

LAND USE PLAN AMENDMENT APPLICATION TRAFFIC STATEMENT

**INDIAN TRAILS GROVE
4,866.102 ACRE SITE
PALM BEACH COUNTY, FLORIDA**

Prepared for:

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Job No. 21-181

Date: January 5, 2022
Revised: January 31, 2022
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TABLE OF CONTENTS

1.0 SITE DATA.....3

2.0 TRAFFIC GENERATION.....6

3.0 CONCLUSION.....7

Appendices

EXISTING MAXIMUM POTENTIAL TRIP GENERATIONAPPENDIX A

PROPOSED MAXIMUM POTENTIAL TRIP GENERATION.....APPENDIX B

PREVIOUSLY APPROVED TRIP GENERATION PAGESAPPENDIX C

1.0 SITE DATA

Palm Beach West Associates I, LLLP is the owner/developer of the land known as Indian Trails Grove, an approved Western Communities Residential PUD, located approximately two (2) miles west of the intersection of Seminole Pratt Whitney Road and Orange Boulevard. A general location map is shown on Page 5 of this report. The subject property currently has a Future Land Use Atlas (FLUA) designation of Western Communities Residential (WCR) as approved via Ordinance 2016-041, and a zoning designation of Planned Unit Development (PUD). The 4871.57 acre PUD zoning and Preliminary Master Plan were approved in 2019 with 3,897 residential dwelling units, 300,000 S.F. of commercial use and 50,000 S.F. of office use. The Property Control Numbers (PCNs) of the subject ITG property are:

00-40-42-17-00-000-7000	00-40-42-18-00-000-7000
00-40-42-19-00-000-9000	00-40-42-20-00-000-9000
00-40-42-21-00-000-9000	00-40-42-22-00-000-1010
00-40-42-27-00-000-9000	00-40-42-30-00-000-9000
00-40-42-31-00-000-9000	00-40-42-34-00-000-1010
00-40-43-03-00-000-3020	00-40-43-04-00-000-9010

Concurrent Future Land Use (FLU) Amendment and Development Order Amendment (DOA) applications are being submitted to modify the currently approved development orders. There is no change proposed to the current Future Land Use or Zoning designations themselves, only the proposed plan of development and intensity.

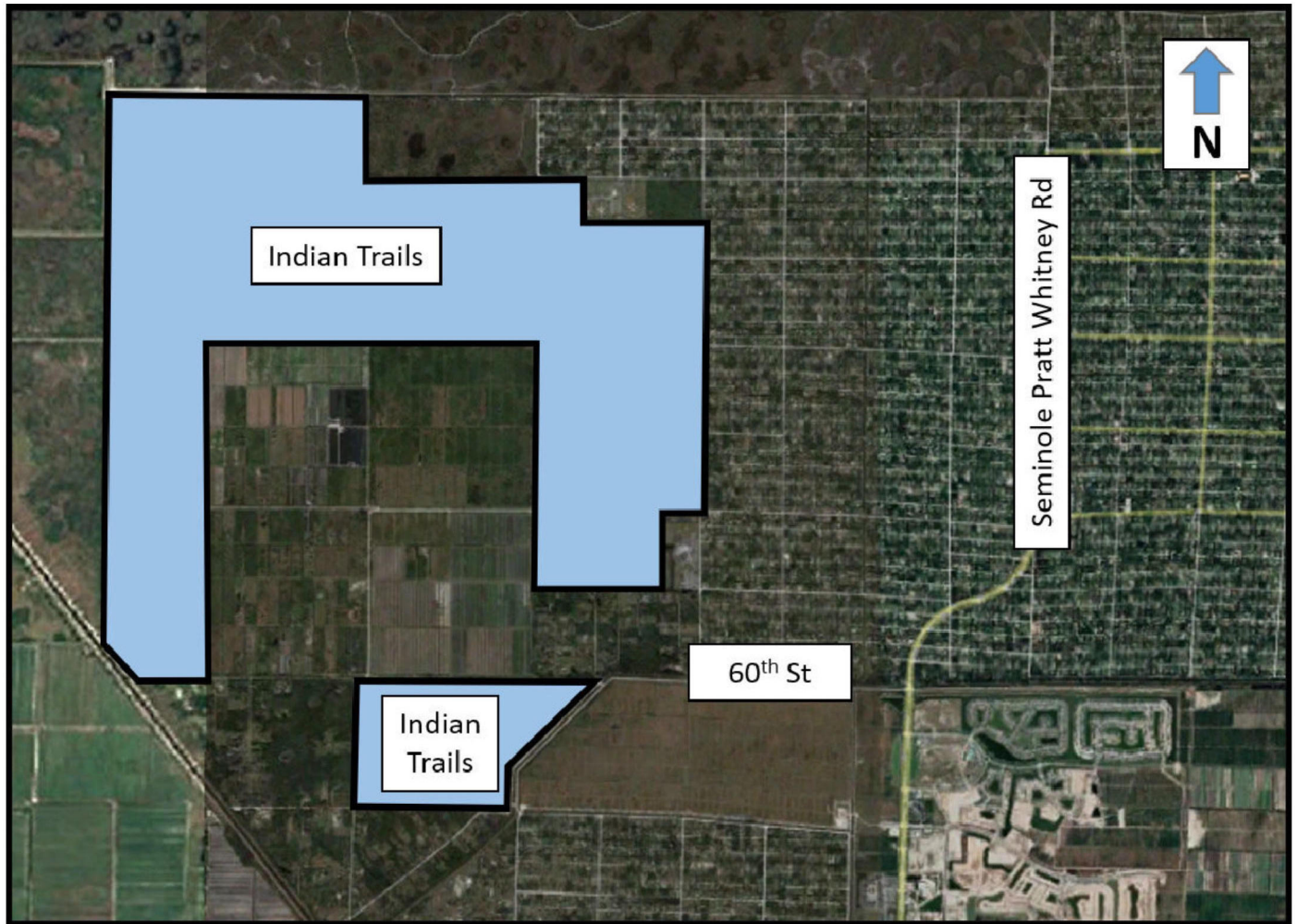
The changes proposed are identified below:

Amend ITG WCR FLU approval to:

1. Amend the total acreage from 4,871.57 acres to 4,866.10 acres (reflect the deletion of 5.467 acres taken by FPL).
2. Reconfigure Conceptual Plan to reflect the proposed development program, including designating 1,600 acres that will be dedicated to Palm Beach County for water resources, including potential water storage or other regional water management benefits, or agricultural uses.
3. Reduce units from 3,897 units to 2,612 units, a reduction of 1,285 units.
4. Incorporate changes to conditions of approval to reflect the change in program.

Amend the ITG WCR-PUD approval to:

1. Amend the total acreage from 4,871.57 acres to 4,866.10 acres (reflect the deletion of 5.467 acres taken by FPL).
2. Reconfigure Preliminary Master Plan and supporting plans to reflect the proposed development program, including designating 1,600 acres that will be dedicated to Palm Beach County for water resources, including potential water storage or other regional water management benefits, or agricultural uses.
3. Reduce units from 3,897 units to 2,612 units, a reduction of 1,285 units.
4. Reduce non-residential development from 300,000 S.F. of commercial intensity to 200,000 S.F.; and reduce office intensity from 50,000 S.F. to 33,500 S.F.
5. Remove the Place of Worship use.
6. Incorporate changes to conditions of approval to reflect the change in program.



Overall Site Location
Source: Google 2021 ©

2.0 TRAFFIC GENERATION

The change in daily traffic generation due to the requested change in the 4,866.102-acre parcel's land use designation may be determined by taking the difference between the total traffic generated for the most intensive land use under both the existing and proposed scenarios. The maximum density/intensity for the Western Communities Residential Future Land Use is established by the Conceptual Plan approved by the Board of County Commission per Comprehensive Plan Future Land Use Element Policy 4.5-a and 4.5-d. As reflected on the Conceptual Plan approved in Ordinance 2016-041, the existing maximum density/intensity approved is the following:

Existing Maximum Potential

1. 3,632 Single Family Dwelling Units
2. 265 Multifamily Dwelling Units
3. 42,689 S.F. Place of Worship
4. 50,000 S.F. Office
5. 300,000 S.F. Commercial

The Place of Worship is included in the existing use calculations since it was part of a Private Civic site on the approved plan of development. The public civic site dedications are not part of the calculations for the Land Use Plan Amendment traffic calculations.

The traffic generation was prepared using the latest rates from the ITE Trip Generation, 10th Edition and the rates published by Palm Beach County Traffic Division. Additionally, the same methodology for internalization and local capture for the approved Indian Trails Grove traffic study was used. The internal capture utilized the NCHRP 684 methodology with minor modifications to be consistent with the Minto West traffic study at the time. The local capture trips represent project retail trips from nearby existing residential lots instead of a traditional pass-by allocation. A copy of the trip generation calculations approved for the project are included in Appendix "C" for reference. The traffic generation for the existing development including reductions for internalization and local capture is shown in Tables 1-6 and may be summarized as follows:

Existing Maximum Potential

Daily Traffic Generation= 45,950 tpd
A.M. Peak Hour Traffic Generation = 3,067 pht (887 In/2,180 Out)
P.M. Peak Hour Traffic Generation = 3,790 pht (2,340 In/1,450 Out)

The applicant is proposing to convey approximately 1,600 acres to Palm Beach County to be used for water and agricultural purposes. Additionally, 5.47 acres of land from the original 4,871.57 acres has been conveyed to FPL which is how the 4,866.10 acres was determined. The proposed application and conditions will lower the maximum intensity by approximately 1/3. The proposed maximum potential is summarized as follows:

Proposed Maximum Potential

1. 2,612 Single Family Dwelling Units
2. 33,500 S.F. Office
3. 200,000 S.F. Commercial

As previously stated, the public civic site dedications are not part of the calculations for the Land Use Plan Amendment traffic calculations. The traffic generation for the proposed development including reductions for internalization and local capture is shown in Tables 7-12 and may be summarized as follows:

Proposed Maximum Potential

Daily Traffic Generation= 31,663 tpd
A.M. Peak Hour Traffic Generation = 2,093 pht (603 In/1,490 Out)
P.M. Peak Hour Traffic Generation = 2,643 pht (1,634 In/1,009 Out)

Therefore, the change in trip generation potential based on the proposed changes to the Comprehensive Plan is shown in Table 13 and may be summarized as follows:

Daily Traffic Generation = 14,287 tpd DECREASE
A.M. Peak Hour Traffic Generation = 974 pht DECREASE
P.M. Peak Hour Traffic Generation = 1,147 pht DECREASE

3.0 CONCLUSION

The proposed modifications to the Future Land Use will result in a reduction of 14,287 daily trips, a reduction of 974 A.M. peak hour trips, and a reduction of 1,147 P.M. peak hour trips from the existing maximum development intensity and existing approval. Due to the reduction in trips, a 2045 long range analysis and Test 2 analysis are not required and therefore, the project meets the requirements of the Palm Beach County Comprehensive Plan. A separate zoning traffic study and application has also been prepared to detail the modified conditions of approval and proportional share payments.

APPENDIX “A”

EXISTING MAXIMUM POTENTIAL TRAFFIC STUDY

INDIAN TRAILS GROVE LUPA

01/05/2022
Revised: 01/31/2022

EXISTING MAXIMUM POTENTIAL

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir In	Split Out	Gross Trips
Single Family Detached	210	3,632 Dwelling Units	10			36,320
Condo/TH	220	265 Dwelling Units	7.32			1,940
Church/Synagogue ^c	560	42,689 S.F.	6.95			297
General Office	710	50,000 S.F.	$\text{Ln}(T) = 0.97 \text{Ln}(X) + 2.5$			542
Gen. Commercial	820	300,000 S.F.	$\text{Ln}(T) = .68 \text{Ln}(X) + 5.57^i$			12,690
		Grand Totals:				51,789

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir In	Split Out	In	Out	Total
Single Family Detached	210	3,632 Dwelling Units	0.74	0.25	0.75	672	2,016	2,688
Condo/TH	220	265 Dwelling Units	0.46	0.23	0.77	28	94	122
Church/Synagogue ^c	560	42,689 S.F.	0.33	0.6	0.4	8	6	14
General Office	710	50,000 S.F.	$T = 0.94(X) + 26.49$	0.86	0.14	63	10	73
Gen. Commercial	820	300,000 S.F.	0.94	0.62	0.38	175	107	282
		Grand Totals:				946	2,233	3,179

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir In	Split Out	In	Out	Total
Single Family Detached	210	3,632 Dwelling Units	$\text{Ln}(T) = 0.96 \text{Ln}(X) + 0.20$	0.63	0.37	2,013	1,183	3,196
Condo/TH	220	265 Dwelling Units	0.56	0.63	0.37	93	55	148
Church/Synagogue ^c	560	42,689 S.F.	0.49	0.45	0.55	9	12	21
General Office	710	50,000 S.F.	1.15	0.16	0.84	9	49	58
Gen. Commercial	820	300,000 S.F.	$\text{Ln}(T) = 0.74 \text{Ln}(X) + 2.89$	0.48	0.52	588	637	1,225
		Grand Totals:				2,713	1,935	4,648

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EXISTING MAXIMUM POTENTIAL

TABLE 4 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips		Internalization		External Trips	Local Capture ⁽¹⁾		Net Trips ⁽²⁾
						%	Total		%	Total	
Single Family Detached & Condo/TH	210, 220	3,897	Dwelling Units	38,260		5.1%	1,962	36,298	0.0%	0	36,298
Church/Synagogue	560	42,689	S.F.	297		0.0%	0	297	0.0%	0	297
Light Industrial, General Office	710	50,000	S.F.	542		21.9%	118	424	0.0%	0	424
Gen. Commercial	820	300,000	S.F.	12,690		19.8%	1,962	10,728	14.2%	1,797	8,931
Grand Totals:				51,789		7.8%	4,042	47,747	3.5%	1,797	45,950

TABLE 5 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
				In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210, 220	3,897	Dwelling Units	700	2,110	2,810	1.3%	14	23	37	686	2,087	2,773	0.0%	0	0	0	686	2,087	2,773
Church/Synagogue	560	42,689	S.F.	8	6	14	0.0%	0	0	0	8	6	14	0.0%	0	0	0	8	6	14
Light Industrial, General Office	710	50,000	S.F.	63	10	73	11.0%	5	3	8	58	7	65	0.0%	0	0	0	58	7	65
Gen. Commercial	820	300,000	S.F.	175	107	282	14.5%	24	17	41	151	90	241	9.2%	16	10	26	135	80	215
Grand Totals:				946	2,233	3,179	2.7%	43	43	86	903	2,190	3,093	0.8%	16	10	26	887	2,180	3,067

TABLE 6 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
				In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210, 220	3,897	Dwelling Units	2,106	1,238	3,344	8.9%	218	81	299	1,888	1,157	3,045	0.0%	0	0	0	1,888	1,157	3,045
Church/Synagogue	560	42,689	S.F.	9	12	21	0.0%	0	0	0	9	12	21	0.0%	0	0	0	9	12	21
Light Industrial, General Office	710	50,000	S.F.	9	49	58	32.8%	8	11	19	1	38	39	0.0%	0	0	0	1	38	39
Gen. Commercial	820	300,000	S.F.	588	637	1,225	25.0%	86	220	306	502	417	919	19.1%	61	173	234	441	244	685
Grand Totals:				2,713	1,935	4,648	13.4%	312	312	624	2,390	1,574	3,964	5.0%	61	173	234	2,340	1,450	3,790

Notes:

(1) Local capture indicates the trip interaction between the Indian Trails commercial use and the residential lots west of Seminole Pratt Whitney Road and north of 60th Street North. A modified internal capture calculation was conducted to estimate these trips.

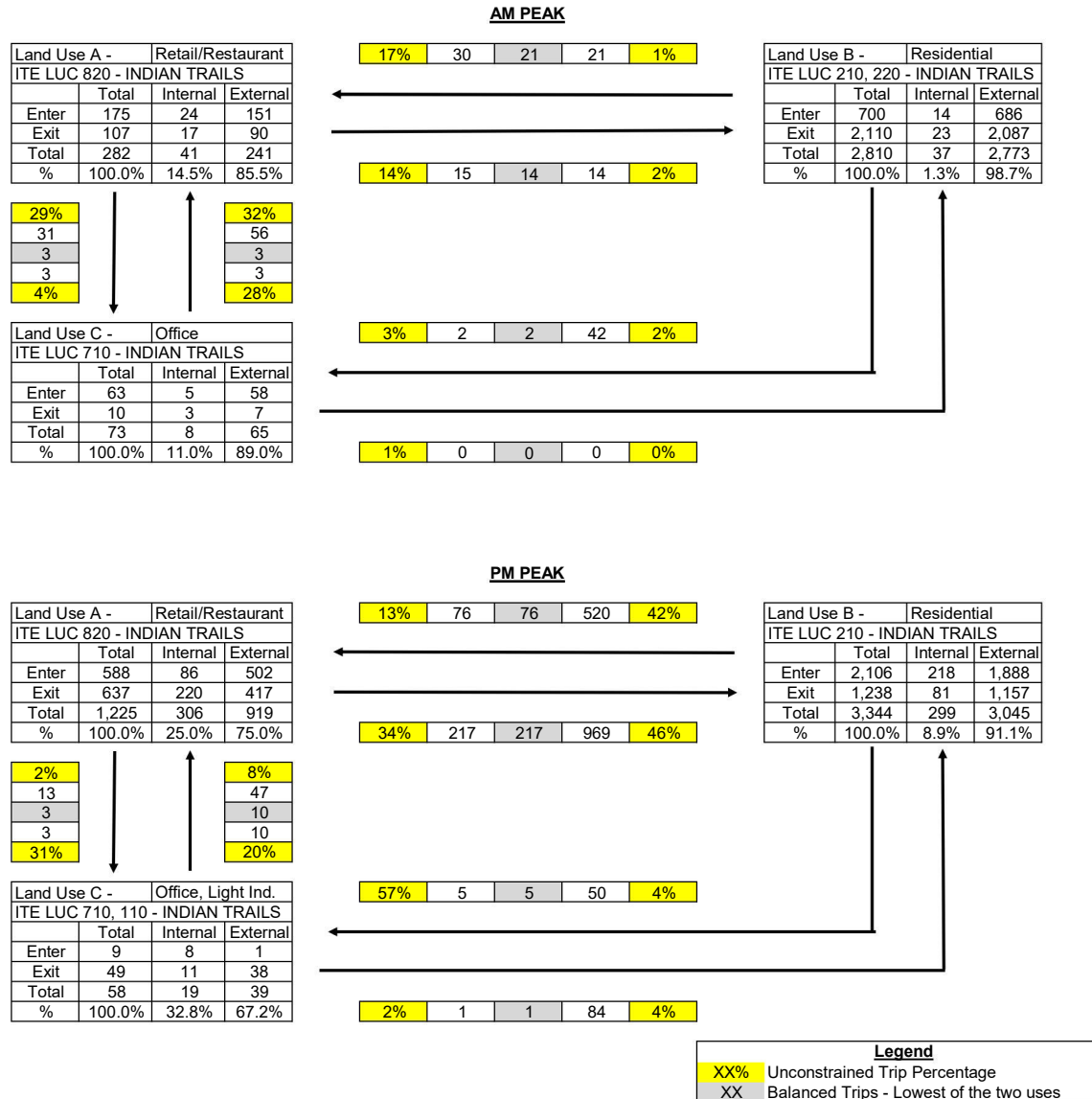
(2) Net trips indicate trips that travel to the external thoroughfare roadway network (Seminole Pratt Whitney Road).

INDIAN TRAILS GROVE LUPA

01/05/2022
Revised: 01/31/2022

EXISTING MAXIMUM POTENTIAL

INDIAN TRAILS GROVE INTERNALIZATION MATRIX



INDIAN TRAILS GROVE LUPA

01/05/2022
Revised: 01/31/2022

EXISTING MAXIMUM POTENTIAL

TRIP GENERATION OF EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD NORTH OF 60TH STREET N.

Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips	
					In	Out		
Single Family Detached	210	3,500	Dwelling Units	10			35,000	
		Grand Totals:					35,000	

AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	0.74	0.25	0.75	648	1,943	2,590
		Grand Totals:					648	1,943	2,590

PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	$\ln(T) = 0.96 \ln(X) + 0.20$	0.63	0.37	1,943	1,141	3,084
		Grand Totals:					1,943	1,141	3,084

Note: The purpose of this calculation is to provide an estimate of the Indian Trails Grove commercial trips from the existing residential units not within Indian Trails Grove but west of Seminole Pratt Whitney Road and north of 60th Street.

INDIAN TRAILS GROVE LUPA

01/05/2022
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EXISTING MAXIMUM POTENTIAL

INDIAN TRAILS GROVE TO EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD AND NORTH OF 60TH STREET - INTERNALIZATION MATRIX

AM PEAK

Land Use A -		Retail/Restaurant	
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	175	16	159
Exit	107	10	97
Total	282	26	256
%	100.0%	9.2%	90.8%

13.6%	24	16	16	0.8%
11.2%	12	10	10	1.6%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	648	10	638
Exit	1,943	16	1,927
Total	2,591	26	2,565
%	100.0%	1.0%	99.0%

PM PEAK

Land Use A -	Retail/Restaurant		
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	588	61	527
Exit	637	173	464
Total	1,225	234	991
%	100.0%	19.1%	80.9%

10.4%	61	61	383	33.6%
27.2%	173	173	715	36.8%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	1,943	173	1,770
Exit	1,141	61	1,080
Total	3,084	234	2,850
%	100.0%	7.6%	92.4%

Legend

XX%	Unconstrained Trip Percentage
XX	Balanced Trips - Lowest of the two uses

Note:

It is acknowledged that the trip interaction between the Indian Trails Grove commercial use and the residential units outside of Indian Trails Grove west of Seminole Pratt Whitney Road and north of 60th Street North is not true internal capture. However, it was determined that a modified internal capture calculation would provide a reasonable estimate of the number of vehicle trips. Unconstrained internal capture rates were adjusted by a factor of 80% of the rates utilized for the standard Indian Trails Grove internal capture calculations.

APPENDIX “B”

PROPOSED MAXIMUM POTENTIAL TRAFFIC **STUDY**

INDIAN TRAILS GROVE LUPA

01/05/2022
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Revised: 06/06/2023

PROPOSED MAXIMUM DEVELOPMENT POTENTIAL

TABLE 7 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips	
					In	Out		
Single Family Detached	210	2,612	Dwelling Units	10			26,120	
General Office	710	33,500	S.F.	$\ln(T) = 0.97 \ln(X) + 2.5$			367	
Gen. Commercial	820	200,000	S.F.	$\ln(T) = .68 \ln(X) + 5.57^t$			9,632	
		Grand Totals:					36,119	

TABLE 8 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	2,612	Dwelling Units	0.74	0.25	0.75	483	1,450	1,933
General Office	710	33,500	S.F.	$T = 0.94(X) + 26.49$	0.86	0.14	50	8	58
Gen. Commercial	820	200,000	S.F.	0.94	0.62	0.38	117	71	188
		Grand Totals:					650	1,529	2,179

TABLE 9 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	2,612	Dwelling Units	$\ln(T) = 0.96 \ln(X) + 0.20$	0.63	0.37	1,467	862	2,329
General Office	710	33,500	S.F.	1.15	0.16	0.84	6	33	39
Gen. Commercial	820	200,000	S.F.	$\ln(T) = 0.74 \ln(X) + 2.89$	0.48	0.52	436	472	908
		Grand Totals:					1,909	1,367	3,276

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PROPOSED MAXIMUM DEVELOPMENT POTENTIAL

TABLE 10 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips		Internalization		External Trips		Local Capture ⁽¹⁾		Net Trips ⁽²⁾	
						%	Total			%	Total		
Single Family Detached & Condo/TH	210	2,612	Dwelling Units	26,120		5.4%	1,422	24,698		0.0%	0	24,698	
General Office	710	33,500	S.F.	367		21.8%	80	287		0.0%	0	287	
Gen. Commercial	820	200,000	S.F.	9,632		20.2%	1,422	8,210		15.9%	1,532	6,678	
Grand Totals:				36,119		8.1%	2,924	33,195		4.2%	1,532	31,663	

TABLE 11 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
				In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210	2,612	Dwelling Units	483	1,450	1,933	1.4%	10	17	27	473	1,433	1,906	0.0%	0	0	0	473	1,433	1,906
General Office	710	33,500	S.F.	50	8	58	10.3%	4	2	6	46	6	52	0.0%	0	0	0	46	6	52
Gen. Commercial	820	200,000	S.F.	117	71	188	15.4%	17	12	29	100	59	159	12.8%	16	8	24	84	51	135
Grand Totals:				650	1,529	2,179	2.8%	31	31	62	619	1,498	2,117	1.1%	16	8	24	603	1,490	2,093

TABLE 12 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
				In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210	2,612	Dwelling Units	1,467	862	2,329	9.5%	161	60	221	1,306	802	2,108	0.0%	0	0	0	1306	802	2108
General Office	710	33,500	S.F.	6	33	39	33.3%	5	8	13	1	25	26	0.0%	0	0	0	1	25	26
Gen. Commercial	820	200,000	S.F.	436	472	908	24.9%	64	162	226	372	310	682	19.1%	45	128	173	327	182	509
Grand Totals:				1,909	1,367	3,276	14.0%	230	230	460	1,678	1,112	2,790	5.3%	45	128	173	1,634	1,009	2,643

Notes:

(1) Local capture indicates the trip interaction between the Indian Trails commercial use and the residential lots west of Seminole Pratt Whitney Road and north of 60th Street North. These lots are existing and not part of ITG. A modified internal capture calculation was conducted to estimate these trips.

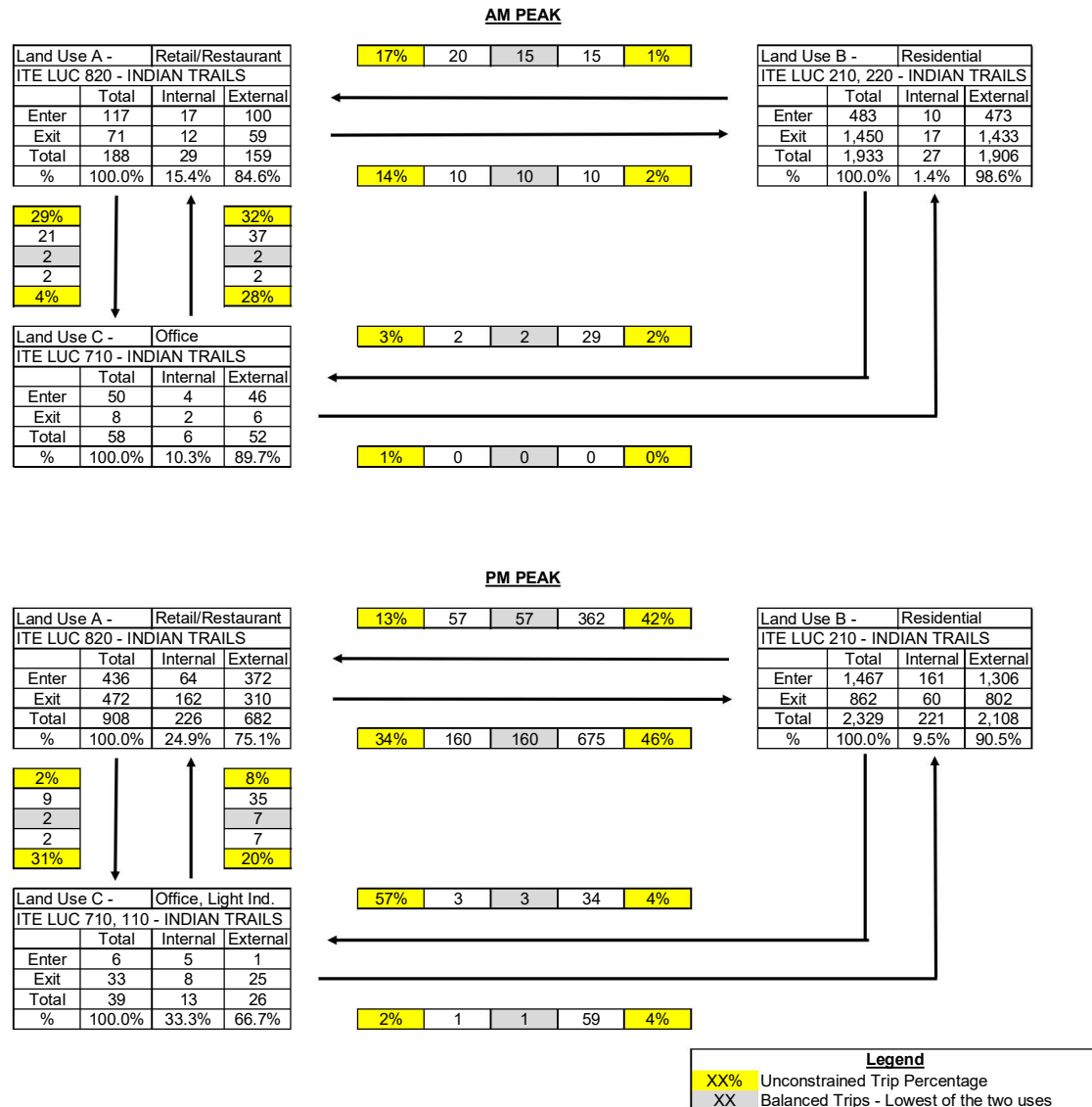
(2) Net trips indicate trips that travel to the external thoroughfare roadway network (Seminole Pratt Whitney Road).

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PROPOSED MAXIMUM DEVELOPMENT POTENTIAL

INDIAN TRAILS GROVE INTERNALIZATION MATRIX



Note:

Rates derived from NCHRP 684 and consistent with internal capture methodology approved for Minto West.

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PROPOSED MAXIMUM DEVELOPMENT POTENTIAL

TRIP GENERATION OF EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD NORTH OF 60TH STREET N.

Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips	
					In	Out		
Single Family Detached	210	3,500	Dwelling Units	10			35,000	
		Grand Totals:						35,000

AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	0.74	0.25	0.75	648	1,943	2,590
			Grand Totals:				648	1,943	2,590

PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	$\text{Ln}(T) = 0.96 \text{ Ln}(X) + 0.20$	0.63	0.37	1,943	1,141	3,084
			Grand Totals:				1,943	1,141	3,084

Note: The purpose of this calculation is to provide an estimate of the Indian Trails Grove commercial trips from the residential units not within Indian Trails Grove but west of Seminole Pratt Whitney Road and north of 60th Street.

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PROPOSED MAXIMUM DEVELOPMENT POTENTIAL

INDIAN TRAILS GROVE TO EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD AND NORTH OF 60TH STREET - INTERNALIZATION MATRIX

AM PEAK

Land Use A -	Retail/Restaurant		
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	117	16	101
Exit	71	8	63
Total	188	24	164
%	100.0%	12.8%	87.2%

13.6%	16	16	16	0.8%
11.2%	8	8	10	1.6%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	648	8	640
Exit	1,943	16	1,927
Total	2,591	24	2,567
%	100.0%	0.9%	99.1%

PM PEAK

Land Use A -	Retail/Restaurant		
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	436	45	391
Exit	472	128	344
Total	908	173	735
%	100.0%	19.1%	80.9%

10.4%	45	45	383	33.6%
27.2%	128	128	715	36.8%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	1,943	128	1,815
Exit	1,141	45	1,096
Total	3,084	173	2,911
%	100.0%	5.6%	94.4%

Legend

XX%	Unconstrained Trip Percentage
XX	Balanced Trips - Lowest of the two uses

Note:

It is acknowledged that the trip interaction between the Indian Trails Grove commercial use and the residential units outside of Indian Trails Grove west of Seminole Pratt Whitney Road and north of 60th Street North is not true internal capture. However, it was determined that a modified internal capture calculation would provide a reasonable estimate of the number of vehicle trips. Unconstrained internal capture rates were adjusted by a factor of 80% of the rates utilized for the standard Indian Trails Grove internal capture calculations.

INDIAN TRAILS GROVE LUPA

01/05/2022
Revised: 01/31/2022
Revised: 06/06/2023

TABLE 13
TRAFFIC GENERATION DIFFERENCE NET TRIPS
PROPOSED MAXIMUM POTENTIAL - EXISTING MAXIMUM POTENTIAL

	DAILY	AM PEAK HOUR			PM PEAK HOUR		
		TOTAL	IN	OUT	TOTAL	IN	OUT
EXISTING DEVELOPMENT =	45,950	3,067	887	2,180	3,790	2,340	1,450
PROPOSED DEVELOPMENT =	31,663	2,093	603	1,490	2,643	1,634	1,009
INCREASE =	-14,287	-974	-284	-690	-1,147	-706	-441

APPENDIX “C”

PREVIOUSLY APPROVED TRIP GENERATION CALCULATIONS FOR INDIAN TRAILS GROVE

INDIAN TRAILS GROVE

04/06/2018
Revised 05/24/2018

APPROVED TRAFFIC STUDY

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir Split In	Dir Split Out	Gross Trips
Single Family Detached	210	1,211 Dwelling Units	10			12,110
Single Family Detached	210	1,211 Dwelling Units	10			12,110
Single Family Detached	210	1,210 Dwelling Units	10			12,100
Condo/TH	230	265 Dwelling Units	6.65			1,762
Church/Synagogue ^c	560	42,689 S.F.	9.11			389
General Office	710	50,000 S.F.	$\text{Ln}(T) = 0.76 \text{Ln}(X) + 3.68$			775
Gen. Commercial	820	300,000 S.F.	$\text{Ln}(T) = .65 \text{Ln}(X) + 5.83^f$			13,870
Grand Totals:						53,116

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total
Single Family Detached	210	1,211 Dwelling Units	0.75	0.25	0.75	227	681	908
Single Family Detached	210	1,211 Dwelling Units	0.75	0.25	0.75	227	681	908
Single Family Detached	210	1,210 Dwelling Units	0.75	0.25	0.75	227	681	908
Condo/TH	230	265 Dwelling Units	$\text{Ln}(T) = 0.80 \text{Ln}(X) + 0.26$	0.17	0.83	19	94	113
Church/Synagogue ^c	560	42,689 S.F.	0.56	0.62	0.38	15	9	24
General Office	710	50,000 S.F.	$\text{Ln}(T) = 0.80 \text{Ln}(X) + 1.57$	0.88	0.12	97	13	110
Gen. Commercial	820	300,000 S.F.	0.96	0.62	0.38	179	109	288
Grand Totals:						991	2,268	3,259

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total
Single Family Detached	210	1,211 Dwelling Units	$\text{Ln}(T) = 0.90 \text{Ln}(X) + 0.51$	0.63	0.37	625	367	992
Single Family Detached	210	1,211 Dwelling Units	$\text{Ln}(T) = 0.90 \text{Ln}(X) + 0.51$	0.63	0.37	625	367	992
Single Family Detached	210	1,210 Dwelling Units	$\text{Ln}(T) = 0.90 \text{Ln}(X) + 0.51$	0.63	0.37	624	367	991
Condo/TH	230	265 Dwelling Units	$\text{Ln}(T) = 0.82 \text{Ln}(X) + 0.32$	0.67	0.33	90	44	134
Church/Synagogue ^c	560	42,689 S.F.	0.55	0.48	0.52	11	12	23
General Office	710	50,000 S.F.	1.49	0.17	0.83	13	62	75
Gen. Commercial	820	300,000 S.F.	$\text{Ln}(T) = 0.67 \text{Ln}(X) + 3.31^n$	0.48	0.52	600	651	1,251
Grand Totals:						2,588	1,870	4,458

INDIAN TRAILS GROVE

04/06/2018
Revised 05/24/2018

APPROVED TRAFFIC STUDY

TABLE 4 - Daily Traffic Generation

Landuse	ITE Code	Intensity	Gross Trips	Internalization		External Trips	Local Capture ⁽¹⁾		Net Trips ⁽²⁾
				%	Total		%	Total	
Single Family Detached & Condo/TH	210, 230	3,943 Dwelling Units	38,082	5.6%	2,135	35,947	0.0%	0	35,947
Church/Synagogue	560	42,689 S.F.	389	0.0%	0	389	0.0%	0	389
Light Industrial, General Office	110, 710	50,000 S.F.	775	21.0%	163	612	0.0%	0	612
Gen. Commercial	820	300,000 S.F.	13,870	20.1%	2,135	11,735	14.1%	1,951	9,784
Grand Totals:			53,116	8.3%	4,433	48,683	3.7%	1,951	46,732

TABLE 5 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
			In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210, 230	3,943 Dwelling Units	700	2,137	2,837	1.3%	14	24	38	686	2,113	2,799	0.0%	0	0	0	686	2,113	2,799
Church/Synagogue	560	42,689 S.F.	15	9	24	0.0%	0	0	0	15	9	24	0.0%	0	0	0	15	9	24
Light Industrial, General Office	110, 710	50,000 S.F.	97	13	110	10.0%	7	4	11	90	9	99	0.0%	0	0	0	90	9	99
Gen. Commercial	820	300,000 S.F.	179	109	288	14.9%	25	18	43	154	91	245	9.0%	16	10	26	138	81	219
Grand Totals:			991	2,268	3,259	2.8%	46	46	92	945	2,222	3,167	0.8%	16	10	26	929	2,212	3,141

TABLE 6 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity	Gross Trips			Internalization				External Trips			Local Capture ⁽¹⁾				Net Trips ⁽²⁾		
			In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total
Single Family Detached & Condo/TH	210, 230	3,943 Dwelling Units	1,964	1,145	3,109	9.9%	222	85	307	1,742	1,060	2,802	0.0%	0	0	0	1,742	1,060	2,802
Church/Synagogue	560	42,689 S.F.	11	12	23	0.0%	0	0	0	11	12	23	0.0%	0	0	0	11	12	23
Light Industrial, General Office	110, 710	50,000 S.F.	13	62	75	32.0%	11	13	24	2	49	51	0.0%	0	0	0	2	49	51
Gen. Commercial	820	300,000 S.F.	600	651	1,251	25.2%	90	225	315	510	426	936	19.1%	62	177	239	448	249	697
Grand Totals:			2,588	1,870	4,458	14.5%	323	323	646	2,252	1,486	3,738	5.4%	62	177	239	2,201	1,321	3,522

Notes:

(1) Local capture indicates the trip interaction between the Indian Trails commercial use and the residential lots west of Seminole Pratt Whitney Road and north of 60th Street North. A modified internal capture calculation was conducted to estimate these trips.

(2) Net trips indicate trips that travel to the external thoroughfare roadway network (Seminole Pratt Whitney Road).



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(15%) PROJECT DISTRIBUTION

5-MILE RADIUS OF DEVELOPMENT INFLUENCE

FIGURE 1A
PROJECT DISTRIBUTION

INDIAN TRAILS GROVE

14-096 BK

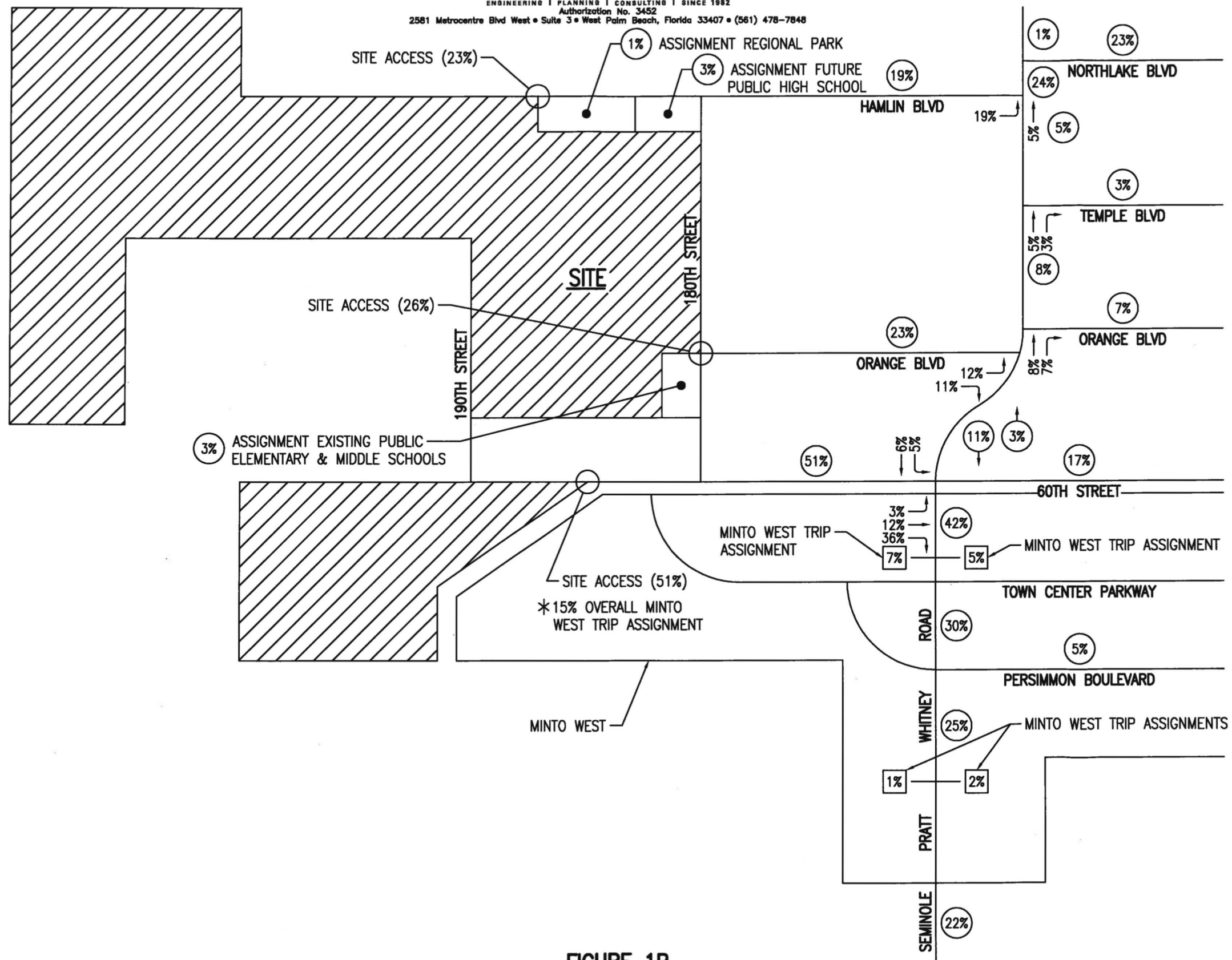


FIGURE 1B
PROJECT DISTRIBUTION

LEGEND

(15%) PROJECT DISTRIBUTION

INDIAN TRAILS GROVE

04/06/2018
Revised 05/24/2018

INDIAN TRAILS GROVE INTERNALIZATION MATRIX

AM PEAK

Land Use A - Retail/Restaurant		ITE LUC 820 - INDIAN TRAILS	
	Total	Internal	External
Enter	179	25	154
Exit	109	18	91
Total	288	43	245
%	100.0%	14.9%	85.1%

29%	32	32%
4	57	
4	4	
4%	4	28%

Land Use C - Office, Light Ind.		ITE LUC 710, 110 - INDIAN TRAILS	
	Total	Internal	External
Enter	97	7	90
Exit	13	4	9
Total	110	11	99
%	100.0%	10.0%	90.0%

17%	30	21	21	1%
-----	----	----	----	----

14%	15	14	14	2%
-----	----	----	----	----

3%	3	3	43	2%
----	---	---	----	----

1%	0	0	0	0%
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Land Use B - Residential		ITE LUC 210, 230 - INDIAN TRAILS	
	Total	Internal	External
Enter	700	14	686
Exit	2,137	24	2,113
Total	2,837	38	2,799
%	100.0%	1.3%	98.7%

PM PEAK

Land Use A - Retail/Restaurant		ITE LUC 820 - INDIAN TRAILS	
	Total	Internal	External
Enter	600	90	510
Exit	651	225	426
Total	1,251	315	936
%	100.0%	25.2%	74.8%

2%	13	8%
4	48	
4	12	
31%	4	20%

Land Use C - Office, Light Ind.		ITE LUC 710, 110 - INDIAN TRAILS	
	Total	Internal	External
Enter	13	11	2
Exit	62	13	49
Total	75	24	51
%	100.0%	32.0%	68.0%

13%	78	78	481	42%
-----	----	----	-----	-----

34%	221	221	903	46%
-----	-----	-----	-----	-----

57%	7	7	46	4%
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2%	1	1	79	4%
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Land Use B - Residential		ITE LUC 210 - INDIAN TRAILS	
	Total	Internal	External
Enter	1,964	222	1,742
Exit	1,145	85	1,060
Total	3,109	307	2,802
%	100.0%	9.9%	90.1%

Legend

XX%	Unconstrained Trip Percentage
XX	Balanced Trips - Lowest of the two uses

Note:

Rates derived from NCHRP 684 and consistent with internal capture methodology approved for Minto West.

APPROVED TRAFFIC STUDY

INDIAN TRAILS GROVE

04/06/2018
Revised 05/24/2018

APPROVED TRAFFIC STUDY

TRIP GENERATION OF EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD NORTH OF 60TH STREET N.

Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips	
					In	Out		
Single Family Detached	210	3,500	Dwelling Units	10				35,000
			Grand Totals:					35,000

AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	0.75	0.25	0.75	656	1,969	2,625
			Grand Totals:				656	1,969	2,625

PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips		
					In	Out	In	Out	Total
Single Family Detached	210	3,500	Dwelling Units	$\text{Ln}(T) = 0.90 \text{ Ln}(X) + 0.51$	0.63	0.37	1,624	953	2,577
			Grand Totals:				1,624	953	2,577

Note: The purpose of this calculation is to provide an estimate of the Indian Trails Grove commercial trips from the residential units not within Indian Trails Grove but west of Seminole Pratt Whitney Road and north of 60th Street.

APPROVED TRAFFIC STUDY

INDIAN TRAILS GROVE TO EXISTING RESIDENTIAL LOTS WEST OF SEMINOLE PRATT WHITNEY ROAD AND NORTH OF 60TH STREET - INTERNALIZATION MATRIX

AM PEAK

Land Use A -		Retail/Restaurant	
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	179	16	163
Exit	109	10	99
Total	288	26	262
%	100.0%	9.0%	91.0%

13.6%	24	16	16	0.8%
←				
→				
11.2%	12	10	10	1.6%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	656	10	646
Exit	1,969	16	1,953
Total	2,625	26	2,599
%	100.0%	1.0%	99.0%

PM PEAK

Land Use A -		Retail/Restaurant	
ITE LUC 820 - INDIAN TRAILS			
	Total	Internal	External
Enter	600	62	538
Exit	651	177	474
Total	1,251	239	1,012
%	100.0%	19.1%	80.9%

10.4%	62	62	320	33.6%
←				
→				
27.2%	177	177	598	36.8%

Land Use B -		Residential	
ITE LUC 210 - ACREAGE LOTS			
	Total	Internal	External
Enter	1,624	177	1,447
Exit	953	62	891
Total	2,577	239	2,338
%	100.0%	9.3%	90.7%

Legend

XX%	Unconstrained Trip Percentage
XX	Balanced Trips - Lowest of the two uses

Note:

It is acknowledged that the trip interaction between the Indian Trails Grove commercial use and the residential units outside of Indian Trails Grove west of Seminole Pratt Whitney Road and north of 60th Street North is not true internal capture. However, it was determined that a modified internal capture calculation would provide a reasonable estimate of the number of vehicle trips. Unconstrained internal capture rates were adjusted by a factor of 80% of the rates utilized for the standard Indian Trails Grove internal capture calculations.