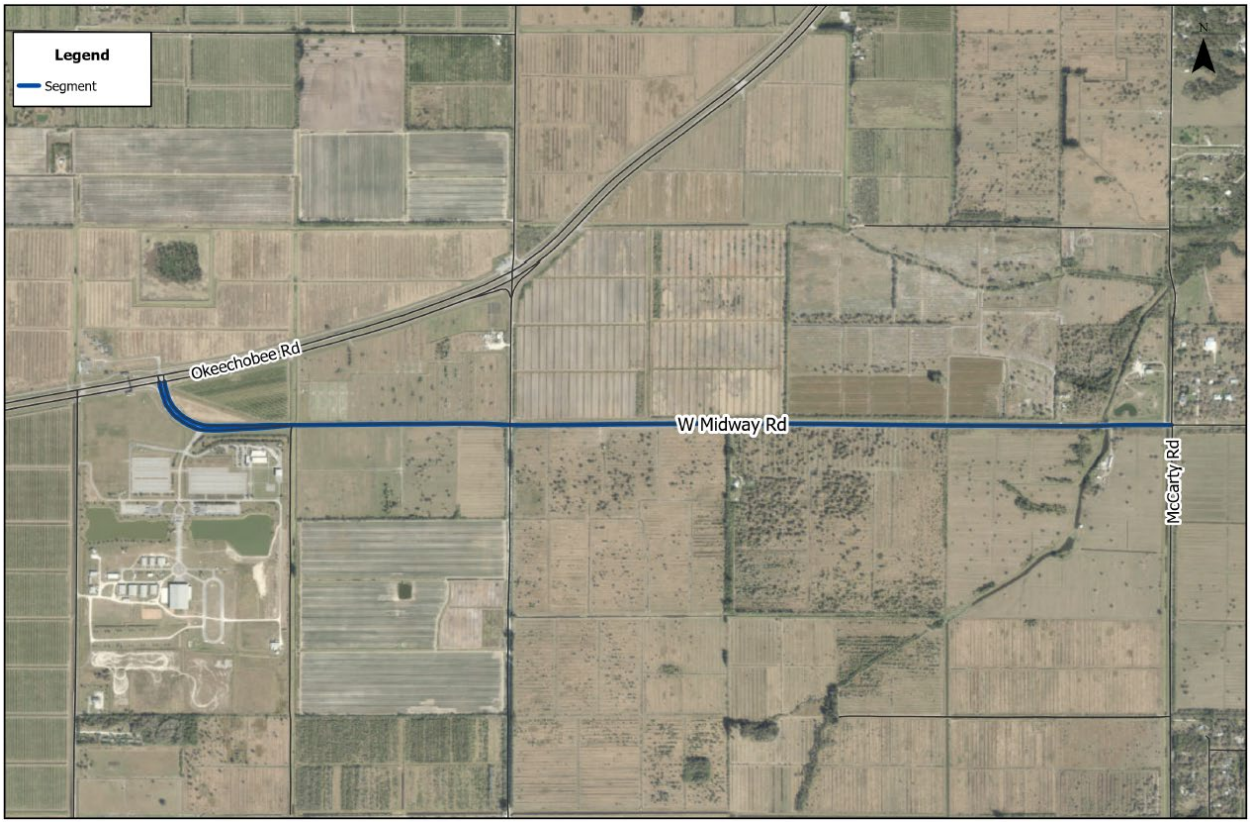

Figure 4: Midway Road Segment Limits
(See also Appendix A)

Data Collection

Traffic data were collected for the selected arterial roads within St. Lucie County. The data collection included continuous 24-hour weekday (Tuesday, Wednesday, or Thursday) roadway volumes, speed classifications, and 10-MPH pace data for six (6) locations. Data collection locations were selected along the arterial road segments throughout the County. Map figures illustrating the roads included in the analysis are included in Appendix A. Detailed traffic data are included in Appendix B.

Existing speed limit data were also collected for each arterial roadway included in the analysis and were used as a guide for recommending speed management techniques.

Data Analysis

The collected traffic data were evaluated in accordance with the guidance provided in the FDOT *Speed Zoning for Highways, Roads, and Streets* manual (2018). The following provides definitions for the traffic engineering values used in the analysis.

85th Percentile Speed

The 85th percentile speed is the speed at which 85 percent of vehicles travel at or below. The 85th percentile speed was included for all locations. A summary of the calculated 85th percentile speeds is presented in Table 1.

10-MPH Pace

The 10-MPH pace is the 10-MPH range of travel speeds containing the largest number of vehicles observed within the speed data collected for the study. The 10-MPH pace data were included for all locations. A summary of the calculated 10-MPH pace speeds is presented in Table 1.

The FDOT *Speed Zoning for Highways, Roads, and Streets* manual (2018) guidance indicates the following conditions consistent with Section 316.189, F.S.:

Condition 1

The posted speed limit should not differ from the 85th percentile speed or the upper limit of the 10-MPH pace (whichever is less) by more than three (3) MPH.

Condition 2

A posted speed limit of more than eight (8) MPH below the 85th percentile speed is not authorized. Furthermore, a speed limit of four (4) to eight (8) MPH less than the 85th percentile speed shall be authorized if supported by a supplemental investigation which identifies the following:

- There are road or roadside features not readily obvious to the typical driver such as length of section, alignment, roadway width, surface condition, sight distance, traffic volume, crash experience, maximum comfortable speed in curves, side friction (roadside development), or signal progression;
- Other standard sign and markings have been tried but found ineffective; or
- To support a context classification target speed as defined in the FDOT Design Manual.

A speed limit of five (5) MPH below the current posted speed limit at each data collection location was used as the target for evaluating a speed limit reduction. For example, at the data collection location of SW Airoso Blvd from SE Calmoso Drive and SE Selva Court, the current posted speed limit is 40 MPH, making the targeted reduced speed limit 35 MPH. The 85th percentile speed and 10-MPH pace were then evaluated against Conditions 1 and 2 to determine if reducing the speed limit to 35 MPH was authorized at that location.

Table 1 provides a summary of the 85th percentile and 10-MPH pace average speeds for the six (6) data collection locations. One (1) location met Condition 2 because the desired speed limit was not more than eight (8) MPH below the 85th percentile speed. A supplemental investigation assessing traffic volumes, speeds, surrounding land use characteristics, and roadway characteristics was conducted for the one (1) location to evaluate a speed limit reduction between four (4) to eight (8) MPH below the 85th percentile speed.

Table 1: Average Speed and 10-MPH Pace

Location	Posted Speed Limit (MPH)	Context Classification (Systemwide Provisional) (1)	Average 85th Percentile Speed (MPH)	Average 10-MPH Pace	Meets Conditions for Speed Limit Reduction (2, 3)	Target Speed Evaluated (MPH)
Airoso Blvd from SE Calmoso Dr & SE Selva Ct	40	C3R – Suburban Residential	48	35-44	No	35
Airoso Blvd from SE Bonita Ct & SE Lucero Dr	40	C3R – Suburban Residential	47	35-44	No	35
SW Port St Lucie Blvd from SW Greco Ln & SW Aster Rd	45	C4 – Urban General	49	35-44	No	40
SW Port St Lucie Blvd from SW Chestnut Ln & SW Del Rio Blvd	45	C4 – Urban General	48	35-44	Yes (Condition 2)	40
CR 712/Midway Rd west of CR 609A/Shinn Rd	50	C2 - Rural	55	45-54	No	45
CR 712/Midway Rd from CR 609A/Shinn Rd to CR 712A/McCarty Rd	50	C2- Rural	58	45-54	No	45
6 Total Locations						

Notes: (1) Context Classification Source: FDOT District Four

(2) "Yes (Condition 1)" indicates locations where the lesser of the 85th percentile speed or upper limit of the 10-MPH pace is within three (3) MPH of the desired speed limit (5 MPH below the current posted speed limit);
"Yes (Condition 2)" indicates locations where targeted speed limit was not more than 8 MPH below the 85th percentile speed.

(3) A supplemental investigation to justify a speed limit of 4 to 8 MPH less than the 85th percentile speed was conducted for the one (1) location only meeting Condition 2.

Findings

A speed limit study was completed to evaluate speed limits and travel speeds on three (3) arterial roads within St Lucie County.

Continuous 24-hour weekday (Tuesday, Wednesday, or Thursday) roadway volumes, speed classifications, and 10-MPH pace data were collected at six (6) locations along three (3) roadways. Table 2 provides a summary of the 85th percentile, 10-MPH pace average speeds, current posted speed limit, and potential speed limit for the one (1) arterial road that met the supplemental condition to consider for a speed limit reduction.

Table 2: Locations Eligible to be Considered for a Speed Limit Reduction

Location	Average 85th Percentile Speed (MPH)	Average 10-MPH Pace	Current Speed Limit (MPH)	Potential Speed Limit Reduction (MPH)	Needs Supplemental Consideration?
SW Port St Lucie Blvd from SW Chestnut Ln & SW Del Rio Blvd	48	35-44	45	40	Yes
1 Total Location					

Results and findings from the supplemental investigation for consideration of a speed limit reduction are provided below for the one (1) arterial road listed in Table 2.

SW Port St Lucie Blvd from Dalton Avenue to Cameo Boulevard

Current Posted Speed Limit: 45 MPH

Potential Speed Limit Reduction: 40 MPH

Supplemental Analysis and Recommendation:

- High traffic volume at the data collection location resembles a major arterial road.
- Three-lane divided roadway with direct connections to residential neighborhood side streets.
- Sidewalks present on north and south sides of corridor with little or no separation from the road.

- There is a horizontal curve that exists between SW Sultan Drive and SW Aster Drive.
- This study recommends maintaining a 45 MPH regulatory speed limit, but adding warning speed advisory signs for the horizontal curve of 40 MPH. This can be implemented using the yellow warning speed advisory plaque (W13-1[40]) added to the CURVE (W1-2) warning signs in both directions.
- The W13-1 advisory plaque may be used to supplement a warning sign to indicate the advisory speed for a condition. If the difference between the speed limit and the advisory speed is 5 MPH, the advisory speed plaque should be used. The advisory speed plaque shall only be used to supplement a warning sign and shall not be installed as a separate sign installation according to the Manual on Uniform Traffic Control Devices (MUTCD).

Conclusion

The results of the Spot Speed Studies analysis supported by data and supplemental considerations is shown in Table 3.

Table 3: Summary of Recommendations

Location	Current Speed Limit (MPH)	Target Speed (MPH)	Recommended Speed Limit (MPH)	Recommendations
Airoso Boulevard from Lakehurst Drive to Prima Vista Boulevard	40	35	40	Recommend maintaining a 40 MPH regulatory speed limit. Install electronic speed feedback signs in both directions within the study limits. Electronic speed feedback signs, also known as dynamic speed displays, provide drivers with feedback about their speed in relationship to the posted speed limit. When appropriately complemented with enforcement efforts, these signs have been shown to be effective at reducing vehicular operating speeds (Spatial Effectiveness of Speed Feedback Signs, Transportation Research Record [TRR] 2281, 2012). 
SW Port St Lucie Blvd from SW Dalton Avenue to SW Cameo Boulevard	45	40	45	Recommend maintaining a 45 MPH regulatory speed limit. Install a warning advisory speed of 40 MPH for the horizontal curve that exists between SW Sultan Drive and SW Aster Drive. This recommendation can be implemented using a yellow warning speed advisory plaque (W13-1 [40]) mounted to the CURVE (W1-2) warning sign. 
CR 712/Midway Road from SR-70/ Okeechobee Road to CR 712A/McCarty Road	50	45	50	Recommend maintaining a 50 MPH regulatory speed limit. Install electronic speed feedback signs in both directions within the study limits. Install centerline rumble strips to the double yellow centerline, which are grooves within the double yellow centerline that produce noise and vibration when the tires of a vehicle come into contact with them. The noise and vibration alert the driver that they have departed from their lane and give the driver an opportunity to recover. Centerline rumble strips have an additional benefit of helping drivers navigate during poor weather conditions such as fog and rain. 

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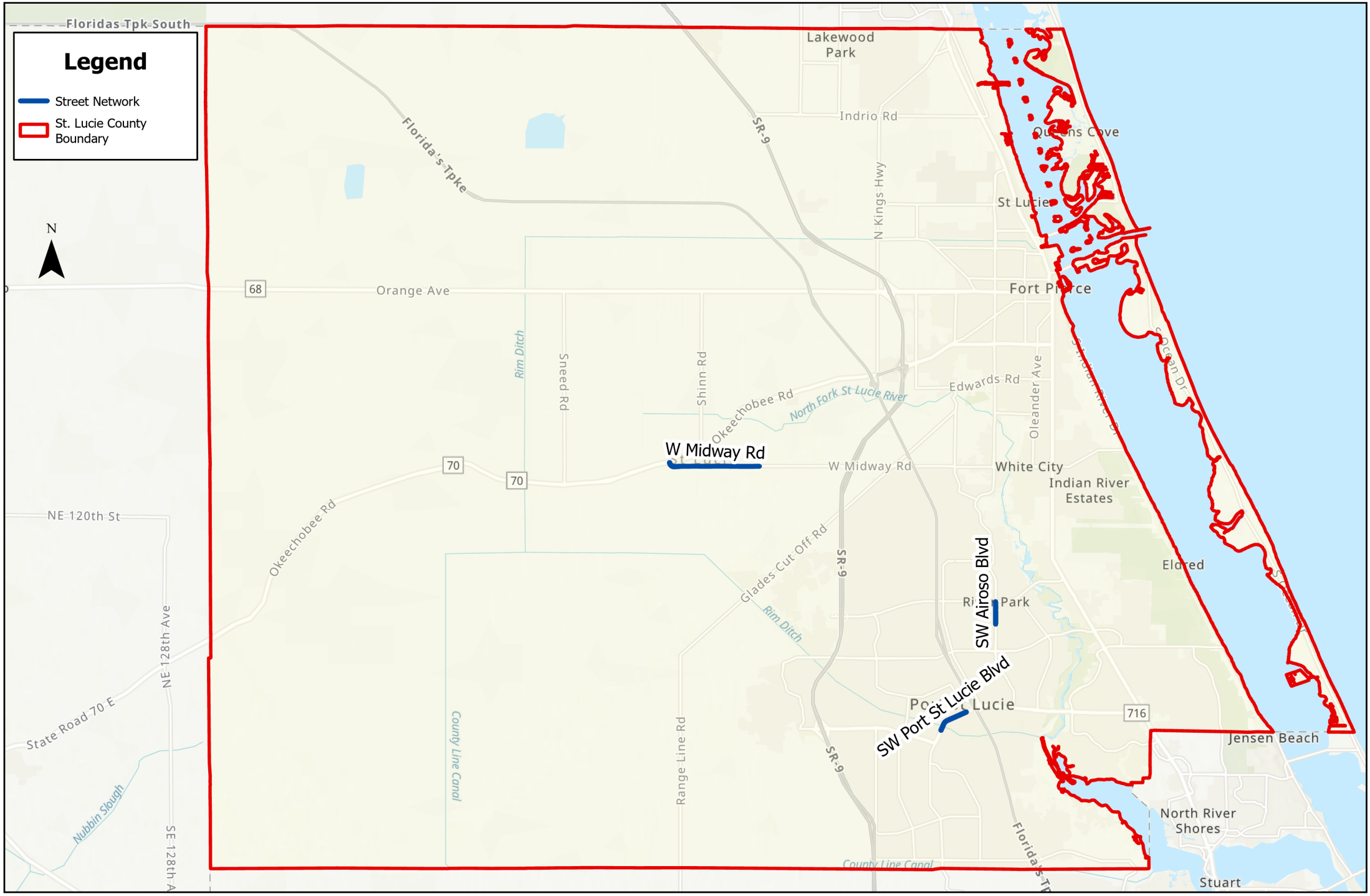
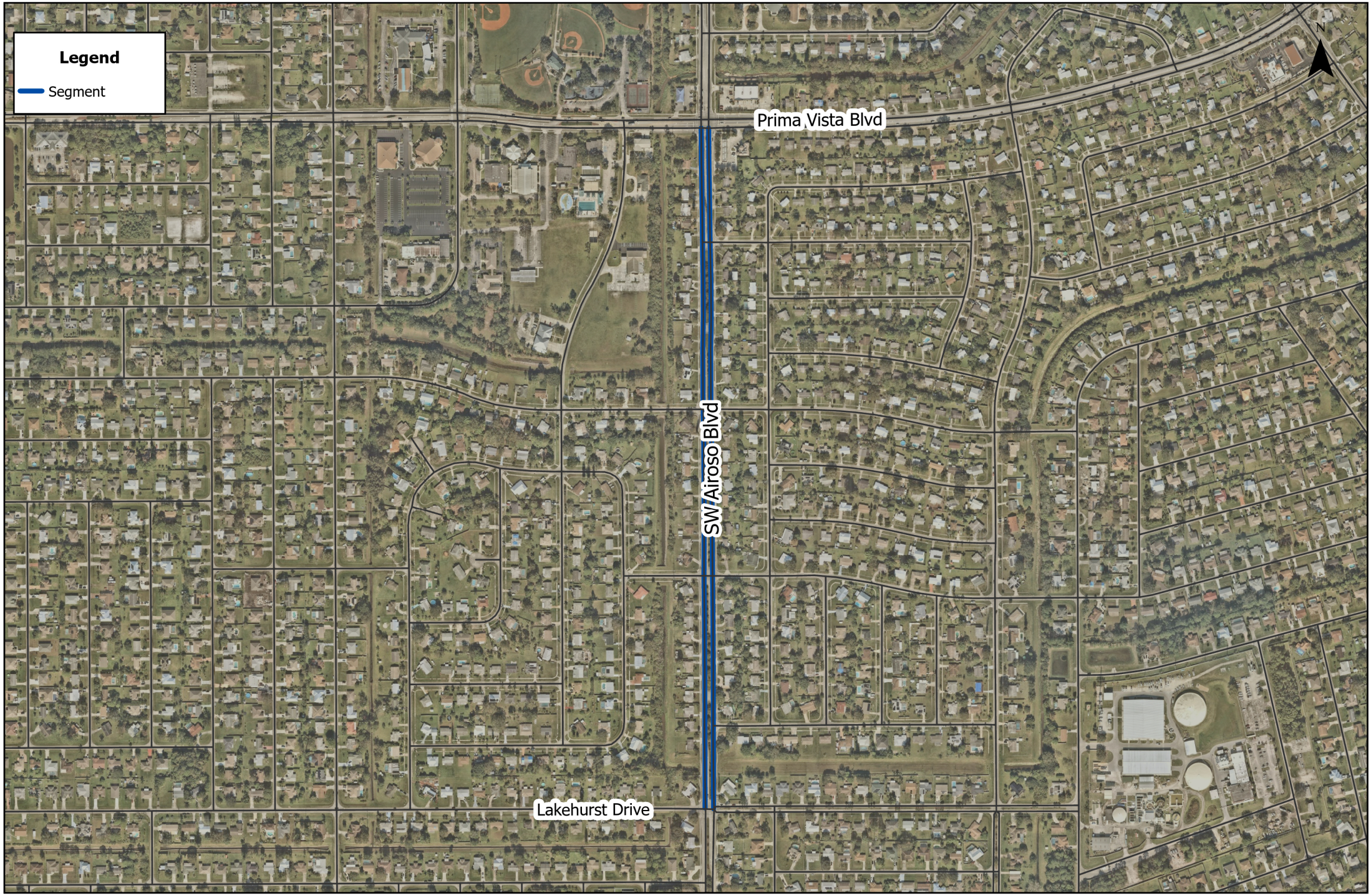
Appendix A
Location Maps



St. Lucie County Speed Studies

February 2023

0 1.45 2.9 5.8 Miles



SW Airoso Boulevard Segment

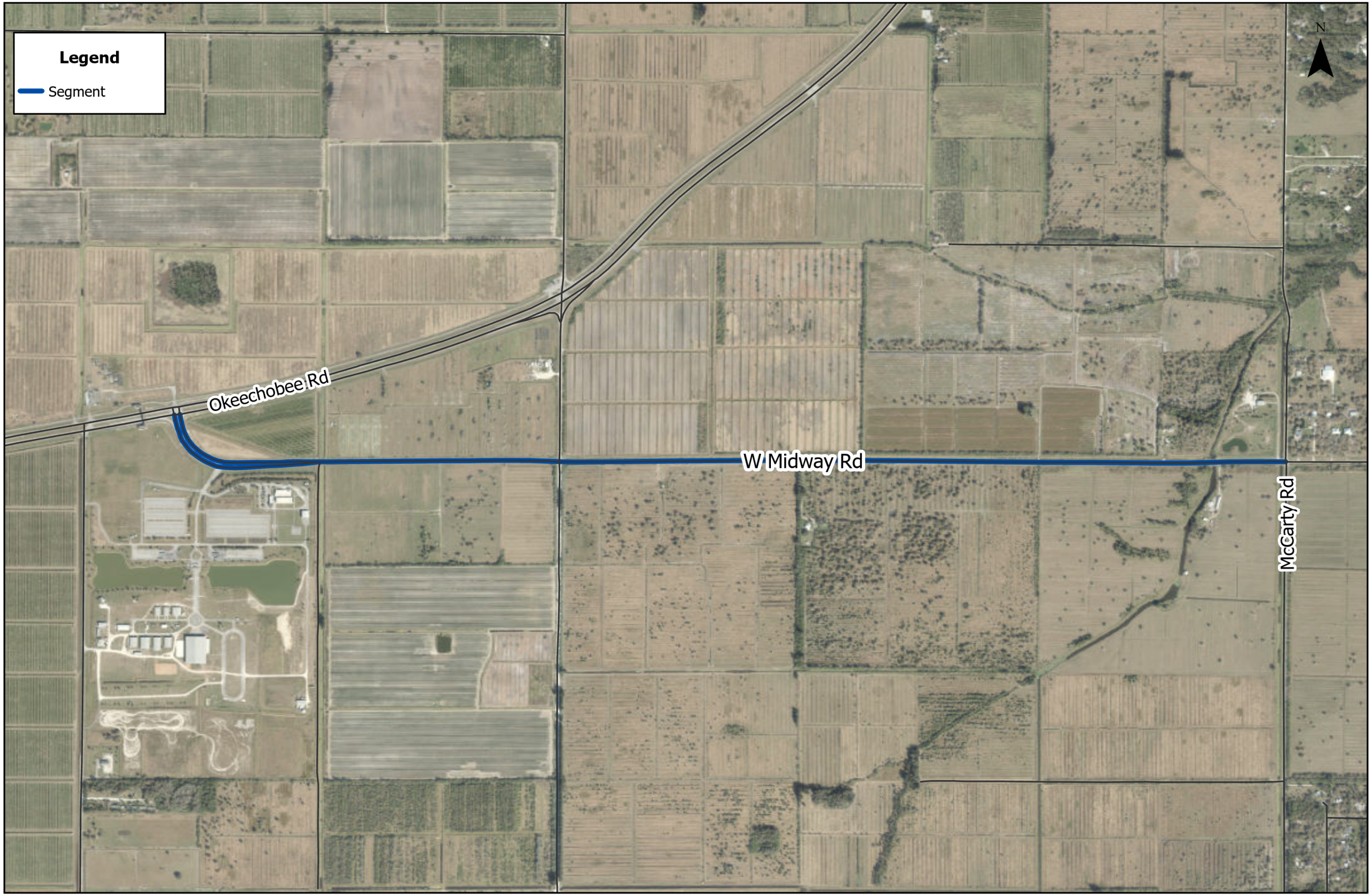
February 2023

0 0.05 0.1 0.2 Miles

SW Port St Lucie Blvd Segment

February 2023

0 0.05 0.1 0.2 Miles



W Midway Road Segment

February 2023

0 0.13 0.25 0.5 Miles

Appendix B

Traffic Data Collection

Prepared by National Data & Surveying Services

SPEED

SW Airoso Blvd Bet. SE Calmoso Dr & SE Selva Ct

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	5	17	24	29	16	6	0	0	0	0	97
01:00	0	0	0	2	12	17	12	11	1	0	0	0	0	55
02:00	0	0	0	2	12	25	12	14	3	1	0	0	0	69
03:00	0	0	0	8	15	18	15	10	3	1	0	0	0	70
04:00	2	0	0	5	19	25	33	25	12	2	4	0	1	128
05:00	0	0	0	13	40	89	71	48	21	18	0	0	1	301
06:00	1	0	6	31	177	240	202	160	69	13	2	2	0	903
07:00	1	0	5	53	292	390	352	218	72	16	4	3	0	1406
08:00	0	0	6	74	299	431	407	231	71	15	5	0	1	1540
09:00	1	0	6	46	182	345	279	182	69	12	4	0	0	1126
10:00	1	1	3	40	149	218	235	156	57	15	5	1	1	882
11:00	1	2	10	44	170	270	226	165	51	16	2	1	0	958
12:00 PM	0	1	1	40	186	237	257	161	61	18	7	0	0	969
13:00	1	0	3	49	194	298	249	166	64	19	3	2	1	1049
14:00	0	0	8	50	236	361	273	187	78	21	4	2	1	1221
15:00	2	6	5	56	273	392	367	223	88	15	4	2	1	1434
16:00	1	0	4	53	274	424	402	276	104	26	4	1	2	1571
17:00	0	3	7	69	340	452	387	291	105	24	2	3	1	1684
18:00	3	4	16	82	279	377	310	218	67	13	3	2	0	1374
19:00	0	3	3	33	172	235	213	136	67	17	2	2	2	885
20:00	1	1	9	27	96	163	139	107	45	18	1	0	0	607
21:00	0	0	1	19	101	161	125	96	44	9	3	2	1	562
22:00	0	2	6	8	50	80	84	61	34	11	3	3	0	342
23:00	1	0	1	5	27	83	65	34	17	4	2	0	2	241
Totals	16	23	100	814	3612	5355	4744	3192	1209	304	64	26	15	19474
% of Totals	0%	0%	1%	4%	19%	27%	24%	16%	6%	2%	0%	0%	0%	100%

AM Volumes	7	3	36	323	1384	2092	1873	1236	435	109	26	7	4	7535
% AM	0%	0%	0%	2%	7%	11%	10%	6%	2%	1%	0%	0%	0%	39%
AM Peak Hour	04:00	11:00	11:00	08:00	08:00	08:00	08:00	08:00	07:00	05:00	08:00	07:00	04:00	08:00
Volume	2	2	10	74	299	431	407	231	72	18	5	3	1	1540
PM Volumes	9	20	64	491	2228	3263	2871	1956	774	195	38	19	11	11939
% PM	0%	0%	0%	3%	11%	17%	15%	10%	4%	1%	0%	0%	0%	61%
PM Peak Hour	18:00	15:00	18:00	18:00	17:00	17:00	16:00	17:00	17:00	16:00	12:00	17:00	16:00	17:00
Volume	3	6	16	82	340	452	402	291	105	26	7	3	2	1684

Directional Peak Periods	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds	Volume	◄►	%	Volume	◄►	%	Volume	◄►	%	Volume	◄►	%
	2946	◄►	15%	2018	◄►	10%	3255	◄►	17%	11255	◄►	58%

Direction	Percentiles					
	15th	50th	Average	85th	95th	ADT
	33	40	40	48	53	19474
Summary	Pace					
	10mph Pace	# in Pace	% in Pace	Number of Vehicles >= 25 MPH	% of Vehicles >= 25 MPH	
	35 - 44	10099	51.86%	19335	99.29%	

Prepared by National Data & Surveying Services

SPEED

SW Airoso Blvd Bet. SE Bonita Ct & SE Lucero Dr

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_002

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
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01:00	0	0	0	1	17	25	21	4	0	1	0	0	0	**69**
02:00	0	0	0	1	3	26	26	6	4	1	0	0	0	**67**
03:00	0	0	0	0	8	24	22	5	1	0	1	1	0	**62**
04:00	0	0	0	0	9	26	41	30	12	2	0	1	0	**121**
05:00	0	0	0	6	25	77	93	68	19	5	1	1	0	**295**
06:00	1	2	6	27	98	266	281	167	32	13	2	0	0	**895**
07:00	4	9	13	43	187	349	455	245	63	7	4	0	0	**1379**
08:00	2	10	41	74	223	385	442	258	41	6	2	0	0	**1484**
09:00	2	0	0	24	142	327	390	195	36	15	2	1	0	**1134**
10:00	1	1	2	15	114	257	269	149	41	8	2	1	0	**860**
11:00	1	2	6	26	84	273	328	152	36	12	0	0	0	**920**
12:00 PM	0	2	6	22	120	263	319	195	48	11	0	0	0	**986**
13:00	0	0	0	13	126	280	369	174	51	13	0	1	0	**1027**
14:00	0	0	5	19	140	371	393	211	60	17	6	1	0	**1223**
15:00	0	0	5	27	146	370	519	273	70	8	1	0	0	**1419**
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17:00	1	3	5	84	230	467	545	249	56	12	1	4	0	**1657**
18:00	1	7	20	65	195	387	436	187	40	13	2	0	1	**1354**
19:00	1	2	3	23	112	230	319	152	34	9	2	1	0	**888**
20:00	0	1	3	11	66	180	208	111	34	5	0	0	1	**620**
21:00	1	1	2	11	52	154	205	96	28	6	1	0	0	**557**
22:00	0	0	0	3	39	86	104	66	30	9	3	0	1	**341**
23:00	0	0	0	8	26	61	96	33	8	5	0	1	0	**238**
Totals	**18**	**41**	**122**	**538**	**2349**	**5346**	**6476**	**3313**	**843**	**189**	**32**	**15**	**5**	**19287**
% of Totals	0%	0%	1%	3%	12%	28%	34%	17%	4%	1%	0%	0%	0%	100%

AM Volumes	11	24	68	224	934	2070	2403	1294	291	70	15	5	0	7409
% AM	0%	0%	0%	1%	5%	11%	12%	7%	2%	0%	0%	0%		38%
AM Peak Hour	07:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00	07:00	09:00	07:00	03:00		08:00
Volume	4	10	41	74	223	385	455	258	63	15	4	1		1484
PM Volumes	7	17	54	314	1415	3276	4073	2019	552	119	17	10	5	11878
% PM	0%	0%	0%	2%	7%	17%	21%	10%	3%	1%	0%	0%	0%	62%
PM Peak Hour	16:00	18:00	18:00	17:00	17:00	17:00	16:00	15:00	16:00	14:00	14:00	17:00	16:00	17:00
Volume	3	7	20	84	230	467	560	273	93	17	6	4	2	1657

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Speeds	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	2863	⟷	15%	2013	⟷	10%	3225	⟷	17%	11186	⟷	58%

Direction	Percentiles					
	15th	**50th**	**Average**	**85th**	**95th**	**ADT**
	35	41	41	47	51	19287
Summary	**Pace**					
	10mph Pace	**# in Pace**	**% in Pace**	**Number of Vehicles >= 25 MPH**		**% of Vehicles >= 25 MPH**
	35 - 44	11822	61.30%	19106		99.06%

Prepared by National Data & Surveying Services

SPEED

SW Port St Lucie Blvd Bet. SW Greco Ln & SW Aster Rd

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_003

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
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01:00	0	0	1	3	5	35	63	30	13	6	0	1	1	**158**
02:00	1	0	1	0	9	23	46	17	5	2	0	1	0	**105**
03:00	0	0	1	0	7	22	43	34	14	1	2	0	0	**124**
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05:00	0	0	0	2	12	86	179	167	78	21	2	1	0	**548**
06:00	0	0	0	6	52	280	566	388	161	33	8	4	2	**1500**
07:00	5	9	28	97	190	602	941	636	216	48	11	1	1	**2785**
08:00	4	29	79	103	220	723	963	580	190	46	9	2	2	**2950**
09:00	0	1	5	20	121	490	940	605	213	41	6	2	1	**2445**
10:00	1	3	6	17	115	450	916	657	188	38	8	1	4	**2404**
11:00	1	0	5	10	96	569	1022	576	170	29	9	2	0	**2489**
12:00 PM	5	4	8	19	156	658	1060	605	207	40	9	1	2	**2774**
13:00	1	6	11	35	173	653	1067	705	185	36	6	2	1	**2881**
14:00	0	8	13	31	138	647	1143	675	188	38	4	1	0	**2886**
15:00	1	1	5	30	129	722	1185	720	191	49	8	3	1	**3045**
16:00	2	6	19	28	167	803	1283	625	150	40	2	1	0	**3126**
17:00	5	3	16	31	200	968	1303	682	173	47	15	3	3	**3449**
18:00	2	11	17	59	152	782	1189	550	143	28	9	3	3	**2948**
19:00	0	0	3	15	88	546	835	404	149	41	7	2	1	**2091**
20:00	0	1	5	14	55	379	690	425	135	37	4	1	0	**1746**
21:00	0	1	1	9	37	277	481	281	83	26	8	5	0	**1209**
22:00	0	1	2	3	30	171	286	167	63	16	2	0	0	**741**
23:00	0	0	2	3	25	100	160	125	39	10	1	1	0	**466**
Totals	**28**	**84**	**230**	**536**	**2201**	**10075**	**16508**	**9780**	**3010**	**690**	**135**	**38**	**22**	**43337**
% of Totals	0%	0%	1%	1%	5%	23%	38%	23%	7%	2%	0%	0%	0%	100%

AM Volumes	12	42	128	259	851	3369	5826	3816	1304	282	60	15	11	15975
% AM	0%	0%	0%	1%	2%	8%	13%	9%	3%	1%	0%	0%	0%	37%
AM Peak Hour	07:00	08:00	08:00	08:00	08:00	08:00	11:00	10:00	07:00	07:00	07:00	06:00	10:00	08:00
Volume	5	29	79	103	220	723	1022	657	216	48	11	4	4	2950
PM Volumes	16	42	102	277	1350	6706	10682	5964	1706	408	75	23	11	27362
% PM	0%	0%	0%	1%	3%	15%	25%	14%	4%	1%	0%	0%	0%	63%
PM Peak Hour	12:00	18:00	16:00	18:00	17:00	17:00	17:00	15:00	12:00	15:00	17:00	21:00	17:00	17:00
Volume	5	11	19	59	200	968	1303	720	207	49	15	5	3	3449

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Speeds	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	5735	⟷	13%	5655	⟷	13%	6575	⟷	15%	25372	⟷	59%

Direction	Percentiles					
	15th	**50th**	**Average**	**85th**	**95th**	**ADT**
	37	43	43	49	53	43337
Summary	**Pace**					
	10mph Pace	**# in Pace**	**% in Pace**	**Number of Vehicles >= 25 MPH**		**% of Vehicles >= 25 MPH**
	35 - 44	26583	61.34%	42995		99.21%

Prepared by National Data & Surveying Services

SPEED

SW Port St Lucie Blvd Bet. SW Chestnut Ln & SW Del Rio Blvd

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_004

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	1	10	45	52	70	59	22	1	0	0	0	**260**
01:00	0	0	0	8	32	40	48	37	16	0	0	0	2	**183**
02:00	0	0	0	9	16	18	30	30	8	2	0	2	0	**115**
03:00	0	1	8	10	23	34	25	23	12	0	0	0	0	**136**
04:00	0	3	5	22	50	56	64	35	13	1	0	0	0	**249**
05:00	0	1	7	39	138	144	143	90	42	3	1	0	0	**608**
06:00	3	9	42	96	326	425	395	171	79	17	12	0	0	**1575**
07:00	24	47	97	326	669	737	556	315	140	40	7	0	0	**2958**
08:00	37	89	130	294	634	741	668	366	113	25	2	1	0	**3100**
09:00	8	18	42	125	344	598	672	417	177	52	7	3	0	**2463**
10:00	5	10	46	146	330	534	639	462	138	49	11	1	0	**2371**
11:00	6	24	46	148	349	531	578	465	174	48	8	2	1	**2380**
12:00 PM	5	21	57	205	362	587	705	487	193	44	7	5	0	**2678**
13:00	10	37	52	161	372	631	674	487	189	45	13	0	1	**2672**
14:00	24	39	94	234	505	706	783	501	150	40	12	1	1	**3090**
15:00	22	57	128	265	590	761	834	464	129	34	8	3	0	**3295**
16:00	54	104	167	266	594	753	734	469	158	53	12	2	0	**3366**
17:00	46	90	178	311	744	794	848	520	116	41	10	1	0	**3699**
18:00	42	54	118	263	527	765	691	376	131	23	6	0	0	**2996**
19:00	5	13	61	148	314	534	617	408	135	35	13	2	1	**2286**
20:00	1	5	17	76	185	323	474	364	163	38	8	1	3	**1658**
21:00	1	2	24	58	161	280	332	249	82	30	3	4	0	**1226**
22:00	1	0	11	34	115	167	210	155	72	15	6	5	0	**791**
23:00	1	3	9	31	63	134	150	129	48	12	3	0	0	**583**
Totals	**295**	**627**	**1340**	**3285**	**7488**	**10345**	**10940**	**7079**	**2500**	**648**	**149**	**33**	**9**	**44738**
% of Totals	1%	1%	3%	7%	17%	23%	24%	16%	6%	1%	0%	0%	0%	100%

AM Volumes	83	202	424	1233	2956	3910	3888	2470	934	238	48	9	3	16398
% AM	0%	0%	1%	3%	7%	9%	9%	6%	2%	1%	0%	0%	0%	37%
AM Peak Hour	08:00	08:00	08:00	07:00	07:00	08:00	09:00	11:00	09:00	09:00	06:00	09:00	01:00	08:00
Volume	37	89	130	326	669	741	672	465	177	52	12	3	2	3100
PM Volumes	212	425	916	2052	4532	6435	7052	4609	1566	410	101	24	6	28340
% PM	0%	1%	2%	5%	10%	14%	16%	10%	4%	1%	0%	0%	0%	63%
PM Peak Hour	16:00	16:00	17:00	17:00	17:00	17:00	17:00	17:00	12:00	16:00	13:00	12:00	20:00	17:00
Volume	54	104	178	311	744	794	848	520	193	53	13	5	3	3699

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Speeds	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	6058	⟷	14%	5350	⟷	12%	7065	⟷	16%	26265	⟷	59%

Direction	Percentiles					
	15th	**50th**	**Average**	**85th**	**95th**	**ADT**
	31	40	39	48	52	44738
Summary	**Pace**					
	10mph Pace	**# in Pace**	**% in Pace**	**Number of Vehicles >= 25 MPH**		**% of Vehicles >= 25 MPH**
	35 - 44	21285	47.58%	42476		94.94%

Prepared by National Data & Surveying Services

SPEED

CR 712/Midway Rd W/O SR 609A/Shinn Rd

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_005

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	2	6	3	2	1	0	1	**16**
01:00	0	0	0	0	0	0	3	2	1	6	0	0	0	**12**
02:00	0	0	0	0	1	0	5	8	3	0	2	0	0	**19**
03:00	0	0	0	0	1	5	1	7	6	6	2	0	0	**28**
04:00	0	0	0	0	1	6	8	15	17	4	2	0	0	**53**
05:00	0	0	0	0	0	1	19	46	37	22	1	1	0	**127**
06:00	0	0	0	0	1	12	67	143	114	46	12	4	0	**399**
07:00	0	0	0	0	0	24	88	171	114	47	16	1	1	**462**
08:00	0	0	0	0	4	26	100	158	100	35	5	1	0	**429**
09:00	0	0	0	0	1	17	88	131	79	28	7	1	0	**352**
10:00	0	0	0	0	6	31	58	110	89	22	3	2	0	**321**
11:00	0	0	0	2	14	15	65	98	79	33	6	2	2	**316**
12:00 PM	0	0	0	0	0	20	95	124	75	27	8	0	0	**349**
13:00	0	0	0	2	2	19	48	85	92	34	7	4	1	**294**
14:00	0	0	0	0	1	12	52	90	86	50	11	3	0	**305**
15:00	0	0	0	0	0	13	57	126	142	58	14	2	1	**413**
16:00	0	0	0	0	1	9	62	172	156	67	18	3	1	**489**
17:00	0	0	0	0	0	3	37	205	216	59	10	3	4	**537**
18:00	0	0	0	0	0	7	49	114	103	35	7	2	1	**318**
19:00	0	0	0	0	0	6	34	75	60	29	3	2	1	**210**
20:00	0	0	0	0	0	4	13	49	37	21	5	1	1	**131**
21:00	0	0	0	0	1	6	22	26	21	13	5	1	4	**99**
22:00	0	0	0	0	2	4	10	13	24	13	3	0	0	**69**
23:00	0	0	0	0	0	1	4	7	6	3	2	1	1	**25**
Totals				**4**	**36**	**242**	**987**	**1981**	**1660**	**660**	**150**	**34**	**19**	**5773**
% of Totals				0%	1%	4%	17%	34%	29%	11%	3%	1%	0%	100%

AM Volumes	0	0	0	2	29	138	504	895	642	251	57	12	4	2534
% AM				0%	1%	2%	9%	16%	11%	4%	1%	0%	0%	44%
AM Peak Hour				11:00	11:00	10:00	08:00	07:00	06:00	07:00	07:00	06:00	11:00	07:00
Volume				2	14	31	100	171	114	47	16	4	2	462
PM Volumes	0	0	0	2	7	104	483	1086	1018	409	93	22	15	3239
% PM				0%	0%	2%	8%	19%	18%	7%	2%	0%	0%	56%
PM Peak Hour				13:00	13:00	12:00	12:00	17:00	17:00	16:00	16:00	13:00	17:00	17:00
Volume				2	2	20	95	205	216	67	18	4	4	537

Directional Peak Periods	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds	Volume	↔	%	Volume	↔	%	Volume	↔	%	Volume	↔	%
	891	↔	15%	643	↔	11%	1026	↔	18%	3213	↔	56%

Direction	Percentiles					
	15th	50th	Average	85th	95th	ADT
	43	49	49	55	59	5773
Summary	Pace					
	10mph Pace	# in Pace	% in Pace	Number of Vehicles >= 25 MPH		% of Vehicles >= 25 MPH
	45 - 54	3641	63.07%	5773		100.00%

Prepared by National Data & Surveying Services

SPEED

CR 712/Midway Rd Bet. SR 609A/Shinn Rd & SR 712A/McCarty Rd

Day: Thursday
Date: 1/26/2023

City: Port Saint Lucie
Project #: FL23_140045_006

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	1	7	5	1	1	2	1	**19**
01:00	0	0	0	0	0	0	1	5	2	5	6	0	0	**19**
02:00	0	0	0	0	0	1	2	10	4	2	2	2	0	**23**
03:00	0	0	0	0	1	1	3	6	9	4	4	1	0	**29**
04:00	0	0	0	0	1	1	8	14	14	12	5	5	0	**60**
05:00	0	0	0	0	0	0	17	38	40	29	9	3	2	**138**
06:00	0	0	0	0	0	8	39	115	161	98	23	5	0	**449**
07:00	0	0	0	0	0	6	69	158	191	82	32	2	1	**541**
08:00	0	0	0	0	0	18	56	146	143	74	25	4	4	**470**
09:00	0	0	0	1	1	9	54	131	126	67	9	5	0	**403**
10:00	0	0	0	0	2	14	44	99	119	63	11	3	1	**356**
11:00	0	0	0	0	2	15	42	95	109	84	13	4	1	**365**
12:00 PM	0	0	0	0	0	6	51	119	126	61	22	3	1	**389**
13:00	0	0	0	0	2	8	31	92	112	50	23	7	2	**327**
14:00	0	0	0	0	0	4	32	94	125	62	26	5	1	**349**
15:00	0	0	0	0	0	12	40	104	169	98	34	2	1	**460**
16:00	0	0	0	0	0	2	43	130	191	107	39	9	4	**525**
17:00	0	0	0	0	0	2	25	170	254	114	36	7	1	**609**
18:00	0	0	0	0	0	4	38	101	126	76	11	5	1	**362**
19:00	0	0	0	0	0	5	28	50	85	56	14	4	1	**243**
20:00	0	0	0	0	0	1	7	40	55	26	12	6	2	**149**
21:00	0	0	0	0	0	1	12	34	26	22	7	3	4	**109**
22:00	0	0	0	0	0	2	7	13	27	25	2	1	0	**77**
23:00	0	0	0	0	1	0	3	8	9	3	4	1	0	**29**
Totals				**1**	**10**	**121**	**653**	**1779**	**2228**	**1221**	**370**	**89**	**28**	**6500**
% of Totals				0%	0%	2%	10%	27%	34%	19%	6%	1%	0%	100%

AM Volumes	0	0	0	1	7	74	336	824	923	521	140	36	10	2872
% AM				0%	0%	1%	5%	13%	14%	8%	2%	1%	0%	44%
AM Peak Hour				09:00	10:00	08:00	07:00	07:00	07:00	06:00	07:00	04:00	08:00	07:00
Volume				1	2	18	69	158	191	98	32	5	4	541
PM Volumes	0	0	0	0	3	47	317	955	1305	700	230	53	18	3628
% PM					0%	1%	5%	15%	20%	11%	4%	1%	0%	56%
PM Peak Hour					13:00	15:00	12:00	17:00	17:00	17:00	16:00	16:00	16:00	17:00
Volume					2	12	51	170	254	114	39	9	4	609

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Speeds	Volume	↔	%	Volume	↔	%	Volume	↔	%	Volume	↔	%
	1011	↔	16%	716	↔	11%	1134	↔	17%	3639	↔	56%

Direction	Percentiles					
	15th	**50th**	**Average**	**85th**	**95th**	**ADT**
	46	52	52	58	62	6500
Summary	**Pace**					
	10mph Pace	**# in Pace**	**% in Pace**	**Number of Vehicles >= 25 MPH**		**% of Vehicles >= 25 MPH**
	45 - 54	4007	61.65%	6500		100.00%