

TRAFFIC IMPACT ANALYSIS

For

FLORIDA VISION REALITY

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Engineering Design & Construction, Inc.

10250 SW Village Parkway, Suite 201 Port St. Lucie, FL 34987 **Board of Professional Engineers Certificate of Authorization Number 9935**

JUNE 2021

David C. Baggett P.E. **Date** 10250 SW Village Parkway, Suite 201



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Introduction:

Engineering Design & Construction has completed a traffic statement and impact analysis for the proposed Florida Vision Realty Medical Office, located on SW Village Parkway in front of the existing VITAS Healthcare. Village Parkway is a four-lane divided arterial. See the attached Location Map (Exhibit 1).

The purpose of this study is to determine the proposed project's impact on the surrounding traffic and roadway level of service. This analysis follows the guidelines set forth in the Standard Traffic Impact Studies (TIS) Methodology and Procedures created by St. Lucie TPO, along with the City of Port St. Lucie, Public Works Department Policy #19-01.

Project Description:

The project is located on the parcel 4315-603-0001-000-7 with a total area of 5.66 AC. The proposed project consists of a 1.26 AC outparcel with a 1-story, 14,800 S.F. medical office. Please see Exhibit 2 for the proposed site plan.

Existing Condition:

Village Pkwy runs North and South as a 4-lane divided arterial, the project access is an existing driveway of Village Pkwy approximately 1 mile south of Village Pkwy and Tradition Pkwy intersection. The existing driveway is for an existing medical office which is considered existing since it was built and completed prior to the St. Lucie Traffic Count. Existing traffic was collected from the St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter(2019/2020).

<u>Trip Generation:</u>
To properly estimate the trip generation the Institute of Traffic Engineers' (ITE) Report, Trip Generation (10th edition) was used to produce Daily Average, A.M Peak, and P.M. Peak. The proposed development is a Medical Office with 14,800 GSF results in the use of ITE Code 720 (Medical Office)

			FLORI	DA VISION REALTY								
Institute of Transportation Engineers: Trip Generation, 10th Edition												
			WEEK	DAY: DAILY AVERAGE								
Land Use	ITE	Intensity	Units	Trip Generation Rate	Directional Split			ross Tr	ips			
Land Ose	Code	intensity	Ullits	Trip Generation Rate	IN	OUT	IN	OUT	TOTAL			
Medical Office	720	14,800	S.F.	T=34.80(X)	50%	50%	258	258	515			
WEEKDAY: A.M. PEAK HOUR TRIPS												
Land Use	ITE	Intensity	Units	Trip Generation Rate		nal Split		ross Tr				
	Code			•	IN	OUT	IN		TOTAL			
Medical Office	720	14,800	S.F.	T=3.53(X)	62%	38%	32	20	52			
WEEKDAY: P.M. PEAK HOUR TRIPS												
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	IN	nal Split	IN	ross Tr OUT	IPS TOTAL			
Madical Office		14.900	СГ	T_4 10/V\	39%	OUT 61%	24	37	61			
Medical Office	Medical Office 720 14,800 S.F. T=4.10(X)							57	01			
CATURDAY												
SATURDAY ITE Directional Split Gross Trips												
Land Use	Code	Intensity	Units	Trip Generation Rate	IN	OUT	IN		TOTAL			
Medical Office	720	14,800	S.F.	T=8.57(X)	50%	50%	63	63	127			
	-	,		()					ı			
		9	SATURI	DAY PEAK HOUR TRIPS								
Landillan	ITE	1	11	Tala Cananatian Bata	Directio	nal Split	G	ips				
Land Use	Code	Intensity	Units	Trip Generation Rate	IN	OUT	IN	OUT	TOTAL			
Medical Office	720	14,800	S.F.	T=3.10(X)	57%	43%	26	20	46			
				SUNDAY								
Land Use	ITE	Intensity	Units	Trip Generation Rate	Direction	nal Split	G	ross Tr	ips			
Edila 05c	Code	_	Omes	The Generation Rate	IN	OUT	IN	OUT	TOTAL			
Medical Office	720	14,800	S.F.	T=1.42(X)	50%	50%	11	11	21			
			SUND	AY PEAK HOUR TRIPS								
Land Use	ITE	Intensity	Units	Trip Generation Rate		nal Split		Gross Trip				
NA 1: 1000	Code		6.5	•	IN	OUT	IN	.	TOTAL			
Medical Office	720	14,800	S.F.	T=0.32(X)	52%	48%	2	2	5			

Internal Capture:

This project contains no internal capture

Pass-by Trip Capture:

The pass-by trip capture rate is 0

Radius of Impact:

For this analysis the radius of impact was determined by the Standardized Traffic Impact Studies (TIS) Methodology and Procedures Appendix B. The area is based on the New External Daily Trip Generation. The Proposed project generates a total of 515 new daily trips.

New External Daily Trip Generation	Radius of Area of Influence
	Only segments directly
0 - 200	accessed by the proposed
	development
201 - 500	0.5 miles
501 - 1,000	1.0 miles
1,001 - 5,000	2.0 miles
5,001 - 10,000	3.0 miles
10,001 - 20,000	4.0 miles
Over 20,000	5.0 miles

Traffic Distribution:

Traffic Distribution and assignment was determined using engineering judgement, trip lengths, surrounding uses and review of the roadway network. The general distribution can be seen below. Detailed distribution map is attached.

North =50% South =50%

Trip Distribution: PM Peak Hour

•												
											5yr	
								Adopted			Projected	Projected
			LOS	Peak Hr	Peak Hr	% project	Exist Peak	LOS	Total	Growth	Volume Per	Volume
			Service	Service	Project	of LOS	Hr Peak	Currently	Peak Hr	Rate Per	Growth	LOS to be
ROW Segment	From	То	Capacity	Capacity	Volumne	Capcity	Direction	Exceeded?	Volume	Road	Rate*	Exceeded
Bekker	I-95	Village Pkwy	С	3,170	30	1%	178	No	208	11.70%	330	No
Village Pkwy	Becker Rd	Discovery Way	С	1,710	31	2%	797	No	828	8.49%	1179	No
Tradition Pkwy	I-95	Village Pkwy	D	3,170	28	0.9%	1,924	No	1952	5.27%	2466	No
Village Pkwy	Discovery Way	Tradition Pkwy	С	2,650	31	1.2%	797	No	828	8.49%	1179	No
Village Pkwy	Tradition Pkwy	Westcliffe Ln	D	1,710	3	0.2%	1,265	No	1268	5.56%	1620	No
Gatlin Blvd	I-95	Savage Blvd	С	3,170	3	0.1%	2,493	No	2496	3.32%	2910	No

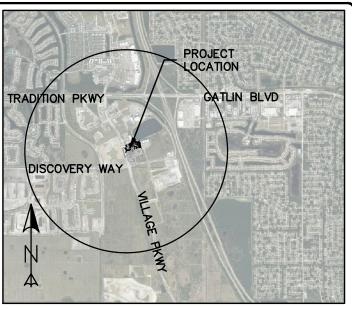
^{*}Growth Rate Collected from St. Lucie TPO

Conclusion:

In conclusion the 14,800 S.F. medical office is located on Village Pkwy with a net change in traffic of 515 daily trips with 52 AM Peak Hour Trips, and 61 PM Peak Hour Trips. Analysis of the distribution of trips along all surrounding streets within the radius of impact, is attached. The PM Peak Hr trips were utilized in those calculations. Per section 156.057 (III)(58) the proposed development does not generation more than 1,000 new daily trips, which would not require a traffic impact study, and because the roads do not have an increase of 1% or 5% of the allowed capacity on any Major Road, EDC believes this development will have no adverse effects on surrounding roads.

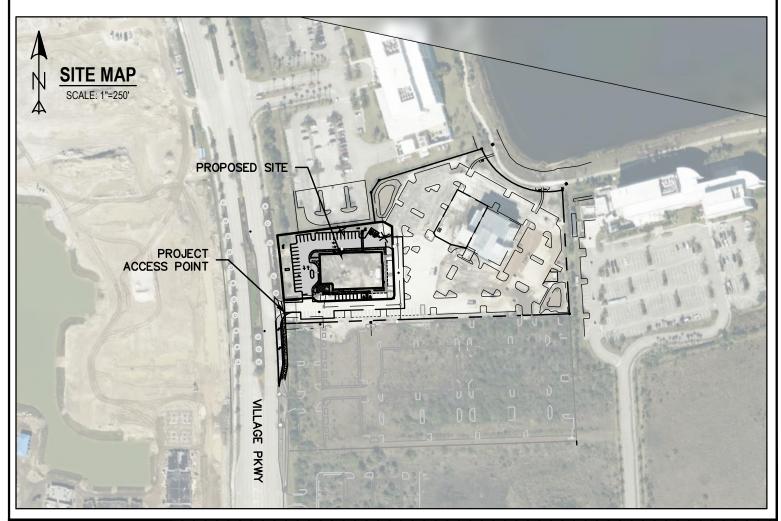
Exhibit 1 – Location Map

LOCATION MAP TALLAHASSE ACCOUNTILE PROJECT LOCATION TAMM PORT ST. LUCIE JUPITER WEST PALM BEACH KEY WEST KEY WEST MIAMI KEY WEST MIA



VICINITY MAP

SCALE: 1"=5000'



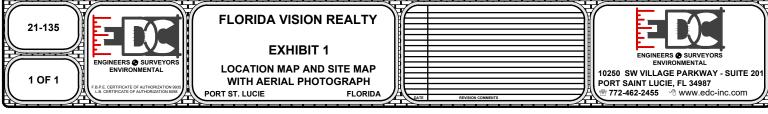
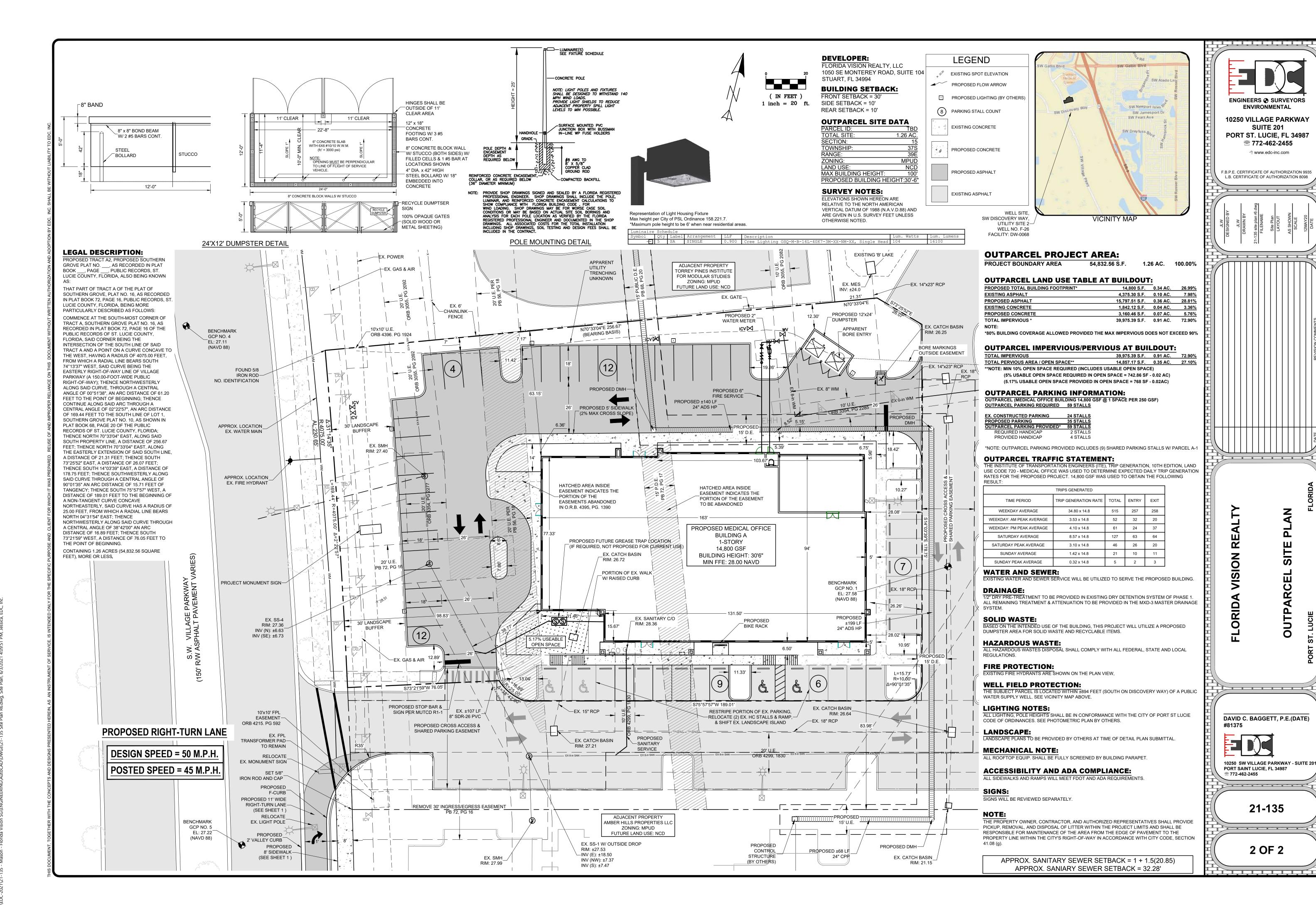
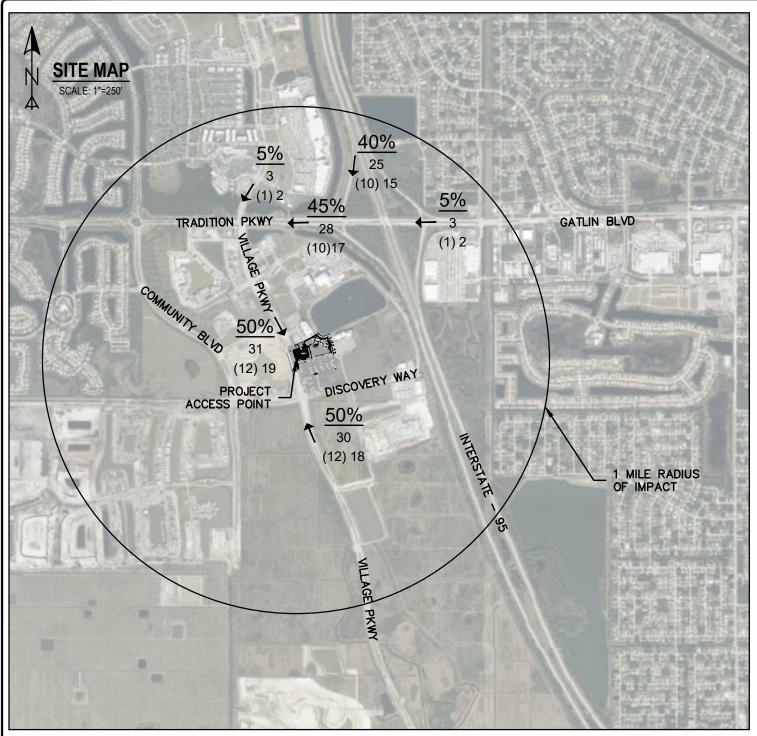


Exhibit 2 – Site Plan



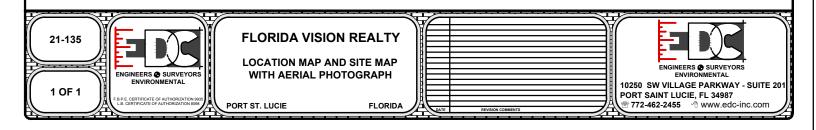
PSEUSD FILE#3230B
PLANNING & ZONING DEPT.
SITE PLAN REVIEW #PP16-165 A-1





PM PEAK HOUR TRIPS: 61

IN: 39% OUT: 61%



Appendix – Supplemental Data

				Last Count Year	Pk Hr Service Capacity	AM I	Pk Hr Pk [Dir	PM Pk Hr Pk Dir		
Roadway Name	Location	STATION ID	AADT			Volume	LOS	V/C	Volume	LOS	V/C
AVENUE Q	17TH ST to 13TH ST	701	3,937	2016	540	281	D	0.520	314	D	0.581
AVENUE O	13TH ST to US 1	685	1,867	2017	540	105	С	0.389	108	С	0.400
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	С	0.074	21	С	0.078
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,000	2019	830	373	С	0.478	324	С	0.415
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	28,260	2018	2,100	1,335	С	0.664	1,297	С	0.645
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	22,081	2017	2,100	1,019	С	0.534	1,019	С	0.534
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	27,000	2019	2,100	1,394	С	0.694	1,356	С	0.675
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,500	2019	920	829	С	0.953	858	С	0.986
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	13,000	2019	790	707	С	0.943	623	С	0.831
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	13,000	2019	750	707	D	0.943	623	D	0.831
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,500	2017	540	247	С	0.915	211	С	0.781
BECKER RD	VILLAGE PKWY to I-95	624	2,500	2017	3,170	196	С	0.063	178	С	0.058
BECKER RD	I-95 to SAVONA BLVD	625	21,000	2019	2,000	1,809	С	0.947	1,616	С	0.846
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	18,000	2019	2,100	1,142	С	0.568	1,083	С	0.539
BECKER RD	ALBACORE ST to DARWIN BLVD	302	13,500	2019	1,500	863	С	0.603	842	С	0.589
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	13,500	2019	2,100	863	С	0.429	842	С	0.419
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	15,000	2019	1,500	1,320	С	0.923	1,244	С	0.870
BECKER RD	DARWIN BLVD to ATHENA DR	627	15,000	2019	2,000	1,320	С	0.691	1,244	С	0.651
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	20,000	2019	2,100	1,333	С	0.663	1,657	С	0.824
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	15,000	2019	920	956	F	1.039	1,182	F	1.285
BELL AVE	25TH ST to SUNRISE BLVD	104	4,758	2019	790	313	С	0.803	326	С	0.836
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,854	2019	600	217	С	0.723	223	С	0.743
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	10,159	2018	630	714	F	1.133	589	С	0.982
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	7,813	2018	750	503	D	0.671	429	D	0.572
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	14,000	2019	920	774	С	0.890	771	С	0.886

^{*} Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

^{*} Volumes shown were adjusted using FDOT Seasonal Factors

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

^{*} Counts with an ID format of 6 digits have data extracted from FDOT count stations.

			AADT	Last Count Year	Pk Hr Service Capacity	AM I	Pk Hr Pk C	Dir	PM Pk Hr Pk Dir		
Roadway Name	Location	STATION ID				Volume	LOS	V/C	Volume	LOS	V/C
EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2020	880	1,030	F	1.170	978	F	1.111
EASY ST	US 1 to BUCHANAN DR	106	8,029	2018	750	601	D	0.801	483	D	0.644
EASY ST	BUCHANAN DR to YUCCA DR	106	8,029	2018	540	601	F	1.036	483	D	0.894
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2020	630	573	С	0.955	594	С	0.990
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2020	700	573	С	0.868	594	С	0.900
EDWARDS RD	SELVITZ RD to 25TH ST	110	15,000	2020	880	755	С	0.910	771	С	0.929
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,697	2019	1,630	877	D	0.538	867	D	0.532
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,207	2019	1,630	754	D	0.463	735	D	0.451
EDWARDS RD	OLEANDER AVE to US 1	173	9,581	2019	1,630	527	С	0.722	460	С	0.630
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,876	2019	750	130	С	0.351	127	С	0.343
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	13,000	2019	920	900	D	0.978	687	С	0.790
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	12,500	2019	880	810	С	0.976	738	С	0.889
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	12,500	2019	880	810	С	0.976	738	С	0.889
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2019	920	671	С	0.771	576	С	0.662
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,600	2019	920	559	С	0.643	601	С	0.691
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,467	2018	630	349	С	0.582	365	С	0.608
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,467	2018	880	349	С	0.420	365	С	0.440
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,555	2019	540	267	С	0.989	273	D	0.506
GARDENIA AVE	OLEANDER AVE to US 1	666	2,817	2017	750	188	С	0.508	200	С	0.541
GATLIN BLVD	W OF I-95 to E OF I-95	945075	40,641	2017	3,170	3,058	С	0.990	2,493	С	0.807
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	40,641	2017	3,170	3,058	С	0.990	2,493	С	0.807
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	40,641	2017	3,170	3,058	С	0.990	2,493	С	0.807
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	40,641	2017	3,170	3,058	С	0.990	2,493	С	0.807
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	40,641	2017	3,170	3,058	С	0.990	2,493	С	0.807
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,700	2020	600	290	С	0.967	262	С	0.873

^{*} Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

^{*} Volumes shown were adjusted using FDOT Seasonal Factors

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

^{*} Counts with an ID format of 6 digits have data extracted from FDOT count stations.

			N AADT	Last Count Year	Pk Hr Service Capacity	AM I	Pk Hr Pk I	Dir	PM Pk Hr Pk Dir		
Roadway Name	Location	STATION ID				Volume	LOS	V/C	Volume	LOS	V/C
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	46,000	2019	3,170	2,446	С	0.792	2,308	С	0.747
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,590	2016	540	249	С	0.922	233	С	0.863
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,814	2016	750	253	С	0.684	286	С	0.773
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	7,300	2020	600	647	F	1.011	515	D	0.858
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	7,300	2020	750	647	D	0.863	515	D	0.687
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,300	2020	750	417	D	0.556	411	D	0.548
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,900	2017	1,540	243	С	0.352	282	С	0.409
SUNRISE BLVD	7TH ST to US 1	708	3,900	2017	1,710	243	С	0.316	282	С	0.366
TIFFANY AVE	US 1 to HILLMOOR DR	322	15,000	2019	2,100	855	С	0.425	862	С	0.429
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	15,000	2019	2,100	855	С	0.425	862	С	0.429
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,666	2017	2,100	242	С	0.120	261	С	0.130
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	7,800	2018	630	404	С	0.673	443	С	0.738
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,314	2018	630	255	С	0.425	223	С	0.372
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	8,367	2018	1,710	996	D	0.582	1,144	D	0.669
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	36,500	2019	3,170	2,021	С	0.654	1,924	С	0.623
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,200	2019	790	524	D	0.663	456	D	0.577
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	9,133	2018	790	639	D	0.809	493	D	0.624
TULIP BLVD	PAAR DR to DARWIN BLVD	714	9,133	2018	790	639	D	0.809	493	D	0.624
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,989	2015	660	653	С	0.989	653	С	0.989
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R	940269	10,253	2017	870	676	С	0.777	620	С	0.713
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	12,876	2017	870	696	С	0.800	732	С	0.841
US 1	MARTIN C.L. to LENNARD RD	945071	41,817	2017	4,240	1,904	С	0.457	2,239	С	0.537
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	41,817	2017	4,040	1,904	С	0.480	2,239	С	0.564
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	31,458	2017	3,020	1,510	С	0.514	1,603	С	0.545
US 1	JENNINGS RD to TIFFANY AVE	945070	31,458	2017	3,020	1,510	С	0.514	1,603	С	0.545

^{*} Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

^{*} Volumes shown were adjusted using FDOT Seasonal Factors

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

^{*} Counts with an ID format of 6 digits have data extracted from FDOT count stations.

				Last	Pk Hr	AM I	Pk Hr Pk C	Dir	PM Pk Hr Pk Dir		
Roadway Name	Location	STATION ID	AADT	Count Year	Service Capacity	Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	С	0.925	1,742	С	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	С	0.801	1,196	С	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	С	0.761	1,196	С	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	С	0.525	845	С	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	С	0.525	845	С	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	С	0.507	978	С	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	С	0.507	978	С	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	С	0.547	1,092	С	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	С	0.547	1,092	С	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	С	0.388	817	С	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	С	0.376	804	С	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	С	0.308	575	С	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	С	0.286	235	С	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	С	0.378	1,083	С	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	С	0.398	1,126	С	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	С	0.398	1,126	С	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	С	0.372	1,164	С	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	С	0.374	1,101	С	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	С	0.356	1,101	С	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	С	0.362	992	С	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	С	0.338	1,020	С	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	С	0.355	1,020	С	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	С	0.595	797	С	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	С	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

^{*} Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

^{*} Volumes shown were adjusted using FDOT Seasonal Factors

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

^{*} Counts with an ID format of 6 digits have data extracted from FDOT count stations.