

LANTANA PLAZA

PALM BEACH COUNTY, FL

**FUTURE LAND USE PLAN
AMENDMENT TRAFFIC ANALYSIS**

Kimley»Horn

December 12, 2022

FUTURE LAND USE PLAN AMENDMENT TRAFFIC ANALYSIS

LANTANA PLAZA PALM BEACH COUNTY, FL

Prepared by:
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INTRODUCTION

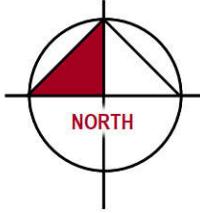
Kimley-Horn and Associates, Inc. has been retained to prepare a Future Land Use (FLU) Amendment traffic analysis for a 9.66-acre site located on the northeast corner of Lantana Road and Haverhill Road, in Palm Beach County, Florida. **Figure 1** illustrates the location of the project site. The site currently has a Palm Beach County FLU designation of Commercial Low (CL). The proposed FLU designation that is the subject of this analysis is Commercial High (CH).

The parcel control number for this site is:

- 00-42-44-36-37-001-0000

The traffic impacts from the proposed future land use amendment were analyzed based on the procedures outlined in Policy 3.5-d of the Palm Beach County Comprehensive Plan. Currently, the site has a commercial low designation, which permits a maximum floor area ratio of (FAR) of 0.50. The proposed future designation is commercial high, which permits a maximum floor area ratio of 0.85. Hence, the 9.66-acre site can permit 357,671 square feet of retail.

This analysis was conducted following short-range and long-range analysis procedures used to evaluated comprehensive plan amendments in Palm Beach County. This report summarizes the finding of the comprehensive plan land use amendment traffic analysis.



LEGEND

- Site Location
- Project Traffic %

FIGURE 1
Lantana Plaza
Site Location

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PROJECT TRAFFIC

The project traffic volumes evaluated in this analysis are defined as the vehicle trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

Trip Generation

The trip generation calculations are based on the trip generation rates published by Palm Beach County. Trip generation calculations have been performed for four scenarios:

Existing Site Development

This scenario represents the currently trip generation occurring on site. The site is currently vacant hence, no trips have been generated for current daily, AM peak hour and PM peak hour conditions.

Existing Future Land Use Potential Development

This scenario represents the maximum development potential for the site under the existing FLU designation. For the Trip Generation Comparison shown in **Table 1**, a Shopping Center was used for the land use, the maximum intensity of development under the currently adopted future land use designation has the potential to generate 5,918 net new external daily trips, 135 net new external AM peak hour trips (84 inbound, 51 outbound), 543 net external PM peak hour trips (261 inbound, 282 outbound).

Proposed Future Land Use Potential Development

This scenario represents the maximum development permitted on site under the proposed FLU designation, which equates to 357,671 square feet of retail. As indicated in **Table 1**, the maximum density of development under the proposed future land use designation has the potential to generate 10,060 net new external daily trips, 228 net new external AM peak hour trips (141 inbound, 87 outbound), 924 net new external PM peak hour trips (444 inbound, 480 outbound).

Because the proposed amendment for the subject site results in an overall net increase in the trip generation potential of the site on a daily, AM, and PM peak-hour basis in comparison to existing uses on site, it was necessary to determine if any of the roadway links within the project Radius of Development Influence (RDI) are expected to be significantly impacted. Roadway link analyses were conducted for the short-range (2027) scenario using the Test 2 criteria defined in Chapter 12 of the Palm Beach County ULDC. Roadway link analysis was conducted for the long-range (2045) scenario using Policy 3.5-d of the Future Land Use Element as published by Palm Beach County.

Proposed Zoning

This scenario represents the proposed planned development on site with a total of 94,928 square feet of land use, consisting of car wash, gas station w/convenience store, warehouse, and accessory office land use. The proposed planned development generates 1,861 net new external daily trips, 152 net new external AM peak hours trips (91 inbound, 60 outbound), 152 net new external PM peak hours trips (62 inbound, 89 outbound). During the proposed planned development scenario, the generated trips are less than the proposed FLU maximum intensity scenario therefore, no further analysis has been performed for this scenario.

TRAFFIC DISTRIBUTION AND ASSIGNMENT

Traffic distribution is the pairing of trip ends from the subject site with other land uses in the area. These trips were assigned to surrounding roadways within the project RDI based upon a review of the proposed roadway network to be in place at the time of buildout and its travel time characteristics.

The daily and peak-hour trips for the project were then assigned to the surrounding roadway network proposed to be in place for each respective analysis year. **Figure 1** also illustrates the project traffic assignment to the surrounding roadway network.

LEVEL OF SERVICE ANALYSIS

Consistent with comprehensive plan amendment evaluation requirements, roadway segment analyses were conducted to address the traffic conditions for the existing, short-range planning horizon (2027), and long-range planning horizon (2045) conditions on links within the RDI.

Short-Range (Year 2027)

This analysis is based on the Test 2 standards of the Palm Beach County Traffic Performance Standards Ordinance (TPSO) and was conducted using the LOS E peak hour, peak direction link service volumes published by Palm Beach County.

As stated previously, this analysis utilizes the net increase in peak-hour trip generation potential of the maximum development potential under the proposed FLU designation in comparison to traffic generated by the existing site development.

Long-Range (Year 2045)

This analysis is based on Policy 3.5-d of the Palm Beach County Future Land Use Element and was conducted using the LOS D daily link service volumes published by Palm Beach County.

As stated previously, this analysis utilizes the net increase in daily trip generation potential of the maximum development potential under the proposed FLU designation in comparison to the maximum development potential under the existing FLU.

SHORT-RANGE (2027) PLANNING HORIZON

The maximum development under the proposed future land use is 357,671 square feet of retail. Therefore, the net increase in peak hour trip generation potential is 228 net new external AM peak hour trips (141 inbound, 87 outbound) and 924 net new external PM peak hour trips (444 inbound, 480 outbound). For the purposes of this analysis, the radius of development influence is 3 miles. Significance was determined in accordance with the Test 2 LOS E peak-hour peak-directional service volumes provided in the Palm Beach County Traffic Performance Standards Ordinance (TPSO). **Table 2** summarizes the threshold for determining significance as outlined in Article 12 of the Palm Beach County TPSO. As per the TPSO, during the short-range horizon, a link is considered significantly impacted if project traffic accounts for more than 3% of the LOS E general service volume.

Table 2: Short-Range Significance Determination

NET EXTERNAL PEAK HOUR TWO-WAY TRIP GENERATION			RADIUS
1	through	20	Directly Accessed Link(s)
21	through	50	0.5 miles
51	through	100	1 mile
101	through	500	2 miles
501	through	1,000	3 miles
1,001	through	2,000	4 miles
2,001	and	Up	5 miles

Note: Source table 12.B.2.D-7 3A - Radius of Development Influence of Article 12

Significance Analysis

As indicated in **Table 3** and **Table 4**, the following roadway links are projected to be significantly impacted by the proposed project under Test 2 standards:

- Lantana Road – from Jog Road to Haverhill Road (PM peak hour)
- Lantana Road – from Haverhill Road to Military Trail (PM peak hour)
- Haverhill Road – from 10th Avenue to Lake Worth Road (PM peak hour)
- Haverhill Road – from Lake Worth Road to Melaleuca Lane (PM peak hour)
- Haverhill Road – from Melaleuca Lane to Lantana Road (PM peak hour)
- Haverhill Road – from Lantana Road to Hypoluxo Road (PM peak hour)

Therefore, PM Capacity analyses were subsequently performed.

LONG-RANGE (2045) PLANNING HORIZON

As noted, the existing land use is commercial low for the 9.66 acre-site, equating to 210,395 square feet of retail. The maximum development under the proposed commercial high land use is 357,671 square feet of retail. Therefore, the net increase in daily trip generation potential is 4,142 daily trips. For this analysis the radius of developmental influence is 2 miles. Significance was determined in accordance with Table 3.5-1 from the Palm Beach County Future Land Use Element (FLUE). As per the FLUE, during the long-range horizon, a link is considered significantly impacted where the net trip increase impacting roads is greater than one percent (1%) for volume to capacity ratio (v/c) of 1.4 or more, two percent (2%) for v/c of 1.2 or more and three percent (3%) for v/c of less than 1.2 of the level of service "D" capacity on an AADT basis of the link affected up to the limits set forth in **Table 6**.

Table 6: Long-Range Significance Determination

NET EXTERNAL DAILY TRIP GENERATION			RADIUS
1	through	50	No Significant Impact
50	through	1,000	Directly Accessed Link(s)
1,001	through	4,000	1 mile
4,001	through	8,000	2 miles
8,001	through	12,000	3 miles
12,001	through	20,000	4 miles
20,000	and	Up	5 miles

Note: Source table 3.5-1 - Significant Impact of PBC FLUE

As shown in **Table 7**, the following roadways links are projected to be significantly impacted by the proposed project under significance determination standards:

- Haverhill Road – from Melaleuca Lane to Lantana Road
- Haverhill Road – from Lantana Road to Hypoluxo Road

The significantly impacted roadway links that are mentioned above are projected to meet LOS D standards in the year 2045.

Project traffic in the surrounding area was taken from the Palm Beach County Planning Division website. Eastwind TMT Lantana MUPD project was also studied, however it was determined to forgo that study due to the long-range trip differential being negative.

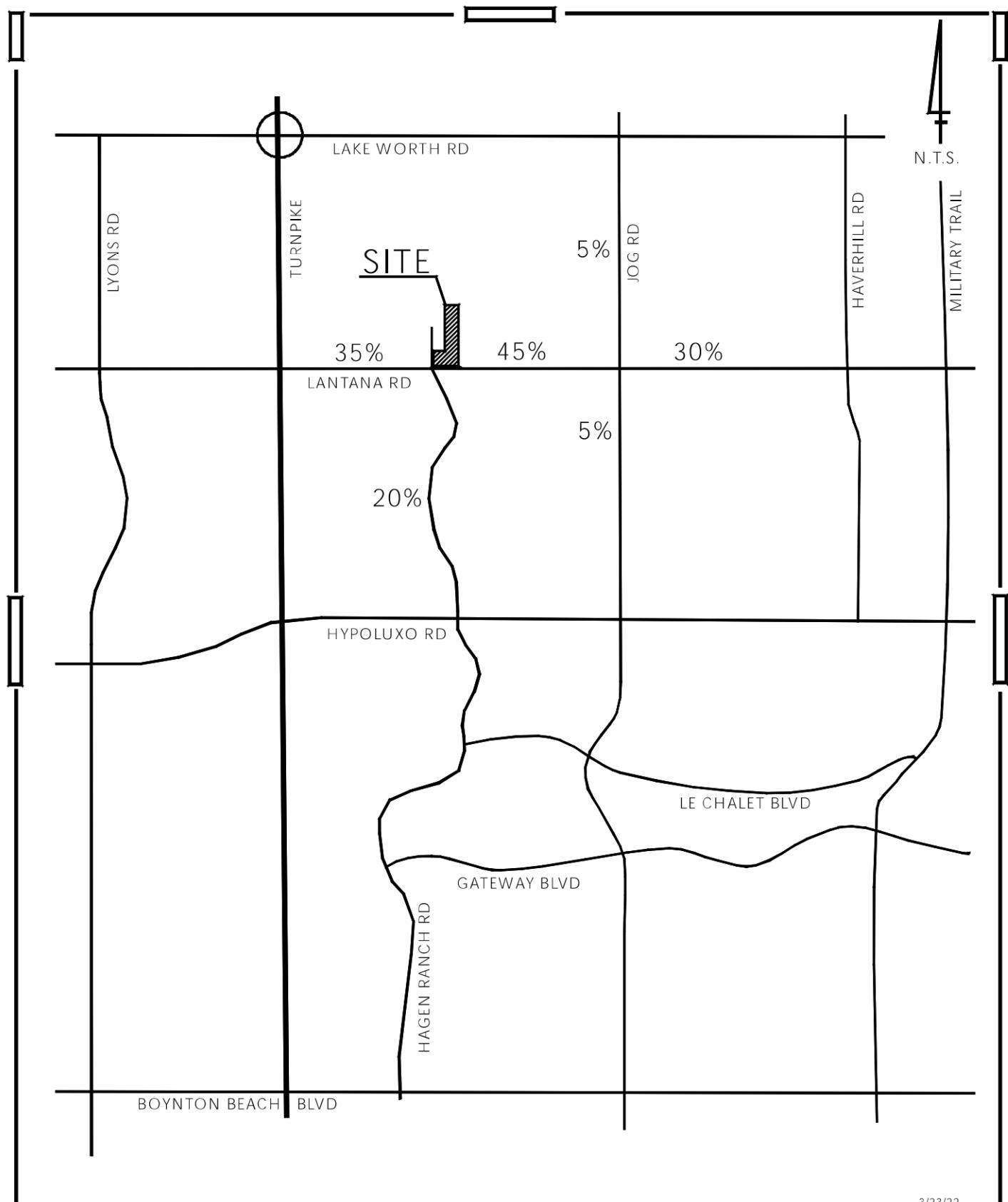
Relevant project information is in the Appendix.

CONCLUSION

The foregoing comprehensive plan traffic analysis has been conducted to evaluate the proposed future land use designation change from the existing Commercial Low (CL) to the proposed future land use designation change of Commercial High (CH). The project is located on the northeast corner of Lantana Road and Haverhill Road, in Palm Beach County, Florida. Based on the analyses conducted for each of the planning horizons (short-range and long-range), there are several significantly impacted links. However, under further analysis, all the links meet applicable LOS standards.

APPENDIX

	2022	2021	2019	2018	Total Average
Lake Worth Road(Florida Turnpike to Pinehurst Drive)	39023	41990			-2.41%
Lake Worth Road(Pinehurst Drive to Jog Road)	49460	50548			-0.72%
Lake Worth Road(Jog Road to Sherwood Forest Boulevard)	44825	50478			-3.88%
Lake Worth Road(Sherwood Forest Boulevard to Haverhill Road)	42567	44696			-1.61%
Lake Worth Road(Military Trail to Kirk Road)	43260	43679			-0.32%
Melaleuca Lane (from Jog Road to Haverhill Road)	-	14646	16894	16846	-4.56%
Melaleuca Lane (Haverhill Road to Military Trail)	23915	27540			-4.60%
Melaleuca Lane (Military Trail to Kirk Road)	27707	28164			-0.54%
Melaleuca Lane (Kirk Road to Congress Avenue)	30225	30957			-0.79%
Lantana Road (Lyons Road to Hagen Ranch Road)	27739	28262			-0.62%
Lantana Road (Hagen Ranch Road to Jog Road)	37944	36095			1.68%
Lantana Road (Jog Road to Haverhill Road)	42709	43695			-0.76%
Lantana Road (Haverhill Road to Military Trail)	44307	46680			-1.72%
Lantana Road (Military Trail to Lawerence Road)	50093	49084			0.68%
Lantana Road (Lawrence Road to Congress Avenue)	51320	50634			0.45%
Lantana Road (Congress Avenue to High Ridge)	48864	-	48503		0.25%
Hypoluxo Road (Florida Turnpike to Hagen Ranch Road)	26885	26856			0.04%
Hypoluxo Road (Hagen Ranch Road to Jog Road)	27967	26850			1.37%
Hypoluxo Road (Jog Road to Haverhill Road)	32822	31846			1.01%
Hypoluxo Road (Military Trail to Lawrence Road)	46672	43902			2.06%
Pinehurst Drive (Forest Hill Boulevard to 10th Avenue)	12681	11416			3.57%
Pinehurst Drive (10th Avenue to Lake Worth Road)	10593	10248			1.11%
Hagen Ranch Road (Lantana Road to Hypoluxo Road)	9928	10466			-1.74%
Hagen Ranch Road (Hypoluxo Road to Gateway Boulevard)	12394	11388			2.86%
Jog Road (10th Avenue to Lake Worth Road)	43184	43900			-0.55%
Jog Road (Lake Worth Road to Melaleuca Lane)	47803	47872			-0.05%
Jog Road (Melaleuca Lane to Lantana Road)	48450	46889			1.10%
Jog Road (Lantana Road to Winston Trail Boulevard)	41127	40506			0.51%
Jog Road (Winston Trail Boulevard to Hypoluxo Road)	40322	38516			1.54%
Jog Road (Hypoluxo Road to Le Chalet Boulevard)	-	38446	42274	43270	-3.86%
Jog Road (Le Chalet Boulevard to Gateway Boulevard)	37097	38752			-1.44%
Sherwood Forest Boulevard (Cresthaven Boulevard to 10th Avenue)	10218	10881			-2.07%
Sherwood Forest Boulevard (10th Avenue to Lake Worth Road)	9497	9655			-0.55%
Haverhill Road (Cresthaven Boulevard to 10th Avenue)	23628	23399			0.33%
Haverhill Road (10th Avenue to Lake Worth Road)	18832	17956			1.60%
Haverhill Road (Lake Worth Road to Melaleuca Lane)	15625	13969			3.80%
Military Trail (Melaleuca Lane to Lantana Road)	37751	37190			0.50%
Lawrence Road (Hypoluxo Road to Gateway Boulevard)	16064	16895			-1.67%
Congress Avenue (Lantana Road to Hypoluxo Road)	26138	27513			-1.69%
	1252728	1267986			



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LANTANA & FEARNEY
PROPERTIES

EXHIBIT 3
PROJECT TRAFFIC DISTRIBUTION

PTC

Exhibit 5

Lantana & Fearnley Properties Project Traffic Assignment - 2045 Analysis

Proposed FLU (Maximum Intensity) - Current FLU (Maximum Intensity)

Roadway	Link	2045 Conditions			Encompass Health	Net Project Traffic		2045 Total Traffic	V/C w/ Proj.	Total Project Impact	Significant Impact?	
		Lanes	Volume ⁽¹⁾	LOS D Capacity ⁽²⁾		521	Project Trips					
						% Dist						
Lantana Road	Lyons Road to Hagen Ranch Road	4LD	42,100	33,200	621	35%	182	42,903	1.29	0.55%	No	
	Hagen Ranch Road to Jog Road	6LD	45,700	50,300	-	45%	234	45,934	0.91	0.47%	No	
Hagen Ranch Road	Hypoluxo Road to Lantana Road	3L	11,200	15,200	-	20%	104	11,304	0.74	0.68%	No	

⁽¹⁾ Source: Palm Beach TPA for Year 2045 base volumes. See Appendix.

⁽²⁾ Source: Table TE 1a, Palm Beach County Comprehensive Plan.

Project Distribution

The distribution of project traffic was based on a review of the existing roadway characteristics, existing land uses, connectivity of the surrounding roadway network and location of major roadways. Driveway distributions were determined based on a review of available access to and from the site.

The resulting general traffic distribution percentages include the following:

- Hypoluxo Road west of Jog Road: 10 percent
- Hypoluxo Road west of Haverhill Road: 60 percent
- Jog Road north of Hypoluxo Road: 15 percent
- Jog Road south of Hypoluxo Road: 15 percent
- Jog Road south of Ranches Road: 15 percent

Figure 2 graphically depicts the general traffic distribution. The trip distribution percentages were applied to the net new peak hour trip generation to determine the project assignments on each of the roadway links within the project radius of influence.

Figure 2 Project Distribution



TABLE 4
YEAR 2045 DAILY ANALYSIS
TOWNS AT TIDEWATER TRAFFIC ANALYSIS

ROADWAY	FROM	TO	FACILITY TYPE ⁽¹⁾	LOS "D" CAPACITY	2045 VOLUME ⁽¹⁾	INBOUND		OUTBOUND		TOTAL PROJECT TRIPS	TRIPS FROM AVAILABLE FLUA AMENDMENTS	TRIPS FROM CONCURRENT FLUA AMENDMENTS	2045 TOTAL TRAFFIC	VOLUME/CAPACITY RATIO	SIGNIFICANCE THRESHOLD ⁽²⁾	PROJECT SIGNIFICANCE	SIGNIFICANT IMPACT?
						PROJ. DIST.	TRIPS 208	PROJ. DIST.	TRIPS 207								
Hypoluxo Road	Jog Road	Site Driveway	6LD	50,300	35,700	40%	83	40%	83	166	0	0	35,866	0.71	3%	0.33%	No
	Site Driveway	Haverhill Road	6LD	50,300	35,700	60%	125	60%	124	249	0	0	35,949	0.71	3%	0.50%	No

Notes:

(1) Facility Type and 2045 volume was obtained from the SERPM 8 2045 Cost Feasible Adjusted Two-Way Volumes provided by Palm Beach County.

(2) Significance threshold is based on Table 3.5-1 "Significant Impact" of the PBC Comprehensive Plan Future Land Use Element.

TABLE 2.2-e.1
Maximum Floor Area Ratios (FARs) For Non-Residential Future Land Use Categories
and Non-Residential Uses

Future Land Use	FLU Category	Tier				
		Urban/Suburb	Exurban	Rural	Ag Reserve	Glades
Residential	All Residential Categories	.35 (Low Density) .45 (Medium & High Density)	.20	.20	.15	.20
Agriculture	AP	not allowed	not allowed	not allowed	not allowed	.10
	SA	.15	.15	.15	.15	.15
	AgR	not allowed	not allowed	not allowed	.15	not allowed
	AGE	not allowed	not allowed	See note ¹⁰	not allowed	not allowed
Commercial Low (Neighborhood Commercial)	CL-O	.50 ¹	0.05-.20 ¹²	.20	.20 w/MUPD ⁴	.20
	CL	.50 ¹	.10 1.0 w/ TMD	.10 1.0 w/ TMD	.10 ⁵ .20 w/MUPD ^{4, 9} .40 w/ TMD ⁴	.10
Commercial High (Community or Regional Commercial)	CH-O	.85	not allowed	not allowed	not allowed	not allowed
	CH	.85 ³	not allowed	not allowed	not allowed	not allowed
Industrial	IND	.45-.85 ⁹	not allowed	not allowed	.45	.45
	EDC	.45-.85 ⁹	not allowed	not allowed	not allowed	not allowed ¹¹
Commercial Recreation		.50	not allowed	.05	.05	.05
Parks & Recreation		.45	.10	.10	.10	.10
Conservation		.05	.05	.05	.05	.05
Institutional & Public Facilities ⁸		.45	.20	.10	.15 .35 ⁶	.10
Transportation & Utilities		.45	.10	.05	.05 .15 ⁷	.05
Traditional Town Development		1.0	not allowed	not allowed	not allowed	not allowed

Notes:

1. For Commercial Low Office (CL-O) and Commercial Low (CL), the maximum allowable FAR for self-storage use is up to .85.
2. *Deleted by Ord. 2020-11*
3. For Commercial High (CH), the maximum allowable FAR is up to 1.0 for Traditional Neighborhood Development (TND) and Traditional Market Place Development (TMD).
4. For Ag Reserve TMDs and Ag Reserve MUPDs, the FAR is calculated on the total area of the development, including both the developed and preserve area.
5. Commercial properties which received a commercial future land use designation prior to January 31, 2016 and/or identified in Policy 1.5-i are limited to a maximum FAR of .10 unless developed as an AGR-MUPD or AGR-TMD.
6. An FAR greater than .15 is only permitted for a) hospitals and related hospital campus uses, and b) AgR-MUPDs that meet the Preserve Area requirements.
7. An FAR greater than .05 is only permitted east of S.R. 7
8. Institutional and Public Facilities uses within any FLU designation are allowed to utilize the maximum allowable FAR of the Institutional and Public Facilities FLU designation per the applicable Tier. In the case of multiple or mixed use projects, only proposed institutional and public facility uses shall be permitted to exceed the FAR of the project's FLU designation.
9. Industrial and self-storage uses may be approved for up to .85 FAR in the industrial future land use designations the Urban Suburban Tier, and self-storage uses may be approved for up to .65 FAR in the commercial future land use designations in the Agricultural Reserve Tier on sites that meet the Major Intersection Criteria in the ULDC (see also FLUE Policy 1.5-p).
10. The intensity of an Agricultural Enclave shall be determined utilizing the provisions of Policy 2.2.5-d, and shall be clearly indicated in the Site Data of the adopted Conceptual Plan for each Agricultural Enclave.
11. Within the Economic Development Center (EDC) future land use designation in the Glades Area Protection Overlay, the FAR of the Urban/Suburban Tier shall apply.
12. Properties subject to Policy 1.3-j are limited to a maximum of 0.05 FAR.