JFO GROUP INC

Traffic Engineering • Transportation Planning

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Revised May 27, 2025 November 1, 2024



Trish Sesta, Planner | Planning Division Haley Ward, Inc. 10250 SW Village Parkway - Suite 201 Port Saint Lucie, Florida 34987

Re: Four Port St Lucie [SOUTHERN GROVE DRI] TRAFFIC IMPACT STATEMENT Parcel ID: 4315-804-0005-000-2

JFO Group Inc. has been retained to prepare a traffic impact analysis to determine compliance with City of Port St Lucie ULDC standards associated with the Site Plan application for 258,945 SF of Manufacturing development on 15.83 Acres of Lot 3 at the Four Port St Lucie property.

The Four Port St Lucie property is located at the southwest corner of Tom Mackie Boulevard and Destination Way in the City of Port Saint Lucie, Florida. Figure 1 shows the project location in relation to the transportation network. Parcel ID associated with this project is 4315-804-0005-000-2. A copy of the property appraiser information for the site is included as Exhibit 1. Exhibit 2 includes a copy of the proposed site plan.

Project trip generation rates used for this analysis were based on the 11th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. When fitted curve equations were not available, weighted average rates were used. Similarly, when data plots had at least 20 data points and a fitted curve equation with an R² of at least 0.75, fitted curve equations were used. Exhibit 3 includes an excerpt from the ITE Trip Generation manual for the trip



Figure 1 : Project Location

generation equations used in this analysis. Table 1 shows the equations used in order to determine the trip generation for Daily, AM, and PM peak hour conditions while Table 2 summarizes the net Daily, AM, and PM peak trips potentially generated by the proposed development.

	ITE	Daily Trip Con	AM Peak Hour			PM Peak Hour			
Lana Use	Code Dai		In	Out	Total	In	Out	Total	
PEAK HOUR OF ADJACENT STREET TRAFFIC [TRAFFIC CONCURRENCY]									
Manufacturing	140	4.75	76%	24%	0.68	31%	69%	0.74	
Office	710	Ln(T)=0.87Ln(X)+3.05	88%	12%	Ln(T)=0.86Ln(X)+1.16	17%	83%	Ln(T)=0.83Ln(X)+1.29	
PEAK HOUR OF GENERATOR ¹ [AS TYPICALLY REQUIRED BY THE CITY]									
Manufacturing	140	4.75	73%	27%	T = 0.65(X) + 27.27	42%	58%	T = 0.69(X) + 20.74	
Office	710	Ln(T)=0.87Ln(X)+3.05	88%	12%	Ln(T)=0.86Ln(X)+1.16	17%	83%	Ln(T)=0.83Ln(X)+1.29	

Table 1: Trip Generation Rates

¹ Trip Generation Rates for Peak Hour of Generator are not available for ITE LU 710 Office. Peak Hour of Adjacent Street was assumed the same as Peak Hour of Generator.
<u>2025-05-27_Four PSL_Traffic_1133.33</u>
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According to Table 2, the net Daily, AM and PM peak trips potentially generated due to the proposed development are 1,424, 205 (161 In/44 Out) and 221 (62 In/159 Out) trips respectively.

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Land Lico	Intonsity	Daily Traffic	AM Peak Hour			PM Peak Hour		
	imensity		In	Out	Total	In	Out	Total
PEAK HOUR OF ADJACENT STREET TRAFFIC [TRAFFIC CONCURRENCY]								
Manufacturing	238,569 SF	1,133	123	39	162	55	122	177
General Office	20,376 SF	291	38	5	43	7	37	44
Σ	258,945 SF	1, 424	161	44	205	62	159	221
PEAK HOUR OF GENERATOR [AS TYPICALLY REQUIRED BY THE CITY]								
Manufacturing	238,569 SF	1,133	133	49	182	78	107	185
General Office	20,376 SF	291	38	5	43	7	37	44
Σ	258,945 SF	1,424	171	54	225	85	144	229

Figure 2 and 3 provide Daily, AM and PM peak hour driveway volumes for the Four Port St Lucie

property.



Figure 2: Project Driveway Volumes W/O Tom Mackie Blvd Extension to Marshall Pkwy

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Figure 3: Project Driveway Volumes W/ Tom Mackie Blvd Extension to Marshall Pkwy

According to the City of Port St Lucie Engineering standards, exclusive right turn lanes for driveways are required when the operational aspects of the driveway meet the volume and speed criteria presented in Table 8-5 of Section 8.12.7, where a traffic study indicates that the LOS is degraded by the proposed development, or where required for safety reasons even though the peak hour turn volumes may be lower than specified in Table 8-5. Tom Mackie Boulevard in front of the subject site will have a design speed of 40 MPH and a posted speed limit of 30 MPH while Destination Way will have a design speed of 35 MPH and a posted speed limit of 30 MPH. Consequently, based on the posted speed limit, right turn lanes are warranted on unsignalized driveways when the number of right turns per hour are 80-125².

Given the driveway volumes shown on Figure 3 and the City of Port St Lucie Engineering standards, exclusive right turn lanes will not be warranted at the project driveways, even when assuming the office component of the Manufacturing use as a General Office Building as defined by ITE. On the other hand, as typically required by the City, a continuous two-way left turn lane will be built in front of the site on both Tom Mackie Boulevard and Destination Way.

As part of a conservative analysis and as typically required by the City, the proposed 258,945 SF Manufacturing development was divided into 238,569 SF Manufacturing and 20,376 SF Office for trip generation purposes.

² The lower threshold of eighty right turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (fifty feet or greater). 2025-05-27_Four PSL_Traffic_1133.33 Page 3 of 4

The net Daily, AM and PM peak trips potentially generated due to the proposed 258,945 SF Manufacturing development are 1,424, 205 (161 In/44 Out) and 221 (62 In/159 Out) trips respectively. Traffic concurrency for the subject site is vested through the Southern Grove DRI³.

Sincerely,

JFO GROUP INC COA Number 32276



Enclosures:	Exhibit 1: Property Appraiser Information
	Exhibit 2: Site Plan
	Exhibit 3: ITE Trip Generation Rates

³ According to the Treasure Coast Regional Planning Council (2021), the Southern Grove DRI included ±3,600 acres originally approved for 7,400 residential units, 3.7 million SF of retail, 2.4 million SF of office, 2.5 million SF of research and development, 4.6 million SF of warehouse/industrial, nearly 800 hotel rooms, and a 300-bed hospital. 2025-05-27_Four PSL_Traffic_1133.33 Page 4 of 4

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved -- 9/28/2024, 6:22 PM

BD	Parcel 4315-8	ID:							
5	4315-8	TBD Parcel ID:			Account #: 194192		Sec/To	Sec/Town/Range:	
	4315-804-0005-000-2 22S Zoning: Master Pla		0-2	Use	Туре: 60	00	22/37S/39E Jurisdiction: Port Saint L		t Saint Lucie
o			Le	gal Desc	riptio	n			
overnmental Lucie Blvd FL 34984	Finance Corp		SOU	JTHERN GI	ROVE PI	LAT NO. 40 (PB	102-39) PAI	RCEL 3	
Current	Values				His	torical Valu	ies 3-yea	ar	
\$3,891,750	Assessed:	\$59,388	Year	Just/Marke	et	Assessed	Exer	nptions	Taxable
\$0	Taxable:	\$59,388	2024 2023 2022	\$3,891,750 \$2,731,053 \$315,617	0 3	\$59,388 \$59,388 \$1,217		\$0 \$0 \$0	\$59,388 \$59,388 \$1,217
			Sal	e Histor	у				
Boo	ok/Page	Sale (Code I	Deed	Grantor				Price
						Total Area	S		
						Finished/U	nder Air (SF):		0
						Gross Sketcl	ned Area (SF):		0
						Land Size	e (acres):	192.9	02
						Land S	ize (SF):	8,403,5	595
			_			Total Buildin	g Count:		
		Special	Featu	res and	Yard	Items			
Ту	ype		Qty	U U	nits	Year Blt			
	vernmental Lucie Blvd L 34984 urrent V 3,891,750 \$0 Boo	vernmental Finance Corp Lucie Blvd J 34984 urrent Values 3,891,750 Assessed: \$0 Taxable: Book/Page	vernmental Finance Corp Lucie Blvd J 34984 urrent Values 3,891,750 Assessed: \$59,388 \$0 Taxable: \$59,388 Book/Page Sale O Book/Page Sale O	Vernmental Finance Corp SOC Lucie BIVd L 34984 3,891,750 Assessed: \$59,388 Year \$0 Taxable: \$59,388 Year 2023 2022 Sal Book/Page Sale Code I Special Featu Type Qty	Vernmental Finance Corp Lucie BIvd 1 34984 Urrent Values 3,891,750 Assessed: \$59,388 Year Just/Mark \$0 Taxable: \$59,388 2024 \$3,891,75 2023 \$2,731,05 2022 \$315,617 Sale Histor Book/Page Sale Code Deed Book/Page Sale Code Deed Special Features and Type Qty U	Vernmental Finance Corp Lucie Blvd 1 34984 urrent Values 3,891,750 Assessed: \$59,388 Year Just/Market \$0 Taxable: \$59,388 2024 \$3,891,750 2023 \$2,731,053 2022 \$315,617 Sale History Book/Page Sale Code Deed Grantor Book/Page Sale Code Deed Grantor Special Features and Yard Type Qty Units	SOUTHERN GROVE PLAT NO. 40 (PB Lucie Blvd L 34984 urrent Values Historical Valu 3,891,750 Assessed: \$59,388 Year Just/Market Assessed \$0 Taxable: \$59,388 2024 \$3,891,750 \$59,388 2023 \$2,731,053 \$59,388 2022 \$315,617 \$1,217 Sale History Book/Page Sale Code Deed Grantor Total Area: Finished/U Gross Sketel Land Size Land S Total Buildin Special Features and Yard Items Type Qty Units Year Blt	SOUTHERN GROVE PLAT NO. 40 (PB 102-39) PAT Lucie Blvd 1 34984 Urrent Values Historical Values 3-yea 3,891,750 Assessed: \$59,388 Year Just/Market Assessed Exer \$0 Taxable: \$59,388 2024 \$3,891,750 \$59,388 2022 \$315,617 \$1,217 Sale History Book/Page Sale Code Deed Grantor Total Areas Finished/Under Air (SF): Gross Sketched Area (SF): Land Size (acres): Land Size (acres): Land Size (SF): Total Building Count: Special Features and Yard Items Type Qty Units Year Blt	SOUTHERN GROVE PLAT NO. 40 (PB 102-39) PARCEL 3 Lucie Blvd 1 34984 Urrent Values Historical Values 3-year 3,891,750 Assessed: \$59,388 Year Just/Market Assessed Exemptions \$0 Taxable: \$59,388 2024 \$3,891,750 \$59,388 \$0 2023 \$2,731,053 \$59,388 \$0 2022 \$315,617 \$1,217 \$0 Book/Page Sale Code Deed Grantor Total Areas Finished/Under Air (SF): Gross Sketched Area (SF): Land Size (areas): 192.5 Land Size (ares): 192.5 Land Size (ares): 192.5 Land Size (SF): \$4,403,3 Total Building Count: Special Features and Yard Items Type Qty Units Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty. © Copyright 2024 Saint Lucie County Property Appraiser. All rights reserved.

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Land Use: 140 Manufacturing

Description

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions. General light industrial (Land Use 110) and industrial park (Land Use 130) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/tripand-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Minnesota, Missouri, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Washington, and West Virginia.

Source Numbers

177, 179, 184, 241, 357, 384, 418, 443, 583, 598, 611, 728, 747, 875, 879, 940, 969, 1067, 1068, 1082

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location: General Urban/Suburban Number of Studies: 53 Avg. 1000 Sq. Ft. GFA: 208 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.75	0.83 - 49.50	3.20

Data Plot and Equation





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Manufacturing (140)

General Urban/Suburban and Rural (Land Uses 000–399) 67

Manufacturing (140)

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: 48 Avg. 1000 Sq. Ft. GFA: 138

Directional Distribution: 76% entering, 24% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.68	0.01 - 11.93	1.03

Data Plot and Equation



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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.

Number of Studies: 55

Avg. 1000 Sq. Ft. GFA: 142

Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range
0.74	0.07









Exhibit 3 Page 3 of 11

Manufacturing (140)

Setting/Location: General Urban/Suburban

of Rates Standard Deviation ′ - 11.37 0.93

General Urban/Suburban and Rural (Land Uses 000–399) 69

Exhibit 3 Page 4 of 11

Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday, AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 62

Avg. 1000 Sq. Ft. GFA: 178

Directional Distribution: 73% entering, 27% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.80	0.17 - 11.93	0.87

Data Plot and Equation



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Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday,

Number of Studies: 62

Avg. 1000 Sq. Ft. GFA: 180

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.80	0.15 - 11.37	0.82









Exhibit 3 Page 5 of 11

Manufacturing (140)

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

- Directional Distribution: 42% entering, 58% exiting

General Urban/Suburban and Rural (Land Uses 000–399) 71

Land Use: 710 **General Office Building**

Description

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers. A general office building with a gross floor area of 10,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), medical-dental office building (Land Use 720), office park (Land Use 750), research and development center (Land Use 760), and business park (Land Use 770) are additional related uses.

Additional Data

If two or more general office buildings are in close physical proximity (within a close walk) and function as a unit (perhaps with a shared parking facility and common or complementary tenants). the total gross floor area or employment of the paired office buildings can be used for calculating the site trip generation. If the individual buildings are isolated or not functionally related to one another, trip generation should be calculated for each building separately.

For study sites with reported gross floor area and employees, an average employee density of 3.3 employees per 1,000 square feet GFA (or roughly 300 square feet per employee) has been consistent through the 1980s, 1990s, and 2000s. No sites counted in the 2010s reported both GFA and employees.

The average building occupancy varies considerably within the studies for which occupancy data were provided. The reported occupied gross floor area was 88 percent for general urban/suburban sites and 96 percent for the center city core and dense multi-use urban sites.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/tripand-parking-generation/).

The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected are as follows:

- 2.8 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.9 during Weekday, AM Peak Hour of Generator
- 2.9 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.0 during Weekday, PM Peak Hour of Generator

General Urban/Suburban and Rural (Land Uses 400-799) 707

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.5 during Weekday, AM Peak Hour of Generator
- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.5 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.3 during Weekday, AM Peak Hour of Generator
- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.4 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Ontario (CAN)Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972, 1009, 1030, 1058, 1061



• 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location: General Urban/Suburban Number of Studies: 59 Avg. 1000 Sq. Ft. GFA: 163 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.84	3.27 - 27.56	4.76

Data Plot and Equation

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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.

Number of Studies: 221

Avg. 1000 Sq. Ft. GFA: 201

Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range
1.52	0.32





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Exhibit 3 Page 9 of 11

General Office Building (710)

Setting/Location: General Urban/Suburban

of Rates Standard Deviation 2 - 4.93 0.58

General Office Building (710)

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: 232

Avg. 1000 Sq. Ft. GFA: 199

Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.44	0.26 - 6.20	0.60

Data Plot and Equation



General Urban/Suburban and Rural (Land Uses 400–799) **711**

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