Kimley»Horn

November 18, 2019

Josiel Ferrer-Diaz, P.E
City of Miami Beach
Transportation Department
1688 Meridian Avenue, Suite 801
Miami Beach, Florida 33139

Re: Ocean Terrace Streetscape and Right-of-Way Vacation
Traffic Assessment
Miami Beach, Florida

Dear Mr. Ferrer-Diaz:

Kimley-Horn and Associates, Inc. has performed a traffic assessment for the proposed right-of-way vacation along Ocean Terrace. The right-of-way vacation is a part of the proposed Ocean Terrace streetscape project bounded by 75th Street to the north and 73rd Street to the south along Ocean Terrace. Additionally, 73rd, 74th, and 75th Street will be modified between Collins Avenue and Ocean Terrace in Miami Beach, Florida. A conceptual site plan and project location map of the streetscape project is provided in Attachment A-1. Note that the parcels located north of 74th Street, south of 75th Street, and west of Ocean Terrace will also be redeveloped (Ocean Terrace redevelopment) and submitted to the City as a separate Application.

The traffic assessment's methodology is consistent with the requirements outlined by the City of Miami Beach. As part of the Ocean Terrace right-of-way vacation traffic assessment, the existing St. Tropez condominium building current entry gate queuing and potential future valet operations were assessed. The 73rd Street beach drop-off, parking supply, 74th Street-end maneuverability and signage, fire truck maneuverability, and 73rd Street beach drop-off wayfinding was also analyzed. Note, that the maneuverability analyses are provided as part of the site plan submittal package and are not included in this document. Methodology correspondence detailing the study requirements is provided in Attachment B-1. The following sections summarize the analysis.

73RD STREET BEACH DROP-OFF ANALYSIS

The vehicle queuing and drop-off/pick-up stacking was analyzed at the beach drop-off/pick-up area located at the intersection of 73rd Street and Ocean Terrace. Vehicle accumulation data was collected on a typical weekend, September 21st, 2019 (Saturday) between 10:00 A.M. to 2:00 P.M. in one (1) minute intervals to determine maximum queuing. Please note that the City of Miami Beach peak season conversion factors were applied to vehicle drop-off/pick-up data. The appropriate peak season conversion factor of 1.19 was applied to the collected data. Based on the peak season adjusted drop-off/pick-up data, the maximum observed queue of five (5) vehicles at 73rd Street and Ocean Terrace occurred at 11:08 A.M.

The proposed 73rd Street beach drop-off/pick-up area will provide six (6) vehicles of stacking in addition to a by-pass lane. Based on the maximum observed queue of five (5) vehicles and the proposed stacking supply at 73rd Street, it is expected that vehicular queues will not extend past the vehicle drop-off/pick-up area onto through lanes on 73rd Street. Detailed vehicle drop-off/pick-up data is provided in Attachment C-1.

ST. TROPEZ BUILDING

The existing St. Tropez condominium building located at 7330 Ocean Terrace in Miami Beach, Florida is located in the vicinity of the Ocean Terrace right-of-way vacation. It is expected that the modified right-of-way on Ocean Terrace will affect entering/exiting vehicular traffic flow at the St. Tropez. An entry gate analysis was preformed to analyze possible entry gate vehicular queue storage deficiencies and a valet analysis was performed at the St. Tropez to determine potential valet operations if valet were implemented in the future.

Entry Gate Analysis

The St. Tropez condominium building consists of 91 condominium units and a 120-space parking garage with access on Ocean Terrace north of 73rd Street. The entry gate queue analysis was conducted from 4:00 P.M. to 7:00 P.M. on a typical weekday, September 24th, 2019 (Tuesday). Entering and exiting traffic at the entry gate was collected in one (1) minute intervals to determine maximum queuing. Please note that The City of Miami Beach peak season conversion factors were applied to the entry gate data. The appropriate peak season conversion factor of 1.17 was applied to the collected data. Based on the peak season adjusted entry gate data, the maximum observed queue of one (1) vehicle is expected when entering/exiting the St. Tropez building during any one (1) minute interval. Detailed gate entering/exiting data is provided in Attachment D-1.

Potential Future Valet Analysis

The St. Tropez condominium is contemplating a future valet station. The residential building would be served by one (1) potential dedicated valet drop-off/pick-up area. Valet vehicles accessing the residential drop-off/pick-up area will be driven by a valet attendant to the residential parking garage. Three (3) drop-off/pick-up spaces are provided at the residential drop-off/pick-up areas. Attachment E-1 contains a graphic illustrating the drop-off/pick-up area stacking and proposed valet routes to and from the St. Tropez parking garage.

The valet analysis was conservatively prepared for the weekday P.M. peak hour as it generates the most vehicular trips. Valet trip percentage was determined based on vehicle classification data collected at the Axis Brickell residential development located at 79 SW 12th Street, Miami, Florida which determined 10.0 percent (10%) valet trip factor. However, to provide a conservative analysis, it was assumed that 20.0 percent (20.0%) of St. Tropez trips will valet their vehicle. Trip generation calculations for the ST. Tropez condominium building were prepared utilizing the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. Land Use Code (LUC) 222 (Multifamily Housing [High-rise]) was used. Further note that a multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tracts in the vicinity of the project site. The US Census data indicated that there is a 29.1 percent (29.1%) multimodal factor within the vicinity project site. However, to provide a conservative analysis, a multimodal factor of 20.0 percent (20.0%) was applied to the trip generation calculations to account for the urban environment in which the project site is located. The valet trip generation calculations indicate that the St. Tropez will generate a total of seven (7) residential valet trips during the weekday P.M. peak hour. A summary of expected valet trips is contained in Table 1. Detailed trip generation calculations are included in Attachment E-1.

<table>
<tr><th colspan="5">Table 1: Expected St. Tropez Valet Trips</th></tr>
<tr><th>Valet Station Use</th><th>Land Use Served</th><th>In</th><th>Out</th><th>Total</th></tr>
<tr><td colspan="5"><i>P.M. Peak Hour Trips</i></td></tr>
<tr><td>Residential</td><td>91 Condominiums</td><td>19</td><td>13</td><td>32</td></tr>
<tr><th colspan="2">Valet Utilization</th><th>Drop-Off</th><th>Pick-Up</th><th>Total</th></tr>
<tr><td colspan="2">20%</td><td>4</td><td>3</td><td>7</td></tr>
</table>

The valet queuing operations analysis was performed based on the methodology outlined in ITE's *Transportation and Land Development*, 1988. The analysis was performed to determine if valet operations could accommodate vehicular queues without blocking the crosswalks and travel lanes on Ocean Terrace.

Valet Assumptions

The queuing analysis used the multiple-channel waiting line model with Poisson arrivals and exponential service times. The queuing analysis is based on the coefficient of utilization, ρ, which is the ratio of the average vehicle arrival rate over the average service rate multiplied by the number of channels.

Valet attendants for the St. Tropez condominium building will be stationed at the lobby level porte-cochere and will travel to and from the residential parking garage. Valet drop-off trip service time was calculated based on the time it would take a valet parking attendant to obtain and park a dropped-off vehicle within the on-site parking garage. Valet pick-up trip service time was calculated based on the time it would take a valet parking attendant to bring a parked vehicle back to a patron at the valet porte-cochere area for pick-up.

The service time for valet drop-off operations corresponds to the following:

- Exchange between valet attendant and driver (0.5 minutes)
- Valet attendant drives vehicle from valet drop-off/pick-up area to on-site parking garage (1.5 minutes)
- Valet attendant returns to valet station (1.5 minutes)
- Total service rate: 3.5 minutes

The service time for valet pick-up operation corresponds to the following:

- Valet attendant proceeds to the garage to retrieve the vehicle (1.5 minutes)
- Valet attendant drives vehicle from on-site parking garage to the valet drop-off/pick-up area (1.5 minutes)
- Exchange between valet attendant and driver (0.5 minutes)
- Total service rate: 3.5 minutes

The calculated average service time for vehicles valeted from the valet drop-off/pick-up area is 3.5 minutes for valet drop-off and 3.5 minutes for valet pick-up. Detailed travel time calculations are included in Attachment E-1.

If the coefficient of utilization (average service rate/valet attendant service capacity) is greater than one (> 1), the calculation methodology does not yield a finite queue length. This result indicates overcapacity conditions for the valet area. The valet attendant service capacity is the number of total trips a valet attendant can make in a one-hour period multiplied by the number of valet attendants.

The analysis determined the required queue storage, M, which is exceeded P percent of the time. This analysis seeks to ensure that the queue length does not exceed the storage provided at a level of confidence of 95 percent (95%). Three (3) vehicle drop-off/pick-up spaces are provided for valet operations/rideshare.

Valet Analysis

An iterative approach was used to determine the number of valet attendants required to accommodate the St. Tropez valet demand during the analysis hour and ensure that the 95th percentile valet queue does not extend beyond the designated valet service area. Detailed valet analysis worksheets are provided in Attachment E-1.

Results of the highest demand condition valet operations analysis demonstrate that one (1) valet attendant is required during the highest demand peak hour so that the vehicle drop-off/pick-up storage would not be exceeded. However, to be conservative, two (2) valet attendants total are recommended during the peak period to account for multiple vehicles arriving at the same time.

Valet Conclusion

Based on the valet operations analysis performed, it was determined that the 95th percentile valet queues will not extend beyond the valet service area. Based upon the conservative assumptions applied to the highest traffic demand condition, it was estimated that one (1) valet attendant may be required during the P.M. peak period. It should be noted that projected vehicular volumes and estimated valet processing times were conservatively assumed in the analysis. It should additionally be noted that two (2) valet attendants is recommended during the peak period to account for multiple vehicles arriving at the same time. If it is determined that valet processing times can be performed more efficiently and/or actual traffic volumes are lower than projected, a reduced number of valet attendants may be adequate to serve the site.

PARKING SUPPLY

The proposed Ocean Terrace streetscape and right-of-way vacation will modify the parking in the area as follows:

Table 2: Parking Space Quantities

	Existing Parking	After Ocean Terrace Vacation	After Ocean Terrace Vacation with P92 Garage
Ocean Terrace	68	0	0
73rd Street	20	12	12
74th Street	16	0	0
75th Street	15	3	3
P92 Lot (299 72nd Street)	313	313	500
P106 Lot (75th Street and Collins Avenue)	111	111	111
Total	**543**	**439**	**626**

It is expected that there will be 439 parking spaces available within the vicinity of the Ocean Terrace right-of-way vacation after project completion. Please note that the P92 surface parking lot which currently has 313 parking spaces is proposed to be redeveloped into an approximate 500-space parking garage. When the P92 surface lot is redeveloped as a parking garage the proposed parking will exceed the existing parking by approximately 83 parking spaces.

73RD STREET BEACH DROP-OFF WAYFINDING/SIGNAGE PLAN

A public beach vehicle drop-off/pick-up area will be located on 73rd Street. A conceptual wayfinding/signage plan was documented to guide drivers to the 73rd Street vehicle drop-off/pick-up point and the City of Miami Beach P92 surface parking lot where beach patrons are expected to park. Note that the P92 surface parking lot which currently has 313 parking spaces is proposed to be redeveloped into an approximate 500-spaces parking garage. A detailed wayfinding/signage plan is included in Attachment F-1.

CONCLUSION

The 73rd Street drop-off/pick-up queuing analysis determined that a maximum of five (5) vehicles peak season adjusted are expected to queue at the intersection of 73rd Street and Ocean Terrace on a typical weekend. The proposed 73rd Street beach drop-off/pick-up area will provide six (6) vehicles of stacking in addition to a by-pass lane. Based on the maximum observed queue of five (5) vehicles and the proposed stacking supply at 73rd Street, it is expected that vehicular queues will not extend past the vehicle drop-off/pick-up area onto through lanes on 73rd Street.

The entry gate data at the St. Tropez condominium building determined that a peak season adjusted queue of (1) vehicle is expected while entering/exiting the St. Tropez during a typical weekday.

The St. Tropez valet operations analysis performed determined that the 95th percentile valet queues will not extend beyond the valet drop-off/pick-up area. Based upon the conservative assumptions applied to the traffic demand conditions, it was estimated that one (1) valet attendant is required during the highest demand peak hour so that the vehicle drop-off/pick-up storage would not be exceeded. However, to be conservative, two (2) valet attendants total are recommended during the peak period to account for multiple vehicles arriving at the same time.

It is expected that there will be 439 parking spaces available within the vicinity of the Ocean Terrace after completion of the right-of-way vacation. Please note that the P92 surface parking lot which currently has 313 parking spaces is proposed to be redeveloped into an approximate 500-space parking garage which increases the total parking count to 626 parking spaces in the vicinity of the area. When the P92 surface lot is redeveloped as a parking garage the proposed parking will exceed the existing parking by approximately 83 parking spaces.

The 74th Street-end maneuverability and signage, fire truck maneuverability, and 73rd Street maneuverability was also analyzed. Note, that the maneuverability analyses are provided as part of the site plan submittal package and are not included in this document.

If you have any questions regarding this analysis, please feel free to contact me.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Adrian K. Dabkowski, P.E., PTOE
Associate

Copy To: Firat Akcay, City of Miami Beach

No. 78828

11/18/19

Adrian K. Dabkowski, P.E., PTOE
Florida Registration Number 78828
Kimley-Horn and Associates, Inc.
600 North Pine Island Road, Suite 450
Plantation, Florida 33324
CA # 00000696

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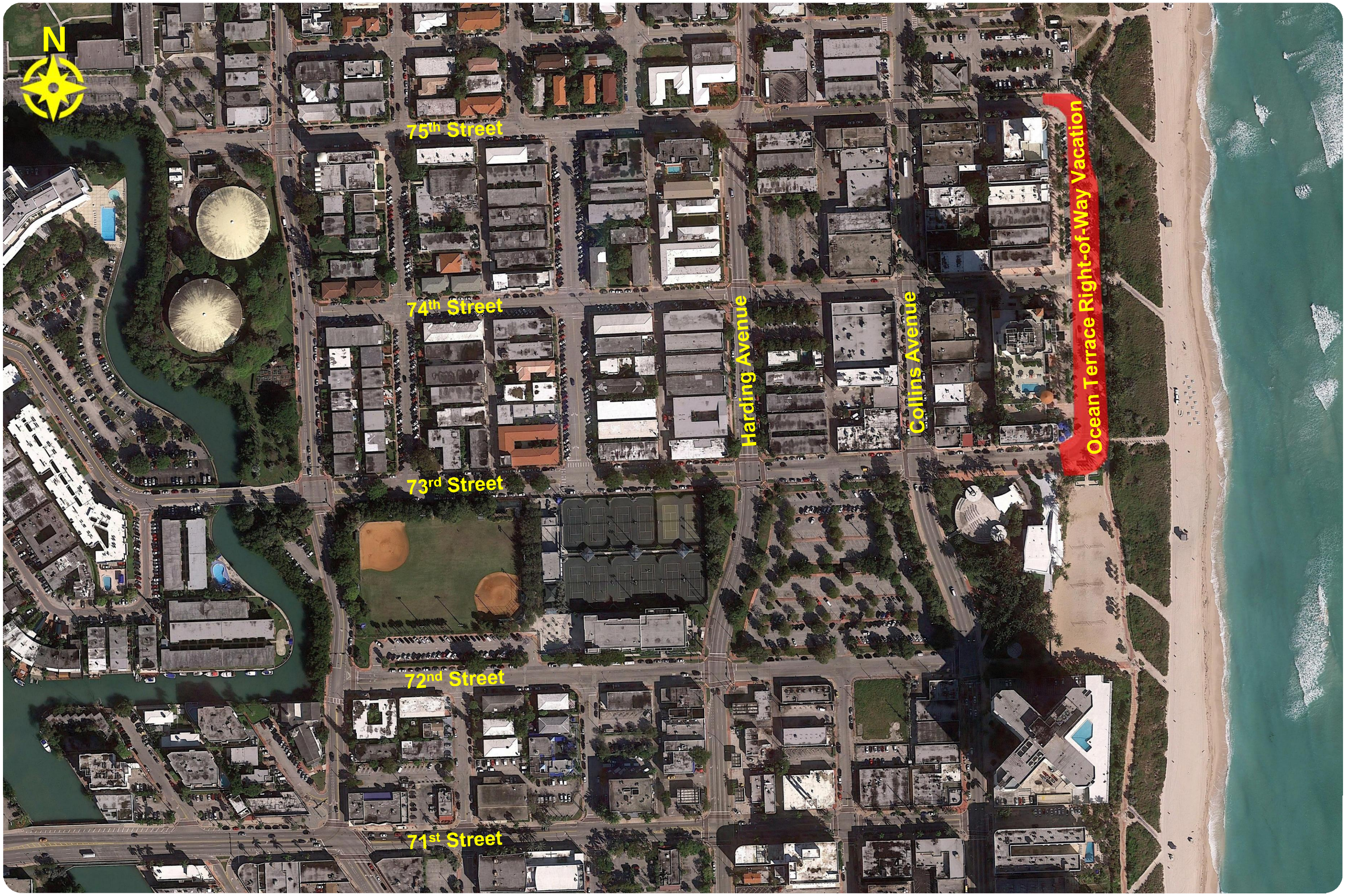
Attachment A-1

Location Map and Conceptual Site Plan


N
75th Street
74th Street
73rd Street
72nd Street
71st Street
Harding Avenue
Collins Avenue
Ocean Terrace Right-of-Way Vacation

Kimley»Horn

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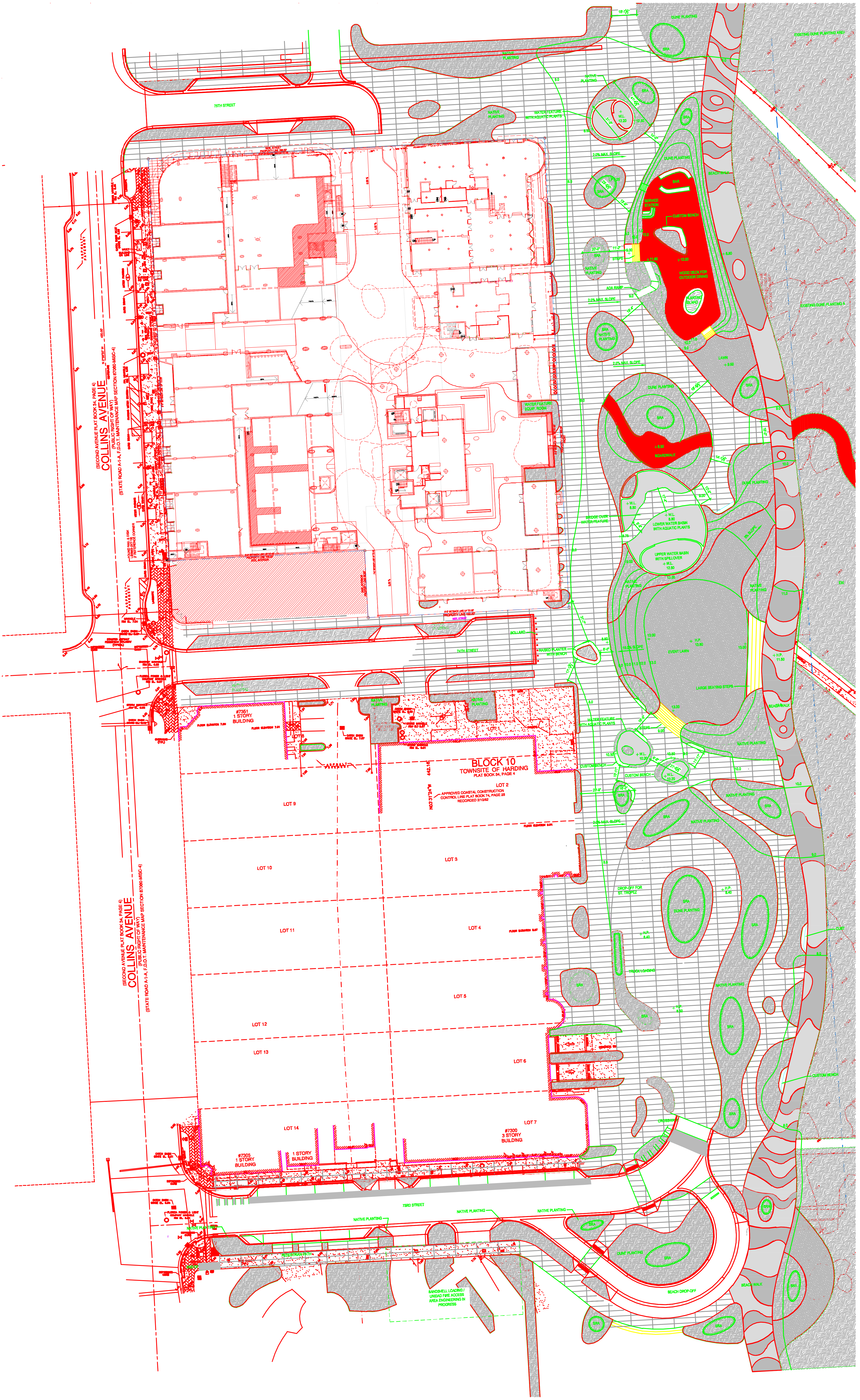
Figure 1
Location Map
Ocean Terrace
Miami Beach, Florida


75TH STREET
NATIVE PLANTING
WATER FEATURE WITH AQUATIC PLANTS
W.L. 12.20
31'-9"
41'-4½"
SRA
14'-0"
2.0% MAX. SLOPE
DUNE PLANTING
BAR
SERVICE STATION
CUSTOM BENCH
WOOD DECK FOR OUTDOOR DINING
PLANTING ISLAND
BEACH WALK
STEPS
ADA RAMP
LAWN
23'-6½"
13'-8"
20'-0"
11'-2"
19'-4"
16'-8½"
BOARDWALK
WATER FEATURE SOUND ROOM
BRIDGE OVER WATER FEATURE
LOWER WATER BASIN WITH AQUATIC PLANTS
UPPER WATER BASIN WITH SPILLOVER
W.L. 8.80
W.L. 12.50
3% SLOPE
EVENT LAWN
H.P. 13.80
H.P. 11.50
16.0% SLOPE
LARGE SEATING STEPS
RAISED PLANTER WITH BENCH
BOLLARD
74TH STREET
34'-7"
8'-5"
17'-1½"
CUSTOM BENCH
W.L. 10.20
21'-6½"
16'-5"
6'-8"
10'-11"
16'-2"
23'-9"
11'-11"
DROP-OFF FOR ST. TROPEZ
H.P. 8.40
TRUCK LOADING
CROSSWALK
(SECOND AVENUE PLAT BOOK 34, PAGE 4)
COLLINS AVENUE
(PUBLIC RIGHT OF WAY)
(STATE ROAD A-1-A, F.D.O.T. MAINTENANCE MAP SECTION 87060-MISC-4)
N 2°58'50" W
420.00'
FOUND NAIL & DISK LB3653 (3/7/19) 2' REFERENCE CORNER
BLOCK 10
TOWNSITE OF HARDING
PLAT BOOK 34, PAGE 4
442.16'
N03°31'24"W
APPROVED COASTAL CONSTRUCTION CONTROL LINE PLAT BOOK 74, PAGE 25 RECORDED 2/10/82
FLOOR ELEVATION 9.04
#7351 1 STORY BUILDING
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
#7305 1 STORY BUILDING
1 STORY BUILDING
#7300 3 STORY BUILDING
73RD STREET
NATIVE PLANTING
BANDSHELL LOADING / UNIDAD FIRE ACCESS AREA ENGINEERING IN PROGRESS
DUNE PLANTING
BEACH DROP-OFF
BEACH WALK
EXISTING DUNE PLANTING
CUSTOM BENCH

Attachment B-1

Methodology Correspondence

Iliev, Alex

From: Ferrer, Josiel <JOSIELFERRER@miamibeachfl.gov>
Sent: Thursday, November 7, 2019 10:10 AM
To: Dabkowski, Adrian
Cc: Akcay, Firat; 'Grace Dillon'; Iliev, Alex
Subject: RE: Ocean Terrace Redevelopment and Right-of-Way Vacation | Miami-Dade County Traffic Assessment Methodology

Categories: External

Adrian,

I am ok with this. I will be sending it to the County.

Thank You,

MIAMIBEACH
RISING
ABOVE

Josiel Ferrer-Diaz, P.E.
Assistant Director
Transportation and Mobility Department
1688 Meridian Avenue, Suite 801, Miami Beach, FL 33139
Tel: 305-673-7000, ext 26831
Mobile: 786-261-4147

From: Dabkowski, Adrian <Adrian.Dabkowski@Kimley-horn.com>
Sent: Wednesday, November 6, 2019 3:02 PM
To: Ferrer, Josiel <JOSIELFERRER@miamibeachfl.gov>
Cc: Akcay, Firat <FiratAkcay@miamibeachfl.gov>; 'Grace Dillon' <grace@clarocorp.com>; Iliev, Alex <Alex.Iliev@kimley-horn.com>
Subject: Ocean Terrace Redevelopment and Right-of-Way Vacation | Miami-Dade County Traffic Assessment Methodology

[THIS MESSAGE COMES FROM AN EXTERNAL EMAIL - USE CAUTION WHEN REPLYING AND OPENING LINKS OR ATTACHMENTS]

Good afternoon Josiel,

It was great seeing you earlier today. The Miami-Dade County Traffic Assessment for Ocean Terrace is attached. The methodology includes both the redevelopment and right-of-way vacation. Based on the discussions we had earlier today we added a parking supply section, fire truck maneuverability, and wayfinding/signage plan for the Ocean Terrace right-of-way vacation portion.

Thank you
Adrian

Kimley»Horn

MEMORANDUM

To: Josiel Ferrer-Diaz, P.E.
City of Miami Beach

Cc: Firat Akcay, City of Miami Beach

From: Adrian Dabkowski, P.E., PTOE
Alex Iliev, E.I.

Date: November 6, 2019

Subject: Ocean Terrace Redevelopment and Right-of-Way Vacation Traffic Assessment Methodology

The purpose of this memorandum is to summarize the traffic assessment methodology for the Ocean Terrace redevelopment bounded by 75th Street to the north, 74rd Street to the south, Ocean Terrace to the east, and Collins Avenue to the west in Miami Beach, Florida. Currently, the existing development consists of 16 condominium units, 181 hotel rooms, and 32,149 square feet of retail space. The site proposed for redevelopment consists 62 condominium units, 110 hotel rooms, 20,000 square feet of retail space, a 456-seat restaurant, and a 1,600 square-foot bar. Please note that the site was previously approved (December 17, 2017) for redevelopment which included 58 condominium units, 78 hotel rooms, 18,022 square feet of retail space, a 288-seat restaurant, and a 4,320 square-foot bar. A project location map and conceptual site plan are provided in Attachment A.

Additionally, Ocean Terrace right-of-way is proposed to be vacated as part of a streetscape mobility project. A conceptual site plan of the streetscape mobility project is provided in Attachment A. The following sections summarize our proposed methodology.

OCEAN TERRACE REDEVELOPMENT

Redevelopment Trip Generation

Trip generation calculations for the proposed redevelopment were performed using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 9th Edition. The trip generation for the existing development was determined using ITE Land Use Codes (LUC) 220 (Apartment), 310 (Hotel), and 820 (Shopping Center). LUC 230 (Residential Condominiums/Townhouses), 310 (Hotel), 820 (Shopping Center), 931 (Quality Restaurant), and 925 (Drinking Place) were utilized for the proposed redevelopment. Project trips were estimated for the weekday A.M. and P.M. peak hours.

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tracts in the vicinity of the redevelopment. A multimodal factor of 29.1 percent (29.1%) was calculated using the Census data however, to provide a conservative analysis a multimodal factor of 20 percent (20%) was applied to the trip generation calculations to account for the urban environment in which the project site is located. It is expected that residents, patrons, and guests will choose to walk, bike, or use public transit to and from the proposed redevelopment.

Internal capture is expected between the complementary land uses within the project. Internal capture trips for the project were determined based upon methodology contained in the ITE's *Trip Generation Handbook*, 3rd Edition. An internal capture rate of 2.7 percent (2.7%) was calculated for the existing development during the A.M. peak hour and 10.2 percent (10.2%) for the P.M. peak hour. An internal capture rate of 6.0 percent (6.0%) is expected for the proposed redevelopment during the A.M. peak hour and 39.1 percent (39.1%) during the P.M. peak hour.

Pass-by capture trip rates were determined based on average rates provided in the ITE's *Trip Generation Handbook*, 3rd Edition. The pass-by rate for the retail land use is 34.0 percent (34.0%) during the P.M. peak hour and the pass-by-rate for the restaurant land use is 44.0 percent (44.0%)

Table 1 shows a summary of the existing trip generation vehicular peak hour trips, previously approved trip generation vehicular peak hour trips, and the proposed redevelopment trip generation vehicular peak hour trips. The project is expected to result in a reduction of 51 vehicle trips during the A.M. peak hour and a reduction of 69 vehicle trips during the P.M. peak hour when comparing the proposed redevelopment program to the existing development program. Detailed trip generation calculations are included in Attachment B.

Table 1: Trip Generation Summary

Development Plan	A.M. Peak Hour			P.M. Peak Hour		
	In	Out	Total	In	Out	Total
Existing Development	84	61	145	115	113	228
Previously Approved Redevelopment	34	42	76	87	62	149
Proposed Redevelopment	44	50	94	93	66	159
Net Change (proposed compared to existing)	**-40**	**-11**	**-51**	**-22**	**-47**	**-69**

Maneuverability Analysis

A maneuverability analysis for the site access, parking garage, and loading vehicle access will be performed utilizing Transoft Solutions' *AutoTURN* software. Deficiencies related to maneuverability, traffic flow, and vehicular conflicts will be documented in a technical memorandum.

Transportation Demand Management Strategies

Transportation Demand Management (TDM) strategies will be developed to reduce the impact of project traffic on the surrounding roadway network and promote trip reduction. Typical measures promote bicycling and walking, encourage car/vanpooling and offer alternatives to the typical workday hours.

OCEAN TERRACE RIGHT-OF-WAY VACATION

The following analyses will be prepared as part of the Ocean Terrace right-of-way vacation.

73rd Street Drop-Off Analysis

A vehicle queuing and drop-off/pick-up stacking analysis will be prepared at the existing intersection of 73rd Street and Ocean Terrace. Vehicle accumulations data will be conducted on a Saturday from 10 A.M. to 2 P.M. in one (1) minute intervals. The proposed drop-off/pick-up vehicle accumulation will be projected based on the existing accumulation data collected.

St. Tropez Building Entry Analysis

An entry gate analysis will be prepared for parking garage entry points. The entry gate queuing analysis will be prepared for the St. Tropez building from 4 P.M. to 7 P.M. on a typical weekday (Tuesday, Wednesday, or Thursday) in one (1) minute intervals. The purpose of this analysis is to determine any future queue storage deficiencies at the entry gates and provide preliminary recommendations for mitigating these deficiencies.

Currently, no valet operations are present at the St. Tropez building however, a valet analysis will be prepared if future valet operations will be implemented.

Parking Supply

The existing/currently parking supply on Ocean Terrace will be provided. The proposed parking in the area of the Ocean Terrace redevelopment and proposed Ocean Terrace right-of-way vacation will also be documented.

74th Street-End Maneuverability and Signage

A maneuverability analysis for the 74th Street-end vehicle access will be performed utilizing Transoft Solutions' *AutoTURN* software. Deficiencies related to maneuverability, traffic flow, and vehicular conflicts will be documented in a technical memorandum. Proposed signage for 74th Street operating as a local access only roadway will also be provided.

Fire Truck Maneuverability

A maneuverability analysis for the fire truck route along Ocean Terrace and for the will be performed utilizing Transoft Solutions' *AutoTURN* software. Deficiencies related to maneuverability, traffic flow, and vehicular conflicts will be documented in a technical memorandum.

Wayfinding/Signage Plan

A conceptual wayfinding and signage plan for the 73rd Street drop-off and City of Miami Beach's 73rd Street parking lot will be prepared. The conceptual plan will be prepared in 11"x17" format and overlaid on an aerial.

DOCUMENTATION

The results of the trip generation analysis, maneuverability analysis, TDM strategies, 73rd Street and Ocean Terrace vehicle drop-off/pick-up queuing analysis, gate entry analysis at the St. Tropez building, parking supply, 74th Street-end maneuverability, fire truck maneuverability, and wayfinding/signage plan will be summarized in a technical letter. The letter will summarize the analysis assumptions, results, and will include supporting documents.

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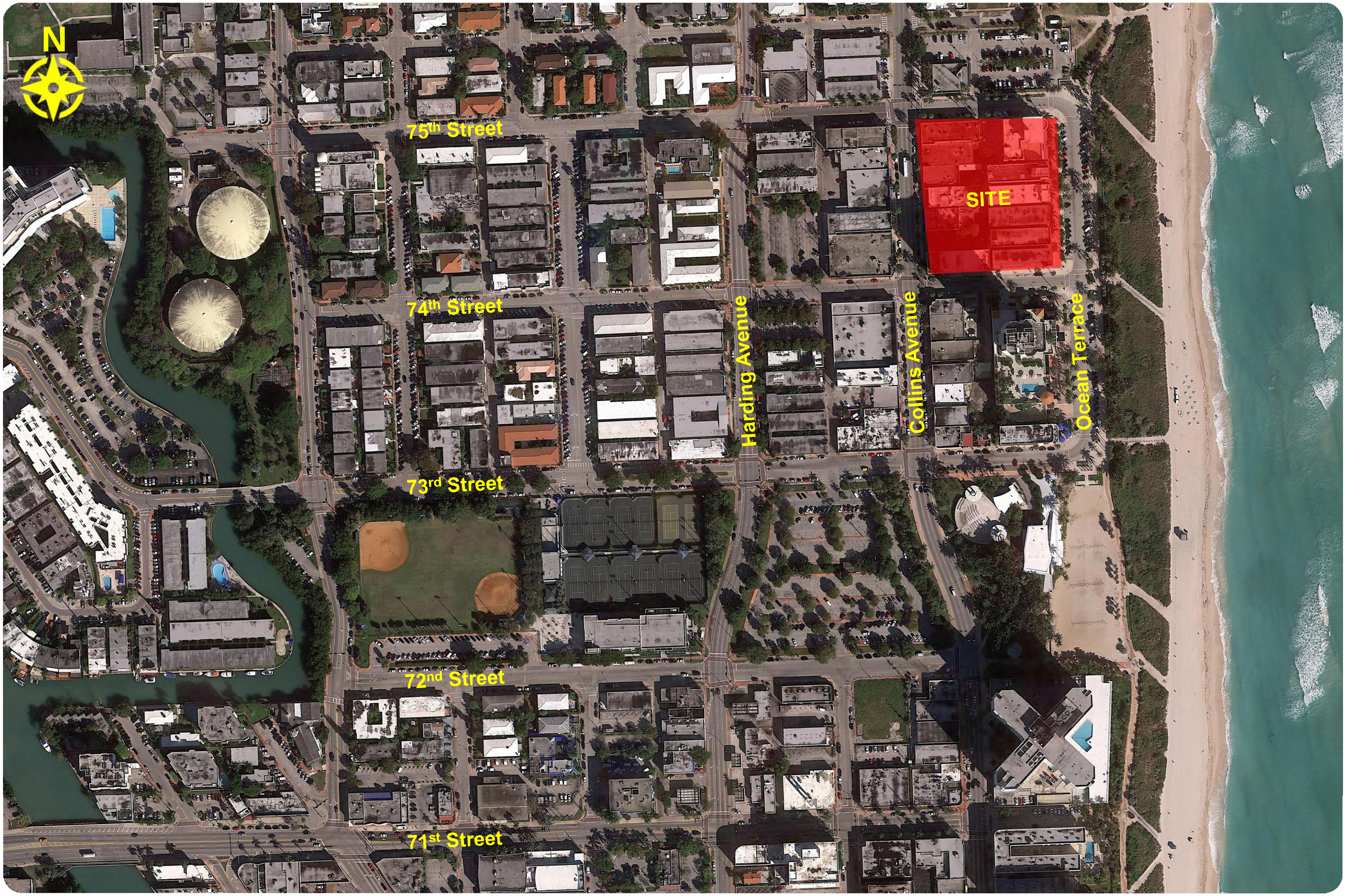
Attachment A

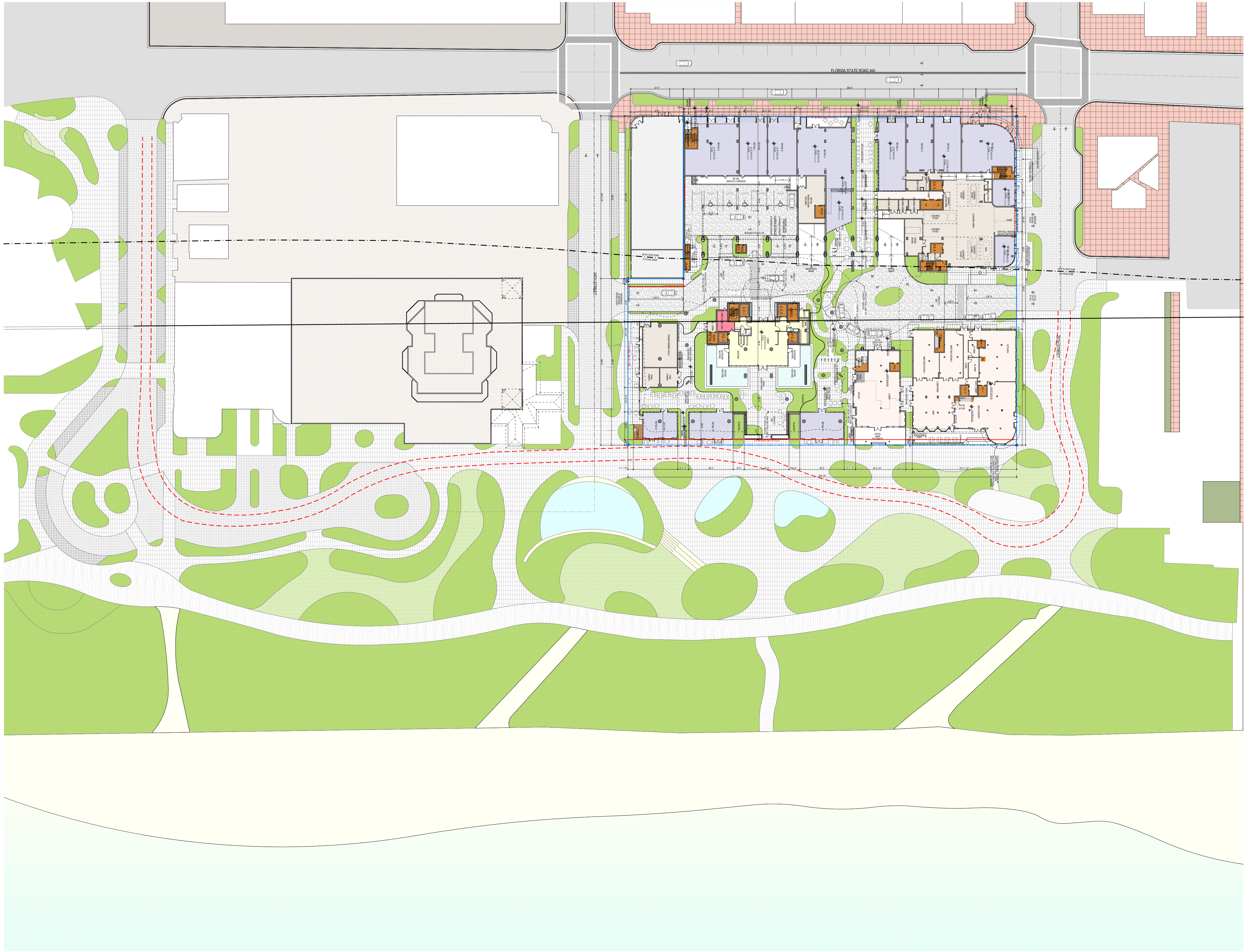
Project Location Map and Conceptual Site Plan


N
75th Street
74th Street
73rd Street
72nd Street
71st Street
Harding Avenue
Collins Avenue
Ocean Terrace
SITE

Kimley»Horn

© 2019

Figure 1
Location Map
Ocean Terrace
Miami Beach, Florida


FLORIDA STATE ROAD A1A
74TH STREET
75TH STREET
RESIDENTS & VISITORS ENTRY & EXIT
HOTEL ENTRY & EXIT
KITCHEN
ARCHITECTURAL EYEBROW ABOVE
AE 8 FLOOD ZONE
X FLOOD ZONE
OCEAN FRONT OVERLAY HISTORIC STRUCTURE ALLOWED TO ENCROACH INTO REQUIRED SETBACKS
0'-0" SETBACK LINE UP TO 50'
N

FIRE TRUCK PATH

1 SITE PLAN
SCALE: 1/32" = 1'-0"

These Design And Drawings Are The Copyrighted Property Of Revuelta Architecture International P.A. and May Not Be Reproduced Except with Specific Written Consent of the Architect.
The Contractor Must Check And Verify all Dimensions Of The Job And Be Responsible For Same, Reporting Any Discrepancies to The Architects Before Commencing work. Drawings Not to be Scaled.
File: BIM Server: RAI - BIM Server_1 - BIM Server 21/1612_OCEAN TERRACE/1612_OCEAN_TERRACE-SD-ADD AREA - By adrouet - Date: 8/13/2019

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CORAL GABLES, FL 33134
TELEPHONE: 305/446-7799
FAX: 305/446-9275

OCEAN TERRACE

7400 Ocean Terrace
Miami Beach, FL 33141

A mixed used project by
Ocean Terrace Holdings
1035 North Miami Av.
Miami, FL 33136
305.324.4700

Design & Executive Architect

REVUELTA
Architecture International
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Luis O. Revuelta
AR-0007972

Date
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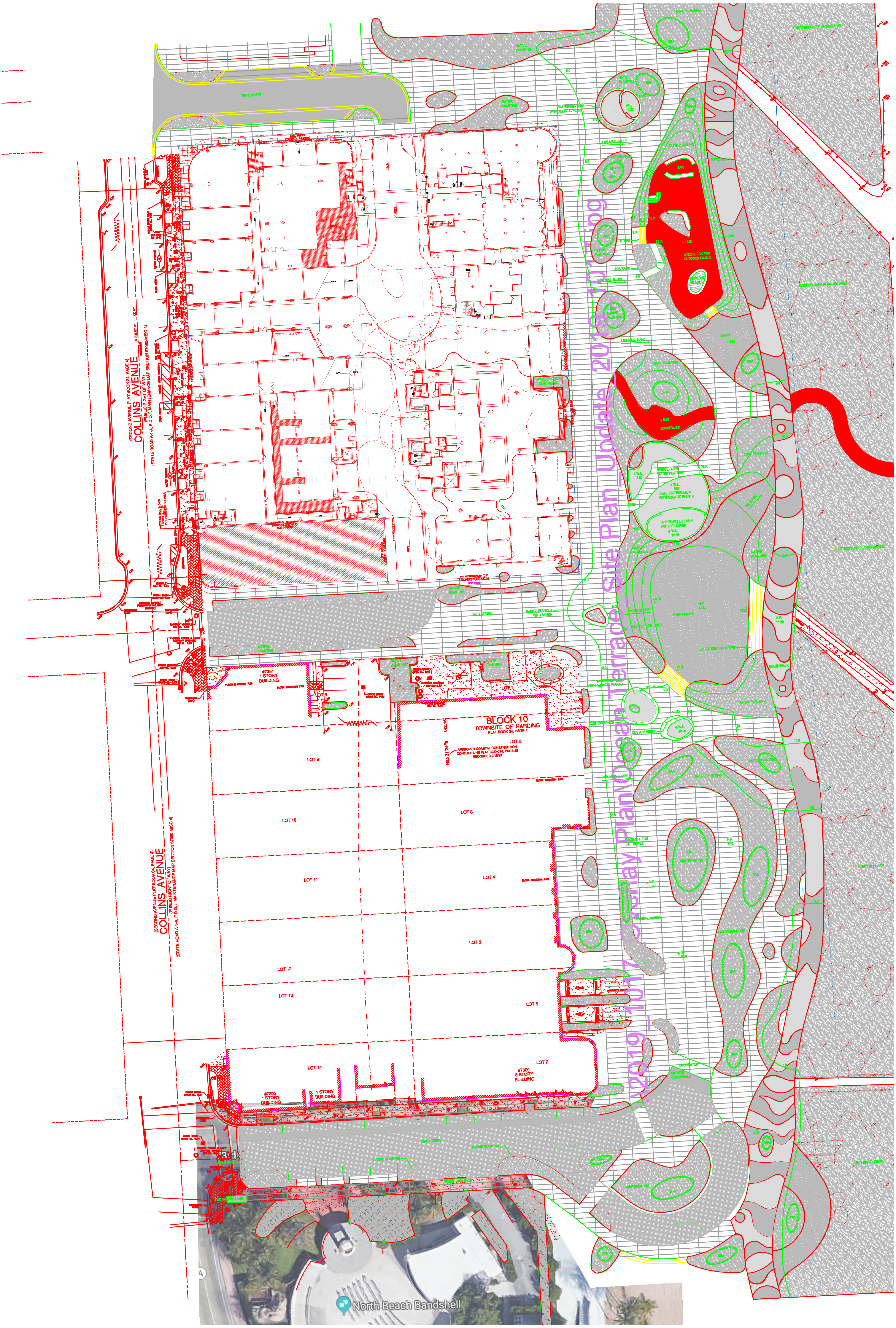
44.1


\2019_1017_Overlay Plan\Ocean Terrace - Site Plan Update 2019-1017.jpg
(SECOND AVENUE PLAT BOOK 34, PAGE 4)
COLLINS AVENUE
(PUBLIC RIGHT OF WAY)
(STATE ROAD A-1-A, F.D.O.T. MAINTENANCE MAP SECTION 87060-MISC-4)
75TH STREET
74TH STREET
73RD STREET
BLOCK 10
TOWNSITE OF HARDING
PLAT BOOK 34, PAGE 4
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
#7351
1 STORY
BUILDING
#7305
1 STORY
BUILDING
1 STORY
BUILDING
#7300
3 STORY
BUILDING
APPROVED COASTAL CONSTRUCTION CONTROL LINE PLAT BOOK 74, PAGE 25 RECORDED 2/10/82
442.15
N03°31'24"W
WOOD DECK FOR OUTDOOR DINING
BAR
BOARDWALK
DUNE PLANTING
NATIVE PLANTING
WATER FEATURE WITH AQUATIC PLANTS
EVENT LAWN
LARGE SEATING STEPS
LOWER WATER BASIN WITH AQUATIC PLANTS
UPPER WATER BASIN WITH SPILL OVER
RAISED PLANTER WITH BENCH
CUSTOM BENCH
DROP OFF FOR ST. TROPEZ
TRUCK LOADING
2.0% MAX. SLOPE
ADA RAMP
STEPS
LAWN
BEACHWALK
EXISTING DUNE PLANTING AREA
North Beach Bandshell

Attachment B

Trip Generation Calculations

AM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	32.149	ksf	62%	38%	48	30	78	20.0%	16	38	24	62	3.2%	2	36	24	60	0.0%	0	36	24	60
	2	Hotel	9	310	181	room	59%	41%	57	39	96	20.0%	19	46	31	77	2.6%	2	46	29	75	0.0%	0	46	29	75
	3	Apartment	9	220	16	du	20%	80%	2	10	12	20.0%	2	2	8	10	0.0%	0	2	8	10	0.0%	0	2	8	10
	4																									
G	5																									
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
1	11																									
	12																									
	13																									
	14																									
	15																									
								Total:	107	79	186	20.0%	37	86	63	149	2.7%	4	84	61	145	0.0%	0	84	61	145

ITE Land Use Code	Rate or Equation
820	LN(Y) = 0.61*LN(X)+2.24
310	Y=0.53(X)
220	Y=0.49*(X)+3.73

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	20	ksf	62%	38%	12	7	19	20.0%	4	10	5	15	13.3%	2	9	4	13	0.0%	0	9	4	13
	2	Residential/Condominium/Townhouse	9	230	62	du	17%	83%	6	29	35	20.0%	7	5	23	28	3.6%	1	5	22	27	0.0%	0	5	22	27
	3	Hotel	9	310	110	room	59%	41%	34	24	58	20.0%	12	27	19	46	0.0%	0	27	19	46	0.0%	0	27	19	46
	4	Quality Restaurant	9	931	456	seat	50%	50%	7	7	14	20.0%	3	5	6	11	27.3%	3	3	5	8	0.0%	0	3	5	8
G	5	Drinking Place	9	925	1.6	ksf	*	*	0	0	0	20.0%	0	0	0	0	27.3%	0	0	0	0	0.0%	0	0	0	0
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
2	11																									
	12																									
	13																									
	14																									
	15																									
								Total:	59	67	126	20.0%	26	47	53	100	6.0%	6	44	50	94	0.0%	0	44	50	94

ITE Land Use Code	Rate or Equation
820	Y=0.96(X)
230	LN(Y) = 0.8*LN(X)+0.26
310	Y=0.53(X)
931	Y=0.03(X)
925	Y=*(X)

	IN	OUT	TOTAL
NET NEW TRIPS	**-40**	**-11**	**-51**

Note: (1) Drinking Place assumed to be closed during the A.M. peak hour as ITE does not provide a trip generation rate for this time period.

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9/6/2019,8:23 AM

PM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	32.149	ksf	48%	52%	134	146	280	20.0%	56	107	117	224	7.6%	17	102	105	207	34.0%	70	68	69	137
	2	Hotel	9	310	181	room	51%	49%	56	53	109	20.0%	22	45	42	87	9.2%	8	39	40	79	0.0%	0	39	40	79
	3	Apartment	9	220	16	du	65%	35%	17	9	26	20.0%	5	14	7	21	42.9%	9	8	4	12	0.0%	0	8	4	12
	4																									
G	5																									
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
1	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code			Rate or Equation			Total:	207	208	415	20.0%	83	166	166	332	10.2%	34	149	149	298	23.5%	70	115	113	228

ITE Land Use Code	Rate or Equation
820	LN(Y) = 0.67*LN(X)+3.31
310	Y=0.6(X)
220	Y=0.55*(X)+17.65

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	20	ksf	48%	52%	98	106	204	20.0%	41	78	85	163	35.0%	57	56	50	106	34.0%	36	37	33	70
	2	Residential/Condominium/Townhouse	9	230	62	du	67%	33%	27	14	41	20.0%	8	22	11	33	63.6%	21	8	4	12	0.0%	0	8	4	12
	3	Hotel	9	310	110	room	51%	49%	34	32	66	20.0%	13	27	26	53	24.5%	13	20	20	40	0.0%	0	20	20	40
	4	Quality Restaurant	9	931	456	seat	67%	33%	80	39	119	20.0%	24	64	31	95	45.0%	43	40	12	52	44.0%	23	22	7	29
G	5	Drinking Place	9	925	1.6	ksf	66%	34%	12	6	18	20.0%	4	9	5	14	45.0%	6	6	2	8	0.0%	0	6	2	8
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
2	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code			Rate or Equation			Total:	251	197	448	20.0%	90	200	158	358	39.1%	140	130	88	218	27.1%	59	93	66	159

ITE Land Use Code	Rate or Equation
820	LN(Y) = 0.67*LN(X)+3.31
230	LN(Y) = 0.82*LN(X)+0.32
310	Y=0.6(X)
931	Y=0.26(X)
925	Y=11.34(X)

	IN	OUT	TOTAL
NET NEW TRIPS	**-22**	**-47**	**-69**

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Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY (EXISTING)

GROSS TRIP GENERATION

INPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	38	24	107	117
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	2	8	14	7
Hotel	46	31	45	42
	86	63	166	166

INTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	2	0	5	12
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	0	0	6	3
Hotel	0	2	6	2
	2	2	17	17

OUTPUT

Total % Reduction	*2.7%*	*10.2%*
Office		
Retail	3.2%	7.6%
Restaurant		
Cinema/Entertainment		
Residential	0.0%	42.9%
Hotel	2.6%	9.2%

EXTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	36	24	102	105
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	2	8	8	4
Hotel	46	29	39	40
	84	61	149	149

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY (PROPOSED)

GROSS TRIP GENERATION

INPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	10	5	78	85
Restaurant	5	6	73	36
Cinema/Entertainment	0	0	0	0
Residential	5	23	22	11
Hotel	27	19	27	26
	47	53	200	158

INTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	1	1	22	35
Restaurant	2	1	27	22
Cinema/Entertainment	0	0	0	0
Residential	0	1	14	7
Hotel	0	0	7	6
	3	3	70	70

OUTPUT

Total % Reduction	*6.0%*	*39.1%*
Office		
Retail	13.3%	35.0%
Restaurant	27.3%	45.0%
Cinema/Entertainment		
Residential	3.6%	63.6%
Hotel	0.0%	24.5%

EXTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	9	4	56	50
Restaurant	3	5	46	14
Cinema/Entertainment	0	0	0	0
Residential	5	22	8	4
Hotel	27	19	20	20
	44	50	130	88

AM PEAK HOUR TRIP GENERATION

PREVIOUSLY APPROVED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	18.022	ksf	62%	38%	11	6	17	20.0%	3	9	5	14	7.1%	1	9	4	13	0.0%	0	9	4	13
	2	Residential/Condominium/Townhouse	9	230	58	du	17%	83%	6	27	33	20.0%	7	5	22	27	3.7%	1	5	21	26	0.0%	0	5	21	26
	3	Hotel	9	310	78	room	59%	41%	24	17	41	20.0%	8	19	14	33	0.0%	0	19	14	33	0.0%	0	19	14	33
	4	Quality Restaurant	9	931	288	seat	50%	50%	4	4	8	20.0%	2	3	3	6	33.3%	2	1	3	4	0.0%	0	1	3	4
G	5	Drinking Place	9	925	4.32	ksf	*	*	0	0	0	20.0%	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
2	11																									
	12																									
	13																									
	14																									
	15																									
								Total:	45	54	99	20.0%	20	36	44	80	5.0%	4	34	42	76	0.0%	0	34	42	76

ITE Land Use Code	Rate or Equation
820	Y=0.96(X)
230	LN(Y) = 0.8*LN(X)+0.26
310	Y=0.53(X)
931	Y=0.03(X)
925	Y=*(X)

Note: (1) Drinking Place assumed to be closed during the A.M. peak hour as ITE does not provide a trip generation rate for this time period.

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PM PEAK HOUR TRIP GENERATION

PREVIOUSLY APPROVED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Shopping Center	9	820	18.022	ksf	48%	52%	91	99	190	20.0%	38	73	79	152	32.9%	50	54	48	102	34.0%	35	35	32	67
	2	Residential/Condominium/Townhouse	9	230	58	du	67%	33%	25	13	38	20.0%	8	20	10	30	60.0%	18	8	4	12	0.0%	0	8	4	12
	3	Hotel	9	310	78	room	51%	49%	24	23	47	20.0%	9	19	19	38	23.7%	9	14	15	29	0.0%	0	14	15	29
	4	Quality Restaurant	9	931	288	seat	67%	33%	50	25	75	20.0%	15	40	20	60	43.4%	26	25	9	34	44.0%	15	14	5	19
G	5	Drinking Place	9	925	4.32	ksf	66%	34%	32	17	49	20.0%	10	25	14	39	43.4%	17	16	6	22	0.0%	0	16	6	22
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
2	11																									
	12																									
	13																									
	14																									
	15																									
								Total:	222	177	399	20.0%	80	177	142	319	37.6%	120	117	82	199	25.1%	50	87	62	149

ITE Land Use Code	Rate or Equation
820	LN(Y) = 0.67*LN(X)+3.31
230	LN(Y) = 0.82*LN(X)+0.32
310	Y=0.6(X)
931	Y=0.26(X)
925	Y=11.34(X)

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY (PREVIOUSLY APPROVED)

GROSS TRIP GENERATION

	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
INPUT	Office	0	0	0	0
	Retail	9	5	73	79
	Restaurant	3	3	65	34
	Cinema/Entertainment	0	0	0	0
	Residential	5	22	20	10
	Hotel	19	14	19	19
		36	44	177	142

INTERNAL TRIPS

	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0
	Retail	0	1	19	31
	Restaurant	2	0	24	19
	Cinema/Entertainment	0	0	0	0
	Residential	0	1	12	6
	Hotel	0	0	5	4
		2	2	60	60

OUTPUT	*Total % Reduction*	*5.0%*	*37.6%*
	Office		
	Retail	7.1%	32.9%
	Restaurant	33.3%	43.4%
	Cinema/Entertainment		
	Residential	3.7%	60.0%
	Hotel	0.0%	23.7%

EXTERNAL TRIPS

	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
OUTPUT	Office	0	0	0	0
	Retail	9	4	54	48
	Restaurant	1	3	41	15
	Cinema/Entertainment	0	0	0	0
	Residential	5	21	8	4
	Hotel	19	14	14	15
		34	42	117	82

U.S. Census Bureau

AMERICAN FactFinder

B08301

MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

(226+15+11)/865=29.1%

	Census Tract 39.09, Miami-Dade County, Florida	
	Estimate	**Margin of Error**
Total:	865	+/-197
Car, truck, or van:	484	+/-121
Drove alone	458	+/-123
Carpooled:	26	+/-23
In 2-person carpool	26	+/-23
In 3-person carpool	0	+/-13
In 4-person carpool	0	+/-13
In 5- or 6-person carpool	0	+/-13
In 7-or-more-person carpool	0	+/-13
Public transportation (excluding taxicab):	226	+/-87
Bus or trolley bus	226	+/-87
Streetcar or trolley car (carro publico in Puerto Rico)	0	+/-13
Subway or elevated	0	+/-13
Railroad	0	+/-13
Ferryboat	0	+/-13
Taxicab	17	+/-17
Motorcycle	0	+/-13
Bicycle	15	+/-22
Walked	11	+/-18
Other means	28	+/-29
Worked at home	84	+/-58

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic

Attachment C-1

73rd Street Drop-off/Pick-up Data

73rd STREET MIAMI BEACH DROP-OFF/PICKING-UP DATA

Maximum Vehicle Queue	Peak Season Correction Factor	**Peak Season Adjusted Queue**
4	1.19	**5**

Location: 73rd St & Ocean Terra **Day:** Saturday **NOTE:** It was raining intermittent showers during data collection
City: Miami Beach **Date:** 09/21/2019 ▨ = Highest Demand One (1) Minute Interval

Time	Dropping-Off	Picking-Up	Notes	Time	Dropping-Off	Picking-Up	Notes	Time	Dropping-Off	Picking-Up	Notes	Time	Dropping-Off	Picking-Up	Notes
10:00 AM				**11:00 AM**				**12:00 PM**		1		**1:00 PM**			
10:01 AM				**11:01 AM**				**12:01 PM**		1		**1:01 PM**			
10:02 AM				**11:02 AM**				**12:02 PM**		1		**1:02 PM**			
10:03 AM				**11:03 AM**				**12:03 PM**				**1:03 PM**			
10:04 AM				**11:04 AM**				**12:04 PM**		1		**1:04 PM**			
10:05 AM				**11:05 AM**				**12:05 PM**	1			**1:05 PM**			
10:06 AM				**11:06 AM**				**12:06 PM**				**1:06 PM**			
10:07 AM				**11:07 AM**				**12:07 PM**				**1:07 PM**			
10:08 AM				**11:08 AM**	2	2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:08 PM**				**1:08 PM**			
10:09 AM				**11:09 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:09 PM**				**1:09 PM**			
10:10 AM				**11:10 AM**	1	2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:10 PM**				**1:10 PM**			
10:11 AM				**11:11 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:11 PM**				**1:11 PM**			
10:12 AM				**11:12 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:12 PM**				**1:12 PM**			
10:13 AM				**11:13 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:13 PM**				**1:13 PM**			
10:14 AM				**11:14 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:14 PM**				**1:14 PM**			
10:15 AM				**11:15 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:15 PM**				**1:15 PM**			
10:16 AM				**11:16 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:16 PM**				**1:16 PM**			
10:17 AM				**11:17 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:17 PM**				**1:17 PM**			
10:18 AM				**11:18 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:18 PM**				**1:18 PM**			
10:19 AM				**11:19 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:19 PM**				**1:19 PM**			
10:20 AM				**11:20 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:20 PM**				**1:20 PM**			
10:21 AM				**11:21 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:21 PM**				**1:21 PM**			
10:22 AM				**11:22 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:22 PM**				**1:22 PM**			
10:23 AM				**11:23 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:23 PM**				**1:23 PM**			
10:24 AM				**11:24 AM**		2	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:24 PM**				**1:24 PM**			
10:25 AM				**11:25 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:25 PM**				**1:25 PM**			
10:26 AM				**11:26 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:26 PM**				**1:26 PM**			
10:27 AM				**11:27 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:27 PM**				**1:27 PM**			
10:28 AM				**11:28 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:28 PM**				**1:28 PM**			
10:29 AM				**11:29 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:29 PM**				**1:29 PM**			
10:30 AM				**11:30 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:30 PM**				**1:30 PM**			
10:31 AM				**11:31 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:31 PM**				**1:31 PM**			
10:32 AM				**11:32 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:32 PM**				**1:32 PM**			
10:33 AM				**11:33 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:33 PM**				**1:33 PM**			
10:34 AM	1	1		**11:34 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:34 PM**				**1:34 PM**			
10:35 AM				**11:35 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:35 PM**	1			**1:35 PM**			
10:36 AM				**11:36 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:36 PM**				**1:36 PM**			
10:37 AM				**11:37 AM**		1	1 car parked from 11:08-11:13am, 1 car parked from 11:08-11:37am	**12:37 PM**				**1:37 PM**			
10:38 AM				**11:38 AM**				**12:38 PM**				**1:38 PM**			
10:39 AM				**11:39 AM**				**12:39 PM**				**1:39 PM**			
10:40 AM				**11:40 AM**				**12:40 PM**				**1:40 PM**			
10:41 AM				**11:41 AM**				**12:41 PM**	1			**1:41 PM**			
10:42 AM				**11:42 AM**				**12:42 PM**				**1:42 PM**			
10:43 AM				**11:43 AM**				**12:43 PM**	1			**1:43 PM**			
10:44 AM				**11:44 AM**				**12:44 PM**				**1:44 PM**			
10:45 AM				**11:45 AM**				**12:45 PM**				**1:45 PM**			
10:46 AM				**11:46 AM**				**12:46 PM**				**1:46 PM**			
10:47 AM				**11:47 AM**				**12:47 PM**				**1:47 PM**			
10:48 AM				**11:48 AM**				**12:48 PM**		1		**1:48 PM**			
10:49 AM				**11:49 AM**				**12:49 PM**				**1:49 PM**			
10:50 AM				**11:50 AM**				**12:50 PM**		1		**1:50 PM**			
10:51 AM	1			**11:51 AM**				**12:51 PM**				**1:51 PM**			
10:52 AM				**11:52 AM**				**12:52 PM**				**1:52 PM**			
10:53 AM				**11:53 AM**				**12:53 PM**				**1:53 PM**			
10:54 AM				**11:54 AM**				**12:54 PM**				**1:54 PM**			
10:55 AM				**11:55 AM**		1		**12:55 PM**				**1:55 PM**			
10:56 AM				**11:56 AM**				**12:56 PM**				**1:56 PM**			
10:57 AM				**11:57 AM**		1		**12:57 PM**				**1:57 PM**			
10:58 AM				**11:58 AM**		1		**12:58 PM**				**1:58 PM**			
10:59 AM				**11:59 AM**		1		**12:59 PM**				**1:59 PM**			

NOTE: It was raining intermittent showers during data collection

I-195 Peak Season Conversion Factor				
Week	Weekly Volume	PSCF	Month	Days
1	108620	1.20	Jan	1-7
2	113692	1.15		8-14
3	114894	1.14		15-21
4	113216	1.15		22-28
5	117166	1.11		28-4
6	119395	1.09	Feb	5-11
7	123944	1.05		12-18
8	123721	1.06		19-25
9	121318	1.08		26-4
10	119707	1.09	Mar	5-11
11	124096	1.05		12-18
12	118622	1.10		19-25
13	121739	1.07		26-1
14	124290	1.05	Apr	2-8
15	119917	1.09		9-15
16	118293	1.10		16-22
17	119207	1.10		23-29
18	115376	1.13	May	30-6
19	119630	1.09		7-13
20	112755	1.16		14-20
21	106334	1.23		21-27
22	110168	1.18		28-3
23	109900	1.19	June	4-10
24	110677	1.18		11-17
25	110738	1.18		18-24
26	111513	1.17		25-1
27	109786	1.19	July	2-8
28	115713	1.13		9-15
29	114398	1.14		16-22
30	114484	1.14		23-29
31	119207	1.10		30-5
32	119078	1.10	Aug	6-12
33	121436	1.07		13-19
34	119983	1.09		20-26
35	118783	1.10		27-2
36	108099	1.21	Sept	3-9
37	108609	1.20		10-16
38	109292	1.19		17-23
39	111327	1.17		24-30
40	115637	1.13	Oct	1-7
41	113497	1.15		8-14
42	113043	1.15		15-21
43	113955	1.15		22-28
44	116129	1.12		29-4
45	115571	1.13	Nov	5-11
46	115809	1.13		12-18
47	104040	1.25		19-25
48	114821	1.14		26-2
49	130541	1.00	Dec	3-9
50	115054	1.13		10-16
51	113508	1.15		17-23
52	108621	1.20		24-30
53	114868	1.14		31

K:\FTL_TPTO\Adrian\Miami Beach PSCF\PSCF weekly summary daily - I-195 2019.xlsx

Attachment D-1

St. Tropez Entry Gate Data

St. Tropez In-Out Entry Gate Vehicle Count

Maximum Vehicle Queue	Peak Season Correction Factor	**Peak Season Adjusted Queue**
1	1.17	**1**

Location: 7330 Ocean Terrace
City: Miami Beach

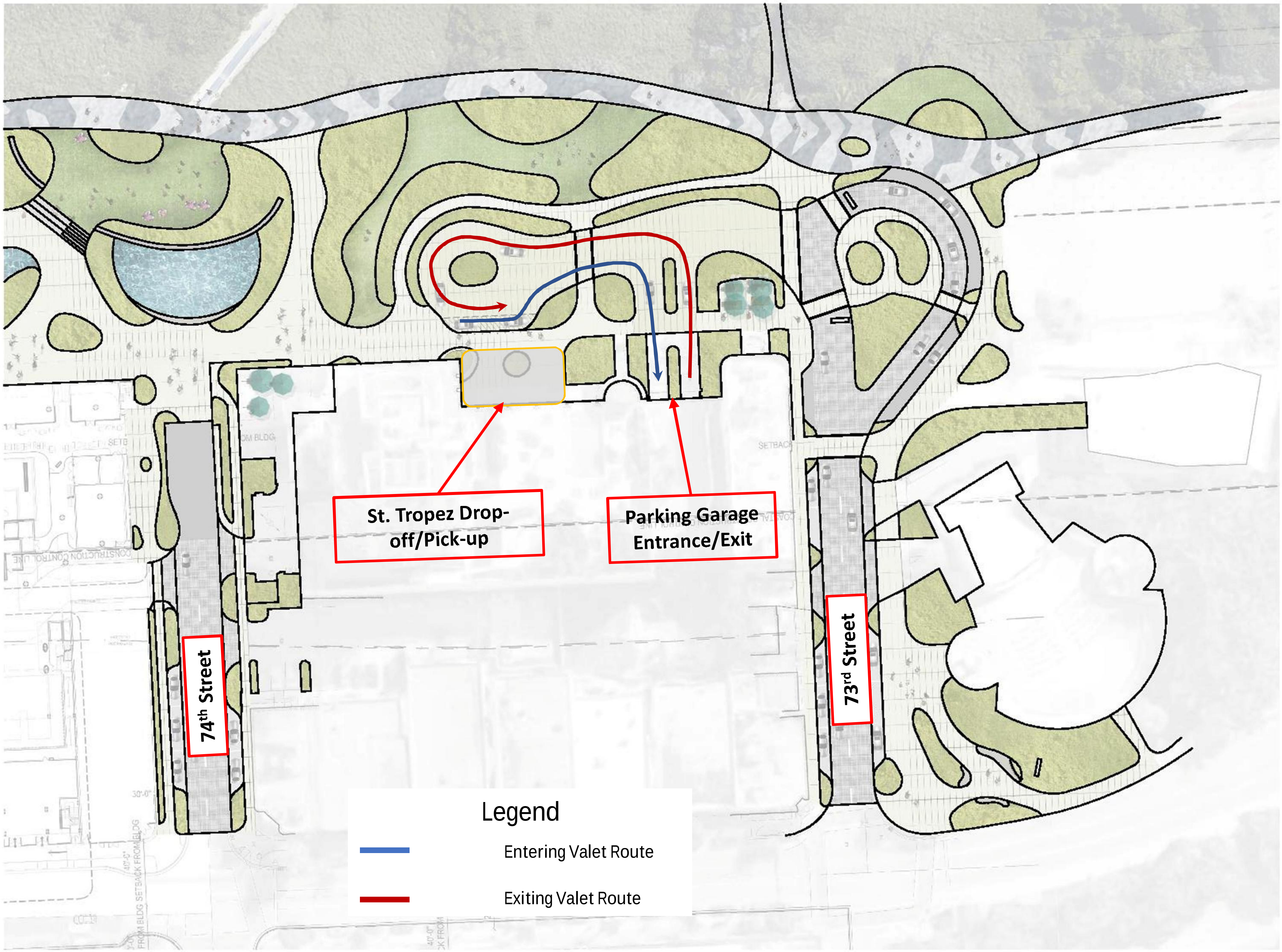
Day: Tuesday
Date: 09/24/2019

Time	IN	OUT	Notes	Time	IN	OUT	Notes	Time	IN	OUT	Notes
4:00 PM				**5:00 PM**				**6:00 PM**			
4:01 PM		1		**5:01 PM**				**6:01 PM**			
4:02 PM				**5:02 PM**				**6:02 PM**			
4:03 PM				**5:03 PM**				**6:03 PM**			
4:04 PM				**5:04 PM**				**6:04 PM**			
4:05 PM	1			**5:05 PM**				**6:05 PM**			
4:06 PM				**5:06 PM**				**6:06 PM**			
4:07 PM				**5:07 PM**				**6:07 PM**			
4:08 PM				**5:08 PM**				**6:08 PM**			
4:09 PM				**5:09 PM**				**6:09 PM**		1	
4:10 PM				**5:10 PM**				**6:10 PM**			
4:11 PM				**5:11 PM**				**6:11 PM**			
4:12 PM				**5:12 PM**				**6:12 PM**			
4:13 PM				**5:13 PM**				**6:13 PM**	1		
4:14 PM				**5:14 PM**				**6:14 PM**			
4:15 PM				**5:15 PM**				**6:15 PM**			
4:16 PM				**5:16 PM**				**6:16 PM**			
4:17 PM				**5:17 PM**				**6:17 PM**			
4:18 PM				**5:18 PM**				**6:18 PM**			
4:19 PM				**5:19 PM**				**6:19 PM**			
4:20 PM				**5:20 PM**		1		**6:20 PM**			
4:21 PM				**5:21 PM**				**6:21 PM**			
4:22 PM				**5:22 PM**				**6:22 PM**			
4:23 PM				**5:23 PM**				**6:23 PM**			
4:24 PM				**5:24 PM**				**6:24 PM**			
4:25 PM				**5:25 PM**				**6:25 PM**			
4:26 PM				**5:26 PM**				**6:26 PM**			
4:27 PM				**5:27 PM**				**6:27 PM**			
4:28 PM				**5:28 PM**				**6:28 PM**			
4:29 PM				**5:29 PM**	1			**6:29 PM**			
4:30 PM				**5:30 PM**				**6:30 PM**			
4:31 PM				**5:31 PM**				**6:31 PM**			
4:32 PM				**5:32 PM**				**6:32 PM**			
4:33 PM		1		**5:33 PM**	1			**6:33 PM**			
4:34 PM				**5:34 PM**				**6:34 PM**		1	
4:35 PM				**5:35 PM**				**6:35 PM**			
4:36 PM				**5:36 PM**				**6:36 PM**			
4:37 PM				**5:37 PM**				**6:37 PM**			
4:38 PM				**5:38 PM**				**6:38 PM**			
4:39 PM				**5:39 PM**				**6:39 PM**			
4:40 PM				**5:40 PM**				**6:40 PM**			
4:41 PM				**5:41 PM**	1			**6:41 PM**			
4:42 PM				**5:42 PM**				**6:42 PM**			
4:43 PM				**5:43 PM**				**6:43 PM**			
4:44 PM				**5:44 PM**				**6:44 PM**			
4:45 PM	1			**5:45 PM**				**6:45 PM**	1		
4:46 PM				**5:46 PM**				**6:46 PM**			
4:47 PM				**5:47 PM**				**6:47 PM**			
4:48 PM				**5:48 PM**				**6:48 PM**			
4:49 PM				**5:49 PM**		1		**6:49 PM**			
4:50 PM				**5:50 PM**				**6:50 PM**			
4:51 PM				**5:51 PM**		1		**6:51 PM**			
4:52 PM				**5:52 PM**				**6:52 PM**			
4:53 PM				**5:53 PM**				**6:53 PM**			
4:54 PM				**5:54 PM**				**6:54 PM**	1		
4:55 PM				**5:55 PM**		1		**6:55 PM**			
4:56 PM				**5:56 PM**				**6:56 PM**			
4:57 PM				**5:57 PM**				**6:57 PM**			
4:58 PM				**5:58 PM**				**6:58 PM**			
4:59 PM				**5:59 PM**				**6:59 PM**			

Attachment E-1

St. Tropez Valet Analysis

Vehicle Routing


St. Tropez Drop-off/Pick-up
Parking Garage Entrance/Exit
74th Street
73rd Street
Legend
Entering Valet Route
Exiting Valet Route
SETBACK

Valet Trip Generation

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Multifamily Housing (High-Rise)	10	222	91	du	24%	76%	9	29	38	20.0%	8	7	23	30	0.0%	0	7	23	30	0.0%	0	7	23	30
	2																									
	3																									
	4																									
G	5																									
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
1	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code			Rate or Equation		Total:		9	29	38	20.0%	8	7	23	30	0.0%	0	7	23	30	0.0%	0	7	23	30
		222			Y=0.28*(X)+12.86																					

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
	1	Multifamily Housing (High-Rise)	10	222	91	du	61%	39%	24	16	40	20.0%	8	19	13	32	0.0%	0	19	13	32	0.0%	0	19	13	32
	2																									
	3																									
	4																									
G	5																									
R	6																									
O	7																									
U	8																									
P	9																									
	10																									
2	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code			Rate or Equation		Total:		24	16	40	20.0%	8	19	13	32	0.0%	0	19	13	32	0.0%	0	19	13	32
		222			Y=0.34*(X)+8.56																					

Assume 20% of trips are valet	20.0%	20.0%	20.0%
Total Valet Trips	**4**	**3**	**7**

K:\FTL_TPTO\043727002-Ocean Terrace\calcs\Trip gen\St.Tropez Trip Gen\TRIP GEN 10_Development with valet.xlsx: PRINT-PEAK HOUR
11/15/2019,12:40 PM

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY (PROPOSED)

GROSS TRIP GENERATION

INPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	0	0	0	0
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	7	23	19	13
Hotel	0	0	0	0
	7	23	19	13

INTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	0	0	0	0
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	0	0	0	0
Hotel	0	0	0	0
	0	0	0	0

OUTPUT

Total % Reduction	*0.0%*	*0.0%*
Office		
Retail		
Restaurant		
Cinema/Entertainment		
Residential	0.0%	0.0%
Hotel		

EXTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	0	0	0	0
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	7	23	19	13
Hotel	0	0	0	0
	7	23	19	13

U.S. Census Bureau

AMERICAN FactFinder

B08301

MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

(226+15+11)/865=29.1%

	Census Tract 39.09, Miami-Dade County, Florida	
	Estimate	**Margin of Error**
Total:	865	+/-197
Car, truck, or van:	484	+/-121
Drove alone	458	+/-123
Carpooled:	26	+/-23
In 2-person carpool	26	+/-23
In 3-person carpool	0	+/-13
In 4-person carpool	0	+/-13
In 5- or 6-person carpool	0	+/-13
In 7-or-more-person carpool	0	+/-13
Public transportation (excluding taxicab):	226	+/-87
Bus or trolley bus	226	+/-87
Streetcar or trolley car (carro publico in Puerto Rico)	0	+/-13
Subway or elevated	0	+/-13
Railroad	0	+/-13
Ferryboat	0	+/-13
Taxicab	17	+/-17
Motorcycle	0	+/-13
Bicycle	15	+/-22
Walked	11	+/-18
Other means	28	+/-29
Worked at home	84	+/-58

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic

Prepared by National Data & Surveying Services

Vehicle Classification

Location: The Axis at Brickell- 1111 SW 12th Ave
City: Miami

Day: Tuesday
Date: 7/31/2018

Time	PORTE-COCHERE						PARKING GARAGE	
	DROP OFF/PICK UP						ENTRANCE/EXIT	
	Valet	Taxi	Ride Share (Uber/Lyft)				Valet	Self Parking
			Sticker		No Sticker			
			Driveway	Street	Driveway	Street		
7:30 AM	2	0	0	1	0	1	2	30
7:45 AM	0	0	1	1	0	0	0	26
8:00 AM	2	0	1	1	0	0	2	19
8:15 AM	2	0	0	0	2	1	2	19
8:30 AM	1	0	1	0	2	1	1	15
8:45 AM	1	0	1	0	0	0	1	30
9:00 AM	1	0	1	1	0	0	1	25
9:15 AM	3	0	0	0	0	1	3	35
A.M. Peak Period Total	12	0	5	4	4	4	12	199
							A.M. Peak Period Rideshare %	7.5%
							A.M. Peak Period Self-Park %	87.3%
							A.M. Peak Period Valet %	5.2%
4:00 PM	4	0	0	0	0	1	4	28
4:15 PM	2	0	1	2	1	0	2	17
4:30 PM	1	0	2	0	0	0	1	13
4:45 PM	3	0	2	0	0	0	3	18
5:00 PM	0	0	1	1	0	0	0	24
5:15 PM	3	0	0	0	0	0	3	18
5:30 PM	3	0	0	0	0	0	3	24
5:45 PM	3	0	0	0	0	0	3	19
P.M. Peak Period Total	19	0	6	3	1	1	19	161
							P.M. Peak Period Rideshare %	5.7%
							P.M. Peak Period Self-Park %	84.3%
							P.M. Peak Period Valet %	10.0%

Valet Travel Times

St. Tropez On-Site Parking Calculated Average Travel Time

VALET DROP-OFF

VEHICLE TRAVEL TIME

Travel Times (Assume 15 mph speed)

To Valet Garage (In vehicle)

Distance	Travel Time
0.37 miles	1.5 minutes

Controlled Delay 1.0 Minutes

Total Time 3.5 Minutes

VALET ATTENDANT TRAVEL TIME

Travel Times (Assume 5 ft/s speed)

Return from Valet Garage (Walk/Run) to Valet Area

Distance	Travel Time
0.06 miles	1 minutes

St. Tropez On-Site Parking Calculated Average Travel Time

VALET PICK-UP

VALET ATTENDANT TRAVEL TIME

Travel Times (Assume 5 ft/s speed)

To Valet Garage (Walk/Run)

Distance	Travel Time
0.06 miles	1 minutes

Controlled Delay 1.0 Minutes

Total Time 3.5 Minutes

VEHICLE TRAVEL TIME

Travel Times (Assume 15 mph speed)

Return from Valet Garage (In Vehicle) to Valet Area

Distance	Travel Time
0.37 miles	1.5 minutes

Valet Analysis

St. Tropez Valet Drop-Off Analysis

P.M. Peak Hour

Arrival Rate

IN	OUT	
4	3	veh/hr

Service Rate

IN	OUT	
3.50	3.50	mins/veh

Service Time = 3.50 mins/veh

Valet Attendants 1

Level of Confidence = 0.95

Storage Provided On-Site = 3 vehicles

Total Entering and Exiting Vehicles(q) = 7 veh/hr

Service Capacity per N (60 mins/Service Rate) (Q) = 17.14 veh/hr/pos

Average Service Rate (t) = 3.50 mins/veh

rho (t/Q) = 0.408

Expected (avg.) number of vehicles in the system E(m)= 0.28

Expected (avg.) number of vehicles waiting in queue E(n)= 0.69

Mean time in the queue E(w)= 2.42 mins

Mean time in system E(t)= 5.92 mins

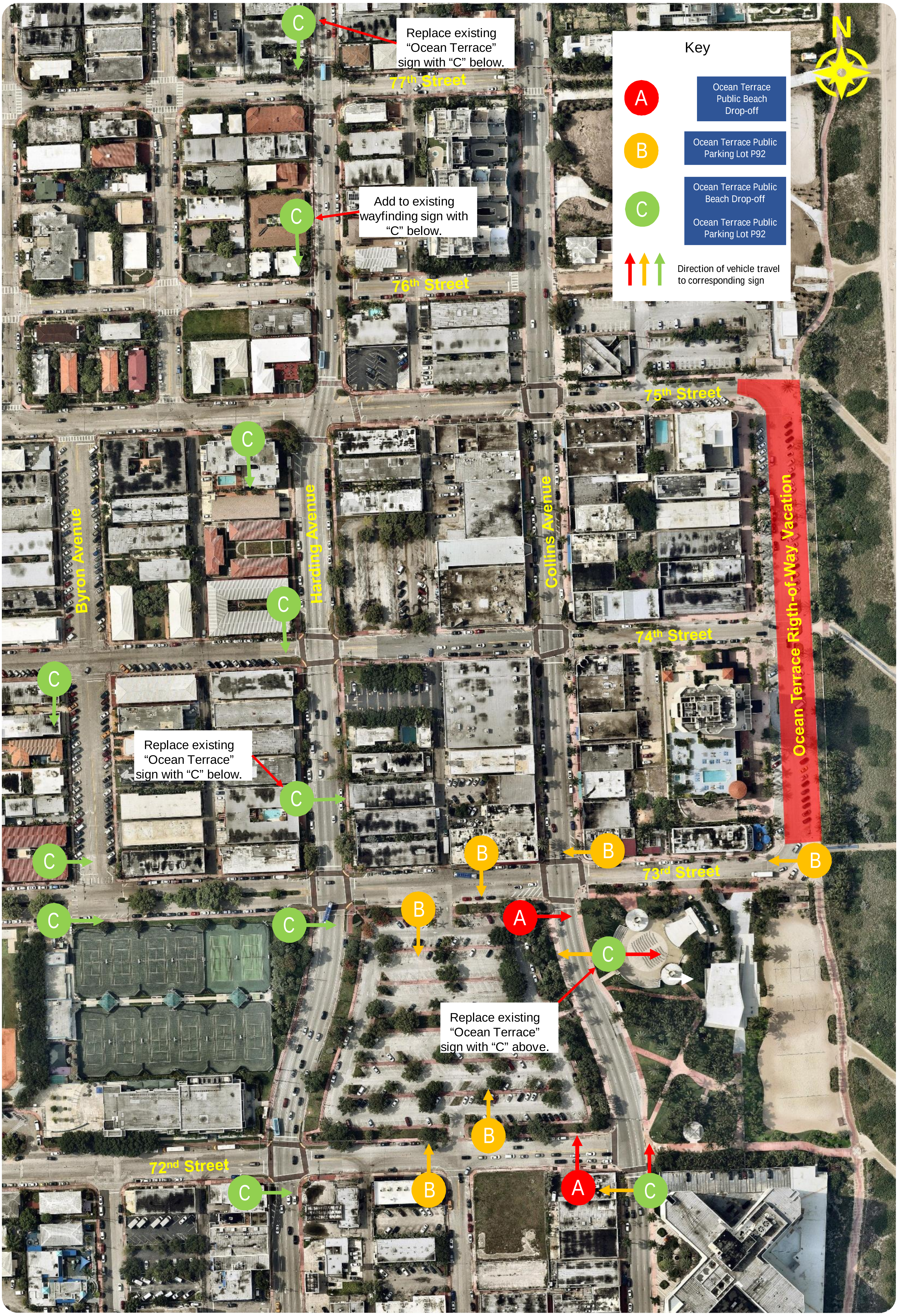
Proportion of customers who wait (P) (E(w) > 0)= 40.83%

Probability of a queue exceeding a length (M) P(x > M)= 5.00%

Queue length which is exceeded 5.00% of the times is equal to 1.1 vehicles

Attachment F-1

Wayfinding/Signage Plan


Replace existing
“Ocean Terrace”
sign with “C” below.
N
Key
A
Ocean Terrace Public Beach Drop-off
B
Ocean Terrace Public Parking Lot P92
C
Ocean Terrace Public Beach Drop-off
Ocean Terrace Public Parking Lot P92
Direction of vehicle travel to corresponding sign
77th Street
Add to existing wayfinding sign with “C” below.
76th Street
75th Street
Byron Avenue
Harding Avenue
Collins Avenue
Ocean Terrace Rigth-of-Way Vacation
74th Street
Replace existing
“Ocean Terrace”
sign with “C” below.
73rd Street
Replace existing
“Ocean Terrace”
sign with “C” above.
72nd Street
A
B
C

Kimley»Horn

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Figure 2
Conceptual Wayfinding/Signage Plan
Ocean Terrace
Miami Beach, Florida