Public Parking Mitigation Strategy - P25 and P26

This narrative and the associated figures describes the phased public parking mitigation strategy to ensure continued availability of public parking throughout the construction of the new Class A office mixed use projects on the public parking lots identified as lots P25 and P26 in the Class A office RFP. Lot P25 located on the west side of Lennox Ave at 17th street is a .861 acre lot and currently has 86 self-parking spaces. Lot P26 is located across Lennox Ave to the east and slightly south of Lot P25. It is a 1.119 acre lot that currently has 106 self- parking spaces for a total of 192 public parking spaces.

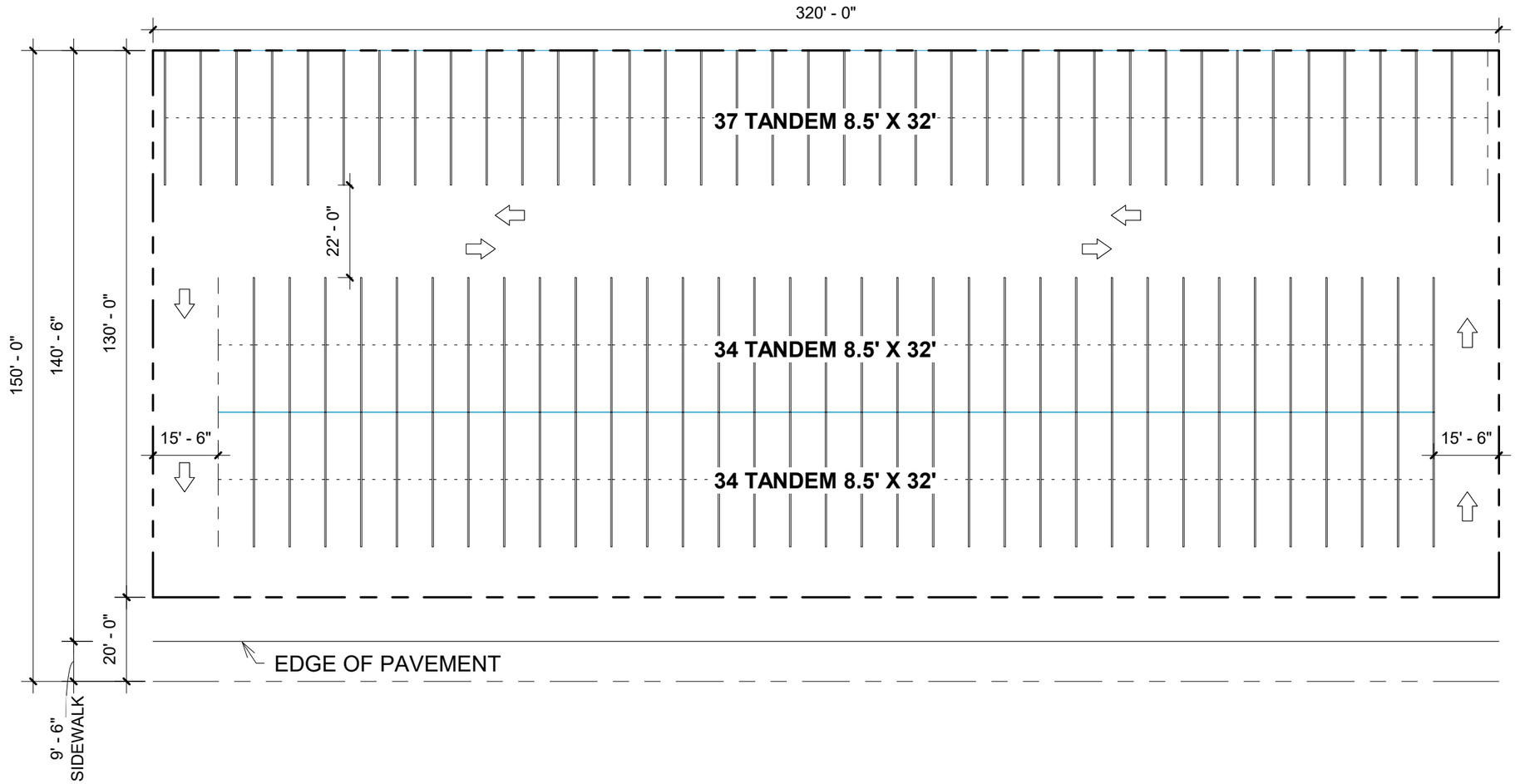
Phase 1
The first phase will be to convert P26 to a valet operated public lot. Converting the lot to valet parking will allow the 86 spaces currently on P25 to be accommodated on P26 to provide for the existing 192 public parking spaces.

Phase 2
The second phase will be to begin construction on P25 and to construct the parking pedestal and related spaces and life safety systems so that the City can issue a TCO for the parking structure on P25 to allow it to be placed into operation. The P25 garage will contain 193 self-parking spaces, however the new uses on P25 will not be occupied at that time therefore the entire 185 spaces will be available for public parking. If required, a portion of the P25 garage could be operated by a valet to again achieve the full 192 public parking spaces.

Phase 3
The third phase will be to move all of the public parking to P25 vacate P26 and begin construction on P26, while the private development portion of P25 is completed. As with P25, the parking pedestal of P26 will be expedited and a TCO will be sought for the P26 parking pedestal as soon as it is completed.

Phase 4
The fourth phase will be to allow the original 106 P26 public parking spaces to be returned to P26 thereby freeing up the required parking for the P25 private improvements and allowing the TCO to be issued for the full P25 building.

Phase 5
The fifth phase will be to complete P26 and TCO the entire P26 building.



NOTES:

1. Total of 210 spaces.
2. MB CODE allows valet tandem spaces to be 32’x8.5’. Drives 22’ wide two way - or 11’ wide one way.

1 Parking Diagram
1" = 30'-0"

CITY OF MIAMI BEACH CLASS A & MIXED USE RFP DESIGN PROPOSALS

MIAMI BEACH, FLORIDA

DESIGN ARCHITECT

brandon haw architecture
630 Flushing Avenue, Studio 310
Brooklyn, NY 11206
ph. 212-300-8440

ARCHITECT OF RECORD

O'Donnell Dannwolf & Partners Architects Inc

DRAWING INFO	
DATE	07/APR/2022
SCALE	
PROJECT NUMBER	0000
DRAWN BY	Author

DRAWING TITLE

P26 - PARKING DIAGRAM

DRAWING NUMBER **REV**

A-900

NOTE IF THIS SHEET IS NOT 11"W x 17"L, THEN IT IS NOT THE INTENDED SIZE. IN ALL CASES, WORK TO FIGURED DIMENSIONS.

DRAFT MEMORANDUM

DATE: April 13, 2022

TO: Gabe Scott, The Peebles Corporation

FROM: Christian Luz, DESMAN Inc.

PROJECT: Lincoln Lane RFP – Preliminary Impacts Analysis

RE: **DRAFT Parking Mitigation Report**

EXECUTIVE SUMMARY

The P27 development project proposed by the Peebles Corporation (Peebles) will eliminate 151 parking spaces located in the city's P27 surface parking lot. This lot is highly used and Peebles is required to replace all of the parking plus additional parking required by city code as part of their development agreement at the time construction is completed. However, the spaces will be lost during the 20-month construction duration plus there will be additional parking demand generated by construction activity during the same period. Peebles has agreed to a parking plan that will mitigate a loss of the 151 spaces plus identify and commit to providing parking for construction workers during construction.

The mitigation plan has several elements:

- Identify available parking to replace the 151 spaces;
- Identify available spaces for parking needs related to P27 development construction (maximum of 80-spaces);
- Develop and implement a public communication program that promotes community awareness of impacts and mitigation efforts.
- Finally, the city has requested that the mitigation plan include impacts related to the Convention Center Hotel construction. However, since no information has been provided by the city related to construction employment for the Hotel, that element was not included.

The results of the analysis indicate that there are about 6,538 parking spaces in garages within the vicinity of P27. Data collection and analysis indicate that the entire parking supply has between 3,055 and 3,488 available parking spaces during a peak Friday and Saturday mid-day during spring break. There are between 1,303 and 1,643 available parking spaces within a walking distance of 0.13 miles which are suitable to serve current users of P27. During the same period, there are between 3,055 and 3,331 spaces available to serve construction parking with an average walking distance of 0.42 miles.

The results were similar for both Friday and Saturday peak hour in that there was a documented abundance of available private and public parking in the parking system surrounding the P27 site that can be used to mitigate parking lost to construction, as well as parking-related to construction activities.

INTRODUCTION

The City of Miami Beach (the city) has stated that the Lincoln Lane surface parking lots P25, P26, and P27 are integral to the Lincoln Road commercial district and service the surrounding neighborhoods. Furthermore, many area businesses and parking demand generators depend on these facilities to park their

patrons and guests, including an average of 15 - 20 monthly municipal passes issued at each of the three parking lots. As such, the city has stated that during the construction process, it is imperative to consider the mitigation of displaced parking to ensure that all parking demand generators are being served accordingly.

The city and Peebles Corporation (the proposer for P27) have stated that at the completion of the P27 development (the Project), the Project will include the replacement of existing parking (replacement parking) plus adding development parking as required by code. Consequently, at construction completion, the Project should result in a "no change" scenario relative to changes in existing and required parking supply. However, a parking study and resultant Mitigation Plan (the Plan) were prepared to identify how the Peebles Corporation (Peebles) will meet the interim parking needs that arise due to the elimination of surface parking and the influx of construction parking demand related to the projects.

This Technical Memorandum is based on the meeting that occurred between Peebles and the City of Miami Beach, on March 17, 2022, the city's Lincoln Lane RFP – Preliminary Impacts Analysis methodology memorandum and revised methodology including facilities to be evaluated provided by DESMAN on or about March 22, 2022. The balance of this memorandum is organized relative to the city's methodology memorandum.

OBJECTIVE OF THE MITIGATION PLAN

Although the methodology and approach follow the agreement reached with the city, the city's focus appears to be less about the Project's proposed development parking requirements and more about the approach to providing replacement parking during construction as well as identifying adequate parking to meet the construction employee parking demand. Consequently, the Plan will focus on parking impacts during construction and maintain the number of lost spaces due to construction, as well as identify parking availability for construction workers.

DESCRIPTION OF PROPOSED DEVELOPMENT PROGRAM

Based on DESMAN's discussions with Peebles, the P27 development program consists of the following program components:

- Replacement of 151 existing surface parking lot spaces;
- 77,944 square feet (SF) of Office space;
- 9,452 SF of Retail space; and
- 46 mixed-income Residential units.

The Project is required to include the replacement of the 151 existing parking spaces eliminated in the P27 surface parking lot plus adds any parking required by city code for additional proposed uses (Sec. 130-33. - Off-street parking requirements for parking districts nos. 2, 3, 4, 5, 6, 7, 8, and 9.) The proposer is also allowed by code, to reduce the required number of parking spaces for the Project as defined in the city's code (Secs. 130-40. - Alternative parking incentives.) Table 1 lists the development program for the Project, the parking ratio required by code for Parking District 2, before the application of any reductions for offering alternative parking incentives, and the resultant number of parking spaces required for the Project.

Table 1 - The Project

REQD PARKING	GFA OR UNITS		PARKING RATIO	SPACES
Replacement	**151**	1:1	REPLACE 1 TO 1	151
Office	**77,944**	2.5	per KGSF	195
Retail	**9,452**	0	N/A	0
Mixed-Income 550-999 SF	**23**	1.5	per Unit PLUS 10% GUEST	38
Mixed-Income 1000-1200 SF	**10**	1.75	per Unit PLUS 10% GUEST	20
Mixed-Income >1200 SF	**13**	2.0	per Unit PLUS 10% GUEST	29
	46		TOTAL P27 PARKING	433
			REPLACEMENT PARKING	151
			DEVELOPMENT PARKING - NO REDUCTION	***282***
			ADJ DEVELOPMENT SPACES REQD	**141**
			TOTAL PARKING PER REDUCTIONS (DEV PLUS REPLACEMENT PARKING	**292**

As indicated, for Parking District 2, office use requires 2.5 spaces per 1,000 SF of area, retail use has no parking requirement, while residential units have a parking requirement (including guest parking) that varies according to the size of the unit as shown in Table 1.

As shown in Table 1, the total number of parking required for the Project is 433 spaces before the inclusion of any alternative parking incentives. Peebles is offering to maximize the use of alternative parking incentives through a commitment to provide the following alternatives to parking:

1. *Bicycle parking long-term*: The minimum off-street parking requirements may be reduced by one off-street parking space for every five long-term bicycle parking spaces provided off-street, not to exceed 15 percent of the off-street parking spaces that would otherwise be required. Notwithstanding the foregoing, in no case shall the proximity of an available bike share program be counted in any way towards private property parking reductions.
2. *Bicycle parking short-term:* The minimum off-street parking requirements may be reduced by one off-street parking space for every ten short-term bicycle parking spaces provided off-street, not to exceed 15 percent of the off-street parking spaces that would otherwise be required. Notwithstanding the foregoing, in no case shall the proximity of an available bike share program be counted in any way towards private property parking reductions.
3. *Carpool/vanpool parking*: The minimum off-street parking requirements may be reduced by three off-street parking spaces for every one parking space reserved for carpool or vanpool vehicles registered with South Florida Commuter Services, not to exceed a reduction of more than ten percent of the off-street parking spaces that would otherwise be required. The property manager must submit an annual report to the planning director documenting the carpool/vanpool registration and ongoing participation by registered users.
4. *Scooter, moped, and motorcycle parking*: The minimum off-street parking requirements may be reduced by one off-street parking space for every three scooters, moped, or motorcycle parking spaces provided off-street, not to exceed 15 percent of the off-street parking spaces that would otherwise be required.
5. *Showers:* The minimum off-street parking requirements for nonresidential uses that provide showers and changing facilities for bicyclists may be reduced by two off-street parking spaces for each separate shower facility up to a maximum of eight parking spaces. Where possible, clothes lockers should be provided for walking and biking commuters.

The application of these alternative parking incentives to the initial paring requirements is summarized in

Table 2. Although the maximum allowable reduction varies by incentive, the overall maximum is 50 percent for development. As shown in Table 2, a 50 percent reduction is 141 spaces for the Project which reduces the parking requirement from 282 to 141 spaces plus the 151 replacement parking spaces equating to a total of 292 spaces at project completion.

Table 2 - Alternative Parking Incentives

DEVELOPMENT SPACES REQD	REDUCTION						ADJ DEVELPMNT SPACES REQD
	LT BIKES	ST BIKES	SHOWERS	CARPOOL	MOPED	REDUCTION	
282	15%	15%	2.8%	10%	7.0%	50%	**141**
	-42	-42	-8	-28	-20	-141	

ESTIMATION OF CONSTRUCTION EMPLOYMENT PARKING DEMAND

It is DESMAN's understanding that Peebles has retained Suffolk Construction for pre-construction services. Suffolk was contacted to provide an estimate of the construction parking demand and confirm the construction duration. According to Suffolk, the following number of parking spaces will be required from construction start over a 20-month duration. As shown, the parking needs to increase after the first two months to 60 spaces during months 6 thru 9, and to 80 spaces from months 10 thru 18, decreasing to 30 spaces in months 19 and 20 as the project is completed. This parking need will be evaluated along with the replacement parking needs in the discussion of the Plan.

Table 3 - Construction Parking Needs

	Start																		Completion	
Construction Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
# of Spaces Required	20	20	40	40	40	60	60	60	60	80	80	80	80	80	80	80	80	80	30	30

As a conservative measure, DESMAN has used a construction parking need of 80 spaces plus the replacement parking of 151 spaces for a total parking need of 231 spaces during the entire duration of construction in the development of the Plan.

MITIGATION PLAN PARKING EVALUATION

To develop the Mitigation Plan, an understanding of the available parking capacity in the "service area" is required to determine if there is sufficient unused capacity to accommodate the parking needs of the Project. This is obtained by conducting an inventory and occupancy study in the service area. As agreed with the city, the occupancy study was conducted during the peak weekday (Friday) and on a Saturday during the peak occupancy period (11 am until 1 pm) for 10 parking garages within a defined service area. The occupancy study was also conducted during Spring Break in Miami Beach (the week of March 25th.) The service area was defined as within ¼ mile for replacement parking and under 1 mile for construction parking. Furthermore, the service area was defined in two ways, the first measuring the walking distance from a proposed mitigation garage to a "destination" represented by a development centroid on Lincoln Lane and Lincoln Road Mall, and the second as the walking distance from a proposed mitigation garage to P27. The centroid was identified as the approximate mid-block location on Meridian Avenue between Lincoln Lane and Lincoln Road Mall and considered more appropriate since the users of P27 are likely oriented towards the Lincoln Road Mall. The results between the two methods are insignificant and the second method measuring the walking distance from proposed mitigation garages to P27 is included for review in the Appendix. As a note, surface lots P25, P26, and P27 are shown in the tables for informational purposes only and are not used in calculations herein.

The 10 garages included in the analysis are listed in Table 4 and include 5 city-owned garages and 5 private

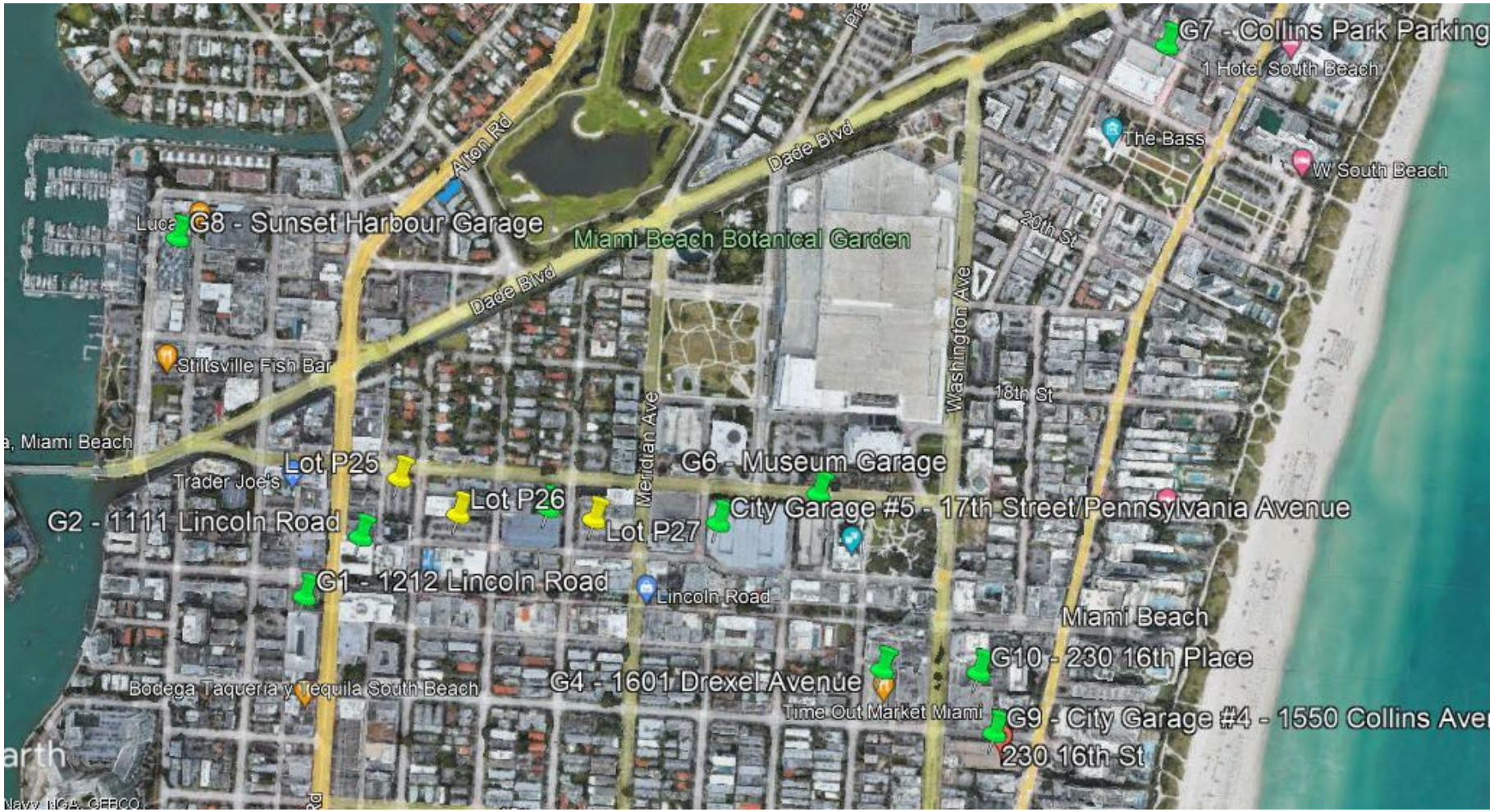
garages for a total of 6,538 parking spaces within 0.42 miles of the centroid. Also as shown, the 5 private garages provide 2,769 parking spaces with an average walking distance of 0.35 miles to the centroid, and the 5 city garages provide 3,769 parking spaces with an average walking distance of ½ mile to the centroid.

Table 4 - Proposed Mitigation Garages

Lot/Garage Number	Name	Address	Total Spaces	Walking Distance from Centroid (mi)
L1	P25	1688 Lennox Ave.	86	NA
L2	P26	1080 Lincoln Lane N	106	NA
L3	P27	1664 Meridian Ave.	151	NA
Private Parking Garages				
G1	1212 Lincoln Rd	1212 Lincoln Rd.	450	0.45
G2	1111 Lincoln Rd	1111 Lincoln Rd.	300	0.42
G3	Lincoln Garage	1691 Michigan Ave.	870	0.12
G4	Park at 420	1601 Drexel Ave.	650	0.33
G10	Lincoln Place	231 16th St.	499	0.43
		Subtotal Private Facilities	**2,769**	**0.35**
City Parking Garages				
G5	G5 - 17th Street Garage	640 17th St.	1,460	0.09
G6	G9 - Pennsylvania Garage	500 N. 17th St.	560	0.18
G7	G2 - Collins Park Garage	340 N. 23rd St.	516	0.99
G8	G9 - Sunset Harbour Garage	1900 Bay Rd.	430	0.75
G9	G4 - Collins Garage	1550 Collins Ave.	803	0.47
		Subtotal City Parking Garages	**3,769**	**0.50**
		Total All Facilities	***6,538***	***0.42***

The location of the garages is shown in Figure 1.

Figure 1 - Proposed Mitigation Garage Locations



Friday Occupancy Results

The results of the Friday, March 25, 2022 occupancy counts collected during spring break between 11 am and 1 pm are shown in Table 5 for both city and private garages. The number of available parking spaces for both the private and city garages was 3,055 spaces representing a vacancy rate of 47 percent and an average walking distance of 0.42 miles. The table lists the data organized into several more categories for both city and private garages, including whether:

- the garage is suitable for replacement parking which is defined by having 151 spaces or more available and is located within ¼ mile walking distance;
- the garage is suitable for construction parking which is defined by having 80 spaces or more available and is located within 1-mile walking distance; and
- the garage accommodates both replacement and construction parking which is defined by having 231 spaces (80+151) or more spaces available and is located within ¼ mile walking distance.

Replacement Parking

There are 1,303 available spaces in private and city garages located within an average walking distance of 0.13 miles:

- The only private garage suitable for accommodating replacement parking within a ¼ mile walking distance is the Lincoln Garage with 330 spaces at 0.12 miles from the centroid.
- There are two city garages suitable for accommodating replacement parking within a ¼ mile walking distance providing 973 available spaces within an average walking distance of 0.14 miles. These are the 17th Street Garage with 613 spaces available at a walking distance of 0.09 miles and the Pennsylvania Garage with 360 spaces available at a walking distance of 0.18 miles.

Construction Parking

There are 3,055 available spaces in private and city garages located within an average walking distance of 0.42 miles:

- All 5 of the private garages are considered suitable for construction parking defined as having at least 80 spaces available and being located within a 1-mile walking distance. These 5 garages provide a total of 1,073 available spaces at an average walking distance of 0.35 miles.
- All 5 of the city garages are considered suitable for construction parking defined as having at least 80 spaces available and being located within a 1-mile walking distance. These 5 garages provide a total of 1,982 available spaces at an average walking distance of 0.50 miles.

Parking for Both Replacement and Construction Parking

If there was a reason for accommodating both replacement and construction parking in a common parking garage that could provide at least 231 spaces within ¼ mile walking distance, there are three options:

1. Use the privately-owned Lincoln Garage which has 330 available spaces during the peak day peak hour at a walking distance of 0.12 miles;

2. Use the city-owned 17th Street Garage which has an available capacity of 613 spaces and a walking distance of 0.09 miles; or
3. Use the Pennsylvania Garage which has an available capacity of 360 spaces and a walking distance of 0.18 miles.

Currently, during the peak weekday, peak hour, there is a measured abundance of available private and public parking in the parking system surrounding the P27 site that can be used to mitigate parking lost to construction, as well as parking related to construction activities.

Table 5 - Potential Replacement and/or Construction Parking Facilities from Centroid - Friday

Lot/Garage Number		Address	Total Spaces	Occupied Spaces	Available Spaces	Percent Available	Walking Distance from P27 (mi)	Replacement Parking Spaces	Replacement Parking Distance (mi)	Construction Parking Spaces	Construction Parking Distance (mi)	Suitable for Replacement or Construction	
L1	P25	1688 Lennox Ave.	86	62	24	28%	NA	NA	NA	NA	NA	NA	NA
L2	P26	1080 Lincoln Lane N	106	94	12	11%	NA	NA	NA	NA	NA	NA	NA
L3	P27	1664 Meridian Ave.	151	149	2	1%	NA	NA	NA	NA	NA	NA	NA
Private Parking Garages													
G1	1212 Lincoln Rd	1212 Lincoln Rd.	450	233	164	36%	0.45	NO	NO	164	0.45	YES	CONST
G2	1111 Lincoln Rd	1111 Lincoln Rd.	300	154	146	49%	0.42	NO	NO	146	0.42	YES	CONST
G3	Lincoln Garage	1691 Michigan Ave.	870	410	330	38%	0.12	330	0.12	330	0.12	YES	BOTH
G4	Park at 420	1601 Drexel Ave.	650	494	156	24%	0.33	NO	NO	156	0.33	YES	CONST
G10	Lincoln Place	231 16th St.	499	222	277	56%	0.43	NO	NO	277	0.43	YES	CONST
		Subtotal Private Facilities	**2,769**	**1,513**	**1,073**	**39%**	**0.35**	**330**	**0.12**	**1,073**	**0.35**	**NA**	**NA**
City Parking Garages													
G5	G5 - 17th Street Garage	640 17th St.	1,460	801	613	42%	0.09	613	0.09	613	0.09	YES	BOTH
G6	G9 - Pennsylvania Garage	500 N. 17th St.	560	200	360	64%	0.18	360	0.18	360	0.18	YES	BOTH
G7	G2 - Collins Park Garage	340 N. 23rd St.	516	152	364	71%	0.99	NO	NO	364	0.99	YES	CONST
G8	G9 - Sunset Harbour Garage	1900 Bay Rd.	430	193	237	55%	0.75	NO	NO	237	0.75	YES	CONST
G9	G4 - Collins Garage	1550 Collins Ave.	803	395	408	51%	0.47	NO	NO	408	0.47	YES	CONST
		Subtotal City Parking Garages	**3,769**	**1,741**	**1,982**	**53%**	**0.50**	**973**	**0.14**	**1,982**	**0.50**	**NA**	**NA**
		Total All Facilities	***6,538***	***3,254***	***3,055***	***47%***	***0.42***	***1,303***	***0.13***	***3,055***	***0.42***	***NA***	***NA***

Notes:
1. Occupied spaces include inaccessible spaces.
2. L1 thru L3 identify surface parking lots as used by the City Parking Department
3. G1 thru G10 is used to identify garages that may offer a solution for replacement and/or construction parking and do not necessarily match the City Parking Department's garage numbers.
4. Data for surface lots L1, L2, and L3 are shown for information only and are not used in calculations of capacity.

Saturday Occupancy Results

The results of the Saturday, March 26, 2022 occupancy counts collected during spring break between 11 am and 1 pm are shown in Table 6 for both city and private garages. The number of available parking spaces for both the private and city garages was 3,488 spaces representing a vacancy rate of 53 percent and an average walking distance of 0.42 miles. The table lists the data organized into several more categories for both city and private garages, including whether:

- the garage is suitable for replacement parking which is defined by having 151 spaces or more available and is located within ¼ mile walking distance;
- the garage is suitable for construction parking which is defined by having 80 spaces or more available and is located within 1-mile walking distance; and
- the garage accommodates both replacement and construction parking which is defined as having 231 spaces (80+151) or more spaces available and is located within ¼ mile walking distance.

Replacement Parking

There are 1,643 available spaces in private and city garages located within an average walking distance of 0.13 miles:

- Like the Friday condition, the only private garage suitable for accommodating replacement parking within a ¼ mile walking distance is the Lincoln Garage with 434 spaces at 0.12 mile from the centroid.
- Also, like the Friday condition, there are two city garages suitable for accommodating replacement parking within a ¼ mile walking distance providing 1,209 available spaces within an average walking distance of 0.14 miles. These are the 17th Street Garage with 803 spaces available at a walking distance of 0.09 miles and the Pennsylvania Garage with 406 spaces available at a walking distance of 0.18 miles.

Construction Parking

There are 3,331 available spaces in private and city garages located within an average walking distance of 0.42 miles:

- All 5 of the private garages are considered suitable for construction parking defined as having at least 80 spaces available and being located within a 1-mile walking distance. These 5 garages provide a total of 1,128 available spaces at an average walking distance of 0.35 miles.
- All 5 of the city garages are considered suitable for construction parking defined as having at least 80 spaces available and being located within a 1-mile walking distance. These 5 garages provide a total of 2,203 available spaces at an average walking distance of 0.50 miles.

Parking for Both Replacement and Construction Parking

If there was a reason for accommodating both replacement and construction parking in a common parking garage that could provide at least 231 spaces within ¼ mile walking distance, there are three options:

1. Use the privately-owned Lincoln Garage which has 434 available spaces during the peak day peak hour at a walking distance of 0.12 miles;
2. Use the city-owned 17th Street Garage which has an available capacity of 803 spaces and a walking distance of 0.09 miles; or
3. Use the Pennsylvania Garage which has an available capacity of 406 spaces and a walking distance of 0.18 miles.

Exactly like the peak Friday peak hour results, there is a measured abundance of available private and public parking in the parking system surrounding the P27 site that can be used to mitigate parking lost to construction, as well as parking related to construction activities.

Table 6 - Potential Replacement and/or Construction Parking Facilities from Centroid - Saturday

Lot/Garage Number	Name	Address	Total Spaces	Occupied Spaces	Available Spaces	Percent Available	Walking Distance from Centroid (mi)	Replacement Parking		Construction Parking		Suitable for Replacement or Construction	
								Spaces	Distance (mi)	Spaces	Distance (mi)		
L1	P25	1688 Lennox Ave.	86	54	32	NA	NA	NA	NA	NA	NA	NA	NA
L2	P26	1080 Lincoln Lane N	106	80	26	NA	NA	NA	NA	NA	NA	NA	NA
L3	P27	1664 Meridian Ave.	151	132	19	NA	NA	NA	NA	NA	NA	NA	NA
Private Parking Garages													
G1	1212 Lincoln Rd	1212 Lincoln Rd.	450	217	180	40%	0.45	NO	NO	180	0.45	YES	CONST
G2	1111 Lincoln Rd	1111 Lincoln Rd.	300	96	157	52%	0.42	NO	NO	157	0.42	YES	CONST
G3	Lincoln Garage	1691 Michigan Ave.	870	298	434	50%	0.12	434	0.12	434	0.12	YES	BOTH
G4	Park at 420	1601 Drexel Ave.	650	423	227	35%	0.33	NO	NO	227	0.33	YES	CONST
G10	Lincoln Place	231 16th St.	499	212	287	58%	0.43	NO	NO	287	0.43	YES	CONST
Subtotal Private Parking Garages			**2,769**	**1,246**	**1,285**	**46%**	**0.35**	**434**	**0.12**	**1,128**	**0.35**	**NA**	**NA**
City Parking Garages													
G5	G5 - 17th Street Garage	640 17th St.	1,460	657	803	55%	0.09	803	0.09	803	0.09	YES	BOTH
G6	G9 - Pennsylvania Garage	500 N. 17th St.	560	154	406	73%	0.18	406	0.18	406	0.18	YES	BOTH
G7	G2 - Collins Park Garage	340 N. 23rd St.	516	163	353	68%	0.99	NO	NO	353	0.99	YES	CONST
G8	G9 - Sunset Harbour Garage	1900 Bay Rd.	430	162	268	62%	0.75	NO	NO	268	0.75	YES	CONST
G9	G4 - Collins Garage	1550 Collins Ave.	803	430	373	46%	0.47	NO	NO	373	0.47	YES	CONST
Subtotal City Parking Garages			**3,769**	**1,566**	**2,203**	**58%**	**0.50**	**1,209**	**0.14**	**2,203**	**0.50**	**NA**	**NA**
Total All Facilities			***6,538***	***2,812***	***3,488***	***53%***	***0.42***	***1,643***	***0.13***	***3,331***	***0.42***	***NA***	***NA***

Notes:
1. Occupied spaces include inaccessible spaces.
2. L1 thru L3 identify surface parking lots as used by the City Parking Department
3. G1 thru G10 is used to identify garages that may offer a solution for replacement and/or construction parking and do not necessarily match the City Parking Department's garage numbers.
4. Data for surface lots L1, L2, and L3 are shown for information only and are not used in calculations of capacity.

PROPOSED MITIGATION PLAN ELEMENTS

The city has identified two additional aspects that should be included in the Plan:

1. The Convention Center Hotel construction parking needs.
2. The parking mitigation plan must also include a public communication program to promote community awareness of impacts and mitigation efforts.

Based on DESMAN's review neither the LTC #005-2022 memorandum dated January 10, 2022, nor the Traffic Impact Study, dated February 2019 have labor estimates for construction over the construction duration. Therefore, the Convention Center's off-site construction parking needs have not been considered in this Plan. However, given the availability of parking in the area, DESMAN believes that a mitigation plan should not be prohibitive.

Peebles is committed to developing a public communication program that promotes community awareness of impacts and mitigation efforts. Since the parking impacts do not appear to be extreme, it should be relatively simple to promote suitable parking destinations for transient and monthly users of P27 during the 20-month construction term.

Appendix A

Appendix Table 1 - Potential Replacement and/or Construction Parking Facilities from P27 - Friday

Lot/Garage Number	Name	Address	Total Spaces	Occupied Spaces	Available Spaces	Percent Available	Walking Distance from P27 (mi)	Replacement Parking Spaces	Replacement Parking Distance (mi)	Construction Parking Spaces	Construction Parking Distance (mi)	Suitable for Replacement or Construction	
L1	P25	1688 Lennox Ave.	86	62	24	28%	NA	NA	NA	NA	NA	NA	NA
L2	P26	1080 Lincoln Lane N	106	94	12	11%	NA	NA	NA	NA	NA	NA	NA
L3	P27	1664 Meridian Ave.	151	149	2	1%	NA	NA	NA	NA	NA	NA	NA
Private Parking Garages													
G1	1212 Lincoln Rd	1212 Lincoln Rd.	450	233	164	36%	0.51	NO	NO	164	0.51	YES	CONST
G2	1111 Lincoln Rd	1111 Lincoln Rd.	300	154	146	49%	0.33	146	0.33	146	0.33	YES	REPL OR CONST
G3	Lincoln Garage	1691 Michigan Ave.	870	410	330	38%	0.06	330	0.06	330	0.06	YES	BOTH
G4	Park at 420	1601 Drexel Ave.	650	494	156	24%	0.51	NO	NO	156	0.51	YES	CONST
G10	Lincoln Place	231 16th St.	499	222	277	56%	0.59	NO	NO	277	0.59	YES	CONST
		Subtotal Private Facilities	**2,769**	**1,513**	**1,073**	**39%**	**0.40**	**476**	**0.20**	**1,073**	**0.40**	**NA**	**NA**
City Parking Garages													
G5	G5 - 17th Street Garage	640 17th St.	1,460	801	613	42%	0.15	613	0.15	613	0.15	YES	BOTH
G6	G9 - Pennsylvania Garage	500 N. 17th St.	560	200	360	64%	0.33	360	0.33	360	0.33	YES	BOTH
G7	G2 - Collins Park Garage	340 N. 23rd St.	516	152	364	71%	0.31	364	0.31	364	0.31	YES	BOTH
G8	G9 - Sunset Harbour Garage	1900 Bay Rd.	430	193	237	55%	0.63	NO	NO	237	0.63	YES	CONST
G9	G4 - Collins Garage	1550 Collins Ave.	803	395	408	51%	0.59	NO	NO	408	0.59	YES	CONST
		Subtotal City Parking Garages	**3,769**	**1,741**	**1,982**	**53%**	**0.40**	**1,337**	**0.26**	**1,982**	**0.40**	**NA**	**NA**
		Total All Garages	***6,538***	***4,767***	***4,128***	***63%***	***0.40***	***1,813***	***0.24***	***3,319***	***0.41***	***NA***	***NA***

Notes:
1. Occupied spaces include inaccessible spaces.
2. L1 thru L3 identify surface parking lots as used by the City Parking Department
3. G1 thru G10 are used to identify garages that may offer a solution for replacement and/or construction parking and do not necessarily match the City Parking Department's garage numbers.
4. Data for surface lots L1, L2 and L3 are shown for information only and are not used in calculations of capacity.

Appendix Table 2 - Potential Replacement and/or Construction Parking Facilities from P27 - Saturday

Lot/Garage Number	Name	Address	Total Spaces	Occupied Spaces	Available Spaces	Percent Available	Walking Distance from P27 (mi)	Replacement Parking Spaces	Replacement Parking Distance (mi)	Construction Parking Spaces	Construction Parking Distance (mi)	Suitable for Replacement or Construction	
L1	P25	1688 Lennox Ave.	86	54	32	NA	NA	NA	NA	NA	NA	NA	NA
L2	P26	1080 Lincoln Lane N	106	80	26	NA	NA	NA	NA	NA	NA	NA	NA
L3	P27	1664 Meridian Ave.	151	132	19	NA	NA	NA	NA	NA	NA	NA	NA
Private Parking Garages													
G1	1212 Lincoln Rd	1212 Lincoln Rd.	450	217	180	40%	0.51	NO	NO	180	0.51	YES	CONST
G2	1111 Lincoln Rd	1111 Lincoln Rd.	300	96	157	52%	0.33	157	0.33	157	0.33	YES	REPL OR CONST
G3	Lincoln Garage	1691 Michigan Ave.	870	298	434	50%	0.06	434	0.06	434	0.06	YES	BOTH
G4	Park at 420	1601 Drexel Ave.	650	423	227	35%	0.51	NO	NO	227	0.51	YES	CONST
G10	Lincoln Place	231 16th St.	499	212	287	58%	0.59	NO	NO	287	0.59	YES	CONST
		Subtotal Private Parking Garages	**2,769**	**1,246**	**1,285**	**46%**	**0.40**	**591**	**0.20**	**1,128**	**0.40**	**NA**	**NA**
City Parking Garages													
G5	G5 - 17th Street Garage	640 17th St.	1,460	657	803	55%	0.15	803	0.15	803	0.15	YES	BOTH
G6	G9 - Pennsylvania Garage	500 N. 17th St.	560	154	406	73%	0.33	406	0.33	406	0.33	YES	BOTH
G7	G2 - Collins Park Garage	340 N. 23rd St.	516	163	353	68%	0.31	353	0.31	353	0.31	YES	BOTH
G8	G9 - Sunset Harbour Garage	1900 Bay Rd.	430	162	268	62%	0.63	NO	NO	268	0.63	YES	CONST
G9	G4 - Collins Garage	1550 Collins Ave.	803	430	373	46%	0.59	NO	NO	373	0.59	YES	CONST
		Subtotal City Parking Garages	**3,769**	**1,566**	**2,203**	**58%**	**0.40**	**1,562**	**0.26**	**2,203**	**0.40**	**NA**	**NA**
		Total All Facilities	***6,538***	***4,058***	***4,773***	***73%***	***0.40***	***2,153***	***0.21***	***3,795***	***0.41***	***NA***	***NA***

Notes:
1. Occupied spaces include inaccessible spaces.
2. L1 thru L3 identify surface parking lots as used by the City Parking Department
3. G1 thru G10 are used to identify garages that may offer a solution for replacement and/or construction parking and do not necessarily match the City Parking Department's garage numbers.
4. Data for surface lots L1, L2 and L3 are shown for information only and are not used in calculations of capacity.

LANGAN

Technical Memorandum

110 East Broward Blvd. , Suite 1500, Fort Lauderdale , FL 33301 T: 954-320-2100 F: 954-320-2100

To: Donahue Peebles III
Development Executive
Peebles Lincoln Road Holdings, LLC
New York, NY

From: Maximo G. Polanco, P.E.

Date: 13 April 2022

Re: Traffic Engineering Due Diligence
1664 Meridian Avenue, Miami Beach FL
Langan Project No.: 300303101

Background

Langan Engineering and Environmental Services, Inc. prepared this technical memorandum for proposed mix-used developments to identify the Miami-Dade County and City of Miami Beach traffic-analysis requirements, potential off-site roadway improvements and provide a preliminary traffic assessment. The proposed mixed-used developments comprise the redevelopment of three existing surface parking lots within City of Miami Beach. The proposed development at P27 is a proposed mixed-used development that will comprise 43 dwelling units, 9,452 square feet of retail and 77,944 of offices uses. The 1.36-acre site (Folio Nos. 02-3234-007-0560, 02-3234-007-0670, 02-3234-007-0570, 02-3234-007-0660, 02-3234-007-0650, 02-3234-007-0640, and 02-3234-007-0630) is on the northeast corner of Jefferson Avenue and Lincoln Lane North in Miami Beach, Florida. The proposed mixed-used development at P25 is a six-story building that comprises 46,177 square foot of general offices and 10,772 square foot of retail uses. The 0.86-acre site (Folio Nos. 02-3234-004-0910, 02-3234-004-0900, 02-3234-004-0890, 02-3234-004-0880, and 02-3234-004-0870) is on the southwest corner of Lenox Avenue and 17th Street in Miami Beach, Florida. The proposed mixed-used development at P26 comprises a seven-story building that comprises 63,340 square foot of general offices and 12,665 square foot of retail uses. The 1.12-acre site (Folio Nos. 02-3234-004-0820, 02-3234-004-0830, 02-3234-004-0840, 02-3234-004-0730, 02-3234-004-0720, and 02-3234-004-0720) is on the northeast corner of Lincoln Lane North and Michigan Avenue in Miami Beach, Florida. This technical memorandum summarizes the trip-generation analysis, traffic-significance analysis, and traffic review requirements for the proposed and backup developments. The content of this memorandum is based on our traffic-engineering experience with similar projects in City of Miami Beach and Miami-Dade County. **Attachment A** contains the site plans and the property appraiser data.

Site Generated Trips

The proposed mixed-used development (P27) is expected to generate 1,097 daily, 108 morning and 132 afternoon peak hour net-new trips. P25 will generate 835 daily, 74 morning and 89 afternoon peak hour net-new trips and P26 will generate 1,007 daily, 93 morning and 109

afternoon peak hour net-new trips. We prepared daily, morning and afternoon peak-hour vehicle-trip estimates for the proposed and recently planned developments using equations from the 11th Edition of Institute of Transportation Engineers *Trip Generation Manual.* We applied internalization rates based on ITE Trip Generation Handbook. We also applied a non-vehicular reduction factor of 32.3% based on census data for the developments' zip code. Tables 1a, 1b & 1c summarize the proposed developments trip generation estimates. The trip-generation data and table are included in **Attachment B**.

Table 1a - Trip Generation Estimates P27

Use	Size	Daily	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Uses								
Multifamily Housing (Mid-Rise)	43 DU	141	2	5	7	9	5	14
Strip Retail Plaza <40k	9,452 SF	580	12	11	23	24	24	48
General Office	77,944 SF	899	119	11	130	22	111	133
Total		1,620	133	27	160	55	140	195
Multimodal Reduction Factor (32.3%)		523	43	9	52	18	45	63
Net-New Trips		**1,097**	**90**	**18**	**108**	**37**	**95**	**132**

Table 1b - Trip Generation Estimates P25

Use	Size	Daily	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Uses								
General Office	46,177 SF	571	76	7	83	15	66	81
Strip Retail Plaza <40k	10,772 SF	663	15	12	27	22	28	50
Total		1,234	91	19	110	37	94	131
Multimodal Reduction Factor (32.3%)		399	29	6	36	12	30	42
Net-New Trips		**835**	**62**	**13**	**74**	**25**	**64**	**89**

Table 1c - Trip Generation Estimates P26

Use	Size	Daily	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Uses								
General Office	63,340 SF	752	98	10	108	19	87	106
Strip Retail Plaza <40k	12,665 SF	736	16	13	29	24	31	55
Total		1,488	114	23	137	43	118	161
Multimodal Reduction Factor (32.3%)		481	37	7	44	14	38	52
Net-New Trips		**1,007**	**77**	**16**	**93**	**29**	**80**	**109**

Miami Beach City Requirements

The city is requesting a full-traffic impact analysis for the proposed mixed-use development. The city will require a Level II traffic analysis and needs to include trip generations calculations, cardinal distribution calculations, intersections capacity analysis, driveway analysis, turn-lane warrant analyses, queuing analysis if the development is planning to have gates on the entrances and vehicle maneuverability. In addition, the development will be required to proposed traffic demand management measures to mitigate the project's traffic impacts and promote the use of the available modes of transportation in the area. At a minimum the project will be required to evaluate the project's traffic impact at the following intersections:

1. Meridian Avenue & 17th Street
2. Meridian Avenue & Lincoln Lane North
3. Jefferson Avenue & 17th Street
4. Jefferson Avenue & Lincoln Lane North
5. Alton Road & 17th Street
6. Alton Road & Lincoln Road

Miami-Dade County Requirements

The proposed development is expected to generate more than 100 peak-hour trips therefore a Level II traffic analysis will be required by the Miami-Dade County Traffic Engineering Division (TED) if the development will go through any permitting process with the County. The traffic analysis will have to include trip-generation calculations, cardinal-distribution calculations, roadway and intersections capacity analysis, driveway analysis and turn-lane warrant analyses. Miami-Dade County does not allow vehicles to back in/out to and from the proposed driveway connections per Section 33-132 of their zoning code which states, in relevant part, that "there is no backout into an adjacent private or public street, excepting only lots used for single-family or duplex use." The proposed loading areas do not comply with this section and the county could request a revision of the proposed design.

Traffic Significance Analysis

We prepared afternoon peak-hour roadway-impact significance analysis for the project's surrounding roadway network and found that the anticipated traffic from the proposed (P27) and recently planned developments (P25 & P26) will have a significant impact to Alton Road which is the major roadway that will be used to access the proposed development. A roadway is significantly impacted when the proposed development traffic assigned to a roadway is five percent or more of the roadways adopted Level of Service (LOS) capacity. We assigned traffic based on the county's corresponding Traffic Analysis Zone (642) for the area. This traffic significance evaluation is only valid for the date of this memorandum. **Table 2** summarizes the results of the analysis and **Attachment C** contains the TAZ and traffic data.

Table 2 - Afternoon Peak Hour Roadway Significance Analysis Summary

Roadway	From	To	Number of Lanes	LOS Capacity	Project Distribution	Project Traffic	Percent Impact	Significantly Impacted (>5%)?
Alton Road	SR A1A	Dade Boulevard	4L	3,040	57%	188	6.19%	YES
17 Street	Dade Boulevard	Collins Avenue	4L	2,736	16%	53	1.93%	NO
16 Street	West Avenue	Collins Avenue	2L	1,269	12%	40	3.12%	NO
15 Street	West Avenue	Washington Avenue	2L	6,530	1%	3	0.05%	NO
Meridian Avenue	5th Street	Dade Boulevard	2L	1,269	14%	46	3.64%	NO

Driveway Analysis & Turn Lane Analysis

The proposed development (P27) will have a gate-controlled driveway connection to Jefferson Avenue and is intended to operate as a full-access driveway. Jefferson Avenue has a two-way left-turn lane between 17th Street and Lincoln Road that will allow the proposed driveway to operate as a full-access connection but the city and the county might request the developer to improve the roadway section north of the driveway which has a median limiting the ability for vehicles to enter safely at the proposed connection. The city and the county will request a queuing analysis to evaluate the queueing and the location of the gated entrance to avoid vehicles backing onto the public roadway.

The proposed development (P26) will have a driveway connection to Michigan Avenue and is intended to operate as a full-access driveway. Michigan Avenue has a two-way left-turn lane between 17th Street and Lincoln Road that will allow the proposed driveway to operate as a full-access connection. The proposed development (P25) will have a driveway connection to a one-way road west of Lennox Avenue. Due to the existing configuration of such road the proposed driveway connection will operate as a left-turn in and a right-turn out driveway.

Findings

We reviewed the proposed mixed-use developments (P25, P26 & P27) regarding land-development related traffic impacts and determined the following:

- The proposed mixed-used developments are expected to generate more than 100 peak-hour trips, therefore the city will require a Level II Traffic Impact Analysis to evaluate the development's traffic impacts. The development could be required to submit to Miami-Dade County depending on the permitting process of the proposed development.
- Based on the number of peak-hour trips and the current roadway configurations the proposed development will not be required to construct exclusive turn lanes at the proposed driveway connections to public roadways.
- The proposed developments will have a significant impact to Alton Road which is the major roadway that will be used to access the proposed developments.

Attachments:

Attachment A – Site Plan and Property Appraiser Data
Attachment B – Trip Generation Data
Attachment C – TAZ and Traffic Data

LANGAN

Memorandum

15150 N.W. 79th Court, Suite 200 Miami Lakes, FL 33016 T: 786-264-7200 F: 786-264-7201

To: Donahue Peebles III
Development Executive
Peebles Lincoln Road Holdings, LLC
New York, NY

From: Anamaris Torres, PE

Info: Leonardo Rodriguez, PE

Date: April 13, 2022

Re: Civil Engineering Due Diligence Memorandum
1664 Meridian Ave.
Miami Beach , FL 33139
Langan Project No.: 300303101

General

Langan Engineering and Environmental Services, Inc. has prepared this due diligence memorandum with respect to three separate parcels located within the City of Miami Beach. Hereon forward the three parcels will be referred to as P27, P26 and P25

P27 is located at 1664 Meridian Avenue, Miami Beach, Florida and is comprised of the folios shown on Table 1 below. The site is bounded on the east by Meridian Avenue, on the west by Jefferson Avenue, on the south by Lincoln Lane North, and on the north by commercial properties as shown in Figure 1 below. This site encompasses approximately 1.36 acres.

Figure-1: Limits of proposed development for P27

P26 is comprised of the folios shown on Table 1 below. The parcel is bounded on the west by Lenox Avenue, on the east by Michigan Avenue, on the south by Lincoln Lane North, and on the north by commercial properties as shown in Figure 2 below. This site encompasses approximately 0.96 acres.

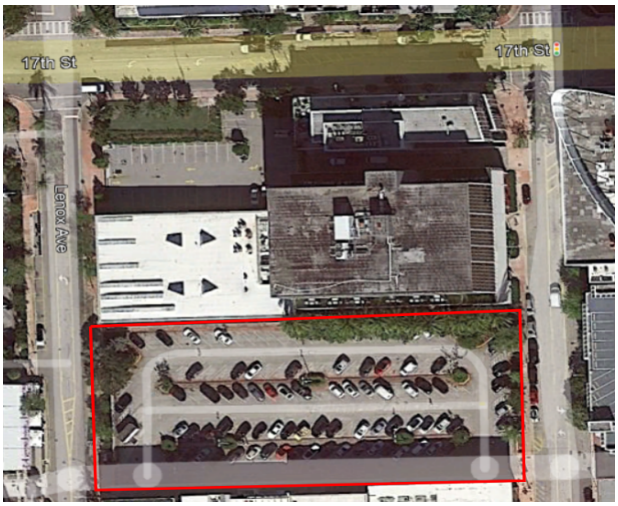


Figure-2: Limits of proposed development for P26

P25 is comprised of the folios shown on Table 1 below. The parcel on the west by Lenox Court, on the east by Lenox Avenue, on the south by commercial properties, and on the north by 17th Street as shown in Figure 3 below. This site encompasses approximately 0.86 acres.

Figure-3: Limits of proposed development for P25

Table 1: Parcel Information Breakdown

	Folio	Address	Lot Size
P27	02-3234-007-0560	1664 Meridian Avenue, Miami Beach, FL	7,500 Sq. Ft
	02-3234-007-0670	-	7,500 Sq. Ft
	02-3234-007-0570	-	14,250 Sq. Ft.
	02-3234-007-0660	-	7,500 Sq. Ft.
	02-3234-007-0650	-	7,500 Sq. Ft.
	02-3234-007-0640	-	7,500 Sq. Ft.
	02-3234-007-0630	-	7,500 Sq. Ft.
P26	02-3234-004-0840	-	4,800 Sq. Ft
	02-3234-004-0830	-	8,000 Sq. Ft
	02-3234-004-0820	-	8,000 Sq. Ft
	02-3234-004-0730	-	8,000 Sq. Ft
	02-3234-004-0720	-	8,000 Sq. Ft
	02-3234-004-0710	-	4,800 Sq. Ft
P25	02-3234-004-0910	-	7,500 Sq. Ft
	02-3234-004-0900	-	7,500 Sq. Ft
	02-3234-004-0890	-	7,500 Sq. Ft
	02-3234-004-0880	-	7,500 Sq. Ft
	02-3234-004-0870	-	7,500 Sq. Ft

Proposed Development

Based on our client's redevelopment intensions, we understand that the proposed land uses will be broken down as follows:

P27 consists of 43 luxury apartment units, approximately 77,944 SF of office space, and approximately 9,452 SF of retail space. We have assumed 50% of the retail space will be used as full service restaurant space for the purpose of water and wastewater service allocation.

P26 consists of approximately 63,340 SF of office space and 12,665 SF of retail space, of which 6,100 SF will be use as full service restaurant space.

P25 consists of approximately 46,177 SF of office space and 10,772 SF of retail space, of which 5,000 SF will be use as full service restaurant.

Water and Sewer Infrastructure

We are coordinating with the City of Miami Beach, Miami-Dade Water and Sewer Department (MDWASD) and the Miami-Dade County Department of Environmental Resource Management (DERM) to process a service availability letter. We have been advised by these Departments to submit a Sewer Capacity Certification Form, which will confirm the available sewer capacity for the project.

Potable Water

In order to be consistent with the City's 2040 Miami Beach Comprehensive Plan, existing infrastructure must meet or be upgraded to meet the permitted levels of service to support the increase in demand proposed by the Development. The Project will participate in the on-going program to repair and replace existing obsolete and undersized water, sewer and stormwater lines. The City may request the replacement of some of the existing 6-inch CI water mains abutting the Development, as it is evident by the atlases provided that some CI pipes have already been abandoned in place and replaced with DIP mains. Based on the City of Miami Beach Atlas (*Attachment A*), the existing potable water infrastructure abutting the development sites consists of the following:

P27

There is an existing 12-inch DIP water main running on Lincoln Lane N along the southern end of the property. There is a 16-inch DIP water main and one abandoned 16-inch CI water main that run along Jefferson Avenue to the west. There is also one 20-inch DIP water main and one 6-inch CI water main along Meridian Avenue to the east.

We anticipate that the proposed development can be served from either one of the above mentioned active water mains for potable water, irrigation, and fire water. We do not anticipate the need for a water main extension.

P26
There is an existing 12-inch DIP water main running along Michigan Avenue east of the property and another 12-inch DIP main along Lenox Avenue to the west.

We anticipate that the proposed development can be served from either one of the above mentioned water mains for potable water, irrigation, and fire water. We do not anticipate the need for a water main extension.

P25
There is an existing 12-inch DIP water main running along Lenox Avenue to the east of the property, as well as an abandoned 6-inch CI water main. There is also a 6-inch CI water main to the west, running along Lenox Court and one 6-inch CI water main along 17th street to the north.

We anticipate that the proposed development can be served from the existing 12-inch water main to the east for potable water, irrigation, and fire water. The City may request the upsizing of the existing 6-inch CI water main that runs along Lenox Ct. between Lincoln Ct. and 17th Street. This will be confirmed at a later time as the design of the project progresses.

Gravity Sanitary Sewer

In order to be consistent with the City's 2040 Miami Beach Comprehensive Plan, existing infrastructure must meet or be upgraded to meet the permitted levels of service to support the increase in demand proposed by the Development. The Project will participate in the on-going program to repair and replace existing obsolete and undersized water, sewer and stormwater lines. Based on the City of Miami Beach Atlas (*Attachment B)*, the existing sanitary sewer infrastructure abutting the Development consists of the following:

P27
There is an existing 8-inch TC sanitary sewer main running along Jefferson Avenue to the west of the site, and an 8-inch TC sanitary sewer main running along Meridian Avenue east of the site. There is also a 30-inch force main running along Meridian Avenue between Lincoln Lane North and Lincoln Rd.

While there is existing gravity sewers abutting the project site we at this time can't determine if the existing sanitary sewer collection system has sufficient available capacity to accept the sewage load generated by the proposed project. This will be determined at a later date as the design of the project is progressed. New lateral connections into existing clay pipes require the line to be CCTVed prior to connecting. A portion of the existing main, a minimum of 20 LF centered at the point of connection, will need to be replaced with new 8-inch PVC sewer pipe. It is possible that in order to comply with the 2040 Comprehensive Plan, the City may request for the abutting clay pipes to the replaced with PVC C-900 pipes.

P26
There is an existing 8-inch TC sanitary sewer main running across the site on the southern edge of the project area, an 8-inch PVC sanitary sewer main running along Lenox Avenue west of the

site, an 8-inch concrete sanitary sewer main running along Michigan Avenue east of the site. There is also a 42-inch force main running along Michigan Avenue to the east of the property.

While there is existing gravity sewers abutting the project site we at this time can't determine if the existing sanitary sewer collection system has sufficient available capacity to accept the sewage load generated by the proposed project. This will be determined at a later date as the design of the project is progressed. It is possible that in order to comply with the 2040 Comprehensive Plan, the City may request for the abutting clay pipe south of the property to the replaced with PVC C-900 pipe.

P25

There is an existing 8-inch PVC sanitary sewer main running along Lenox Avenue east of the site.

While there is existing gravity sewers abutting the project site we at this time can't determine if the existing sanitary sewer collection system has sufficient available capacity to accept the sewage load generated by the proposed project. This will be determined at a later date as the design of the project is progressed.

Receiving Pump Station

The Miami Beach municipal pump station serving all three parcels is PS#01. The municipal pumping station is currently operating at 2.55 hours as shown below in Figure 4. We utilized the MDWASD online Pump Station Capacity Estimator to determine if the station has the ability to accept the sewage loading from the proposed Developments.

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Search Criteria Detailed Result	
Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	0 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.55	0.00	2.55
↓	30	CD	--	--	--	--

Figure-4: Existing PS Conditions

P27

Based on 43 residential apartment units, 4,726 SF of retail space, 4,726 SF of full service restaurant space, and 77,944 SF of office space, P27 will generate 14,901 gallons per day of sewage.

We inserted this loading into the MDWASD online Pump Station Capacity Estimator, the results are shown in Figure 5 below. The Pump Station Capacity Estimator indicates that the Pump Station will operate at 2.57 hours per day.

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Search Criteria Detailed Result	
Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	14,901 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.55	0.02	2.57
↓	30	CD	--	--	--	--

Figure-5: Proposed Projected Flows from P27 to PS

P26

Based on 46,177 SF of office space, 5,772 SF of retail space and 5,000 SF of full service restaurant, P25 will generate 7,886 gallons per day.

We inserted this loading into the MDWASD online Pump Station Capacity Estimator, the results are shown in Figure 6 below. The Pump Station Capacity Estimator indicates that the Pump Station will operate at 2.56 hours per day.

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Search Criteria Detailed Result	
Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	7,886 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.55	0.01	2.56
↓	30	CD	--	--	--	--

Figure-6: Proposed Projected Flows from P26 to PS

P25

Based on 63,340 SF of office space, 6,565 SF of retail space and 6,100 SF of full service restaurant space, P26 will generate 9,924 gallons per day.

We inserted this loading into the MDWASD online Pump Station Capacity Estimator, the results are shown in Figure 7 below. The Pump Station Capacity Estimator indicates that the Pump Station will operate at 2.56 hours per day.

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Search Criteria Detailed Result	
Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	9,924 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.55	0.01	2.56
↓	30	CD	--	--	--	--

Figure-7: Proposed Projected Flows from P25 to PS

Total

In total, the three developments will generate 32,711 gallons per day. We inserted this loading into the MDWASD online Pump Station Capacity Estimator, the results are shown in Figure 8 below. The Pump Station Capacity Estimator indicates that the Pump Station will operate at 2.59 hours per day. Since the proposed projected flows do not increase the operating time of the Pump Station significantly, we do not anticipate that the City will request improvements to PS#01.

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Search Criteria Detailed Result	
Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	32,711 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.55	0.04	2.59
↓	30	CD	--	--	--	--

Figure-8: Proposed Total Projected Flows to PS

FEMA Flood Map

Based on the current FEMA Flood Insurance Rate Maps (FIRM) *map number* 12086C0317*L*, the sites are located within FEMA Flood Zone AE 8 NGVD (refer to *Attachment D*). If the design of the buildings is based on the current FEMA Flood Map information, the minimum finished floor elevation would be the FEMA base flood elevation plus 1-foot. Further coordination with the City Building Official, the City Flood Plain Manager and the design Architect is required to establish the actual finished elevation.

Please note that there are preliminary FIRM Maps published by FEMA that at this point in time have not been adopted by Miami-Dade County. Per the future FEMA FIRM map number 12086C0317*M*, (dated 02/25/2021 and marked preliminary) the site P27 is located within FEMA Flood Zone AE 6 NAVD while P25 and P26 are located within FEMA Flood Zone AE 7 NAVD. The corresponding FIRM elevation in NGVD is approximately 7.5 and 8.5 feet NGVD respectively. Therefore, if the design of the buildings were to be based on the future FEMA FIRM map the minimum finished floor elevation would be the future FEMA base flood elevation plus 1-foot.

It is not known when the future FEMA FIRM map will be adopted by Miami-Dade County. If the County adopts the future FEMA FIRM maps during the design of the project before a building permit is obtained the City may enforce the ASCE -24 minimum finished floor elevation criteria based on the adopted FIRM map at the time of building permit review.

County Flood Criteria

Based on the Miami-Dade County Average 1999 October Water Table & Miami-Dade County Flood Criteria Map the County Flood Criteria in the general area of the project site is 6-feet NGVD. This implies that no portion of the project site can be lower than 6-feet NGVD. The October ground water elevation, which is utilized for drainage system design purposes, is 2-feet NGVD.

Site Drainage
In order to be consistent with the City's 2040 Miami Beach Comprehensive Plan, existing infrastructure must meet or be upgraded to meet the permitted levels of service to support the increase in demand proposed by the Development. The Project will strive to avoid environmentally detrimental stormwater discharges as set forth by the City. The Project will participate in the on-going program to repair and replace existing obsolete and undersized water, sewer and stormwater lines. We anticipate that the City may request improvements along Jefferson Avenue to upsize the existing 12-inch drainage piping. Refer to *Attachment C for the* City of Miami Beach Sormwater Atlas.

The typical drainage system utilized for projects in this area of the City of Miami Beach is composed of exfiltration trenches and drainage wells. We searched the Florida Department of Environmental Protection (FDEP) database for nearby permitted drainage wells. The wells on record nearest to the project site have recorded capacities ranging from 800 to 1,000 GPM per ft. of drawdown.

We recommend that a reasonable assurance report be prepared. This report will indicate the depth at which reasonable assurance is achieved which is the minimum depth at which stormwater can be discharged in the ground. If it is determined that stormwater can be discharged at a depth (say between 90 and 200 feet) we would recommend installing a test well on the project site to obtain more reliable on-site expected specific well capacity which we would use to recommend the minimum number of drainage wells required for the proposed project.

Gas
TECO Peoples Gas is the gas provider for the area of the project. TECO has confirmed that natural gas service is available in the vicinity. When the project is further along, TECO will require the service load calculations and site plan with proposed meter locations to provide detailed plans of the underground service lines for the project. Please see attached availability letter provided by TECO Peoples Gas in Appendix B.

Telecommunication
AT&T has confirmed that service is available. When the project is further along, AT&T will require more information to provide detailed plans of service the building. AT&T needs to be informed of needed services at least 7 months before the TCO date is due. Please see availability letter provided by AT&T in Appendix B.

A service availability request letter has been sent to Comcast. We are currently waiting to receive the letter.

Power
Florida Power and Light (FPL) is the electrical power provider for the project area. FPL has advised that it is prepared to supply the necessary power required however, exactly how the projects will be served must be further coordinated as the design progresses. Please see availability letter provided by FPL in Appendix B.

Limitations of This Memorandum: This memorandum has been prepared based on available information at the time it was written. The City of Miami Beach may request improvements to the water, sewer and storm drainage systems that are unforeseen at this time. This memorandum is a document that provides readily available information with respect to the site civil engineering that may be required by agencies for the development of these projects. It is not all inclusive and it is not a design document.

Attachments:

Attachment A
Miami Beach Water Atlases

Attachment B
Miami Beach Sewer Atlases

Attachment C
Miami Beach Stormwater Atlases

Attachment D
FEMA FIRM Current and Future Map

Attachment E
Will Serve Letters