Quattrone & Associates, Inc.
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BABCOCK ROAD – US 41

TRAFFIC IMPACT STATEMENT

July 2023

Prepared By:
Carson Roisum

Reviewed By:
Alfred Quattrone, P.E.
FL. REG #52741

Al Quattrone, Professional Engineer, State of Florida, License No. 52741 This item has been digitally signed and sealed by Al Quattrone, PE, on 7/31/2023.

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Alfred Quattrone Digitally signed by Alfred Quattrone Date: 2023-07-31 07:38:25

QAI Project # 220102

Quattrone & Associates, Inc.

Babcock Road – US-41

STRAP#: 0746250000009001A, 7462500000100010, 7462500000110020, 0846250100000001B, 8462500010070000, 8462500010060000, 8462500010050010, Babcock Rd – US 41, Fort Myers, FL. 33967.

The purpose of the TIS is to analyze the potential traffic impacts and identify any improvements or conflicts by altering the future land use category in an overall area.

EXISTING CONDITIONS

OVERVIEW

The subject property is located approximately 1.3 miles south of the intersection of Alico Rd and US-41. The comprehensive planned area for this analysis includes 13 parcels with a total area described below. The total area is acquired from Aim Engineering & Surveying Inc. with a Legal Sketch & Description dated from 12-05-2022 showing 25.60 acres total.

Strap #
0746250000009001A
7462500000100010
7462500000110020
8462500010060000
8462500010050010
8462500010070000
0846250100000001B
Total Area = 25.60 Acres

ROADWAY INFORMATION

S Tamiami Trail (US-41) is a state-maintained six-lane divided arterial with a posted speed limit of 50 mph. Alico Rd is a four-lane divided arterial within the vicinity of the subject site. Alico Rd has a posted speed limit of 45 mph and is under the jurisdiction of the Lee County Department of Transportation. Michael G. Rippe Pkwy is a six-lane divided county maintained arterial within the vicinity of the subject site. Michael G. Rippe Pkwy has a posted speed limit of 55 mph. Babcock Rd is a two-lane two-way county maintained minor collector roadway, with a speed limit of 30 mph. Constitution Blvd is a two-way divided county maintained major collector roadway with a posted speed limit of 30 mph.

PROPOSED DEVELOPMENT

The existing development area is zoned with a future land use of Urban Community with a maximum base density of 6 dwelling units per gross acre. The proposed future land use for the area is Central Urban with a maximum base density of 10 dwelling units per gross area, totaling 267 multi-family dwellings units with the purchase of an allowable number of TDRs. For both Urban Community and Central Urban, the same commercial developments/retail can be built so there is no net improvement or change in terms of trip generation onto local roadway. The proposed development will be analyzed by looking at the overall impact of 267 residential units instead of net difference.

Below is the land use codes utilized to calculate the projected trips:

LUC 220 – Multifamily Housing (Low-Rise) **267 Dwelling Units**

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TRIP GENERATION

The trip generation proposed for the development was determined using OTISS software which references the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation*, 11th Edition. LUC-220 had best fit curves available for the weekday and AM/PM peak hour analysis. All the analyses for LUC 220 were generated using the ITE best fit rate

The table below outlines the anticipated A.M. and P.M. peak hour trip generation for the proposed use as well as weekday analysis, calculated by OTISS.

Land Use	Peak AM		Peak PM		Weekday	
	Entry	Exit	Entry	Exit	Entry	Exit
220 – Multifamily Housing (Low-Rise) 267 Dwelling Units	25	81	85	50	893	894

TRIP DISTRIBUTION

The total trip from the future development is assumed to all eventually come from S Tamiami Trail (US-41). It is assumed that 50% of trips will be accessing the site from the north and 50% of the trips will be accessing the site traveling south on US-41. Additionally, it was assumed that 30% of traffic heading to/from the north will access both Alico Road and Michael G. Rippe Parkway (15% each). These assumptions w determined by referencing nearby commodities and businesses.

PROJECT LEVEL OF SERVICE AND IMPROVEMENTS

There is one roadway that will be analyzed for Level of Service, S Tamiami Trail (US-41).

Florida Traffic Online currently displays the 100th highest hour traffic volume of 2,413 trips just north and south of the site, and 2,900 north of Alico Road on US 41. For the county-maintained roadways, the most recent concurrency report was utilized to determine peak hour traffic. Utilizing the specific service volumes attached in the Appendix, it was found that all roadways have sufficient capacity with and without the project traffic. Therefore, no LOS degradation is expected for current conditions.

SHORT TERM AND LONG-TERM ANALYSIS

Per Lee County standards, the proposed amendment is to be analyzed for 2028 and 2045. The existing 2022 peak hour peak season peak direction volumes were calculated by adjusting both Lee County and FDOT's appropriate traffic counts. These values were then assigned an appropriate growth rate and were converted to future traffic volumes. US-41 directly adjacent to the subject site is anticipated to operate at Level of Service C in 2028 both with and without the addition of project traffic. However, north of Alico road US 41 is expected to fail with and without the proposed trips. US-41 in 2045 is expected to operate below the minimum LOS value without the addition of project traffic in all scenarios. Alico Road and Michael G. Rippe Parkway are expected to operate at Level of Service C in both 2028 and 2045 with the addition of the project traffic. Therefore, no improvements will be warranted as a result of the proposed development. Table 2 displays both scenarios.

CONCLUSION

The proposed development will not have a significant impact on the surrounding roadway network. Based on the Level of Service analysis conducted as a part of this report, the proposed changes will not degrade US-41. US-41 is anticipated to operate below minimum standards in the horizon year both with and without the project traffic. Therefore, no roadway capacity improvements are required as a result of the proposed change.

REFERENCES

- *Florida Traffic Information Online*
- *FDOT's Generalized Peak Hour Directional Volumes, Table 7*
- *Institute of Transportation Engineers Trip Generation, 11th Edition*
- *Lee County Generalized Level of Service Thresholds 2016 (LCDOT)*
- *Lee County Traffic Counts 2022 (LCDOT)*
- *Lee County Concurrency Report 2022 (LCDOT)*
- *Trip Generation by OTISS Online Traffic Impact Study Software*

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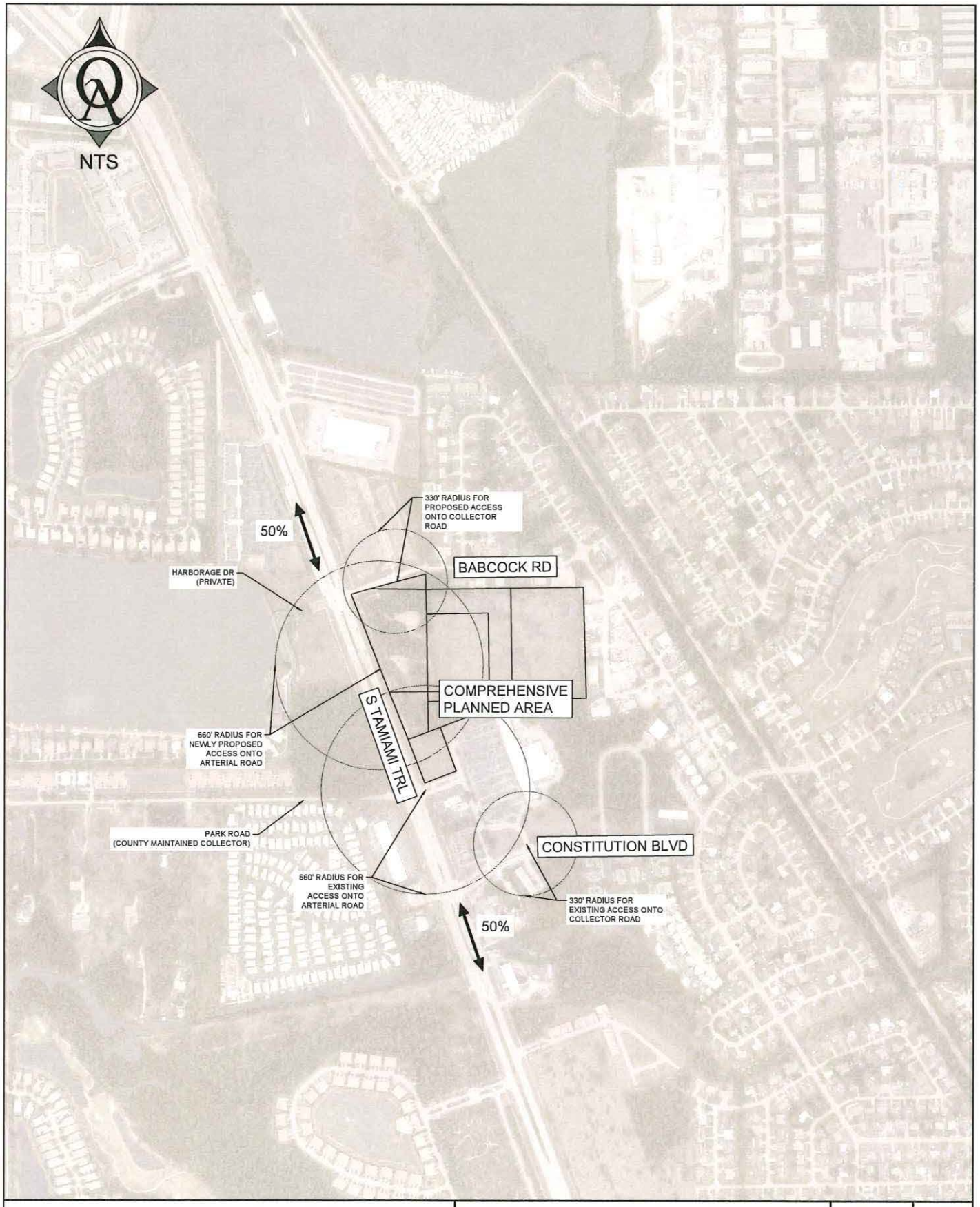
TRIP DISTRIBUTION EXHIBITS

- Trip LOS Exhibits T-01 & T-02



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Certificate of Authorization Number: 9465

INBOUND TRIPS

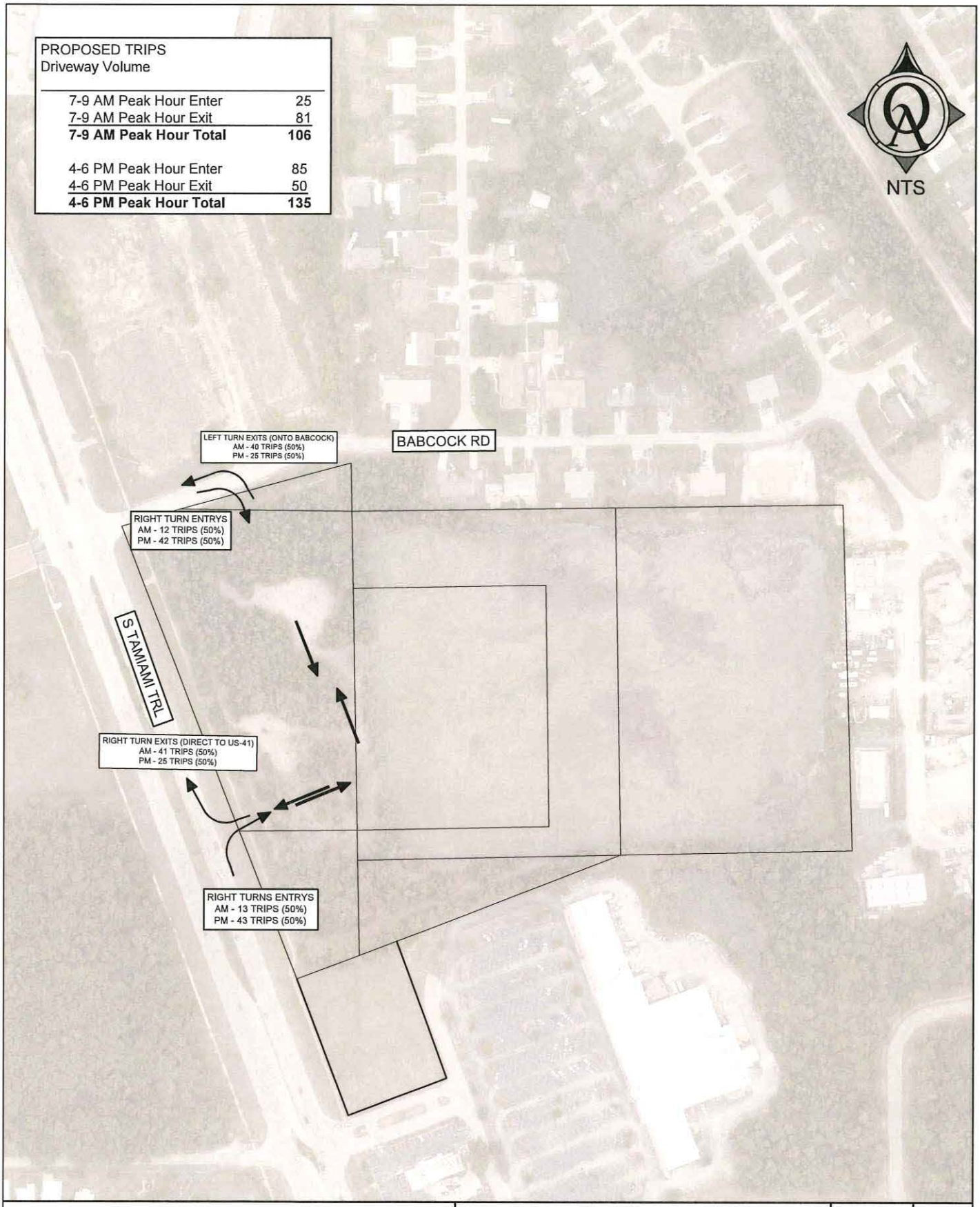
TIS LOS EXHIBIT

BABCOCK ROAD
FORT MYERS, FL 33967.

SHEET
T-01
01 OF 03

PROPOSED TRIPS Driveway Volume	
7-9 AM Peak Hour Enter	25
7-9 AM Peak Hour Exit	81
7-9 AM Peak Hour Total	**106**
4-6 PM Peak Hour Enter	85
4-6 PM Peak Hour Exit	50
4-6 PM Peak Hour Total	**135**

NTS



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BABCOCK APARTMENTS

TURN LANE EXHIBIT

BABCOCK ROAD
FORT MYERS, FL 33967.

SHEET
T-02
03 OF 03

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TRIP GENERATION ANALYSIS

- ITE generated trips table
- Level of Service (Table 1)
- Short Term and Horizon Year LOS (Table 2)

Scenario - 1								
Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220(2) - Multifamily Housing (Low-Rise) - Not Data Source: Trip Generation Manual, 11th Ed	General Urban/Suburban	Dwelling Units	267	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN) T = 0.31(X) + 22.85	25 24%	80 76%	105
220 - Multifamily Housing (Low-Rise) - Not Close Data Source: Trip Generation Manual, 11th Ed	General Urban/Suburban	Dwelling Units	267	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN) T = 0.43(X) + 20.55	85 63%	50 37%	135
220(1) - Multifamily Housing (Low-Rise) - Not Data Source: Trip Generation Manual, 11th Ed	General Urban/Suburban	Dwelling Units	267	Weekday	Best Fit (LIN) T = 6.41(X) + 75.31	893 50%	893 50%	1786

TABLE 1: LEVEL OF SERVICE THRESHOLDS

TOTAL AM PEAK HOUR PROJECT TRAFFIC =	106 VPH	IN= 25	OUT= 81
TOTAL PM PEAK HOUR PROJECT TRAFFIC =	135 VPH	IN= 85	OUT= 50

ROADWAY	SEGMENT	ROADWAY CLASS	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PROJECTED TRAFFIC DISTRIBUTION	NEW PROJECT TRAFFIC AM PEAK	NEW PROJECT TRAFFIC PM PEAK	PROJECT/LOS C
US 41	N. of Site	6LD	-	-	3,087	3,171	3,171	50%	41	43	1.38%
	S. of Site	6LD	-	-	3,087	3,171	3,171	50%	41	43	1.38%
	N. of Alico Rd.	6LD	-	-	3,087	3,171	3,171	20%	16	17	0.55%
Alico Rd.	E. of US 41	4LD	-	250	1,840	1,960	1,960	15%	12	13	0.69%
Michael G. Rippe Pkwy.	N. of US 41	6LD	-	-	3,087	3,171	3,171	15%	12	13	0.41%

* The Level of Service thresholds for US 41 were obtained from the FDOT Generalized Service Volume Table

** The Level of Service thresholds for County Roadways were obtained from the Lee County Generalized Service Volume Table

TABLE 2: SHORT TERM AND HORIZON YEAR ANALYSIS

Segment	K Factor	D Factor
120034	0.09	0.531
120067	0.09	0.537

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 106 VPH IN= 25 OUT= 81

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 135 VPH IN= 85 OUT= 50

ROADWAY	SEGMENT	STA. #	BASE YR ADT	2022 ADT	YRS OF GROWTH	ANNUAL RATE	PRESENT PK HR PK SEASON	2028 PK HR PK SEASON VOLUME	2028 LOS	2045 PK HR PK SEASON VOLUME	2045 LOS	PROJECT TRAFFIC	AM TRAFFIC	PM TRAFFIC	2028 BACKGROUND+AM PROJECTED VOLUME	2028 BACKGROUND+AM PROJECTED LOS	2028 BACKGROUND+PM PROJECTED VOLUME	2028 BACKGROUND+PM PROJECTED LOS	2045 BACKGROUND+PM PROJECTED VOLUME	2045 BACKGROUND+PM PROJECTED LOS	2045 BACKGROUND+PM PROJECTED VOLUME	2045 BACKGROUND+PM PROJECTED LOS
US 41	N. of Site	120034	50,500	50,500	16	2.00%	2,413	2,718	C	3,806	F	50%	41	43	2,758	C	2,760	C	3,846	F	3,848	F
	S. of Site	120034	50,500	50,500	16	2.00%	2,413	2,718	C	3,806	F	50%	41	43	2,758	C	2,760	C	3,846	F	3,848	F
	N. of Alico Rd.	120067	55,000	60,000	15	2.00%	2,900	3,266	F	4,573	F	20%	16	17	3,282	F	3,283	F	4,589	F	4,590	F
Alico Rd.	E. of US 41	204	23,400	25,600	6	2.00%	1,171	1,319	C	1,847	D	15%	12	13	1,331	C	1,331	C	1,859	D	1,859	D
Michael G. Rippe Pkwy.	N. of US 41	531	17,500	15,000	0	2.00%	1,397	1,573	C	2,203	C	15%	12	13	1,585	C	1,586	C	2,215	C	2,216	C

* 2022 Peak Hour Peak Season Values Were Calculated Using FDOT's K and D Factors Multiplied by the Current AADT Volume for State Controlled Roadways

** 2022 Peak Hour Peak Season Values Were Calculated Using Lee County's 2022 Concurrency Report for County Controlled Roadways

*** Growth Rates were Calculated by Referencing LCDOT & FDOT's AADT Traffic Count Volumes

**** A Minimum Growth Rate of 2.00% was Assigned

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TRIP GENERATION GRAPHS

- Land Use Description
- ITE generated graphs

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

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/trip-and-parking-generation/).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

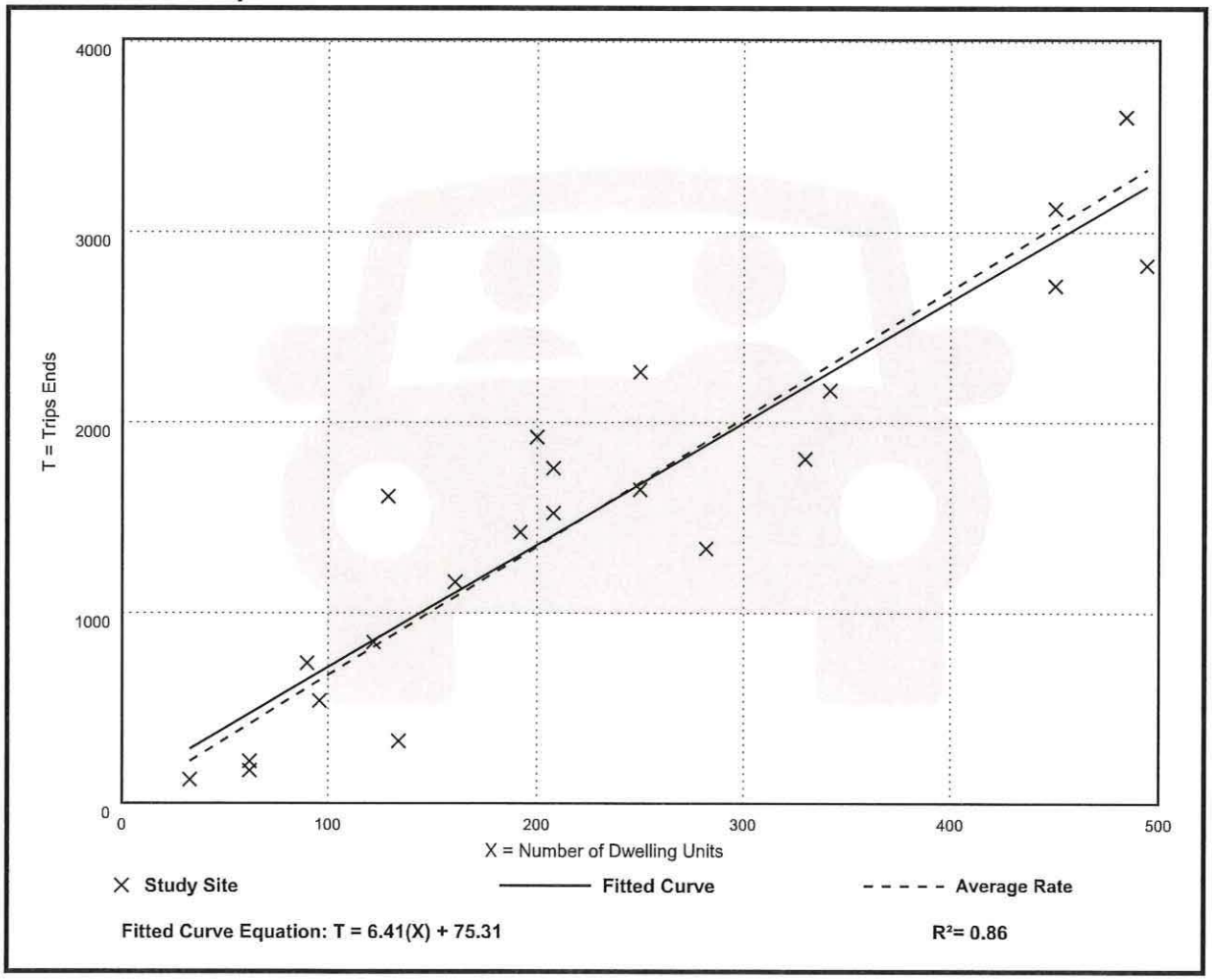
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

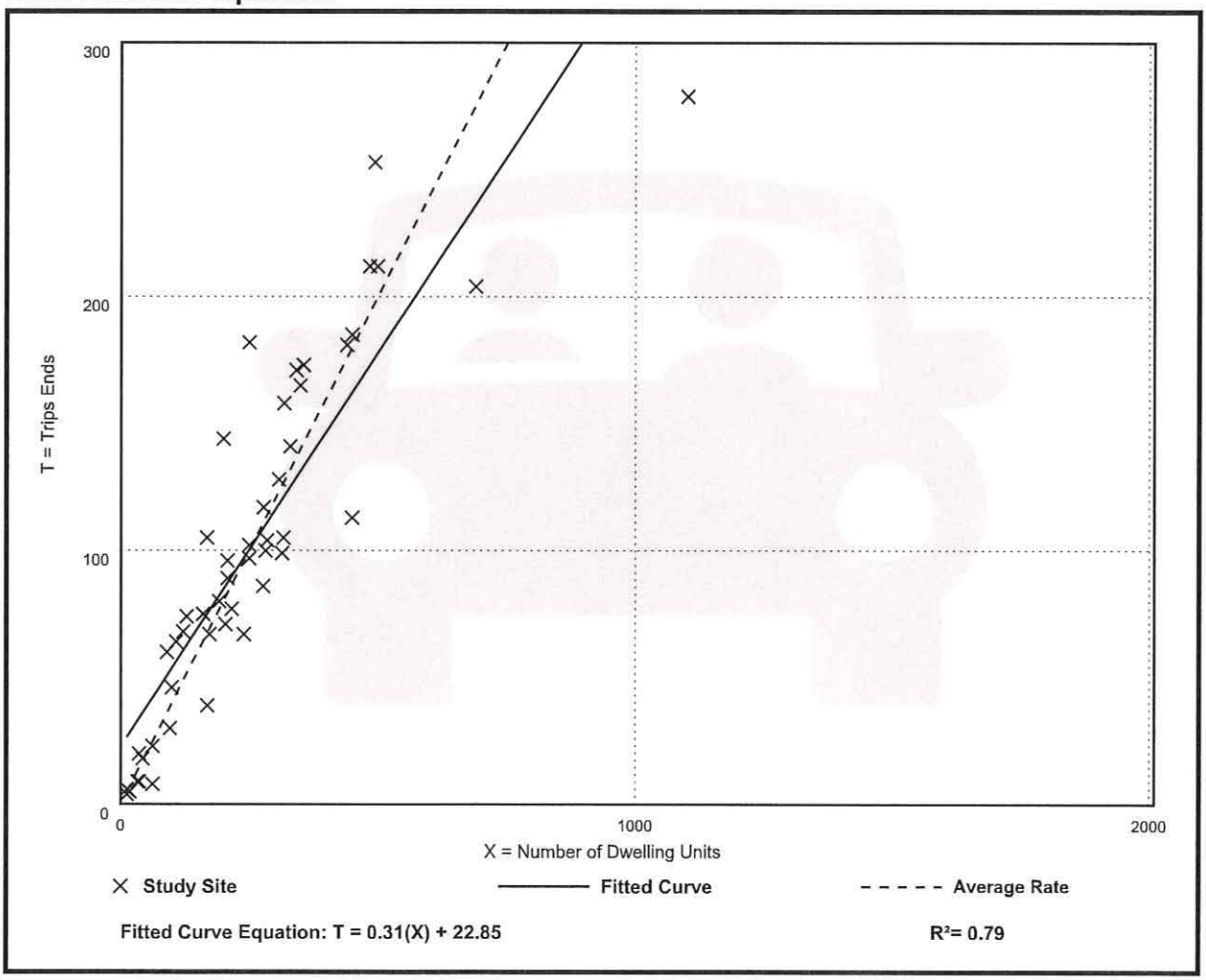
Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 22.85

R^2= 0.79

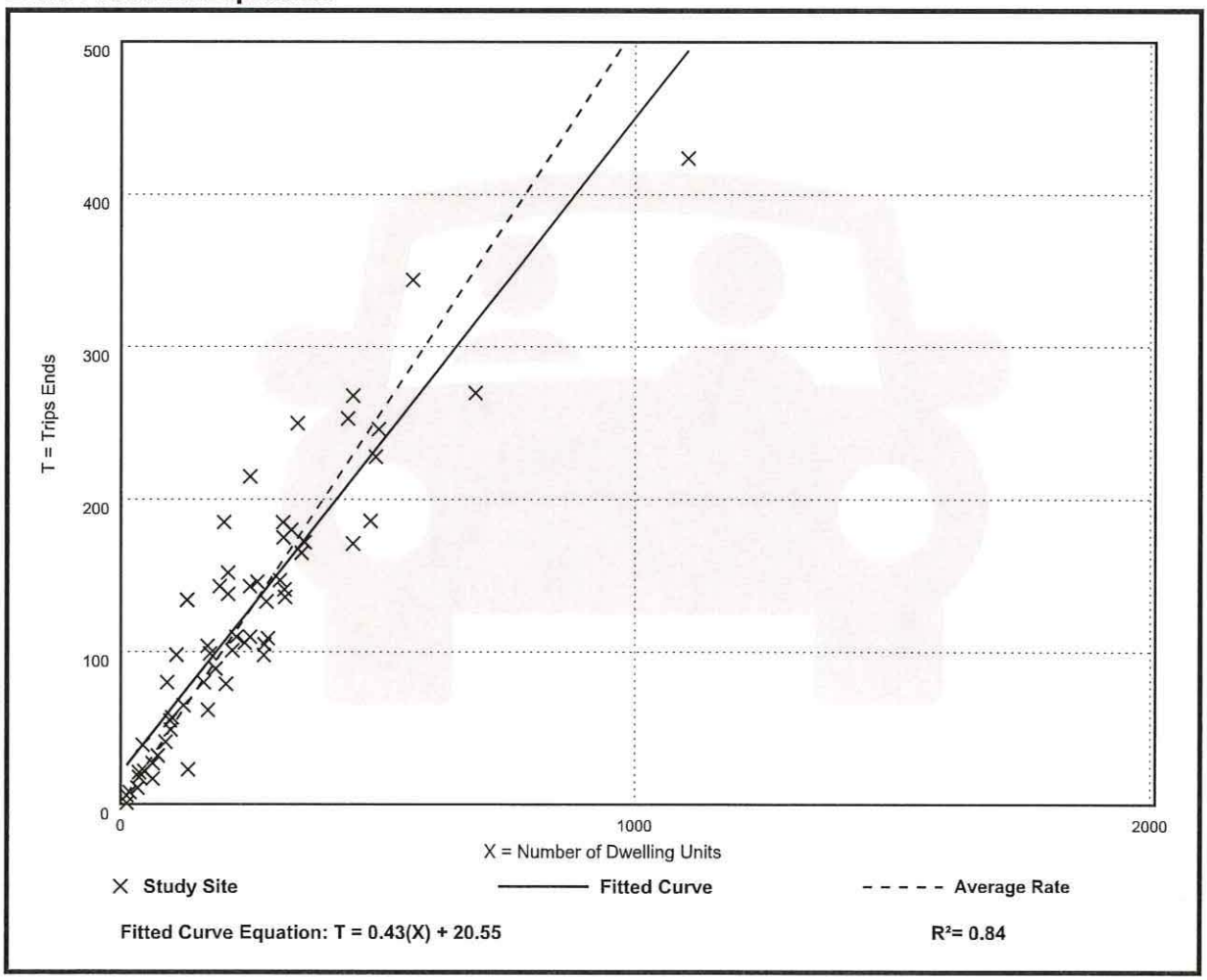
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

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CONCURRENCY & TRAFFIC REPORT

- Florida Traffic Online's Historical AADT Values
- 2022 Lee County Traffic Count Report
- 2022 Lee County Concurrency Report
- 2016 Generalized Service Thresholds
- FDOT Generalized Peak Hour Directional Volumes, Table 7

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0034 - SR 45/US 41, NW OF SANIBEL BOULEVARD LC424

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	50500 C	N 25000	S 25500	9.00	53.10	5.30
2020	42500 C	N 21000	S 21500	9.00	52.80	5.30
2019	54000 C	N 26500	S 27500	9.00	53.30	3.70
2018	49000 C	N 24500	S 24500	9.00	53.30	5.00
2017	48000 C	N 23500	S 24500	9.00	53.20	4.00
2016	48500 C	N 24500	S 24000	9.00	56.20	4.00
2015	45000 C	N 22500	S 22500	9.00	54.50	4.00
2014	42000 C	N 21000	S 21000	9.00	54.60	3.50
2013	39500 C	N 19500	S 20000	9.00	59.70	4.20
2012	41000 C	N 20500	S 20500	9.00	54.30	3.40
2011	40000 C	N 20000	S 20000	9.00	55.00	3.30
2010	38500 C	N 19000	S 19500	10.32	57.60	3.30
2009	41000 C	N 20500	S 20500	10.24	54.47	3.90
2008	44500 C	N 22500	S 22000	10.37	58.94	4.60
2007	53500 F	N 26500	S 27000	10.16	54.76	3.80
2006	50500 C	N 25000	S 25500	10.23	54.38	3.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0067 - SR 45/US 41, NORTHWEST OF ALICO ROAD LC420

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	60000 F	N 29500	S 30500	9.00	53.70	5.50
2021	60000 C	N 29500	S 30500	9.00	53.10	5.50
2020	46000 C	N 22500	S 23500	9.00	52.80	6.50
2019	60000 C	N 29500	S 30500	9.00	53.30	4.40
2018	52000 C	N 25500	S 26500	9.00	53.30	5.30
2017	52000 C	N 25500	S 26500	9.00	53.20	4.60
2016	53000 C	N 26500	S 26500	9.00	56.20	4.30
2015	58500 C	N 29000	S 29500	9.00	54.50	3.70
2014	52000 C	N 25500	S 26500	9.00	54.60	3.50
2013	50000 C	N 24500	S 25500	9.00	59.70	4.20
2012	60500 C	N 30500	S 30000	9.00	54.30	4.80
2011	63000 C	N 31500	S 31500	9.00	55.00	4.40
2010	62000 C	N 31500	S 30500	10.32	57.60	4.00
2009	56500 C	N 28500	S 28000	10.24	54.47	4.60
2008	59000 C	N 30000	S 29000	10.37	58.94	5.10
2007	55000 C	N 28500	S 26500	10.16	54.76	5.40

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

Updated 5/3/2023			Daily Traffic Volume (AADT)									
STREET	LOCATION	Station #	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
A & W BULB RD	N OF GLADIOLUS DR	215	6800		6600		7100		7700			
ALABAMA RD	N OF IMMOKALEE RD	201			6800		7100		6000			
ALABAMA RD	S OF HOMESTEAD RD	200	9000	9300	10300	11000		10200	10700	7900		11800
ALICO RD	E OF US 41	204	23400	19900	21900	24100	22100	22800	24200	25600		
ALICO RD	E OF LEE RD	207										
ALICO RD	W OF I - 75	10	29100	38400	41100	43600	44800	47900	49800	41900	49600	53700
ALICO RD	E OF I - 75	53	26900	28400	25600	24300	24600	26200	24200	20200	26100	28000
ALICO RD	E OF BEN HILL GRIFFIN PKWAY	205		7500		8500		8900				16200
ALICO RD	N OF CORKSCREW RD	206										5300

Updated 5/3/2023			Daily Traffic Volume (AADT)									
STREET	LOCATION	Station #	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
McGREGOR BLVD	@ SANIBEL TOLL PLAZA	320	16300	23100								
McGREGOR BLVD	AT SANIBEL TOLL PLAZA	120			17900	20600	18400	18000	18200	16400	19400	19600
McGREGOR BLVD	E OF KELLY RD	38	15500	15800	16100	15600	15700	15900	15900	15300	16100	14800
McGREGOR BLVD (SR 867)	S OF PINE RIDGE RD	37	27400	27700	28300	28000	27600	27800	30000	25500	28700	28100
McGREGOR BLVD (SR 867)	N OF A&W BULB RD	126								32200	39300	38200
McGREGOR BLVD	N OF MANUELS DR	29	14800	14700	15200	15500	13200	11500	15400	13100	13300	14900
METRO PKWY (SR 739)	N OF SIX MILE PKWY	337	14300									
METRO PKWY (SR 739)	S OF CRYSTAL DR	125								20900		26300
METRO PKWY (SR 739)	N OF ARC WAY	45	21600	22700	24300	25200	25000	25300	25700	23400	25200	25500
METRO PKWY (SR 739)	S OF SIX MILE CYPRESS PKWY	3809										27600
MICHAEL RIPPE PKWY	S OF SIX MILE CYPRESS PKWY	531	17500									
MILWAUKEE BLVD	E OF HOMESTEAD RD	341					3700		3800			

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 1 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
00100	A & W BULB RD	GLADIOLUS DR	McGREGOR BLVD	Maj. Col	2LN	E	860	C	342	0.40	C	360	0.42	
00200	ALABAMA RD	SR 82	MILWAUKEE BLVD	M. Art	2LN	E	990	C	265	0.27	C	279	0.28	
00300	ALABAMA RD	MILWAUKEE BLVD	HOMESTEAD RD	M. Art	2LN	E	990	C	349	0.35	C	367	0.37	
00400	ALEXANDER BELL BLVD	SR 82	MILWAUKEE BLVD	M. Art	2LN	E	990	D	561	0.57	D	590	0.60	
00500	ALEXANDER BELL BLVD	MILWAUKEE BLVD	LEELAND HEIGHTS	M. Art	2LN	E	990	D	561	0.57	D	654	0.66	Shadow Lakes
00590	ALICO RD	US 41	DUSTY RD	P. Art	4LD	E	1,980	B	1,171	0.59	B	1,230	0.62	
00600	ALICO RD	DUSTY RD	LEE RD	P. Art	6LD	E	2,960	B	1,171	0.40	B	1,532	0.52	Alico Business Park
00700	ALICO RD	LEE RD	THREE OAKS PKWY	P. Art	6LD	E	2,960	B	1,171	0.40	B	1,419	0.48	Three Oaks Regional Center
00800	ALICO RD	THREE OAKS PKWY	I-75	P. Art	6LD	E	2,960	B	2,428	0.82	B	2,552	0.86	EEPCO Study
00900	ALICO RD	I-75	BEN HILL GRIFFIN BLVD	P. Art	6LD	E	2,960	B	1,278	0.43	B	1,425	0.48	EEPCO Study
01000	ALICO RD	BEN HILL GRIFFIN BLVD	GREEN MEADOW DR	Maj. Col	2LN	E	1,100	C	395	0.36	E	808	0.73	4 Ln constr 2018, EEPCO Study*
01050	ALICO RD	GREEN MEADOW DR	CORKSCREW RD	Maj. Col	2LN	E	1,100	B	131	0.12	B	224	0.20	EEPCO Study
01200	BABCOCK RD	US 41	ROCKEFELLER CIR	Min. Col	2LN	E	860	C	55	0.06	C	162	0.19	old count
01400	BARRETT RD	PONDELLA RD	PINE ISLAND RD (US 78)	Maj. Col	2LN	E	860	C	103	0.12	C	116	0.14	old count projection(2009)
01500	BASS RD	SUMMERLIN RD	GLADIOLUS DR	Maj. Col	4LN	E	1,790	C	564	0.32	C	822	0.46	
01600	BAYSHORE RD (SR 78)	BUS 41	NEW POST RD/HART RD	State	4LD	D	2,100	C	1,975	0.94	D	2,076	0.99	
01700	BAYSHORE RD (SR 78)	HART RD	SLATER RD	State	4LD	D	2,100	C	1,821	0.87	F	2,152	1.02	
01800	BAYSHORE RD (SR 78)	SLATER RD	I-75	State	4LD	D	2,100	C	1,222	0.58	C	1,441	0.69	
01900	BAYSHORE RD (SR 78)	I-75	NALLE RD	State	2LN	D	924	C	741	0.80	F	941	1.02	
02000	BAYSHORE RD (SR 78)	NALLE RD	SR 31	State	2LN	D	924	C	741	0.80	F	941	1.02	
02100	BEN HILL GRIFFIN PKWY	CORKSCREW RD	FGCU ENTRANCE	P. Art	4LD	E	2,000	B	1,361	0.68	B	1,763	0.88	
02200	BEN HILL GRIFFIN PKWY	FGCU BOULEVARD S	COLLEGE CLUB DR	P. Art	4LD	E	2,000	B	1,361	0.68	B	1,430	0.72	
02250	BEN HILL GRIFFIN PKWY	COLLEGE CLUB DR	ALICO RD	P. Art	6LD	E	3,000	A	1,123	0.37	A	1,215	0.41	
26950	BEN HILL GRIFFIN PKWY	ALICO RD	TERMINAL ACCESS RD	Controlled xs	4LD	E	1,980	A	980	0.49	A	1,030	0.52	
02300	BETH STACEY BLVD	23RD ST	HOMESTEAD RD	Maj. Col	2LN	E	860	C	340	0.40	C	565	0.66	
02400	BONITA BEACH RD	HICKORY BLVD	VANDERBILT DR	P. Art	4LD	E	1,900	C	736	0.39	C	774	0.41	Constrained In City Plan *
02500	BONITA BEACH RD	VANDERBILT DR	US 41	P. Art	4LD	E	1,900	C	1,433	0.75	C	1,506	0.79	Constrained In City Plan
02600	BONITA BEACH RD	US 41	OLD 41	P. Art	4LD	E	1,860	C	1,427	0.77	C	1,500	0.81	Constrained, old count projection(2010)
02700	BONITA BEACH RD	OLD 41	IMPERIAL ST	P. Art	6LD	E	2,800	C	1,908	0.68	C	2,005	0.72	Constrained In City Plan(2010)
02800	BONITA BEACH RD	IMPERIAL ST	W OF I-75	P. Art	6LD	E	2,800	C	2,091	0.75	C	2,197	0.78	Constrained In City Plan
02900	BONITA BEACH RD	E OF I-75	BONITA GRAND DR	M. Art	4LD	E	2,020	B	626	0.31	B	658	0.33	Constrained In City Plan
02950	BONITA BEACH RD	BONITA GRANDE DR	Logan Boulevard	M. Art	4LD	E	2,020	B	626	0.31	B	658	0.33	Constrained In City Plan
03100	BONITA GRANDE DR	BONITA BEACH RD	E TERRY ST	Maj. Col	2LN	E	860	D	692	0.80	E	782	0.91	old count projection(2009)
03200	BOYSCOUT RD	SUMMERLIN RD	US 41	P. Art	6LN	E	2,520	E	1,847	0.73	E	1,941	0.77	
03300	BRANTLEY RD	SUMMERLIN RD	US 41	Maj. Col	2LN	E	860	C	287	0.33	C	302	0.35	
03400	BRIARCLIFF RD	US 41	TRIPLE CROWN CT	Maj. Col	2LN	E	860	C	158	0.18	C	166	0.19	
03500	BROADWAY RD (ALVA)	SR 80	North RIVER RD	Maj. Col	2LN	E	860	C	280	0.33	C	294	0.34	old count projection(2009)
03700	BUCKINGHAM RD	SR 82	GUNNERY RD	P. Art	2LN	E	990	D	491	0.50	D	516	0.52	
03730	BUCKINGHAM RD	GUNNERY RD	ORANGE RIVER BLVD	P. Art	2LN	E	990	C	395	0.40	C	415	0.42	
03800	BUCKINGHAM RD	ORANGE RIVER BLVD	SR 80	P. Art	2LN	E	990	D	644	0.65	F	1,057	1.07	Buckingham 345 & Portico
03900	BURNT STORE RD	SR 78	VAN BUREN PKWY	Controlled xs	4LD	E	2,950	B	828	0.28	B	870	0.29	
04000	BURNT STORE RD	VAN BUREN PKWY	COUNTY LINE	Controlled xs	2LN	E	1,140	C	528	0.46	C	626	0.55	
04200	BUS 41 (N TAMIAMI TR, S	CITY LIMITS (N END EDISON BRG)	PONDELLA RD	State	6LD	D	3,171	C	1,715	0.54	C	2,082	0.66	
04300	BUS 41 (N TAMIAMI TR, S	PONDELLA RD	SR 78	State	6LD	D	3,171	C	1,715	0.54	C	2,082	0.66	
04400	BUS 41 (N TAMIAMI TR, S	SR 78	LITTLETON RD	State	4LD	D	2,100	C	994	0.47	C	1,245	0.59	
04500	BUS 41 (N TAMIAMI TR, S	LITTLETON RD	US 41	State	4LD	D	2,100	C	596	0.28	C	796	0.38	
04600	CAPE CORAL BRIDGE	DEL PRADO BLVD	McGREGOR BLVD	P. Art	4LB	E	4,000	D	3,097	0.77	D	3,255	0.81	
04700	CAPTIVA DR	BLIND PASS	SOUTH SEAS	Maj. Col	2LN	E	860	C	267	0.31	C	302	0.35	Constrained, old count(2010)

County-Maintained Collector Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Arterial Roadway - Incorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Controlled Access Aterial Facility

County Maintained Expressway

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 4 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
13900	JOEL BLVD	18TH ST	SR 80	P. Art	2LN	E	1,010	C	482	0.48	D	506	0.50	
14000	JOHN MORRIS RD	BUNCHE BEACH	SUMMERLIN RD	Min. Col	2LN	E	860	C	62	0.07	C	72	0.08	old count projection
14100	JOHN MORRIS RD	SUMMERLIN RD	IONA RD	Maj. Col	2LN	E	860	C	256	0.30	C	269	0.31	*
14200	KELLY RD	McGREGOR BLVD	SAN CARLOS BLVD	Maj. Col	2LN	E	860	C	264	0.31	C	277	0.32	
14300	KELLY RD	SAN CARLOS BLVD	PINE RIDGE RD	Maj. Col	2LN	E	860	C	106	0.12	C	120	0.14	old count projection(2010)
14500	LAUREL DR	BUS 41	BREEZE DR	Maj. Col	2LN	E	860	C	384	0.45	C	404	0.47	
14600	LEE BLVD	SR 82	ALVIN AVE	P. Art	6LD	E	2,840	B	2,084	0.73	B	2,190	0.77	
14700	LEE BLVD	ALVIN AVE	GUNNERY RD	P. Art	6LD	E	2,840	B	1,957	0.69	B	2,136	0.75	
14800	LEE BLVD	GUNNERY RD	HOMESTEAD RD	P. Art	6LD	E	2,840	B	2,093	0.74	B	2,200	0.77	
14900	LEE BLVD	HOMESTEAD RD	WILLIAMS AVE	P. Art	4LD	E	1,980	B	898	0.45	B	943	0.48	
14930	LEE BLVD	WILLIAMS AVE	LEELAND HEIGHTS	P. Art	2LN	E	1,020	C	898	0.88	C	943	0.92	
15000	LEE RD	SAN CARLOS BLVD	ALICO RD	Maj. Col	2LN	E	860	C	544	0.63	D	614	0.71	old count projection(2015)
15100	LEELAND HEIGHTS	HOMESTEAD RD	JOEL BLVD	P. Art	4LN	E	1,800	B	832	0.46	B	867	0.48	*
15200	LEONARD BLVD	GUNNERY RD	WESTGATE BLVD	M. Art	2LN	E	860	D	763	0.89	D	819	0.95	
15300	LITTLETON RD	CORBETT RD	US 41	Maj. Col	2LN	E	860	C	528	0.61	C	555	0.65	
15400	LITTLETON RD	US 41	BUS 41	Maj. Col	2LN	E	860	C	437	0.51	C	459	0.53	
15500	LUCKETT RD	ORTIZ AVE	I-75	M. Art	2LN	E	880	B	317	0.36	B	392	0.45	4 Ln design & ROW
15600	LUCKETT RD	I-75	COUNTRY LAKES DR	Maj. Col	2LN	E	860	B	285	0.33	C	299	0.35	
15700	MAPLE DR*	SUMMERLIN RD	2ND AVE	Min. Col	2LN	E	860	C	77	0.09	C	89	0.10	old count projection
15800	McGREGOR BLVD	SANIBEL T PLAZA	HARBOR DR	P. Art	4LD	E	1,960	B	1,173	0.60	B	1,233	0.63	
15900	McGREGOR BLVD	HARBOR DR	SUMMERLIN RD	P. Art	4LD	E	1,960	B	1,180	0.60	B	1,240	0.63	
16000	McGREGOR BLVD	SUMMERLIN RD	KELLY RD	M. Art	4LD	E	1,960	A	927	0.47	A	983	0.50	
16100	McGREGOR BLVD	KELLY RD	GLADIOLUS DR	M. Art	4LD	E	1,960	A	927	0.47	A	975	0.50	
16200	McGREGOR BLVD (SR 86	OLD McGREGOR /GLADIOLUS DR	IONA LOOP RD	State	4LD	D	2,100	C	1,465	0.70	C	1,635	0.78	
16300	McGREGOR BLVD (SR 86	IONA LOOP RD	PINE RIDGE RD	State	4LD	D	2,100	C	1,465	0.70	C	1,635	0.78	
16400	McGREGOR BLVD (SR 86	PINE RIDGE RD	CYPRESS LAKE DR	State	4LD	D	2,100	C	1,674	0.80	C	1,873	0.89	
16500	McGREGOR BLVD (SR 86	CYPRESS LAKE DR	COLLEGE PKWY	State	4LD	D	2,100	C	1,674	0.80	C	1,873	0.89	
16600	McGREGOR BLVD (SR 86	COLLEGE PKWY	WINKLER RD	State	2LN	D	924	C	726	0.79	C	797	0.86	Constrained
16700	McGREGOR BLVD (SR 86	WINKLER RD	TANGLEWOOD BLVD	State	2LN	D	970	E	1,039	1.07	E	1,143	1.18	Constrained
16800	McGREGOR BLVD (SR 86	TANGLEWOOD BLVD	COLONIAL BLVD	State	2LN	D	970	E	1,039	1.07	E	1,143	1.18	Constrained
16900	METRO PKWY (SR 739)	SIX MILE PKWY	DANIELS PKWY	State	6LD	D	3,171	C	1,136	0.36	C	1,492	0.47	
17000	METRO PKWY (SR 739)	DANIELS PKWY	CRYSTAL DR	State	4LD	D	2,100	C	1,184	0.56	C	1,446	0.69	
17100	METRO PKWY (SR 739)	CRYSTAL DR	DANLEY DR	State	4LD	D	2,100	C	1,665	0.79	D	2,092	1.00	
17200	METRO PKWY (SR 739)	DANLEY DR	COLONIAL BLVD	State	4LD	D	2,100	C	1,665	0.79	D	2,092	1.00	
	MICHAEL RIPPE PKWY	US41	SIX MILES PKWY	State	6LD	D	3,171	C	1,397	0.44	C	1,875	0.59	
17600	MILWAUKEE BLVD	ALABAMA BLVD	BELL BLVD	Maj. Col	2LN	E	860	C	168	0.20	C	176	0.20	*
17700	MILWAUKEE BLVD	BELL BLVD	COLUMBUS BLVD	Min. Col	2LN	E	860	C	168	0.20	C	181	0.21	*
17800	MOODY RD	HANCOCK B. PKWY	PONDELLA RD	Min. Col	2LN	E	860	C	182	0.21	C	206	0.24	old count projection(2009)
17900	NALLE GRADE RD	SLATER RD	NALLE RD	Min. Col	2LN	E	860	C	69	0.08	C	72	0.08	
18000	NALLE RD	SR 78	NALLE GRADE RD	Min. Col	2LN	E	860	C	128	0.15	C	147	0.17	*
18100	NEAL RD	ORANGE RIVER BLVD	BUCKINGHAM RD	Min. Col	2LN	E	860	C	130	0.15	C	137	0.16	*
18200	NORTH RIVER RD	SR 31	FRANKLIN LOCK RD	M. Art	2LN	E	1,140	A	145	0.13	B	264	0.23	
18300	NORTH RIVER RD	FRANKLIN LOCK RD	BROADWAY RD	M. Art	2LN	E	1,140	A	145	0.13	B	286	0.25	
18400	NORTH RIVER RD	BROADWAY RD	COUNTY LINE	M. Art	2LN	E	1,140	A	100	0.09	A	133	0.12	
18900	OLGA RD*	SR 80 W	SR 80 E	Min. Col	2LN	E	860	C	82	0.10	C	95	0.11	old count projection
19100	ORANGE GROVE BLVD	CLUB ENTR.	HANCOCK B. PKWY	Min. Col	2LN	E	860	C	393	0.46	C	488	0.57	old count(2009)
19200	ORANGE GROVE BLVD	HANCOCK B. PKWY	PONDELLA RD	Min. Col	4LN	E	1,790	C	528	0.29	C	555	0.31	
19300	ORANGE RIVER BLVD	SR 80	STALEY RD	Maj. Col	2LN	E	1,000	D	477	0.48	D	502	0.50	

County-Maintained Collector Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Arterial Roadway - Incorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Controlled Access Aterial Facility

County Maintained Expressway

Lee County
Generalized Peak Hour Directional Service Volumes
Urbanized Areas

April 2016 c:\input5

Uninterrupted Flow Highway

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	130	420	850	1,210	1,640
2	Divided	1,060	1,810	2,560	3,240	3,590
3	Divided	1,600	2,720	3,840	4,860	5,380

Arterials

Class I (40 mph or higher posted speed limit)

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	140	800	860	860
2	Divided	*	250	1,840	1,960	1,960
3	Divided	*	400	2,840	2,940	2,940
4	Divided	*	540	3,830	3,940	3,940

Class II (35 mph or slower posted speed limit)

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	*	330	710	780
2	Divided	*	*	710	1,590	1,660
3	Divided	*	*	1,150	2,450	2,500
4	Divided	*	*	1,580	3,310	3,340

Controlled Access Facilities

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	160	880	940	940
2	Divided	*	270	1,970	2,100	2,100
3	Divided	*	430	3,050	3,180	3,180

Collectors

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	*	310	660	740
1	Divided	*	*	330	700	780
2	Undivided	*	*	730	1,440	1,520
2	Divided	*	*	770	1,510	1,600

Note: the service volumes for I-75 (freeway), bicycle mode, pedestrian mode, and bus mode should be from FDOT's most current version of LOS Handbook.

TABLE 7 Generalized **Peak Hour Directional** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

Urbanized

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/