March 2026

Ghassan Choueiry, P.E., T.E.,
Senior Transportation Engineer
Transportation and Mobility Department
1700 Convention Center Drive, Miami Beach, Florida 33139

Re: Traffic Analysis Methodology
The Barclay – 1940 Park Avenue
Miami Beach, Florida
Langan Project No.: 300390901

Dear Mr. Choueiry:

Langan Engineering and Environmental Services, LLC was retained to prepare a traffic-impact analysis for the proposed The Barclay – 1940 Park Avenue mixed-use residential development that is expected to be built by 2029. The site will comprise approximately 0.79-acre located at 1940 Park Avenue in Miami Beach, Florida. The proposed development comprises of 105-unit mid-rise residential development with approximately 1,000 square feet of ground floor commercial uses and will replace an existing three-story vacant residential building. **Figure 1** below shows the site location. A copy of the proposed site plan is included in **Attachment A**. Please accept this letter as the traffic-analysis methodology for the proposed development.

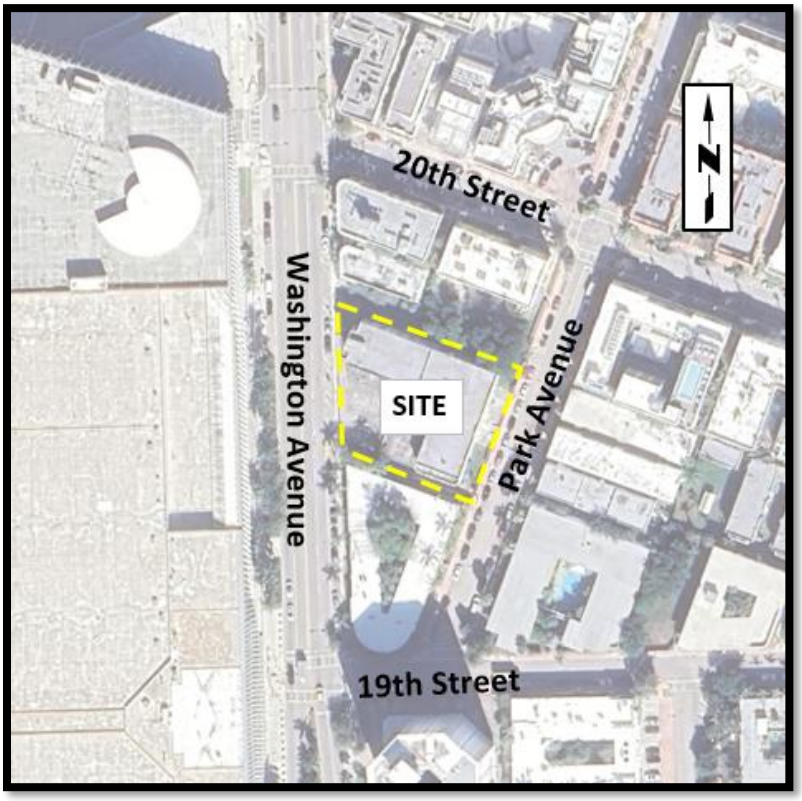


Figure 1 – Site Aerial Photograph

Trip Generation

The proposed development is not expected to generate new traffic in the morning and only three (3) afternoon peak-hour trips when compared to the existing development on site. We prepared trip-generation estimates for the proposed development, summarized in **Table 1**, using equations from the 12th Edition of the ITE *Trip Generation Manual* for Land Use 231 –Mid-Rise Residential with Ground Floor Commercial (1-25k). Since the 12th Edition of the ITE *Trip Generation Manual* does not provide daily trip rates for Land Use 231, we estimated the daily traffic by assuming that the afternoon peak hour represents 10% of daily traffic volume. The analysis will be based on the proposed generated traffic to provide a conservative analysis.

Table 1 - Trip Generation Estimates

Use	Size	Daily	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Existing Uses								
Multifamily Housing (Low-Rise)	66 DU	492	9	27	36	24	15	39
Proposed Uses								
Mid-Rise Residential with Ground Floor Commercial (1-25k)	105 DU	420	11	25	36	29	13	42
Net New Trips		**-72**	**2**	**-2**	**0**	**5**	**-2**	**3**

Data Collection

Morning and afternoon peak hour turning movement data will be collected on a typical weekday at the following intersections:

- Washington Avenue and 20th Street (signalized)
- Washington Avenue and 19th Street (signalized)
- Park Avenue and 20th Street (unsignalized)
- Park Avenue and 19th Street (unsignalized)

Data will be collected for four hours between 7:00 and 9:00 AM and between 4:00 and 6:00 PM and will be adjusted to reflect peak season traffic volumes by applying the Peak Season Conversion Factors (PSCF) from the *Florida Department of Transportation (FDOT*) to existing counts. We will coordinate with the City of Miami Beach to confirm the dates that the data collection activities can be performed.

Project Distribution

Project trip distribution will be based on the average cardinal distribution for Traffic Analysis Zone (TAZ) 636 of the Miami-Dade County 2045 Transportation Model. **Table 2** below shows the cardinal distribution based on a 2029 build out year. **Attachment B** contains the TAZ data.

Table 2 - Cardinal Distribution

Year	NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW
2015	15.00%	0.00%	0.00%	9.90%	16.60%	29.90%	13.10%	15.40%
2045	12.90%	0.00%	0.00%	7.30%	11.80%	36.80%	16.90%	14.40%
2029	**14.02%**	**0.00%**	**0.00%**	**8.69%**	**14.36%**	**33.12%**	**14.87%**	**14.93%**

Future Traffic
We will develop future traffic volumes by applying a compound growth rate to the collected traffic data. The growth rate will be based on FDOT historical data from traffic count stations near the project. A one-half percent annual growth rate will be used if a negative growth rate is determined. We will review the county's platting database and include traffic from any approved but unbuilt projects. We will coordinate with the City of Miami Beach for the committed developments that need to be included as part of the study. We will also include any roadway improvements planned within the next three years.

Intersection Analysis
Intersection capacity analysis will be performed for the study intersections using software based on the Highway Capacity Manual methodology. The analysis will be performed for morning and afternoon peak-hour conditions using Synchro Software for the signalized intersections and Highway Capacity Software (HCS) for the unsignalized intersections. The analysis scenarios will include the existing (2026), no-build (2029 without the project), and build (2029 with project) conditions. Project driveways will be analyzed for the build conditions. We will provide tables in the appendices that summarize the LOS and delay for each intersection and intersection approaches for the existing, no-build, and build conditions. Tables summarizing the LOS and delay for each intersection and intersection approaches for the existing, no-build, and build conditions will be included in the report appendices. Synchro and HCS reports for the 95th%tile queue lengths and tables summarizing this information for all exclusive turn-lanes will also be included in the report appendices.

Parking Assessment
A detailed discussion about the proposed parking operations will be provided in the traffic study.

Gate Queuing Analysis
If gates are to be provided, we will prepare a queueing analysis for the proposed gate-controlled access points to the site directly accessing public right-of-way using the queueing-analysis methodology from *Transportation and Land Development* published by the ITE.

Valet Operations Analysis
The proposed development will provide valet services, as all parking will be accommodated at the City owned G5 garage (640 17 Street, Miami Beach, FL). We will prepare a queuing analysis for the proposed valet operation following the queueing-analysis methodology from *Transportation and Land Development* published by the ITE. The analysis will determine the number of valet-attendants needed to serve the expected traffic demand. Additionally, we will include a figure that shows the traffic circulation, and the valet parking routes to and from the vehicle drop-off/pick-up area.

Maneuverability Analysis
We will perform a maneuverability analysis for the trash collection area and vehicle parking area using Auto Turn software. Any deficiencies related to the maneuverability, traffic flow, and vehicular conflicts will be documented in the traffic study. We will include a description of the trash collection around the parking area.

Multimodal Evaluation Analysis
We will provide a multimodal evaluation as part of the study and document the provided transit, pedestrian, and bicycle facilities near the project.

Transportation Demand Management and Control Measures

We will identify transportation control measures that the proposed development can implement to raise awareness of the available transportation modes in the area. We will also include Transportation Demand Management (TDM) strategies to reduce the impacts of the project traffic on the surrounding roadway network. Typical measures include promoting bicycling and walking, encourage car/vanpooling, and offering alternatives to the typical workday hours. The traffic study will discuss which TDM strategies the proposed development intends to implement.

Report

The study methodology, analysis and findings will be summarized in a report that will be signed and sealed by a Florida registered professional engineer. Synchro, and HCS LOS, queuing and signal-timing reports will be included in report's appendices. If you have any questions regarding the information contained herein, please do not hesitate to contact me at (954) 320-2155.

Sincerely,

Langan Engineering and Environmental Services, LLC

Joe Goldberg, P.E.
Project Engineer

Maximo G. Polanco, P.E.
Senior Project Manager

MGP:mgp

Attachments
Attachment A – Site Plan
Attachment B – TAZ Data

ATTACHMENT A
SITE PLAN

Brooks + Scarpa Architects / The Barclay

1940 Park Avenue, Miami Beach FL

Design Presentation

June 20th, 2025

PROFORMA

SITE SUMMARY

LOT SIZE:	30,359 SF
FLOORS 1-5 FLOORPLATE	14,868 GSF
FAR / MAX ZFA	2.37 / 71,950 SF
GROSS BUILDING AREA	78,734 SF
RESIDENTIAL NRSF	60,821
COMMERICAL NRSF	1,000
RESIDENTIAL UNITS	105
AVG SQ FT	577 SF

AREA USE	GSF	% OF GSF	NRSF	% OF RSF
RESIDENTIAL	60,821	77.2%	60,821	98.4%
PARKING	-	-	-	-
RETAIL	1,000	1.3%	1,000	1.6%
AMENITY (INDOOR)	1,816	2.3%	-	-
AMENITY (OUTDOOR)	6,370	8.1%	-	-
HISTORIC LOBBY	1,000	1.3%	-	-
CIRCULATION	7,150	9.0%	-	-
BOH*	700	0.9%	-	-
TOTAL	78,734	100.0%	61,821	100.0%

*THE FOLLOWING AREAS ARE EXEMPT FROM FAR PER CMB CODE:
-UNCOVERED STEPS, TERRACES, BREEZEWYAS, OR OPEN PORCHES
-EXTERIOR UNENCLOSED PRIVATE BALCONIES
-ENCLOSED GARBAGE ROOMS, ENCLOSED WITHIN THE BUILDING ON THE GROUND FLOOR LEVEL.
-FIRE CONTROL ROOMS AND RELATED EQUIPMENT FOR LIFE SAFETY PURPOSES.

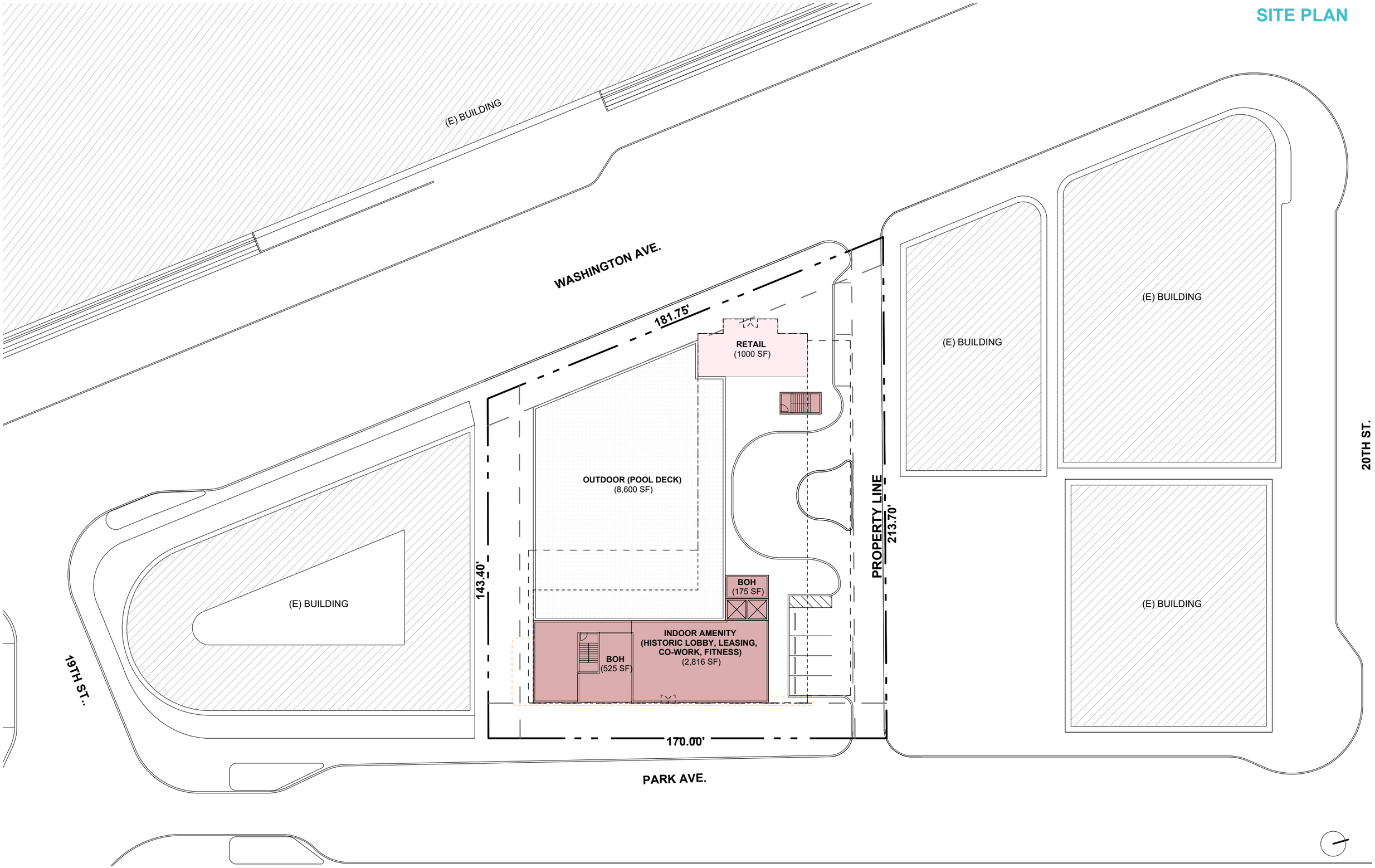
UNIT MIX SUMMARY

UNIT TYPE	UNIT COUNT	% OF UNITS	UNITS SIZE	TOTAL GSF
STUDIO	54	51.4%	452	24,408
1 BR	39	37.4%	649	25,311
2 BR	12	11.2%	926	11,112
TOTAL/AVG	105	100.0%	577	~60,831

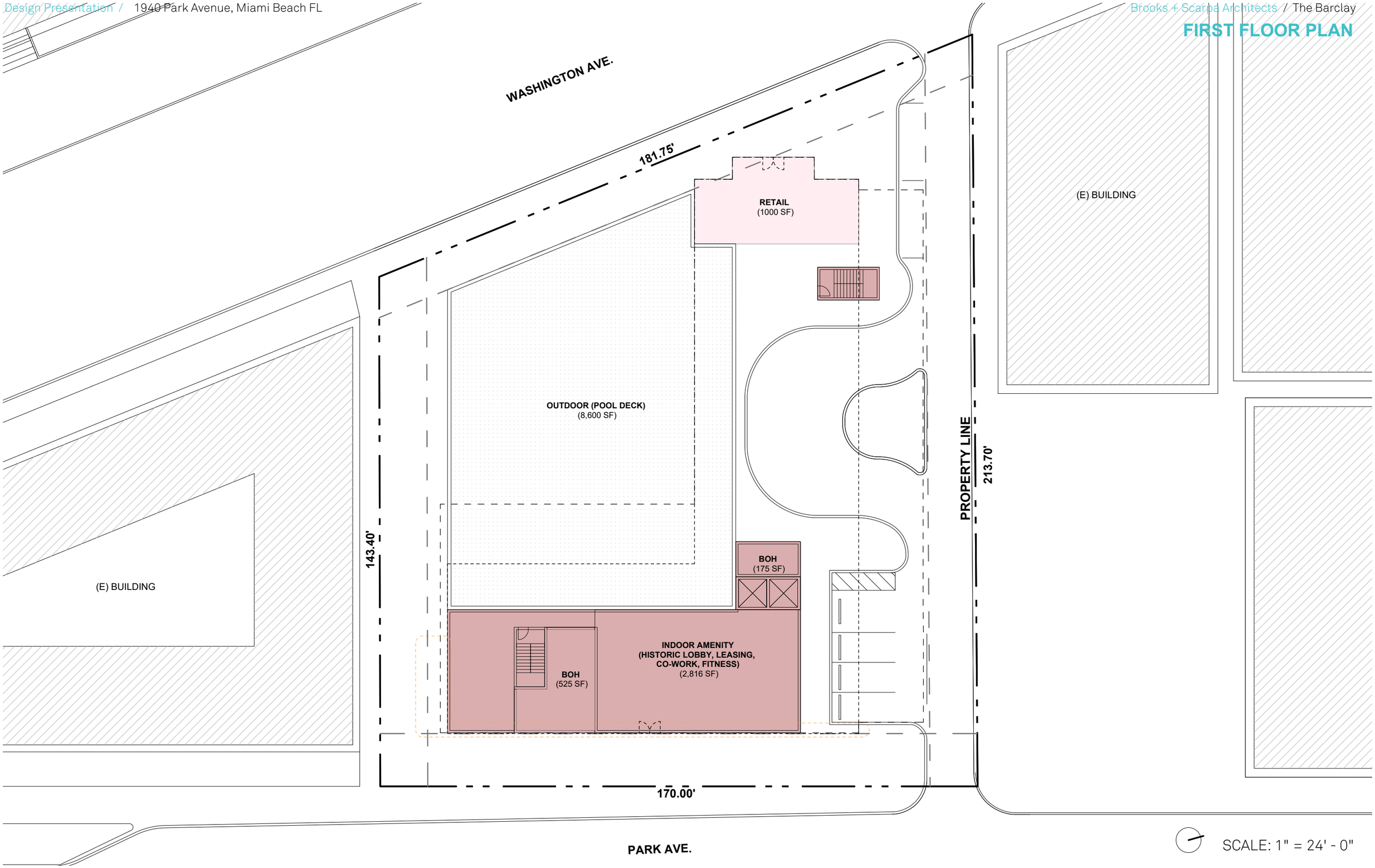
STACKING CHART

	FTF HEIGHT	ELEVATION	MULTIFAMILY	RETAIL	BOH*	HISTORIC LOBBY	INDOOR AMENITY	OUTDOOR AMENITY	CIRCULATION	TOTAL	FAR	NET RENTABLE SQ FT MULTIFAMILY	NET RENTABLE SQ FT RETAIL	NET RENTABLE SQ FT TOTAL	UNITS
ROOF	-	67'-4"	-	-	-	-	-	-	-	-	-	-	-	-	-
LEVEL 6	10'-8"	56'-8"	7,613	-	-	-	-	6086	1,006	14,582	8,783	7,613	-	8,026	13
LEVEL 5	10'-8"	46'-0"	13,089	-	-	-	-	284	1,495	14,868	14,583	13,089	-	13,016	23
LEVEL 4	10'-8"	35'-4"	13,373	-	-	-	-	-	1,495	14,868	14,868	13,373	-	13,016	23
LEVEL 3	10'-8"	24'-8"	13,373	-	-	-	-	-	1,495	14,868	14,868	13,373	-	13,016	23
LEVEL 2	10'-8"	14'-0"	13,373	-	-	-	-	-	1,495	14,868	14,868	13,373	-	13,016	23
LEVEL 1	14'-0"	0'-0"	-	1,000	700	1,000	1,816	8,600 (@ GRADE)	164	4,680	3,980	-	1,000	1,080	-
6	-	67'-4"	60,821	1,000	700	1,000	1,816	6,370	7,150	78,734	71,950	60,821	1,000	61,821	105

SITE PLAN


(E) BUILDING
WASHINGTON AVE.
181.75'
RETAIL
(1000 SF)
(E) BUILDING
(E) BUILDING
OUTDOOR (POOL DECK)
(8,600 SF)
PROPERTY LINE
213.70'
20TH ST.
BOH
(175 SF)
143.40'
INDOOR AMENITY
(HISTORIC LOBBY, LEASING,
CO-WORK, FITNESS)
(2,816 SF)
BOH
(525 SF)
(E) BUILDING
(E) BUILDING
19TH ST..
170.00'
PARK AVE.

FIRST FLOOR PLAN



SCALE: 1" = 24' - 0"

TYP. RESIDENTIAL PLAN - LEVEL 2-4

SCALE: 1" = 24' - 0"

TYP. RES. PLAN - LEVEL 5

SCALE: 1" = 24' - 0"

RES. PLAN - LEVEL 6

SCALE: 1" = 24' - 0"

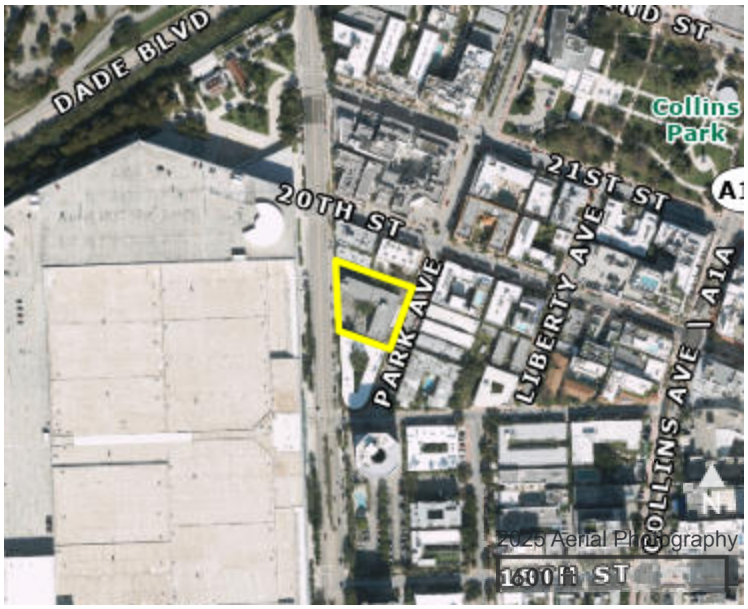
PROPERTY APPRAISER OF MIAMI-DADE COUNTY

Summary Report

Generated On: 02/25/2026

PROPERTY INFORMATION

Folio	02-3234-016-0110
Property Address	1940 PARK AVE MIAMI BEACH, FL 33139-0000
Owner	CITY OF MIAMI BEACH
Mailing Address	1700 CONVENTION CENTER DR 4TH FL MIAMI BEACH, FL 33139
Primary Zone	4000 MULTI-FAMILY - 63-100 U/A
Primary Land Use	8940 MUNICIPAL : MUNICIPAL
Beds / Baths /Half	66 / 66 / 0
Floors	3
Living Units	66
Actual Area	34,376 Sq.Ft
Living Area	34,376 Sq.Ft
Adjusted Area	33,620 Sq.Ft
Lot Size	26,250 Sq.Ft
Year Built	1935



ASSESSMENT INFORMATION

Year	2025	2024	2023
Land Value	$4,331,250	$4,331,250	$4,331,250
Building Value	$1,892,173	$1,892,173	$2,208,750
Extra Feature Value	$71,554	$71,980	$0
Market Value	$6,294,977	$6,295,403	$6,540,000
Assessed Value	$6,294,977	$6,295,403	$6,540,000

BENEFITS INFORMATION

Benefit	Type	2025	2024	2023
Municipal	Exemption	$6,294,977	$6,295,403	$6,540,000

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

SHORT LEGAL DESCRIPTION

MIAMI BEACH IMPROVEMENT CO OCEAN
FRONT PROP RESUB PB 6-102
LOT 2 & SW20FT LOT 1 BLK H
LOT SIZE 15O.000 X 175
OR 13518-337 1287 1

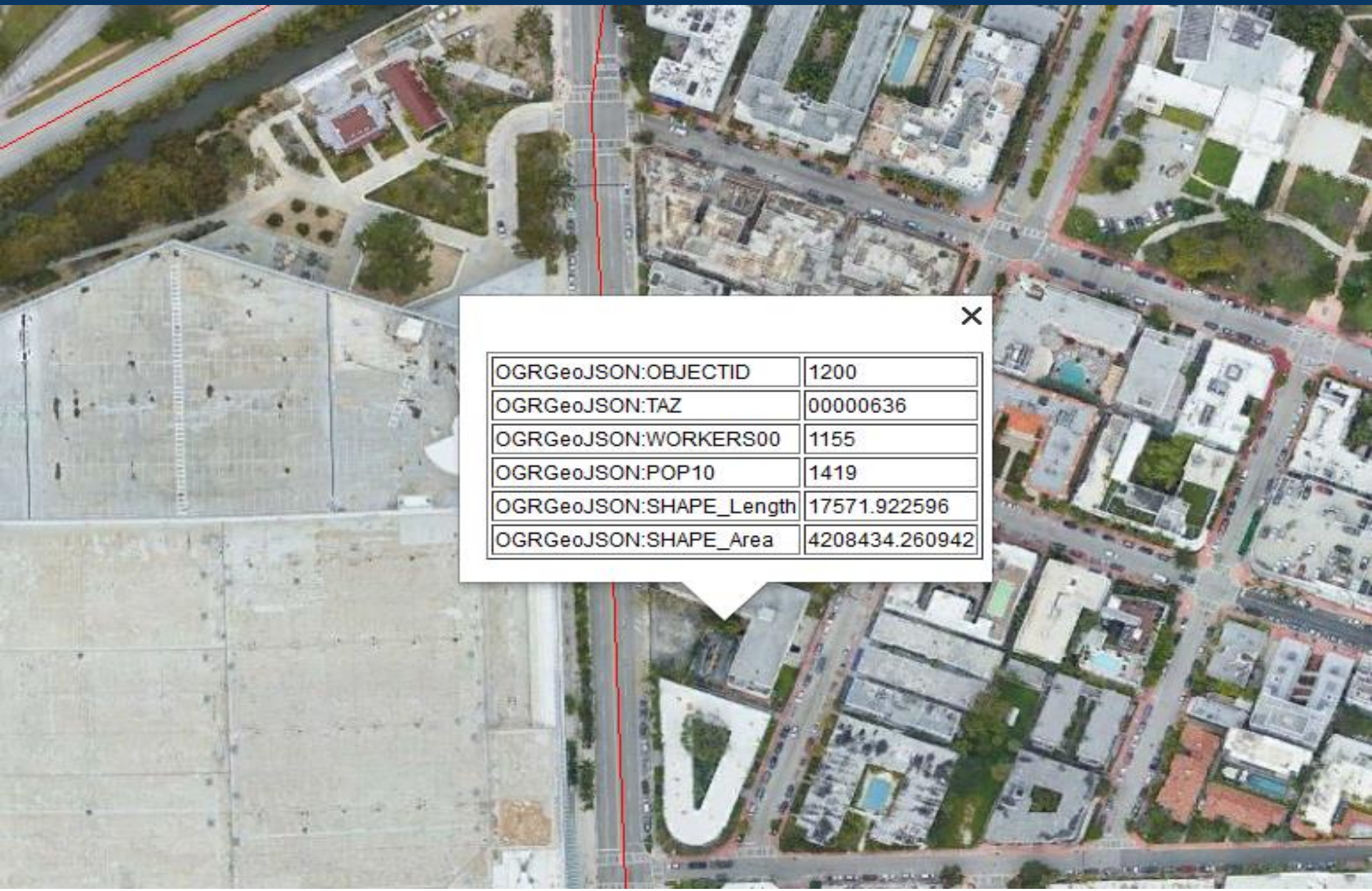
TAXABLE VALUE INFORMATION

Year	2025	2024	2023
COUNTY			
Exemption Value	$6,294,977	$6,295,403	$6,540,000
Taxable Value	$0	$0	$0
SCHOOL BOARD			
Exemption Value	$6,294,977	$6,295,403	$6,540,000
Taxable Value	$0	$0	$0
CITY			
Exemption Value	$6,294,977	$6,295,403	$6,540,000
Taxable Value	$0	$0	$0
REGIONAL			
Exemption Value	$6,294,977	$6,295,403	$6,540,000
Taxable Value	$0	$0	$0

SALES INFORMATION

Previous Sale	Price	OR Book-Page	Qualification Description
01/30/2015	$5,455,000	29489-3306	Federal, state or local government agency
04/01/2007	$5,668,000	25591-1002	Other disqualified
12/01/1987	$1,200,000	13518-0337	Sales which are qualified

ATTACHMENT B
TAZ DATA



Traffic Analysis Zones 2015

Miami-Dade 2015 Base Year Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
625	3525	Trips	610	160	-	557	431	1,317	679	1,035	4,961
625	3525	Percent	12.7	3.3	-	11.6	9.0	27.5	14.2	21.6	
626	3526	Trips	122	-	-	-	2,090	2,277	1,198	2,942	9,399
626	3526	Percent	1.4	-	-	-	24.2	26.4	13.9	34.1	
627	3527	Trips	279	-	-	-	2,051	2,578	845	1,965	8,061
627	3527	Percent	3.6	-	-	-	26.6	33.4	11.0	25.5	
628	3528	Trips	298	-	49	79	984	902	332	679	3,579
628	3528	Percent	9.0	-	1.5	2.4	29.6	27.2	10.0	20.5	
629	3529	Trips	1,374	549	344	1,656	1,708	3,707	1,668	2,101	14,261
629	3529	Percent	10.5	4.2	2.6	12.6	13.0	28.3	12.7	16.0	
630	3530	Trips	952	-	210	347	1,696	2,375	794	1,114	8,135
630	3530	Percent	12.7	-	2.8	4.6	22.7	31.7	10.6	14.9	
631	3531	Trips	255	-	-	-	1,215	1,471	440	1,030	4,651
631	3531	Percent	5.8	-	-	-	27.6	33.4	10.0	23.4	
632	3532	Trips	309	-	-	-	1,242	1,751	750	635	4,880
632	3532	Percent	6.6	-	-	-	26.5	37.4	16.0	13.5	
633	3533	Trips	310	-	-	-	1,181	1,428	750	730	4,590
633	3533	Percent	7.0	-	-	-	26.9	32.5	17.1	16.6	
634	3534	Trips	1,502	112	240	837	1,718	1,928	976	1,727	9,998
634	3534	Percent	16.6	1.2	2.7	9.3	19.0	21.3	10.8	19.1	
635	3535	Trips	779	-	-	-	2,021	1,994	952	1,411	8,010
635	3535	Percent	10.9	-	-	-	28.2	27.9	13.3	19.7	
636	3536	Trips	1,041	-	-	686	1,152	2,072	911	1,071	7,384
636	3536	Percent	15.0	-	-	9.9	16.6	29.9	13.1	15.4	
637	3537	Trips	323	31	87	217	126	601	303	290	1,987
637	3537	Percent	16.4	1.6	4.4	11.0	6.4	30.4	15.3	14.7	
638	3538	Trips	152	35	87	86	114	218	162	126	999
638	3538	Percent	15.5	3.6	8.9	8.7	11.6	22.3	16.5	12.9	
639	3539	Trips	825	281	277	1,089	131	1,364	796	599	5,721
639	3539	Percent	15.4	5.2	5.2	20.3	2.4	25.4	14.9	11.2	
640	3540	Trips	344	247	868	104	43	685	405	274	3,053
640	3540	Percent	11.6	8.3	29.2	3.5	1.5	23.1	13.6	9.2	
641	3541	Trips	1,051	1,714	291	723	309	1,572	1,188	916	8,356
641	3541	Percent	13.5	22.1	3.7	9.3	4.0	20.3	15.3	11.8	
642	3542	Trips	1,849	1,404	115	1,263	457	2,697	1,962	1,518	12,299
642	3542	Percent	16.4	12.5	1.0	11.2	4.1	23.9	17.4	13.5	
643	3543	Trips	1,747	551	-	965	479	2,595	1,554	1,715	10,383
643	3543	Percent	18.2	5.7	-	10.1	5.0	27.0	16.2	17.9	
644	3544	Trips	2,022	-	-	-	2,250	4,141	2,585	2,646	15,224
644	3544	Percent	14.8	-	-	-	16.5	30.4	19.0	19.4	
645	3545	Trips	1,268	-	-	-	907	1,498	1,720	1,351	7,018
645	3545	Percent	18.8	-	-	-	13.5	22.2	25.5	20.0	
646	3546	Trips	986	-	156	520	250	1,081	1,094	1,181	5,470
646	3546	Percent	18.7	-	3.0	9.9	4.7	20.5	20.8	22.4	
647	3547	Trips	350	103	114	165	66	354	359	408	1,979
647	3547	Percent	18.2	5.4	5.9	8.6	3.5	18.5	18.7	21.2	
648	3548	Trips	1,027	434	254	401	48	903	1,001	514	4,747
648	3548	Percent	22.4	9.5	5.5	8.8	1.0	19.7	21.9	11.2	
649	3549	Trips	754	192	184	230	41	612	743	427	3,320
649	3549	Percent	23.7	6.0	5.8	7.2	1.3	19.2	23.3	13.4	
650	3550	Trips	45	80	104	0	14	155	304	133	850
650	3550	Percent	5.4	9.6	12.4	0.0	1.6	18.5	36.5	16.0	

Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
625	3525	Trips	515	114	-	541	802	1,791	829	1,096	5,972
625	3525	Percent	9.1	2.0	-	9.5	14.1	31.5	14.6	19.3	
626	3526	Trips	66	-	-	-	2,417	3,260	1,417	2,993	11,237
626	3526	Percent	0.7	-	-	-	23.8	32.1	14.0	29.5	
627	3527	Trips	174	-	-	-	2,276	3,212	1,138	1,885	9,055
627	3527	Percent	2.0	-	-	-	26.2	37.0	13.1	21.7	
628	3528	Trips	238	-	23	101	1,053	1,266	390	660	4,028
628	3528	Percent	6.4	-	0.6	2.7	28.2	33.9	10.5	17.7	
629	3529	Trips	1,686	621	373	1,692	1,801	6,032	2,362	2,490	18,425
629	3529	Percent	9.9	3.6	2.2	9.9	10.6	35.4	13.9	14.6	
630	3530	Trips	888	-	326	303	1,717	3,876	1,515	1,553	11,277
630	3530	Percent	8.7	-	3.2	3.0	16.9	38.1	14.9	15.3	
631	3531	Trips	296	-	-	-	1,351	2,360	838	1,324	6,591
631	3531	Percent	4.8	-	-	-	21.9	38.3	13.6	21.5	
632	3532	Trips	343	-	-	-	1,500	2,647	1,390	1,098	7,499
632	3532	Percent	4.9	-	-	-	21.5	37.9	19.9	15.7	
633	3533	Trips	368	-	-	-	1,052	1,986	859	841	5,391
633	3533	Percent	7.2	-	-	-	20.6	38.9	16.8	16.5	
634	3534	Trips	1,404	80	149	773	1,637	2,733	1,332	1,712	10,593
634	3534	Percent	14.3	0.8	1.5	7.9	16.7	27.8	13.6	17.4	
635	3535	Trips	566	-	-	-	1,311	2,266	1,228	1,254	7,246
635	3535	Percent	8.5	-	-	-	19.8	34.2	18.5	18.9	
636	3536	Trips	1,066	-	-	607	978	3,045	1,398	1,193	8,805
636	3536	Percent	12.9	-	-	7.3	11.8	36.8	16.9	14.4	
637	3537	Trips	468	44	144	315	198	868	501	309	2,865
637	3537	Percent	16.5	1.6	5.1	11.1	6.9	30.5	17.6	10.9	
638	3538	Trips	127	33	78	94	79	401	285	185	1,342
638	3538	Percent	9.9	2.6	6.1	7.3	6.2	31.3	22.2	14.5	
639	3539	Trips	944	303	253	1,068	176	2,395	1,085	905	7,569
639	3539	Percent	13.2	4.3	3.6	15.0	2.5	33.6	15.2	12.7	
640	3540	Trips	119	74	216	10	30	177	136	147	1,166
640	3540	Percent	13.1	8.2	23.7	1.1	3.4	19.4	14.9	16.2	
641	3541	Trips	1,145	1,056	206	569	242	2,378	1,724	1,142	9,066
641	3541	Percent	13.5	12.5	2.4	6.7	2.9	28.1	20.4	13.5	
642	3542	Trips	1,701	1,196	113	964	433	3,470	2,140	1,631	12,324
642	3542	Percent	14.6	10.3	1.0	8.3	3.7	29.8	18.4	14.0	
643	3543	Trips	1,884	580	-	1,133	631	3,768	2,190	2,157	13,183
643	3543	Percent	15.3	4.7	-	9.2	5.1	30.5	17.7	17.5	
644	3544	Trips	1,948	-	-	-	2,227	5,534	3,264	3,082	17,780
644	3544	Percent	12.1	-	-	-	13.9	34.5	20.3	19.2	
645	3545	Trips	1,314	-	-	-	844	1,661	2,170	1,703	8,075
645	3545	Percent	17.1	-	-	-	11.0	21.6	28.2	22.1	
646	3546	Trips	1,025	-	125	496	263	1,741	1,656	1,299	6,976
646	3546	Percent	15.5	-	1.9	7.5	4.0	26.4	25.1	19.7	
647	3547	Trips	296	122	96	109	79	582	661	405	2,490
647	3547	Percent	12.6	5.2	4.1	4.6	3.4	24.8	28.1	17.3	
648	3548	Trips	943	278	128	313	73	1,525	1,351	576	5,397
648	3548	Percent	18.2	5.4	2.5	6.0	1.4	29.4	26.0	11.1	
649	3549	Trips	643	120	121	216	43	873	952	508	3,661
649	3549	Percent	18.5	3.4	3.5	6.2	1.3	25.1	27.4	14.6	
650	3550	Trips	60	71	65	8	14	279	312	136	969
650	3550	Percent	6.4	7.5	6.9	0.9	1.5	29.5	33.0	14.4	