

Miami Freedom Park & Soccer Village Traffic Statement & Methodology

June 13, 2022

On April 28, 2022, the City of Miami (CoM) City Commission authorized the City Manager to enter into a lease agreement with Miami Freedom Park, LLC (“MFP”), for the redevelopment of the properties located at 1400/1550 NW 37th Avenue (the “**Property**”), the former Melreese golf course. A traffic impact study, which was reviewed numerous times by staff and their consultants, was submitted to the CoM as part of the approval process. As part of the next phase of the development of MFP (the “**Project**”), an additional traffic impact study (TIS) will be undertaken. Numerous public agencies will review this TIS, including the CoM, Miami-Dade County (MDC), the Miami-Dade Expressway Authority (MDX), and the Florida Department of Transportation (FDOT).

The CoM requires **Policy TR-1.3.3** to be followed, which states: The City will require a **Traffic Statement** documenting the trip generation, site access and maneuverability diagram for developments and redevelopments that generate 20 or more peak hour trips based on the latest version of the ITE Trip Generation Manual. Following review of the traffic statement the City reserves the right to require a more in-depth traffic impact analysis based on location, project intensity, and existing traffic level of service.

This traffic statement and methodology documents the trip generation and site access requirements. Regarding maneuverability diagrams, there is no truck loading, parking access, valet areas, or drop-off/pick-up areas adjacent to or near the public ROW. These components will occur on private roadways. Maneuverability analyses, if determined to be required by the CoM, will be undertaken by the Project’s site civil engineer during the site plan submittal process.

The below TIS methodology is based on the original TIS that has been reviewed by the CoM. Modifications have been made to the methodology to address review comments that have previously been provided by the CoM.

PROJECT BACKGROUND

The Miami Freedom Park & Soccer Village (Miami Freedom Park) project is bounded by NW 14th Street on the south, NW 21st Street on the north, NW 37th Avenue on the east, and NW 42nd Avenue on the west in Miami, FL. The site is currently occupied by Miami International Links - Melreese Country Club. Miami Freedom Park will be the home of Miami's Major League Soccer (MLS) professional soccer team Club Internacional de Fútbol (Inter Miami CF) and the development program includes:

MLS Stadium	25,000 seats
Soccer Village (Retail)	600,000 SF
Technology Hub and Office Space	400,000 SF
Hotel and Conference Center	750 rooms
New Public Park	58 acres
Youth Sports Fields	8 soccer fields

The Project will be developed in multiple phases. Full Project build-out is anticipated by 2033. See Attachment A for the proposed site plan. Access to the site will be provided via three access points:

- New off-ramp from northbound NW 42nd Avenue collector-distributor (c-d) road to the northwest corner of the Project (inbound access only).
- New signalized full-access driveway on NW 14th Street mid-way between NW 42nd Avenue and the WB SR 836 off-ramp.
- New signalized full-access driveway located at the west leg of the existing NW 37th Avenue / NW 19th Terrace intersection.

SCOPE OF ANALYSIS

The scope of the traffic study will include a combination of analysis types reflective of three traffic scenarios and two analysis years as summarized in the matrix below.

Scenarios and Analysis Types	Analysis Year	
	Existing (2022)	Buildout (2033)
Existing Conditions		
Intersections	Yes	-
Roadway Segments	Yes	-
Ramp Analysis	Yes	-
VISSIM Traffic Simulation	Yes	-
Future Conditions without Project		
Intersections	-	Yes
Roadway Segments	-	Yes
Ramp Analysis	-	Yes
VISSIM Traffic Simulation	-	Yes
Future Conditions with Project		
Intersections	-	Yes
Roadway Segments	-	Yes
Ramp Analysis	-	Yes
VISSIM Traffic Simulation	-	Yes

- ***Traffic Volume Development using SERPM***

The traffic analysis will rely on the use of the latest version of the Southeast Regional Planning Model (SERPM8), consistent with the development of the Miami-Dade TPO 2045 Long-Range Transportation Plan (LRTP).

- ***Sub-Area Model Validation / Project Level Model Accuracy Assessment***

A volume-over-count ratios (V/C) assessment will be performed for various facilities and screenlines/cutlines consistent with standard model validation procedures for the SERPM8 base year 2015 model. The V/C assessment will include area roadways surrounding the Project site within a three-mile radius.

- ***Existing plus Committed (E+C) Roadway Network***

Committed roadway improvements identified in the first three (3) years (up to 2024) of the Miami-Dade TIP and in the FDOT Five-Year Work Program will be added to the existing year (updated 2015 SERPM network) roadway network within 5-miles of the Project site to represent the E+C network in SERPM8.

- ***Year 2033 MAZ / TAZ Data Interpolation***

The MAZ/TAZ input parameters will be interpolated between the base year 2015 data and future year 2045 data to produce the target year data of 2033. PopSyn will then complete the 2033 socio-economic data generation for use in SERPM8. In addition, the special generator trips (EE, EI and Airports, etc.) will also be interpolated for year 2033.

- ***Future Traffic Conditions Without Project***

SERPM8 will be utilized to establish future year (2033) traffic conditions without MFP. This analysis will establish the “transportation deficient” facilities or backlogged facilities, consistent with the provisions of Chapter 163.3180, F.S. in addressing concurrency and Project mitigation requirements.

SERPM Total Traffic

Total model traffic under future conditions without project will be established by the following:

- Weekday Traffic – Annual Average Daily Traffic (AADT) is the standard output for SERPM. For simplicity, the SERPM-derived AADT will represent the daily traffic of a typical weekday as the base condition.
- Weekend Daily Traffic – The weekday traffic derived by SERPM will be converted to represent the typical daily traffic on a Saturday. Using permanent count station data, the ratio difference between the weekend ADT (Saturday) and the AADT will be calculated. That calculated weekend daily to weekday ratio will then be applied to the SERPM-derived AADT to represent the typical daily traffic on a Saturday.
- Peak Hour Traffic – FDOT standardized K factors and applicable D factors will be applied to the above Weekday Traffic or Weekend Daily Traffic to represent the peak hour traffic of a typical weekday or the typical peak hour gameday traffic on a Saturday. Intersection and roadway segment LOS will be determined based on this peak hour, directional traffic.

- ***Future Traffic Conditions With Project***

It is anticipated that the MFP development program will be allocated to multiple TAZs for purposes of SERPM. The MAZ/TAZ input parameters representing MFP will parallel the modeling assumptions of other major sporting venues including Hard Rock Stadium and Loan Depot Park. As such, SERPM will establish the trip generation, trip distribution (intrazonal and interzonal) and trip assignment of the Project trips, coincident with buildout at year 2033. Select Zone/Link analysis will be performed to fully document the impacts of the Project's AADT trips derived by SERPM.

SERPM Total Traffic

Total model traffic will be established by the following:

- Weekday Traffic – Annual Average Daily Traffic (AADT) is the standard output for SERPM. For simplicity, the SERPM-derived AADT will represent the daily traffic of a typical weekday as the base condition.
- Weekend Daily Traffic – The weekday traffic derived by SERPM will be converted to represent daily traffic on a weekend. Using permanent count station data, the ratio difference between the weekend ADT (Saturday) and the AADT will be calculated. That calculated weekend daily to weekday ratio will then be applied to the SERPM-derived AADT to represent the typical daily traffic on a weekend.

Background Traffic

Background traffic (non-project traffic) will be established by the following:

- Weekday Background Traffic – The SERPM-derived total AADT minus the Project's select zone/link AADT volumes will represent the daily background traffic of a typical weekday.
- Weekend Background Daily Traffic – The SERPM-derived total AADT minus the Project's select zone/link AADT volumes will represent the background daily traffic on the weekend.
- Peak Hour Background Traffic – FDOT standardized K factors and applicable D factors will be applied to the above Weekday Background Traffic and Weekend Background Daily Traffic to represent the peak hour background traffic of a typical weekday or the peak hour gameday background traffic on a typical Saturday.

Project Traffic

Project traffic under future conditions will be established by the following:

- Weekday Project Traffic without Game -The Project's select zone/link AADT volumes from the SERPM-derived AADT will represent the typical weekday Project traffic (non-event) as the base condition.
- Weekday Project Traffic with Game – Using ITE trip generation estimates (refer to ITE trip generation methodology below) the increased trips ratio attributed to gameday will be applied to the MFP select zone/link traffic without game on a typical weekday.
- Weekend Project Daily Traffic with Game – Using ITE trip generation estimates (refer to ITE trip generation methodology below) the increased trips ratio attributed to gameday on the weekend will be applied to the MFP select zone/link traffic without game on a typical weekday.
- Peak Hour Project Traffic without Game – FDOT standardized K factors will be applied to the above Weekday Project Traffic without Game to represent a typical peak hour on a non-event weekday as the base condition.
- Peak Hour Project Traffic with Game – FDOT standardized K factors will be applied to the above Weekday Project Traffic with Game or Weekend Project Daily Traffic with Game to represent the peak hour project traffic with game on a weekday or the peak hour project traffic on gameday on a typical Saturday.

Total Traffic

Total traffic (post model processing) will be derived by the following:

- Peak Hour Traffic on Weekday without Game – The sum of the peak hour background traffic and peak hour project traffic without game will represent total peak hour traffic on non-event weekday. Intersection and roadway segment LOS will be determined based on this peak hour, directional traffic (non-event base condition).
- Peak Hour Traffic on Weekday with Game – The sum of the peak hour background traffic and peak hour project traffic with game will represent total peak hour traffic on gameday on a weekday. Intersection and roadway segment LOS will be determined based on this peak hour, directional traffic.

- **Peak Hour Traffic on Weekend with Game** – The sum of the peak hour background traffic on a weekend and the peak hour project traffic with game on the weekend will represent total peak hour traffic on gameday on a weekend. Intersection and roadway segment LOS will be determined based on peak hour, directional traffic.

TRAFFIC STUDY METHODOLOGY

- ***Data Collection***

Data collection for the study will include intersection turning movement counts, roadway segment volume counts, intersection signal timing and phasing, intersection lane configurations and seasonal adjustment factors. The data collection effort is described below.

- ***Intersection Turning Movement Counts***

Intersection turning movement counts will be collected during the typical weekday AM peak period (7:00 – 9:00 am) and the typical weekday PM peak period as well as the weekday game day arrival and departure peak periods (5:00 – 10:30 pm). Turning movement counts will also be collected on a typical Saturday from 5:30 – 7:30 pm (weekend night soccer match arrival peak period) and from 9:30 – 10:30 pm (weekend night soccer match departure peak period). A weekly volume peak season conversion factor will be used to reflect average annual daily traffic conditions. The following 27 locations are the study intersections:

1. NW 42nd Avenue (SR 953) / NW 7th Street (S)
2. NW 37th Avenue / NW 7th Street (S)
3. NW 42nd Avenue (SR 953) / NW 11th Street (S)
4. NW 37th Avenue / NW 11th Street (S)
5. NW 34th Avenue / NW 11th Street (AWSC)
6. NW 27th Avenue (SR 9) / NW 11th Street (S)
7. NW 42nd Avenue (SR 953) / NW 14th Street (S)
8. NW 37th Avenue / NW 14th Street (S)
9. NW 37th Avenue / SR 836 EB On Ramps (Yield)
10. SR 836 WB Off Ramp at NW 37th Avenue / NW 14th Street (Stop)
11. NW 27th Avenue (SR 9) / NW 14th Street (S)
12. NW 37th Avenue / NW 16th Street (Stop)
13. NW 37th Avenue / NW 17th Street (S)
14. NW 27th Avenue (SR 9) / NW 17th Street (S)
15. NW 37th Avenue / NW 19th Terrace (Stop)

16. NW 38th Court / NW 21st Street (S)
17. NW 37th Avenue / NW 21st Street (S)
18. NW 42nd Avenue (SR 953) / NW 25th Street (S)
19. NW 37th Avenue / NW 25th Street (S)
20. NW 42nd Avenue (SR 953) / NW 28th Street (S)
21. NW 37th Avenue / NW 28th Street (S)
22. NW 42nd Avenue (SR 953) / NW 31st Street
23. NW 42nd Avenue (SR 953) / NW 36th Street (SR 948) (S)
24. NW S River Drive / NW 36th Street (SR 948) (S)
25. NW 42nd Avenue (SR 953) / Okeechobee Road (US 21) (S)
26. NW 45th Avenue / SR 836 EB Off Ramp (S)
27. NW 45th Avenue / NW 12th Drive / SR 836 WB On Ramp (S)

S = Signalized

AWSC = All-way stop control

- ***Ramp Roadway Volume Counts***

Twenty-four hour volume counts will be collected at 12 ramps providing access to / from the Project area on a typical weekday and a Saturday. The counts will be adjusted to reflect average annual daily traffic conditions using the latest weekly volume adjustment factors obtained from FDOT. The following are the 12 ramp roadways:

1. EB SR 836 On Ramp from SB NW 42nd Avenue
2. WB SR 836 On Ramp from NB NW 42nd Avenue
3. WB SR 836 Off Ramp to NB NW 42nd Avenue
4. EB NW 21st Street On Ramp from SB NW 42nd Avenue
5. EB SR 112 On Ramp from NB NW 42nd Avenue
6. WB SR 112 Off Ramp to SB NW 42nd Avenue
7. EB SR 836 On Ramp from SB NW 27th Avenue
8. WB SR 836 Off Ramp to NB NW 27th Avenue
9. Ramp from MIC to SB NW 42nd Avenue
10. Ramp from MIC to NB NW 42nd Avenue
11. EB SR 836 On Ramp from NW 37th Avenue
12. WB SR 836 Off Ramp to NW 37th Avenue

- ***Intersection Data***

Signal timing data will be obtained from Miami-Dade County for the signalized intersections analyzed in this study. This information will be used for the signal phasing and timing required for

the intersection capacity analysis. All count locations for study intersections, roadway segments and ramps are graphically shown in an exhibit included in Attachment B.

- ***Multimodal Data***

Available pedestrian facilities within the project area and proposed pedestrian enhancements will be described. Available transit / transit hubs such as the Miami Intermodal Center (MIC), the Miami International Airport Metrorail station (MIA station), the Miami Central Station, Miami-Dade Transit bus routes and the City of Miami Trolley System will be discussed in the study.

- ***Major League Soccer Data***

Schedules of existing Major League Soccer (MLS) teams were reviewed in order to better understand the proposed Inter Miami CF stadium use. Information such as number of home games, typical weekday/weekend, and typical start times will be summarized. Additional data such as transit and ridesharing for a typical game day will be referenced throughout the traffic study.

- ***Project Trip Generation***

Trip generation estimates based on ITE trip rates will be prepared for a typical weekday AM peak hour, typical weekday PM peak hour, weekday soccer match arrival peak hour, weekday soccer match departure peak hour, weekend soccer match arrival peak hour, and weekend soccer match departure peak hour. Trip generation was estimated using information provided by the Atlanta United MLS team, and trip equations and rates provided in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 11th Edition. The trip generation estimates account for internal capture, pass-by capture, and alternative mode of transportation usage using readily available information, including the Institute of Transportation Engineer's (ITE) *Trip Generation Handbook*, 3rd Edition. Project trip generation worksheets, hourly distributions, and internal capture rates used are included in Attachment C.

- ***Weekday AM and PM Peak Hour Trip Generation***

The Miami Freedom Park project will be a mixed-use development that incorporates the soccer village, a hotel, a park, office space and soccer fields, which can satisfy the work trip, dining, and retail needs for some employees and visitors without making a trip off-site. An internalization matrix was developed to establish the appropriate number of internal Project trips. The ITE *Trip Generation*

Handbook, 3rd Edition, provides internal capture rates for the AM and PM peak hours. Internal capture rates used are also included in Attachment C.

ITE research shows that a certain percent of retail trips are “*pass-by*” trips. These are described as trips “attracted from the traffic passing the site on an adjacent street.” These are not new trips, but trips already using the existing roadway network that stop at the proposed use and go back to their original path. Pass-by trips for this use were established based on guidelines provided in ITE’s Trip Generation Manual, 11th Edition. The average pass-by rate published by ITE for land use 820 and the existing volume of the adjacent street were used to establish the pass-by component. Although ITE only provides data for the PM peak hour, the soccer village will attract patrons from the adjacent traffic flow throughout the day. Therefore, the pass-by reduction was also applied to the AM peak hour trips for this use, but may be adjusted accordingly to be no more than 10% of the passing traffic.

The close proximity to the Miami Intermodal Center (MIC) and Miami International Airport (MIA) provides for an area with readily available mass transit within walking distance. Furthermore, the United States Census Bureau shows that 17.6% of the public within the area currently use other modes of transportation. Given the proposed grade-separated pedestrian bridge from the MIC to the Project site, a 20% adjustment was used to account for other modes of transportation.

It should be noted, that for the weekday AM and PM peak hour trip generation analysis the MLS stadium was assumed not to be in use (a non-event weekday). For the hotel use, a 30% deduction was applied to account for patrons using shuttle services to/from MIA. This is based on data previously collected at a hotel on SW 42nd Avenue approximately 2.5 miles south of the site and adjusted due to the very close proximity of the hotels to MIA and the shuttle service that will be provided by the hotels. Shuttle trips were added to the trip generation calculations. The net new external traffic derived from ITE procedures will be utilized to establish the increased MFP peak hour traffic ratios between non-gameday and gameday. This ratio will then be applied to the SERPM-derived AADT volumes as discussed previously. The Project trip generation for weekday AM and PM peak hours is provided in Exhibit 1.

Exhibit 1: Project Trip Generation Summary (Weekday AM and PM Peak Hours)

Proposed ITE Land Use Designation ¹	Number of Units / Square Feet	Weekday					
		AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
		In	Out	Total	In	Out	Total
MLS Stadium	25,000 Seats	0	0	0	0	0	0
		-	-	-	-	-	-
Other Modes of Transportation	-30%						
Rideshare added In/Out Trips	15%						
MLS Stadium TOTAL		0	0	0	0	0	0
Soccer Village <i>Land Use Code: 820</i>	600,000 SF	302	185	487	984	1,066	2,050
		$T = 0.59(X) + 133.55$			$\ln(T) = 0.72\ln(X) + 3.02$		
		62%	38%	100%	48%	52%	100%
Internalization	-10% -9% -6% -3%	-30	-18	-48	-104	-71	-175
Other Modes of Transportation	-20%	-54	-33	-88	-176	-199	-375
Pass-By	-19% -19% 19% 23%	-42	-26	-68	-134	-152	-286
Soccer Village TOTAL		176	108	283	570	644	1214
Office <i>Land Use Code: 710</i>	400,000 SF	458	66	524	89	436	525
		$\ln(T) = 0.86\ln(X) + 1.16$			$\ln(T) = 0.83\ln(X) + 1.29$		
		86%	14%	100%	16%	84%	100%
Internalization	-10% -19% -18% -18%	-32	-18	-50	-21	-79	-100
Other Modes of Transportation	-20%	-85	-10	-95	-14	-71	-85
General Office TOTAL		341	38	379	54	286	340
Hotel <i>Land Use Code: 310</i>	3 - 250 Rooms (750 Room Total)	198	156	354	240	231	471
		$T = 0.50(X) - 7.45$			$T = 0.74(X) - 27.89$		
		56%	44%	100%	51%	49%	100%
Internalization	-7% -13% -20% -21%	0	-26	-26	-41	-20	-61
Shuttle Service	-30%	-59	-39	-98	-60	-63	-123
Shuttle Trips	10 - 15 min Headway	5	3	8	5	5	10
Other Modes of Transportation	-20%	-40	-26	-66	-40	-42	-82
Hotel TOTAL		104	68	172	104	111	215
New Park <i>Land Use Code: 411</i>	58 Acres	1	0	1	4	3	7
		Rate = 0.02 / Acres			Rate = 0.11 / Acres		
		59%	41%	100%	55%	45%	100%
Internalization	0% 0% -12% -11%	0	0	0	0	0	0
Other Modes of Transportation	-20%	0	0	0	-1	0	-1
New Park TOTAL		1	0	1	3	3	6
Soccer Fields <i>Land Use Code: 488</i>	9.2 Acres (8 Fields)	5	3	8	87	45	132
		Rate = 0.99 / Field			Rate = 16.43 / Field		
		61%	39%	100%	66%	34%	100%
Internalization	0% -11% 0% 0%	0	0	0	-9	-5	-14
Other Modes of Transportation	-20%	-1	-1	-2	-16	-8	-24
Soccer Fields TOTAL		4	2	6	62	32	94
Total Gross Trips		964	410	1,374	1,404	1,781	3,185
Internalization	-9% -11% -7% -4%	-62	-62	-124	-175	-175	-350
Other Modes of Transportation	-28% -24% -27% -26%	-240	-109	-348	-306	-384	-690
Soccer Village Pass-By	-19% -19% 19% 23%	-42	-26	-68	-134	-152	-286
Hotel Shuttle added In/Out Trips		5	3	8	5	5	10
NET NEW EXTERNAL TOTAL		625	216	842	794	1,075	1,869

(1) Based on ITE Trip Generation, 11th Edition.

- ***Saturday Game Day Arrival and Departure Trip Generation***

The Miami Freedom Park project will provide a mixed-use development, therefore, an internalization matrix was also developed for a Saturday game day. Internal capture rates used are also included in Attachment C. A 20% adjustment was used to account for other modes of transportation for all land uses not including the MLS stadium. It should be noted that for the Saturday game day trip generation analysis, the soccer fields were assumed to be closed.

ITE does not provide a land use for a soccer stadium, therefore, the estimated trips for the MLS stadium were based on the proposed number of seats assuming full attendance and an auto occupancy of 2.9 persons per vehicle. A 30% reduction, based on data from the Atlanta United MLS team, was taken into account for other modes of transportation. In the case of ridesharing, a 15% increase was used to account for the in and out ridesharing trips.

In order to project weekday daily trips and Saturday daily trips throughout 24 hours, daily trips were distributed hourly using data provided in ITE's *Trip Generation Manual*, 11th Edition. Land use hourly distributions used are included in Attachment C. The MLS stadium trip distribution during arrival and departure periods are based on parking data provided by the Atlanta United MLS team. Adjustments to soccer village trips include a 20% reduction to account for interactions with stadium users and a 50% game day avoidance factor. The net new external traffic derived from ITE procedures will be utilized to establish the increased MFP peak hour traffic ratios between non-gameday and gameday. This ratio will then be applied to the SERPM-derived AADT volumes as discussed previously. The Project trip generation for Saturday arrival (6:30 – 7:30 pm) and departure (9:30 – 10:30 pm) is provided in Exhibit 2.

Exhibit 2: Project Trip Generation Summary (Saturday Arrival and Departure)

Proposed ITE Land Use Designation ¹	Number of Units / Square Feet	Saturday Gameday ³					
		Arrival (6:30 - 7:30pm) Vehicle Trips			Departure (9:30 - 10:30pm) Vehicle Trips		
		In	Out	Total	In	Out	Total
MLS Stadium ²	25,000 Seats	3,276	0	3,276	0	4,311	4,311
		38% ⁵	0%		0%	50% ⁵	
Other Modes of Transportation	-30%	-983	0	-983	0	-1293	-1293
Rideshare added In/Out Trips	15%	0	344	344	453	0	453
MLS Stadium TOTAL		2293	344	2637	453	3018	3471
Soccer Village Land Use Code: 820	600,000 SF	393	507	899	74	290	364
		1.38%	1.78%	3.16% ⁶	0.26%	1.02%	1.28% ⁶
		1.38%	1.78%	3.16%	0.26%	1.02%	1.28%
Internalization	-3%	-12	-15	-27	-2	-9	-11
Other Modes of Transportation	-20%	-76	-98	-174	-15	-56	-71
Pass-By	23%	-70	-90	-160	-13	-52	-65
Soccer Village TOTAL		235	302	537	44	173	217
Office Land Use Code: 710	400,000 SF	4	8	12	1	12	13
		0.55%	0.95%	1.50%	0.15%	1.35%	1.50%
Internalization	-18%	0	-2	-2	0	-2	-2
Other Modes of Transportation	-20%	-1	-1	-2	0	-2	-2
General Office TOTAL		3	5	8	1	8	9
Hotel Land Use Code: 310	3 - 250 Rooms (750 Room Total)	155	65	220	74	165	239
		2.46%	1.04%	3.50%	1.2%	2.6%	3.80%
Internalization	-21%	-33	-14	-47	-15	-35	-50
Shuttle Service	-30%	-37	-15	-52	-17	-39	-56
Shuttle Trips		3	1	4	1	3	4
Other Modes of Transportation	-20%	-24	-10	-34	-12	-26	-38
Hotel TOTAL		64	27	91	31	68	99
New Park Land Use Code: 411	58 Acres	4	6	10	0	0	0
		3.76%	5.24%	9.00%	0.50%	0.50%	1.00%
Internalization	-11%	0	-1	-1	0	0	0
Other Modes of Transportation	-20%	-1	-1	-2	0	0	0
New Park TOTAL		3	4	7	0	0	0
Soccer Fields ⁴ Land Use Code: 488	9.2 Acres (8 Fields)	0	0	0	0	0	0
		-	-	-	-	-	-
Internalization	0%						
Other Modes of Transportation	-20%						
Soccer Fields TOTAL		0	0	0	0	0	0
Total Gross Trips		3,831	586	4,418	150	4,777	4,927
Internalization	-2% -1%	-45	-33	-77	-17	-46	-63
Other Modes of Transportation	-29%	-1,121	-126	-1,248	-44	-1,416	-1,460
Soccer Village Pass-By	23%	-70	-90	-160	-13	-52	-65
Hotel Shuttle added In/Out Trips		3	1	4	1	3	4
Rideshare added In/Out Trips		0	344	344	453	0	453
NET NEW EXTERNAL TOTAL		2,598	682	3,280	529	3,266	3,796

(1) Based on ITE Trip Generation, 10th Edition.

(2) Stadium Trips based on a 2.9 Auto Occupancy.

(3) Saturday daily trips distributed hourly by land use.

(4) Assumed soccer fields not in use during game day.

(5) Based on data provided by the Atlanta United.

(6) Includes a 50% game day factor and 20% stadium user interaction.

- ***Weekday Game Day Arrival and Departure Trip Generation***

The Miami Freedom Park project will provide a mixed-use development, therefore, an internalization matrix was also developed for a weekday game day. Internal capture rates used are also included in Attachment C. Assumptions discussed in the section above and used for a Saturday gameday were also used for weekday gameday trip generation calculations.

A pass-by rate of 19% was applied to the daily trips for the soccer village land use. A 20% adjustment was used to account for other modes of transportation for all other land uses not including the MLS stadium. It should be noted that for the weekday gameday trip generation analysis, the soccer fields were also assumed to be closed.

As previously discussed, ITE does not provide a land use for a soccer stadium, therefore, the estimated trips for the MLS stadium were based on the proposed number of seats assuming full attendance and an auto occupancy of 2.9 persons per vehicle. A 30% reduction, based on data from the Atlanta United MLS team, was taken into account for other modes of transportation. In the case of ridesharing, a 15% increase was used to account for the in and out ridesharing trips.

In order to project weekday daily trips throughout 24 hours, daily trips were distributed hourly using data provided in ITE's *Trip Generation Manual*, 11th Edition. Land use hourly distributions used are included in Attachment C. The MLS Stadium trip distribution during arrival and departure periods are based on parking data provided by the Atlanta United MLS team. Adjustments to soccer village trips include a 20% reduction to account for interactions with stadium users and a 50% game day avoidance factor. The net new external traffic derived from ITE procedures will be utilized to establish the increased MFP peak hour traffic ratios between non-gameday and gameday. This ratio will then be applied to the SERPM-derived AADT volumes as discussed previously. The Project trip generation for weekday arrival (6:30 – 7:30 pm) and departure (9:30 – 10:30 pm) is provided in Exhibit 3.

Exhibit 3: Project Trip Generation Summary (Weekday Arrival and Departure)

Proposed ITE Land Use Designation ¹	Number of Units / Square Feet	Weekday Gameday ³					
		Arrival (6:30 - 7:30pm) Vehicle Trips			Departure (9:30 - 10:30pm) Vehicle Trips		
		In	Out	Total	In	Out	Total
MLS Stadium ²	25,000 Seats	3,276	0	3,276	0	4,310	4,310
		38% ⁵	0%		0%	50% ⁵	
Other Modes of Transportation	-30%	-983	0	-983	0	-1293	-1293
Rideshare added In/Out Trips	15%	0	344	344	453	0	453
MLS Stadium TOTAL		2293	344	2637	453	3017	3470
Soccer Village Land Use Code: 820	600,000 SF	332	332	664	142	142	284
		1.54%	1.54%	3.08%	0.66%	0.66%	1.32% ⁶
Internalization	-6%	-20	-20	-40	-9	-9	-18
Other Modes of Transportation	-20%	-62	-62	-124	-27	-27	-53
Pass-By	19%	-48	-48	-96	-20	-20	-40
Soccer Village TOTAL		202	202	404	86	86	173
Office Land Use Code: 710	400,000 SF	21	37	58	6	52	58
		0.55%	0.95%	1.50%	0.15%	1.35%	1.50%
Internalization	-18%	-4	-7	-11	-1	-9	-10
Other Modes of Transportation	-20%	-3	-6	-9	-1	-9	-10
General Office TOTAL		14	24	37	4	34	38
Hotel Land Use Code: 310	3 - 250 Rooms (750 Room Total)	154	116	270	78	54	132
		2.57%	1.93%	4.50%	1.30%	0.90%	2.20%
Internalization	-20%	-30	-23	-53	-15	-10	-25
Shuttle Service	-30%	-37	-28	-65	-19	-13	-32
Shuttle Trips		3	2	6	2	1	3
Other Modes of Transportation	-20%	-25	-19	-43	-13	-9	-22
Hotel TOTAL		65	49	114	33	23	56
New Park Land Use Code: 411	58 Acres	4	4	8	0	0	0
		3.59%	3.41%	7.00%	0.00%	0.00%	0.00%
Internalization	-12%	0	0	0	0	0	0
Other Modes of Transportation	-20%	-1	-1	-2	0	0	0
New Park TOTAL		3	3	6	0	0	0
Soccer Fields ⁴ Land Use Code: 488	9.2 Acres (8 Fields)	0	0	0	0	0	0
		-	-	-	-	-	-
Internalization	0%						
Other Modes of Transportation	-20%						
Soccer Fields TOTAL		0	0	0	0	0	0
Total Gross Trips		3,787	488	4,275	225	4,559	4,785
Internalization	-2% -1%	-54	-50	-104	-25	-28	-53
Other Modes of Transportation	-29%	-1,111	-115	-1,227	-60	-1,351	-1,410
Soccer Village Pass-By	19%	-48	-48	-96	-20	-20	-40
Hotel Shuttle added In/Out Trips		3	2	6	2	1	3
Rideshare added In/Out Trips		0	344	344	453	0	453
NET NEW EXTERNAL TOTAL		2,577	621	3,198	575	3,161	3,738

(1) Based on ITE Trip Generation, 10th Edition.

(2) Stadium Trips based on a 2.9 Auto Occupancy.

(3) Weekday daily trips distributed hourly by land use.

(4) Assumed soccer fields not in use during game day.

(5) Based on data provided by the Atlanta United.

(6) Includes a 50% game day factor and 20% stadium user interaction.

- ***Project Trip Distribution / Assignment***

The Project Trip Distribution / Assignment will be determined by SERPM for maximum consistency with the Miami-Dade TPO 2045 LRTP. The SERPM Select Zone/Link analysis will be performed to fully document the impacts of the Project's AADT trips. Within close proximity of the project site, project trip distribution and assignment will be fine-tuned reflective of MFP's traffic circulation, access and parking plans. See Attachment D site ingress/egress plans for daily non-event and MLS game events.

- ***Intersection Analysis***

Intersection analysis will be done using Trafficware's Synchro 11.0 software based upon Highway Capacity Manual (HCM) methodologies. Operation analysis at driveways providing access to / from the site will also be conducted. If capacity deficiencies were identified, strategies and improvements will be developed to attain adopted levels of service.

- **Analysis Scenarios** – Traffic impact analyses will be developed for the existing conditions (2022) and the future buildout of the Project conditions (2033). Typical weekday AM (7:00 – 9:00 am) and PM (4:00 – 6:00 pm) peak hour analyses will be undertaken for non-event days. Traffic impact analyses will also be undertaken for the weekday and Saturday game day arrival period (6:30 – 7:30 pm) and departure period (9:30 – 10:30 pm).
- **Signal Location and Timing** – Existing signal phasing and timing for the signalized intersection will be obtained from Miami-Dade County (MDC). Under future traffic conditions, the SOP may be modified to reflect optimized conditions.
- **Future Intersection Traffic** – Future intersection turn volumes will be derived using FDOT TURNS5 software as applied to the SERPM-derived link volumes, consistent with the procedures described in FDOT's Traffic Forecasting Handbook.
- **Future Transportation Projects** – The 2022 TIP and the 2045 LRTP will be reviewed and considered in the analysis at Project build-out.

- ***Ramp Roadway Capacity Analysis***

Ramp roadway volumes will be compared to ramp roadway capacities based on the Highway Capacity Manual (HCM).

Analysis Scenarios – Ramp capacity analysis will be completed for exiting conditions (2022) and future with Project conditions (2033).

- **VISSIM**

Micro traffic simulation using VISSIM will be performed for selected area coverage and analysis period (to be determined) to summarize the results of the traffic study. VISSIM serves as a useful analysis and visual tool comparing the traffic impacts reflective of different analysis scenarios. It is anticipated the application of VISSIM may offer useful supplemental analysis including the following:

- Upstream and downstream intersection queueing and blocking
- Parking and drop-off queues
- Freeway ramp operations and weaving
- Special event traffic management
- Corridor level traffic analysis

The application of VISSIM will be determined pending the traffic issues of particular concern during the review process.

TRAFFIC CALMING EVALUATION (For Informational Purposes Only)

The Project will undertake a traffic calming analysis for the Grapeland Heights Neighborhood (GHN) just east of the proposed site. This analysis will not be part of the TIS, but will be documented in a separate report. The analysis will assess if any study area roadway segments meet the traffic calming criteria as outlined in Miami-Dade County's *Traffic Flow Modification / Street Closure Procedure* (January 2009). In order for MDC to consider a traffic calming device on these segments, the volume or speed threshold and one additional criteria defined in MDC procedures must be met.

MDC has defined 150 vehicles per hour (vph) during the peak periods or 1,500 vehicles per day (vpd) as the volume thresholds where residential local streets begin to lose their "livability." For residential collector streets, MDC has defined 300 vehicles per hour (vph) during the peak periods or 3,000 vehicles per day (vpd) as the volume thresholds.

MDC has determined that a speeding problem can be verified when the 85th percentile speed of all vehicles is greater than 10 mph over the posted speed limit on both residential collector and local streets. The 85th percentile speed is simply the speed that 85% of the motorists do not exceed. MDC has determined that when cut-through traffic is greater than 25% of the traffic volume counted on the segment, residential local streets also begin to lose their "livability." For residential collector

streets, MDC has defined 50% of the traffic volume counted on the segment as the threshold.

The traffic calming evaluation will not be a part of the TIS, but will be a separate document. The Project team will also have public meetings with the affect residents to discuss results of the evaluation, as well as potential traffic calming devices that might be implemented.

TRANSPORTATION MANAGEMENT PLAN (For Informational Purposes Only)

Similar to sporting venues across the country, including the FTX Arena in Miami, a detailed transportation management plan (TMP) for game days will be needed. The TMP for this Project will have a “roundtable” approach with representatives from FDOT, MDX, MDC, and the CoM. It will also include representatives from the appropriate police agencies. Due to the project’s proximity to Miami International Airport, MDAD representatives will also be included in the development of the TMP for game days. The TMP will not be part of this TIS and will be developed and finalized prior to the opening game at the soccer stadium.

Components of the TMP may include the following:

- **Temporary street modifications (pre and post-game)** – To assure successful operations, temporary modification such as turn restrictions and/or adjustments of roadway geometry will be police controlled. Temporary traffic control devices will also be required. These include but not are limited to, roadside signs, barricades and traffic cones.
- **Police control of intersections** – signal timing may be overridden by police officers at intersections of high demand. This would enable traffic flow to flow more rapidly in the direction of additional demand.
- **Permanent and temporary signage (expressway system and surface streets)** – It is important to inform motorist of the available routes and alternatives because many may be unfamiliar with the project site area. Advance warning signs will allow drivers to have ease of access. Traffic control signs will also be used to direct traffic on local streets. Permanent and temporary signage, can achieve the goal of distributing traffic.
- **Other modes of transportation** – The purpose of this strategy is to reduce vehicular trips by encouraging patrons to use transit and adjusting transit routes and schedules to accommodate game day demand. Strategies may include:
 - Partnering with Miami-Dade Transit to provide more Metrorail vehicles to the MIC station with shorter headways for both pre and post-game is critical given the

anticipated amount of patrons expected to use other modes of transportation to get to a game.

- Providing incentives to patrons to use the Metrorail. Some of the proposed incentives may include:
 - Providing in-game promotional items with proof of Metrorail ridership
 - Offering app-based rewards for using the Metrorail
- Partnering with Miami-Dade Transit and the CoM to enhanced transit service on game days by arranging for CoM trolleys to circulate between the MIC and the stadium.
- **Pedestrian management** – Safe and efficient pedestrian accessibility to the project site is key in encouraging patrons to use other modes of transportation. The following improvements are being considered to enhance pedestrian mobility:
 - Providing a grade-separated pedestrian crossing over NW 21st Street. This elevated crossing will provide a direct, safe, and convenient way for pedestrians to gain access to/from the site from/to the MIC's Miami Central Station. With up to 7,500 patrons potentially using transit at a sold-out game, this is a very important enhancement for pedestrians.
 - Enhancing pedestrian improvements such as ADA pedestrian ramps with detectable warning surface, pedestrian push buttons and countdown signals, high-emphasis crosswalks, and an exclusive pedestrian phase during game days. These enhancements are critical for non-game days when there will not be police control of intersections adjacent to the site.
 - Installing rapid rectangular flashing beacons, like the ones installed on South Bayshore Drive and Ponce de Leon Boulevard, is also being considered at non-signalized pedestrian crossings.
- **Site access / Parking management** – To facilitate access and minimize conflict and potential safety concerns, vehicular access, parking designations and pedestrian routes will be coordinated. This will include designating the following:
 - Valet locations / operations
 - Rideshare drop-off / pick-up locations
 - Bus / limo staging
 - Disabled passenger drop-off / pick-up areas
 - Fire-rescue access and circulation

- **Extensive public information program**– This strategy would provide season ticket holders and the general public with information/maps on recommended routing to the MFP and available parking areas. By doing so, it will allow patrons to plan ahead. This strategy is expected to be especially effective since patrons are repeat users (ticket holders) who will become familiar with patterns quickly.

For purposes of the traffic impact analysis, the following TMP strategies were assumed:

Police controlled intersections during arrival (up to two hours pre-match):

- NW 42nd Avenue / NW 14th Street
- NW 37th Avenue / NW 14th Street
- NW 37th Avenue / NW 19th Terrace / Project Driveway
- NW 37th Avenue / NW 21st Street
- NW 14th Street / Project Driveway

Police controlled intersections during departure (up to two hours post-match):

- NW 42nd Avenue / NW 14th Street
- NW 37th Avenue / NW 14th Street
- NW 37th Avenue / SR 836 EB On Ramps
- NW 37th Avenue / NW 19th Terrace / Project Driveway
- NW 38th Court / NW 21st Street
- NW 37th Avenue / NW 21st Street
- NW 14th Street / Project Driveway
- A temporary roadway modification to allow post-match access to the ramping system south of the MIC.
- A plan to prohibit vehicular game day traffic from using NW 37th Avenue between NW 14th Street and NW 19th Terrace.

AGENCY COORDINATION

A traffic coordination kick-off meeting was held on June 7, 2022 with representatives from the following agencies:

- Florida Department of Transportation (FDOT)

- Miami-Dade Expressway Authority (MDX)
- Miami-Dade Department of Transportation and Public Works (DTPW)
- Miami-Dade Aviation Department (MDAD)
- City of Miami

The purpose of the meeting was to provide an overview of the project and discuss the proposed traffic study methodology. A copy of the meeting sign-in sheet is provided in Attachment D. Comments from the agencies regarding the methodology were requested to be submitted by June 13, 2022. A follow up comment resolution meeting will be scheduled shortly after receiving the agencies comments.

w:\18\18180\8_methodology may 2022\mfp&sv traffic statement & methodology may 2022.docx

Attachment A

Site Plan



ARQUITECTONICA
2900 OAK AVENUE MIAMI, FL 33133
305.372.1812 T 305.372.1175 F

SPECIAL AREA PLAN
01 / 26 / 2021

MASTERPLAN



0' 200' 400'
SCALE: 1" = 400'-0"

Attachment B

Traffic Counts Location Map



NORTH
MAP NOT TO SCALE

**MIAMI FREEDOM PARK
& SOCCER VILLAGE**

- Project Location
- TMC → (27)
- Ramps → (12)



Since 1978

Attachment C

Trip Generation

Trip Generation Documentation

Pass-by

Daily Hourly Distribution

Internalization

US Census Data

Trip Generation Documentation

Scenario - 4

Scenario Name: AM Peak Hour

User Group:

Dev. phase: 1

No. of Years to 0

Project Traffic :

Analyst Note:

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
820 - Shopping Center (>150k)	General	1000 Sq. Ft. GLA	600	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	302	185	487
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.59(X) + 133.55$	62%	38%	
710 - General Office Building	General	1000 Sq. Ft. GFA	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG)	485	66	551
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.86\ln(X) + 1.16$	88%	12%	
310 - Hotel	General	Rooms	250	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	66	52	118
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.50(X) - 7.45$	56%	44%	
411 - Public Park	General	Acres	58	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average	1	0	1
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				0.02	59%	41%	
488 - Soccer Complex	General	Fields	8	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average	5	3	8
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				0.99	61%	39%	

Scenario - 1

Scenario Name: PM Peak Hour

User Group:

Dev. phase: 1

No. of Years to 0

Project Traffic :

Analyst Note:

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
820 - Shopping Center (>150k)	General	1000 Sq. Ft. GLA	600	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG)	984	1066	2050
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.72\ln(X) + 3.02$	48%	52%	
710 - General Office Building	General	1000 Sq. Ft. GFA	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG)	89	436	525
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.83\ln(X) + 1.29$	17%	83%	
310 - Hotel	General	Rooms	250	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN)	80	77	157
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.74(X) - 27.89$	51%	49%	
411 - Public Park	General	Acres	58	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	4	3	7
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				0.11	55%	45%	
488 - Soccer Complex	General	Fields	8	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	87	45	132
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				16.43	66%	34%	

Scenario - 2

Scenario Name: Weekday Daily Trips

User Group:

Dev. phase: 1

No. of Years to
Project Traffic : 0

Analyst Note:

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
820 - Shopping Center (>150k)	General	1000 Sq. Ft. GLA	600	Weekday	Best Fit (LIN)	10765	10765	21530
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 26.11(X) + 5863.73$	50%	50%	
710 - General Office Building	General	1000 Sq. Ft. GFA	400	Weekday	Best Fit (LOG)	1938	1938	3876
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$\ln(T) = 0.87\ln(X) + 3.05$	50%	50%	
310 - Hotel	General	Rooms	250	Weekday	Average	999	999	1998
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				7.99	50%	50%	
411 - Public Park	General	Acres	58	Weekday	Best Fit (LIN)	63	63	126
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 0.64(X) + 88.46$	50%	50%	
488 - Soccer Complex	General	Fields	8	Weekday	Average	285	285	570
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				71.33	50%	50%	

Scenario - 3

Scenario Name: Saturday Daily Trips

User Group:

Dev. phase: 1

No. of Years to
Project Traffic : 0

Analyst Note:

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
820 - Shopping Center (>150k)	General	1000 Sq. Ft. GLA	600	Saturday	Best Fit (LIN)	14229	14229	28458
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 36.03(X) + 6840.22$	50%	50%	
710 - General Office Building	General	1000 Sq. Ft. GFA	400	Saturday	Average	442	442	884
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				2.21	50%	50%	
310 - Hotel	General	Rooms	250	Saturday	Best Fit (LIN)	1048	1048	2096
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				$T = 9.69(X) - 326.34$	50%	50%	
411 - Public Park	General	Acres	58	Saturday	Average	57	57	114
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				1.96	50%	50%	
488 - Soccer Complex	General	Fields	8	Saturday	Average	1620	1620	3240
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban				404.88	50%	50%	

Daily Vehicle Trips for Stadium		
MLS Stadium 25,000 Seats		25,000
Attendees Arriving in other Modes of Transportation	-30%	-7,500
Attendees Arriving in Vehicles		17,500
Auto Occupancy ¹	2.9	
Est. Daily Vehicle Trips		6,034

(1) Based on Marlins Data

Rideshare In/Out Trips	15%	905
------------------------	-----	-----

Pass-by

[illegible]

**Table E.10 Pass-By and Non-Pass-By Trips Saturday, Mid-Day Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GFA)	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
720	Framingham, MA	Feb. 1984	258	11:00 a.m.–4:00 p.m.	23	34	43	77	—	Raymond Keyes Assoc.
600	Brandywine, DE	Apr. 1983	256	10:00 a.m.–3:00 p.m.	17	50	33	83	—	Raymond Keyes Assoc.
880	Christiana, DE	July 1984	198	11:00 a.m.–4:00 p.m.	5	55	40	95	—	Raymond Keyes Assoc.
234	Huntington LI, NY	Nov. 1985	223	11:00 a.m.–3:00 p.m.	39	22	39	61	—	Raymond Keyes Assoc.
658	Wayne, NJ	Sept. 1984	329	11:00 a.m.–4:00 p.m.	46	44	10	54	—	Raymond Keyes Assoc.
622	Ramsey Cnty, MN	Nov. 1985	119	11:00 a.m.–3:00 p.m.	23	21	56	77	—	Raymond Keyes Assoc.
736	Pensacola, FL	Oct. 1985	680	11:00 a.m.–3:00 p.m.	20	31	49	80	—	Raymond Keyes Assoc.
430	Ross, PA	June 1980	425	11:00 a.m.–4:00 p.m.	22	—	—	78	—	Raymond Keyes Assoc.
176	Tampa Springs, FL	May 1986	188	11:00 a.m.–3:00 p.m.	31	42	27	69	—	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	264	11:00 a.m.–3:15 p.m.	31	47	22	69	63,362	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	2:15–3:15 p.m.	28	39	33	72	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 26

“—” means no data were provided

Daily Hourly Distribution

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	310			310		
Land Use	Hotel			Hotel		
Setting	General Urban/Suburban			General Urban/Suburban		
Time Period	Weekday			Saturday		
# Data Sites	1			1		
	% of 24-Hour Vehicle Trips			% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Total	Entering	Exiting
12:00 - 6:00 AM	1.9%	1.8%	1.9%	1.7%	1.2%	2.1%
6:00 - 7:00 AM	1.5%	0.8%	2.2%	0.5%	0.0%	1.0%
6:15 - 7:15 AM	2.1%	0.9%	3.4%	0.8%	0.4%	1.2%
6:30 - 7:30 AM	2.7%	1.3%	4.3%	1.0%	0.4%	1.5%
6:45 - 7:45 AM	4.5%	2.0%	7.1%	1.9%	0.7%	3.1%
7:00 - 8:00 AM	5.3%	2.4%	8.2%	3.1%	1.6%	4.6%
7:15 - 8:15 AM	5.9%	3.2%	8.7%	3.5%	1.8%	5.1%
7:30 - 8:30 AM	6.2%	3.6%	8.8%	5.1%	3.2%	6.8%
7:45 - 8:45 AM	5.0%	3.4%	6.7%	5.3%	4.1%	6.5%
8:00 - 9:00 AM	4.8%	3.3%	6.3%	5.2%	3.9%	6.3%
8:15 - 9:15 AM	4.7%	3.5%	6.0%	5.4%	4.1%	6.7%
8:30 - 9:30 AM	5.1%	3.6%	6.5%	4.9%	3.9%	5.8%
8:45 - 9:45 AM	5.7%	4.0%	7.3%	4.7%	3.6%	5.8%
9:00 - 10:00 AM	5.8%	4.8%	6.7%	5.2%	4.3%	6.2%
9:15 - 10:15 AM	5.7%	4.7%	6.7%	6.1%	5.7%	6.5%
9:30 - 10:30 AM	6.3%	6.0%	6.5%	5.9%	5.2%	6.7%
9:45 - 10:45 AM	6.6%	6.3%	6.9%	7.1%	6.8%	7.4%
10:00 - 11:00 AM	6.9%	5.9%	7.8%	7.9%	7.8%	8.0%
10:15 - 11:15 AM	7.1%	6.5%	7.8%	7.7%	7.7%	7.7%
10:30 - 11:30 AM	7.4%	6.0%	8.8%	8.7%	9.8%	7.7%
10:45 - 11:45 AM	7.5%	6.8%	8.2%	8.6%	10.0%	7.4%
11:00 - 12:00 PM	7.8%	7.4%	8.1%	8.1%	9.8%	6.5%
11:15 - 12:15 PM	7.8%	7.7%	7.8%	7.6%	8.9%	6.3%
11:30 - 12:30 PM	7.8%	8.5%	7.1%	8.1%	8.9%	7.4%
11:45 - 12:45 PM	7.7%	8.5%	6.9%	7.8%	8.4%	7.2%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	310			310		
Land Use	Hotel			Hotel		
Setting	General Urban/Suburban			General Urban/Suburban		
Time Period	Weekday			Saturday		
# Data Sites	1			1		
	% of 24-Hour Vehicle Trips			% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Total	Entering	Exiting
12:00 - 1:00 PM	8.3%	10.3%	6.2%	8.5%	7.8%	9.1%
12:15 - 1:15 PM	9.1%	11.9%	6.3%	9.3%	9.1%	9.6%
12:30 - 1:30 PM	9.1%	11.5%	6.6%	8.3%	7.7%	8.9%
12:45 - 1:45 PM	9.9%	12.3%	7.3%	8.2%	7.1%	9.2%
1:00 - 2:00 PM	9.0%	10.7%	7.2%	7.7%	8.0%	7.4%
1:15 - 2:15 PM	7.9%	8.5%	7.2%	8.5%	8.9%	8.0%
1:30 - 2:30 PM	7.8%	8.9%	6.8%	9.9%	10.5%	9.2%
1:45 - 2:45 PM	7.0%	7.5%	6.5%	10.1%	10.7%	9.6%
2:00 - 3:00 PM	7.9%	7.8%	8.0%	11.2%	12.5%	9.9%
2:15 - 3:15 PM	8.3%	8.4%	8.3%	11.4%	12.3%	10.4%
2:30 - 3:30 PM	8.5%	8.2%	8.7%	10.8%	12.1%	9.6%
2:45 - 3:45 PM	8.6%	8.4%	8.8%	10.4%	11.8%	9.1%
3:00 - 4:00 PM	7.6%	8.2%	7.0%	9.2%	8.4%	9.9%
3:15 - 4:15 PM	7.8%	8.8%	6.9%	8.3%	7.5%	9.1%
3:30 - 4:30 PM	7.2%	7.6%	6.8%	7.6%	6.2%	8.9%
3:45 - 4:45 PM	7.3%	7.6%	7.0%	7.1%	5.7%	8.4%
4:00 - 5:00 PM	7.3%	7.1%	7.6%	6.5%	6.4%	6.5%
4:15 - 5:15 PM	7.3%	7.0%	7.6%	4.9%	4.8%	5.0%
4:30 - 5:30 PM	7.8%	8.0%	7.6%	4.5%	5.3%	3.8%
4:45 - 5:45 PM	7.7%	8.2%	7.2%	4.5%	5.9%	3.3%
5:00 - 6:00 PM	7.7%	8.8%	6.5%	4.4%	5.5%	3.3%
5:15 - 6:15 PM	7.1%	8.0%	6.2%	5.2%	6.4%	4.1%
5:30 - 6:30 PM	6.2%	7.1%	5.3%	4.3%	5.3%	3.3%
5:45 - 6:45 PM	5.2%	6.0%	4.4%	3.9%	5.3%	2.6%
6:00 - 7:00 PM	5.1%	5.4%	4.8%	3.1%	4.5%	1.9%
6:15 - 7:15 PM	4.5%	5.2%	3.8%	3.0%	4.8%	1.2%
6:30 - 7:30 PM	4.5%	5.2%	3.9%	3.5%	5.0%	2.1%
6:45 - 7:45 PM	4.8%	5.8%	3.7%	4.2%	5.9%	2.6%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	310			310		
Land Use	Hotel			Hotel		
Setting	General Urban/Suburban			General Urban/Suburban		
Time Period	Weekday			Saturday		
# Data Sites	1			1		
	% of 24-Hour Vehicle Trips			% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Total	Entering	Exiting
7:00 - 8:00 PM	4.5%	5.8%	3.2%	5.4%	7.0%	3.9%
7:15 - 8:15 PM	4.6%	5.5%	3.7%	4.7%	5.9%	3.6%
7:30 - 8:30 PM	4.3%	5.2%	3.4%	4.7%	5.2%	4.3%
7:45 - 8:45 PM	3.9%	4.3%	3.4%	4.1%	3.6%	4.6%
8:00 - 9:00 PM	3.2%	3.1%	3.2%	3.1%	2.7%	3.4%
8:15 - 9:15 PM	2.8%	2.5%	3.1%	3.1%	2.3%	3.9%
8:30 - 9:30 PM	2.5%	1.9%	3.2%	2.9%	2.3%	3.4%
8:45 - 9:45 PM	2.5%	1.9%	3.1%	3.1%	2.0%	4.1%
9:00 - 10:00 PM	2.4%	2.1%	2.8%	3.2%	1.6%	4.8%
9:15 - 10:15 PM	2.3%	2.3%	2.2%	3.8%	2.0%	5.5%
9:30 - 10:30 PM	2.2%	2.6%	1.8%	3.8%	2.3%	5.1%
9:45 - 10:45 PM	2.4%	2.9%	1.9%	3.8%	3.2%	4.3%
10:00 - 11:00 PM	2.4%	3.1%	1.8%	3.9%	3.7%	4.1%
10:15 - 11:15 PM	2.2%	2.7%	1.8%	3.0%	3.4%	2.6%
10:30 - 11:30 PM	2.2%	2.6%	1.8%	3.4%	4.1%	2.7%
10:45 - 11:45 PM	1.5%	1.9%	1.1%	3.0%	3.6%	2.4%
11:00 - 12:00 AM	1.2%	1.5%	0.9%	2.4%	3.2%	1.5%
11:15 - 12:15 AM	0.9%	1.1%	0.6%	2.1%	2.9%	1.4%
11:30 - 12:30 AM	0.2%	0.3%	0.1%	0.9%	1.2%	0.5%
11:45 - 12:45 AM	0.1%	0.1%	0.1%	0.3%	0.5%	0.2%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	710		
Land Use	General Office Building		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	11		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.1%	0.2%	0.1%
12:15 - 1:15 AM	0.1%	0.2%	0.1%
12:30 - 1:30 AM	0.1%	0.1%	0.1%
12:45 - 1:45 AM	0.1%	0.1%	0.1%
1:00 - 2:00 AM	0.0%	0.0%	0.1%
1:15 - 2:15 AM	0.0%	0.0%	0.1%
1:30 - 2:30 AM	0.0%	0.0%	0.0%
1:45 - 2:45 AM	0.0%	0.0%	0.0%
2:00 - 3:00 AM	0.0%	0.0%	0.0%
2:15 - 3:15 AM	0.0%	0.0%	0.0%
2:30 - 3:30 AM	0.0%	0.0%	0.0%
2:45 - 3:45 AM	0.1%	0.0%	0.1%
3:00 - 4:00 AM	0.1%	0.0%	0.1%
3:15 - 4:15 AM	0.1%	0.0%	0.1%
3:30 - 4:30 AM	0.1%	0.0%	0.2%
3:45 - 4:45 AM	0.2%	0.1%	0.2%
4:00 - 5:00 AM	0.2%	0.2%	0.2%
4:15 - 5:15 AM	0.2%	0.2%	0.2%
4:30 - 5:30 AM	0.2%	0.3%	0.1%
4:45 - 5:45 AM	0.2%	0.3%	0.1%
5:00 - 6:00 AM	0.3%	0.4%	0.1%
5:15 - 6:15 AM	0.7%	1.1%	0.2%
5:30 - 6:30 AM	1.1%	1.8%	0.3%
5:45 - 6:45 AM	1.9%	3.5%	0.4%
6:00 - 7:00 AM	2.6%	4.8%	0.5%
6:15 - 7:15 AM	3.5%	6.5%	0.6%
6:30 - 7:30 AM	4.4%	7.9%	0.8%
6:45 - 7:45 AM	5.7%	10.2%	1.2%
7:00 - 8:00 AM	7.8%	13.6%	2.0%
7:15 - 8:15 AM	9.7%	16.8%	2.6%
7:30 - 8:30 AM	10.9%	18.6%	3.2%
7:45 - 8:45 AM	10.5%	17.2%	3.7%
8:00 - 9:00 AM	8.9%	14.3%	3.4%
8:15 - 9:15 AM	7.2%	10.6%	3.8%
8:30 - 9:30 AM	5.9%	8.0%	3.8%
8:45 - 9:45 AM	5.2%	6.7%	3.7%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	710		
Land Use	General Office Building		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	11		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
9:00 - 10:00 AM	5.3%	6.3%	4.4%
9:15 - 10:15 AM	5.4%	5.9%	4.8%
9:30 - 10:30 AM	5.7%	6.0%	5.4%
9:45 - 10:45 AM	5.8%	5.9%	5.8%
10:00 - 11:00 AM	5.7%	5.5%	6.0%
10:15 - 11:15 AM	5.9%	5.0%	6.8%
10:30 - 11:30 AM	6.1%	4.8%	7.4%
10:45 - 11:45 AM	7.5%	5.5%	9.6%
11:00 - 12:00 PM	8.1%	6.0%	10.3%
11:15 - 12:15 PM	8.9%	6.7%	11.1%
11:30 - 12:30 PM	9.7%	8.0%	11.4%
11:45 - 12:45 PM	9.5%	8.7%	10.3%
12:00 - 1:00 PM	10.2%	10.2%	10.1%
12:15 - 1:15 PM	9.8%	10.9%	8.8%
12:30 - 1:30 PM	9.2%	10.6%	7.9%
12:45 - 1:45 PM	8.5%	10.0%	7.1%
1:00 - 2:00 PM	7.8%	9.0%	6.6%
1:15 - 2:15 PM	7.3%	8.4%	6.3%
1:30 - 2:30 PM	7.1%	8.0%	6.2%
1:45 - 2:45 PM	7.3%	8.0%	6.7%
2:00 - 3:00 PM	7.4%	8.3%	6.5%
2:15 - 3:15 PM	7.5%	8.2%	6.9%
2:30 - 3:30 PM	7.5%	8.2%	6.8%
2:45 - 3:45 PM	7.6%	8.0%	7.3%
3:00 - 4:00 PM	7.8%	7.3%	8.4%
3:15 - 4:15 PM	8.6%	7.0%	10.1%
3:30 - 4:30 PM	9.3%	6.3%	12.3%
3:45 - 4:45 PM	10.0%	5.8%	14.2%
4:00 - 5:00 PM	10.3%	5.4%	15.2%
4:15 - 5:15 PM	11.5%	5.1%	17.9%
4:30 - 5:30 PM	11.6%	5.0%	18.1%
4:45 - 5:45 PM	11.0%	4.6%	17.4%
5:00 - 6:00 PM	9.9%	4.0%	15.8%
5:15 - 6:15 PM	6.9%	3.0%	10.9%
5:30 - 6:30 PM	5.0%	2.6%	7.4%
5:45 - 6:45 PM	3.1%	2.1%	4.1%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE <i>Trip Generation Manual</i> , 11th Edition			
Land Use Code	710		
Land Use	General Office Building		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	11		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
6:00 - 7:00 PM	2.1%	1.7%	2.6%
6:15 - 7:15 PM	1.9%	1.7%	2.1%
6:30 - 7:30 PM	1.5%	1.1%	1.9%
6:45 - 7:45 PM	1.6%	1.0%	2.2%
7:00 - 8:00 PM	1.6%	0.9%	2.3%
7:15 - 8:15 PM	1.3%	0.8%	1.8%
7:30 - 8:30 PM	1.4%	0.9%	1.8%
7:45 - 8:45 PM	1.1%	0.7%	1.4%
8:00 - 9:00 PM	1.0%	0.7%	1.3%
8:15 - 9:15 PM	1.0%	0.7%	1.4%
8:30 - 9:30 PM	1.0%	0.6%	1.5%
8:45 - 9:45 PM	1.1%	0.6%	1.7%
9:00 - 10:00 PM	1.1%	0.5%	1.6%
9:15 - 10:15 PM	1.7%	0.4%	2.9%
9:30 - 10:30 PM	1.5%	0.3%	2.7%
9:45 - 10:45 PM	1.3%	0.4%	2.3%
10:00 - 11:00 PM	1.2%	0.3%	2.1%
10:15 - 11:15 PM	0.6%	0.6%	0.5%
10:30 - 11:30 PM	0.5%	0.6%	0.3%
10:45 - 11:45 PM	0.4%	0.5%	0.3%
11:00 - 12:00 AM	0.3%	0.4%	0.2%
11:15 - 12:15 AM	0.1%	0.1%	0.1%
11:30 - 12:30 AM	0.1%	0.1%	0.1%
11:45 - 12:45 AM	0.1%	0.1%	0.1%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE Trip Generation Manual , 11th Edition

Land Use Code	820			820		
Land Use	Shopping Center (>150k)			Shopping Center (>150k)		
Setting	General Urban/Suburban			General Urban/Suburban		
Time Period	Weekday			Saturday		
# Data Sites	24			1		
	% of 24-Hour Vehicle Trips			% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Total	Entering	Exiting
12:00 - 1:00 AM	0.1%	0.0%	0.1%	0.4%	0.1%	0.8%
1:00 - 2:00 AM	0.0%	0.0%	0.0%	0.3%	0.0%	0.5%
2:00 - 3:00 AM	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3:00 - 4:00 AM	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%
5:00 - 6:00 AM	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%
6:00 - 7:00 AM	0.7%	0.9%	0.5%	0.2%	0.3%	0.1%
7:00 - 8:00 AM	1.6%	1.9%	1.2%	0.5%	0.8%	0.2%
8:00 - 9:00 AM	2.4%	2.9%	1.8%	1.1%	1.6%	0.6%
9:00 - 10:00 AM	4.0%	4.9%	3.2%	2.7%	4.1%	1.2%
10:00 - 11:00 AM	6.1%	7.0%	5.3%	5.4%	8.0%	2.8%
11:00 - 12:00 PM	7.9%	8.5%	7.3%	7.7%	9.7%	5.7%
12:00 - 1:00 PM	9.2%	9.6%	8.9%	8.8%	10.3%	7.4%
1:00 - 2:00 PM	8.8%	8.7%	9.0%	9.8%	10.4%	9.3%
2:00 - 3:00 PM	8.2%	7.8%	8.6%	9.9%	10.2%	9.6%
3:00 - 4:00 PM	8.3%	8.1%	8.5%	9.7%	9.3%	10.2%
4:00 - 5:00 PM	8.7%	8.6%	8.7%	9.6%	8.8%	10.5%
5:00 - 6:00 PM	8.8%	8.7%	8.9%	9.0%	8.4%	9.6%
6:00 - 7:00 PM	7.7%	7.7%	7.8%	7.9%	6.9%	8.9%
7:00 - 8:00 PM	6.8%	6.5%	7.0%	6.5%	5.6%	7.4%
8:00 - 9:00 PM	5.3%	4.3%	6.3%	4.7%	2.9%	6.3%
9:00 - 10:00 PM	3.3%	1.9%	4.6%	3.2%	1.3%	5.1%
10:00 - 11:00 PM	1.0%	0.8%	1.2%	1.8%	0.9%	2.7%
11:00 - 12:00 AM	0.5%	0.3%	0.7%	0.7%	0.3%	1.1%

Comment 14

96 hour Count at the Haulover Park - South loop Rd E/O South Parking Lot

	Thursday 9-May-19			Hourly Distribution		Friday 10-May-19			Hourly Distribution		Saturday 11-May-19			Hourly Distributi on		Sunday 12-May-19			Hourly Distribution
	EB	WB	Total			EB	WB	Total			EB	WB	Total			EB	WB	Total	
12:00	0	1	1	0%		2	1	3	0%		0	0	0	0%		0	2	2	0%
1:00	0	0	0	0%		0	0	0	0%		0	0	0	0%		0	0	0	0%
2:00	0	0	0	0%		0	1	1	0%		0	0	0	0%		0	0	0	0%
3:00	0	0	0	0%		2	0	2	0%		0	0	0	0%		0	0	0	0%
4:00	0	0	0	0%		0	1	1	0%		0	0	0	0%		0	0	0	0%
5:00	2	1	3	0%		0	0	0	0%		1	0	1	0%		4	0	4	0%
6:00	16	2	18	2%		15	5	20	2%		18	7	25	1%		8	1	9	0%
7:00	13	3	16	1%		18	1	19	2%		37	1	38	2%		24	14	38	2%
8:00	55	16	71	7%		36	9	45	4%		57	23	80	4%		98	9	107	4%
9:00	61	18	79	7%		56	16	72	7%		81	22	103	5%		112	36	148	6%
10:00	57	35	92	9%		45	27	72	7%		82	35	117	6%		146	53	199	8%
11:00	68	26	94	9%		44	12	56	5%		122	40	162	8%		131	30	161	6%
12:00	40	20	60	6%		65	39	104	10%		109	40	149	7%		134	84	218	9%
1:00	42	28	70	7%		50	25	75	7%		103	60	163	8%		42	109	151	6%
2:00	57	18	75	7%		60	32	92	9%		95	60	155	7%		38	143	181	7%
3:00	38	24	62	6%		37	30	67	6%		76	73	149	7%		124	254	378	15%
4:00	43	43	86	8%		36	30	66	6%		109	76	185	9%		121	191	312	12%
5:00	55	43	98	9%		63	33	96	9%		90	94	184	9%		70	86	156	6%
6:00	47	29	76	7%		67	49	116	11%		88	100	188	9%		47	29	76	3%
7:00	44	81	125	12%		22	54	76	7%		41	193	234	11%		54	125	179	7%
8:00	6	28	34	3%		10	44	54	5%		25	95	120	6%		71	135	206	8%
9:00	1	2	3	0%		0	0	0	0%		7	6	13	1%		0	1	1	0%
10:00	1	4	5	0%		2	3	5	0%		3	5	8	0%		0	0	0	0%
11:00	4	0	4	0%		0	0	0	0%		0	1	1	0%		0	0	0	0%
	650	422	1072	100%		630	412	1042	100%		1144	931	2075	100%		1224	1302	2526	100%

FTE8250, Pascal Dr
Punta Gorda, FL 33950**Ph# (941) 639 2818, Fax# (941) 639 4851**

Site Code: 150132900000

Station ID: 878703311100

SOUTH LOOP RD E/O SOUTH PARKING LOT

Start Time	09-May-19 Thu	EB	WB	Combined Total	
12:00 AM		0	1	1	
01:00		0	0	0	
02:00		0	0	0	
03:00		0	0	0	
04:00		0	0	0	
05:00		2	1	3	
06:00		16	2	18	■
07:00		13	3	16	■
08:00		55	16	71	■■■■■
09:00		61	18	79	■■■■■
10:00		57	35	92	■■■■■
11:00		68	26	94	■■■■■
12:00 PM		40	20	60	■■■■■
01:00		42	28	70	■■■■■
02:00		57	18	75	■■■■■
03:00		38	24	62	■■■■■
04:00		43	43	86	■■■■■
05:00		55	43	98	■■■■■
06:00		47	29	76	■■■■■
07:00		44	81	125	■■■■■
08:00		6	28	34	■■■
09:00		1	2	3	
10:00		1	4	5	
11:00		4	0	4	
Total		650	422		
Percent		60.6%	39.4%		

8250, Pascal Dr
Punta Gorda, FL 33950

Ph# (941) 639 2818, Fax# (941) 639 4851

Site Code: 150132900000

Station ID: 878703311100

SOUTH LOOP RD E/O SOUTH PARKING LOT

Start Time	10-May-19 Fri	EB	WB	Combined Total	
12:00 AM		2	1	3	
01:00		0	0	0	
02:00		0	1	1	
03:00		2	0	2	
04:00		0	1	1	
05:00		0	0	0	
06:00		15	5	20	■
07:00		18	1	19	■
08:00		36	9	45	■
09:00		56	16	72	■
10:00		45	27	72	■
11:00		44	12	56	■
12:00 PM		65	39	104	■
01:00		50	25	75	■
02:00		60	32	92	■
03:00		37	30	67	■
04:00		36	30	66	■
05:00		63	33	96	■
06:00		67	49	116	■
07:00		22	54	76	■
08:00		10	44	54	■
09:00		0	0	0	
10:00		2	3	5	
11:00		0	0	0	
Total		630	412		
Percent		60.5%	39.5%		

8250, Pascal Dr
Punta Gorda, FL 33950

Ph# (941) 639 2818, Fax# (941) 639 4851

Site Code: 150132900000

Station ID: 878703311100

SOUTH LOOP RD E/O SOUTH PARKING LOT

Start Time	11-May-19 Sat	EB	WB	Combined Total	
12:00 AM		0	0	0	
01:00		0	0	0	
02:00		0	0	0	
03:00		0	0	0	
04:00		0	0	0	
05:00		1	0	1	
06:00		18	7	25	
07:00		37	1	38	
08:00		57	23	80	
09:00		81	22	103	
10:00		82	35	117	
11:00		122	40	162	
12:00 PM		109	40	149	
01:00		103	60	163	
02:00		95	60	155	
03:00		76	73	149	
04:00		109	76	185	
05:00		90	94	184	
06:00		88	100	188	
07:00		41	193	234	
08:00		25	95	120	
09:00		7	6	13	
10:00		3	5	8	
11:00		0	1	1	
Total		1144	931		
Percent		55.1%	44.9%		

8250, Pascal Dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Site Code: 150132900000
Station ID: 878703311100
SOUTH LOOP RD E/O SOUTH PARKING LOT

Start Time	12-May-19 Sun	EB	WB	Combined Total	
12:00 AM		0	2	2	
01:00		0	0	0	
02:00		0	0	0	
03:00		0	0	0	
04:00		0	0	0	
05:00		4	0	4	
06:00		8	1	9	■
07:00		24	14	38	■
08:00		98	9	107	■
09:00		112	36	148	■
10:00		146	53	199	■
11:00		131	30	161	■
12:00 PM		134	84	218	■
01:00		42	109	151	■
02:00		38	143	181	■
03:00		124	254	378	■
04:00		121	191	312	■
05:00		70	86	156	■
06:00		47	29	76	■
07:00		54	125	179	■
08:00		71	135	206	■
09:00		0	1	1	
10:00		0	0	0	
11:00		0	0	0	
Total		1224	1302		
Percent		48.5%	51.5%		
Grand Total		3648	3067		
Percentage		54.3%	45.7%		
ADT		ADT 1,679		AADT 1,679	

Internalization

AM Peak Hour Trip Generation and Internalization

Miami Freedom Park & Soccer Village

[illegible]

*50% for Hotel Other modes of transportation is 20% other modes + 30% Shuttle

Miami Freedom Park & Soccer Village

*50% for Hotel Other modes of transportation is 20% other modes + 30% Shuttle

Weekday Daily Trip Generation and Internalization

[illegible]

(1) Stadium Trips based on a 2.9 Auto Occupancy.

(2) Shopping Center interaction with MLS assumed at the hourly distribution for gameday at 20%.

(3) *No interaction assumed with Soccer park since it will be assumed not in use on game days.*

Miami Freedom Park & Soccer Village

(1) Stadium Trips based on a 2.9 Auto Occupancy.
(2) Shopping Center interaction with MLS assumed at the hourly distribution for game day at 20%.
(3) No interaction assumed with Soccer park since it will be assumed not in use on game days.
(4) Saturday Retail pass-by data was obtained from ITE Trip Generation Manual, 10th Ed. (limited to 300-900K Sites)

US Census Data

Table: ACSST5Y2020.S0801

	Census Tract 49.01, Miami-Dade County, Florida	Census Tract 50.02, Miami-Dade County, Florida	Census Tract 50.03, Miami-Dade County, Florida	Census Tract 50.04, Miami-Dade County, Florida	Census Tract 51.02, Miami-Dade County, Florida
	Total	Total	Total	Total	Total
Label	Estimate	Estimate	Estimate	Estimate	Estimate
Workers 16 years and over	1,764	2,751	2,141	1,572	2,042
MEANS OF TRANSPORTATION TO WORK					
Car, truck, or van	87.4%	89.0%	76.1%	91.1%	85.6%
Drove alone	80.4%	82.2%	70.9%	83.1%	71.6%
Carpooled	6.9%	6.8%	5.2%	8.0%	14.0%
In 2-person carpool	5.2%	3.6%	5.2%	8.0%	9.1%
In 3-person carpool	1.2%	3.3%	0.0%	0.0%	4.6%
In 4-or-more person carpool	0.5%	0.0%	0.0%	0.0%	0.4%
Workers per car, truck, or van	1.04	1.05	1.03	1.05	1.10
Public transportation (excluding taxicab)	2.2%	5.3%	22.0%	3.2%	7.1%
Walked	1.8%	1.2%	0.0%	3.1%	2.1%
Bicycle	0.7%	0.9%	0.0%	0.0%	0.0%
Taxicab, motorcycle, or other means	4.3%	1.2%	0.0%	2.5%	3.5%
Worked from home	3.6%	2.4%	1.9%	0.1%	1.7%

Table: ACSST5Y2020.S0801

	Census Tract 51.03, Miami-Dade County, Florida	Census Tract 51.04, Miami-Dade County, Florida	Census Tract 52.01, Miami-Dade County, Florida	Census Tract 52.02, Miami-Dade County, Florida	Census Tract 54.03, Miami-Dade County, Florida
	Total	Total	Total	Total	Total
Label	Estimate	Estimate	Estimate	Estimate	Estimate
Workers 16 years and over	1,352	2,300	2,661	3,052	813
MEANS OF TRANSPORTATION TO WORK					
Car, truck, or van	89.6%	87.7%	74.4%	58.2%	90.9%
Drove alone	80.7%	79.6%	56.6%	46.6%	83.9%
Carpooled	8.9%	8.1%	17.9%	11.7%	7.0%
In 2-person carpool	8.6%	6.3%	16.1%	8.8%	0.0%
In 3-person carpool	0.0%	1.8%	1.8%	0.5%	7.0%
In 4-or-more person carpool	0.4%	0.0%	0.0%	2.4%	0.0%
Workers per car, truck, or van	1.05	1.05	1.14	1.13	1.06
Public transportation (excluding taxicab)	4.9%	3.3%	20.4%	13.8%	6.4%
Walked	0.9%	0.8%	1.5%	15.4%	0.0%
Bicycle	0.0%	0.0%	0.0%	1.0%	0.0%
Taxicab, motorcycle, or other means	1.6%	1.8%	0.8%	5.3%	2.1%
Worked from home	3.0%	6.5%	2.9%	6.3%	0.6%

Table: ACSST5Y2020.S0801

	Census Tract 54.05, Miami-Dade County, Florida	Census Tract 54.06, Miami-Dade County, Florida	Census Tract 57.01, Miami-Dade County, Florida	Census Tract 4901, Miami-Dade County, Florida
	Total	Total	Total	Total
Label	Estimate	Estimate	Estimate	Estimate
Workers 16 years and over	2,277	1,447	4,006	1,042
MEANS OF TRANSPORTATION TO WORK				
Car, truck, or van	87.4%	78.6%	90.2%	92.1%
Drove alone	80.3%	64.7%	80.2%	89.4%
Carpooled	7.1%	13.9%	10.0%	2.7%
In 2-person carpool	6.6%	11.3%	8.8%	2.7%
In 3-person carpool	0.5%	0.0%	0.5%	0.0%
In 4-or-more person carpool	0.0%	2.6%	0.6%	0.0%
Workers per car, truck, or van	1.04	1.11	1.06	1.02
Public transportation (excluding taxicab)	8.7%	11.9%	0.8%	2.5%
Walked	2.8%	3.1%	1.8%	1.6%
Bicycle	0.0%	0.0%	0.0%	0.0%
Taxicab, motorcycle, or other means	1.1%	1.2%	3.5%	2.0%
Worked from home	0.0%	5.3%	3.7%	1.7%

Attachment D

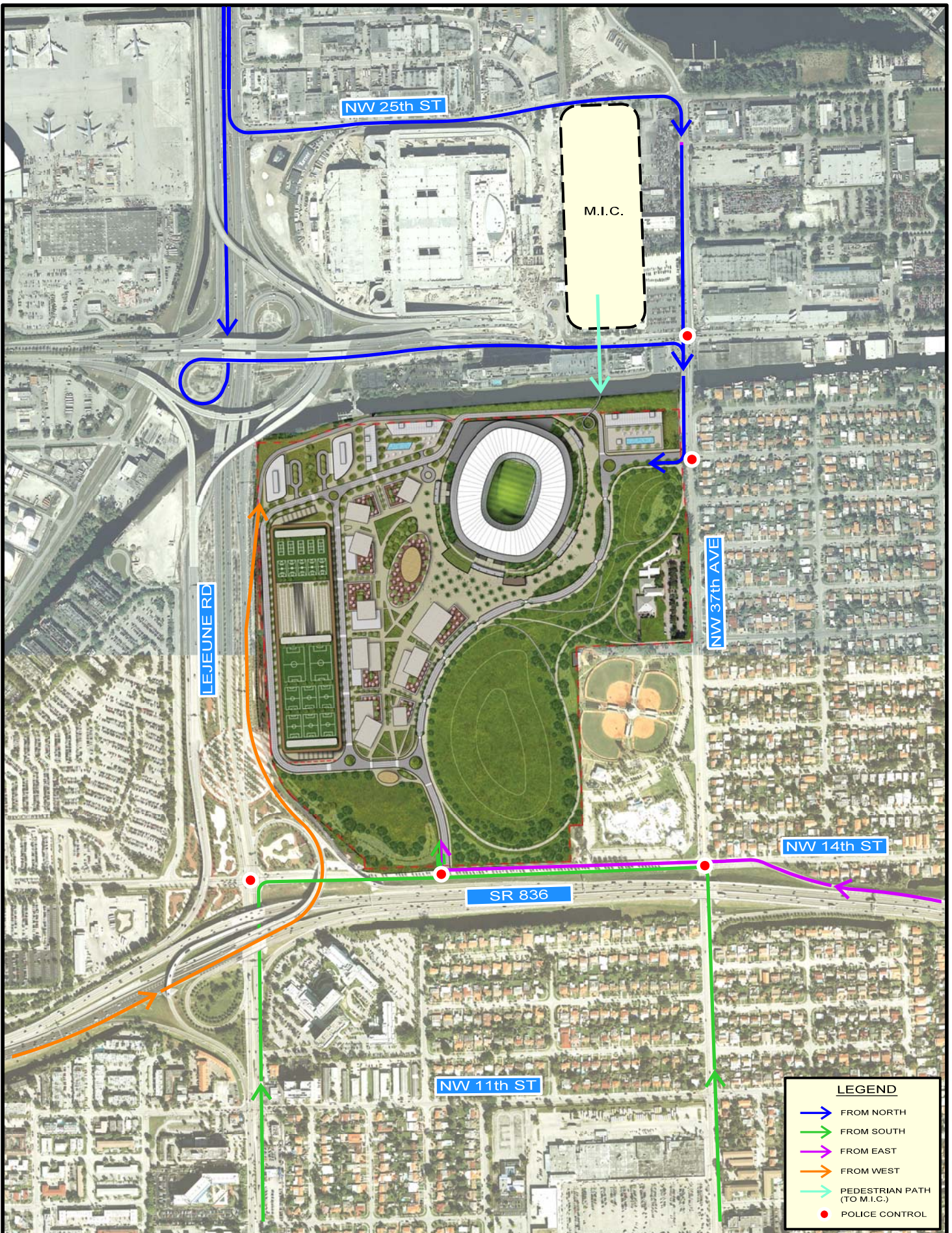
Site Ingress / Egress





LEGEND

- TO NORTH
- TO SOUTH
- TO EAST
- TO WEST
- PEDESTRIAN PATH (TO M.I.C.)



LEGEND

- ➡ FROM NORTH
- ➡ FROM SOUTH
- ➡ FROM EAST
- ➡ FROM WEST
- ➡ PEDESTRIAN PATH (TO M.I.C.)
- POLICE CONTROL



LEGEND

- TO NORTH
- TO SOUTH
- TO EAST
- TO WEST
- PEDESTRIAN PATH (TO M.I.C.)
- POLICE CONTROL

Attachment E

Agency Coordination Meeting Sign-in Sheet

MEETING SIGN-IN SHEET

Project:	Miami Freedom Park – Traffic Methodology	Meeting Date:	June 7, 2022
Facilitator:	DPA / GT	Place/Room:	GT Offices

Name	Title	Company	Phone	E-Mail
In-Person Attendees				
Juan Toledo	Director of Engineering	MDX	305.637.3277	jtoledo@mdxway.com
Claudio Diaferia	Assistant Director of Engineering	MDX	786.879.9859	cdiaferia@mdxway.com
Eric Lindstrom	Project Manager	APCTE	503.490.6722	elindstrom@apcte.com
Jinyan Lu	Traffic Operations	FDOT	305.470.5156	Jinyan.lu@dot.state.fl.us
Ramon Sierra	Traffic Operations	FDOT	305.470.5336	Ramon.sierra@dot.state.fl.us
Jose A. Ramos	Director Aviation Planning	MDAD	305.876.8080	jramos@flymia.com
Elizabeth Jett	FDOT Permit Engineering	FDOT	305.951.0015	Elizabeth.jett@dot.state.fl.us
Charles Alfaro	Assistant Director	City of Miami RPW	305.416.1047	calfaro@miamigov.com
Dima Poe	Senior Traffic Engineer	APCTE	786.361.3763	dpoe@apcte.com
Darlene Fernandez	MDX Director	MDX	305.498.3556	darlene@mdxway.com
Juvenal Santana	RPW Director	City of Miami RPW	305.416.1218	jsantana@miamigov.com
Iris Escarra	Shareholder	Greenberg Traurig	305.579.0737	EscarraI@gtlaw.com
Pablo Alvarez	Executive Vice President	Mastec	305.599.1800	Pablo.Alvarez@mastec.com

Name	Title	Company	Phone	E-Mail
Timothy Plummer	President	David Plummer & Associates	305.447.0900	Tim.plummer@dplummer.com
Steve Leung	General Manager (Ft. Myers Office)	David Plummer & Associates	239.332.2617	Steve.leung@dplummer.com
Juan Espinosa	Vice President Transportation	David Plummer & Associates	305.447.0900	Juan.espinosa@dplummer.com
Attendees Via-MS Teams				
Collin Worth		City of Miami RPW	305.416.1725	CWorth@miamigov.com
Anamersy Arce	Traffic Engineer II	Miami-Dade County	305.375.1179	Anamersy.Arce@miamidade.gov
Lakisha Hall	Planning Director	City of Miami	305.416.1417	lhull@miamigov.com
Alejandro Gonzalez	Principal	Arquitectonica	305.372.1812 Ext. 1019	agonzalez@arquitectonica.com
Dat Huynh		FDOT		Dat.Huynh@dot.state.fl.us
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Ammad Riaz	Chief of Planning	MDAD	305.876.7036	ariaz@miami-airport.com