

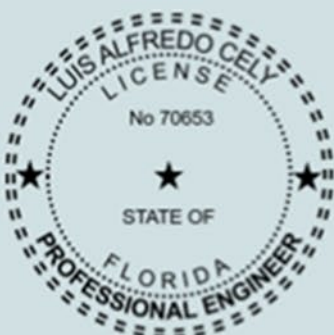
Redevelopment Traffic Study

624 Collins Ave Fine Dining Restaurant

Prepared by:
Alfka, LLC

Prepared for:
624 Collins Avenue, LLC

Project Number:
FNV2301



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Luis Alfredo Cely, P.E. No. 70653



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Executive Summary

The commercial property at 624 Collins Avenue is proposed to be redeveloped into a sit-down fine-dining restaurant. The proposed redeveloped building will serve as sit-down fine dining restaurant with a total of 318 dining seats.

A trip generation study was completed based on the Fine-Dining Restaurant use for 624 Collins Avenue. The study shows that the proposed redevelopment is expected to result in a increase of 84 weekend peak hour trips when compared to the previous permitted use.

Recent Census Data shows an increase in multimodal use nationwide, and as such 2023 data shows approximately a 25% multimodal use in Miami Beach, however as a conservative approach this Study assumes a 20% Multimodal factor. There are several Miami-Dade Transit lines that serve the vicinity of the project site, these include Route S, M, C, 120 and 150. In addition, the City of Miami Beach operates the South Beach Trolley, which also serves the subject project.

An intersection capacity analysis was performed utilizing Synchro 11 Traffic Modelling software for the signalized Collins Avenue and 7th Street intersection and the HCM 6th Edition for the unsignalized Collins Avenue and 6th Street intersection. The analysis shows that all intersections are projected to operate within acceptable LOS standards. A 95th percentile queue analysis was performed to determine if the roadway network have sufficient storage to accommodate project vehicle queue lengths for existing and future conditions.

To further improve traffic circulation within its project, the 624 Collins Avenue Restaurant is currently formulating its Transportation Demand Management (TDM) Plan. The TDM will incentivize the use of transit, cycling, carpooling, and alternative transportation modes.

Patrons of the proposed restaurant will use two (2) on-street parking spaces along Collins Avenue, as valet pick-up / drop-off lanes. The design team has coordinated with the City's Parking Department for the use of the on-street parking spaces as valet service spaces. The proposed development intends to use the City's Parking Garage located at 7th Street and Collins Avenue, which is next door to the property. The restaurant is currently coordinating with several valet operators to provide valet services for its patrons. The valet queuing operations analysis was performed based on the methodology outlined in ITE's Transportation and Land Development manual published in 1988. The analysis determined the use of two (2) on-street parking spaces is adequate to handle valet parking operations for the redevelopment. The analysis identified that a total of 8 valet attendants would be required during the weekend peak hour (with a 99.6% confidence interval). Please refer to Table 3 for the details of the valet operation analysis.

Garbage pickup was completed within Collins Court (northbound one-way street) and will continue to do so for the restaurant. Loading and unloading operations can be completed within the on-street loading zone available 15 feet away from the property within Collins Avenue. Loading and Unloading operations are to be completed between 7AM and 3PM, as those are the existing restrictions placed for the on-street loading zone.



Trip Generation

624 Collins Avenue proposes to use the existing commercial space to serve as a sit-down fine-dining restaurant. Trip generation calculations were performed using Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 11th Edition. ITE Land Use Code (LUC) 931 (Fine-Dining Restaurant) was used to estimate traffic from the proposed redevelopment. The redevelopment will function as a sit-down fine-dining restaurant with a total of 318 dining seats.

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census Means of Transportation to Work data was reviewed for the census tract containing the redevelopment (see Appendix A). A multimodal factor of 25.9 percent (25.9%) was determined for the area based on the census data for this tract, for the calculations a conservative 20% multimodal reduction factor was applied to the trip generation. It is expected that employees, patrons, and guests will choose to walk, bicycle or use public transit to and from the proposed redevelopment. There are several transit lines that serve the vicinity of the project site (see Appendix B), these include Route S, M, C, 120 and 150. In addition the City of Miami Beach operates the South Beach Trolley, which also serves the subject project (see Appendix C).

The proposed redevelopment is expected to result in a increase of 84 weekend peak hour trips. Detailed trip generation calculations are shown below on Table 1.

Table 1 - Trip Generation Summary

ITE Code / Description	Quantity	Units	Peak Hour Trips			Multimodal Reduction	Net Peak Hour Trips		
			In	Out	Total		In	Out	Total
931 / Fine Dining Restaurant - Weekday Daily Total	318	Seats	413	414	827	20%	330	331	661
931 / Fine Dining Restaurant - Weekday AM Peak Hour	318	Seats	48	33	81	20%	38	26	64
931 / Fine Dining Restaurant - Weekday PM Peak Hour	318	Seats	56	38	94	20%	45	30	75
931 / Fine Dining Restaurant - Weekend Daily Total	318	Seats	409	408	817	20%	327	326	653
931 / Fine Dining Restaurant - Weekend Peak Hour	318	Seats	62	43	105	20%	50	34	84

ITE Trip Generation Manual - 11th Edition



Queue Analysis

Two (2) existing on-street parking spaces are proposed to be converted to valet parking spaces. The use of the on-street parking spaces for valet use was coordinated with the City's Parking Department (see Appendix H). Figure 1 provides details of the site location and the existing on-street parking spaces. Appendix D, provides a Context Location Plan. The remaining two (2) parking spaces will be used to accommodate patrons using rideshare services.

Figure 1 - Existing On-Street Spaces



The 624 Collins Avenue plans to use the next-door City of Miami Beach Parking Garage to accommodate parking through the use of valet parking. The Restaurant is currently coordinating with several Valet Parking operators for use in the project. For valet operations, there will be a manager on-site at all times supervising the Valet services operation. An automated system will be used with patrons to help them order the vehicle in advance via a mobile app or mobile phone call/text message. This will allow the Valet Operator to schedule pick-ups and reduce congestion at the valet area.



Figures 2 and 3 provide photographs of the site along Collins Avenue and Collins Court. As noted in the image, valet parking operations are to be maintained using the two (2) on-street parking spaces along Collins Avenue. All patrons are expected to valet or use the drop-off area for taxi or rideshare arrivals. There is an existing on-street loading zone on Collins Avenue, adjacent to the property, which will be used for loading and unloading of deliveries. The previous use handled garbage pick-up along Collins Court, this project will continue to use garbage pick-up operations along Collins Court.

Figure 2 - Site Photograph along Collins Avenue looking West towards the 624 Collins Avenue Property.



Figure 3 - Site Photograph along Collins Court looking East towards the 624 Collins Avenue Property

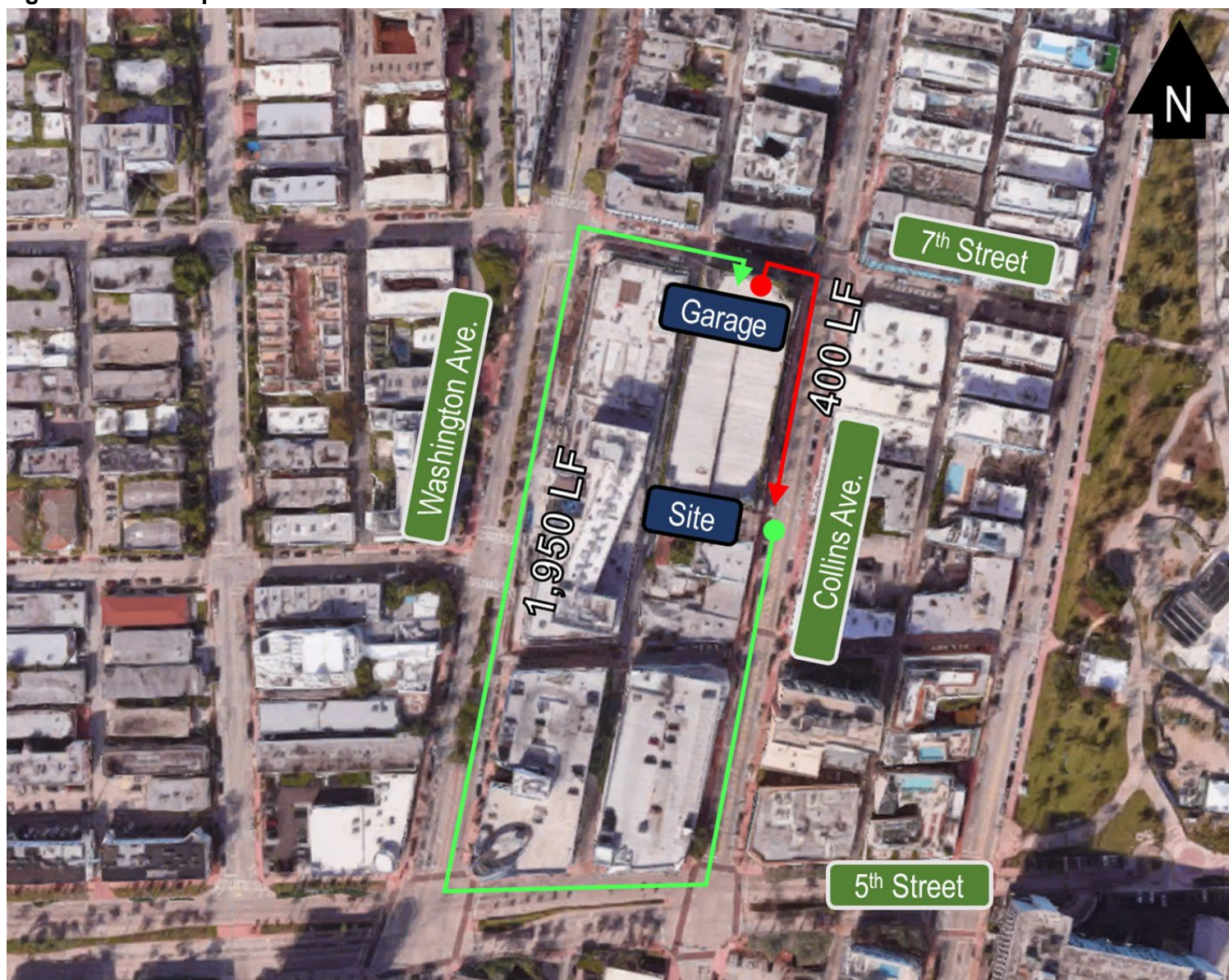




The valet queuing operations analysis was performed based on the methodology outlined in ITE's Transportation and Land Development, 1988. The analysis was performed to determine if valet operations could accommodate vehicular queues without exceeding the storage length provided on the two (2) on-street valet designated spaces.

Valet attendants will serve patrons with a valet station located in-front of the project site, adjacent to the dedicated on-street valet parking spaces. Valet attendants would travel along Collins Avenue, 5th Street, Washington Avenue and 7th Street to pick-up or drop-off vehicles. The calculated service time for vehicles parked at the City's Collins/7th Street Parking Garage is 2.9 minutes. Figure 4, shows the valet operation routes and Table 2 provides a summary of the travel times used to determine the valet service time.

Figure 4 - Valet Operation Routes



**Table 2 - Valet Operation Travel Times**

Drop-Off			Pick-Up		
Vehicle		Valet Attendant	Vehicle		Valet Attendant
Distance	1950 feet	Distance 400 feet	Distance	400 feet	Distance 400 feet
Average Speed	25 mph	Average Speed 5 feet/sec.	Average Speed	25 mph	Average Speed 5 feet/sec.
Travel Time	0.89 minutes	Travel Time 1.33 minutes	Travel Time	0.18 minutes	Travel Time 1.33 minutes
Controlled Delay	0.50 minutes	Controlled Delay 0.50 minutes	Controlled Delay	0.50 minutes	Controlled Delay 0.50 minutes
Vehicle Time	1.39 minutes	Pedestrian Time 1.83 minutes	Vehicle Time	0.68 minutes	Pedestrian Time 1.83 minutes
Drop-Off Time 3.22 Minutes			Pick-Up Time 2.52 Minutes		

The valet queuing operations analysis was performed based on the methodology outlined in ITE's Transportation and Land Development manual published in 1988. The analysis determined that two (2) vehicle drop-off spaces are adequate to handle valet parking operations for the redevelopment.

Furthermore, the analysis identified that a total of 8 valet attendants would be required during the weekend peak hour (with a 99.6% Confidence Interval). Please refer to Table 3 for the details of the valet operation analysis.

Table 3 - Waiting Line Model - Multiple Server Analysis of Valet Operations

Peak Hour Arrival Vehicles	50	veh/hr	Attendant Pick-up Rate	2.5	min/veh
Peak Hour Departure Vehicles	34	veh/hr	Attendant Drop-off Rate	3.22	min/veh
Avg. Vehicle Arrival Rate (λ)	84	veh/hr	Avg. Attendant Service Rate	2.9	min/veh

Valet Attendants (s)	8	person	99.6% Confidence Interval		
Hourly Service Rate per Attendant (μ)	20.9	veh/hr			
Mean Service Rate for System ($\sigma\mu$)	167.4	veh/hr			
Avg. Time Waiting in Queue (W_q)	0.04	minutes			
Avg. Time Spent in the System (W)	2.91	minutes			
Avg. Vehicles in the System (L)	4.1	veh	Probability M vehicles are waiting	0.4%	
Avg. System Utilization (ρ)	50.2%		Waiting Vehicles (M)	3.0	veh
Probability no vehicles on queue (P_o)	1.74%		Valet Parking Stalls	2	veh
Avg. Vehicles Waiting in Queue (L_q)	0.06	veh	Exceeding vehicles	1.0	veh



Intersection Capacity Analysis

To identify the existing peak hour for the vehicular traffic along Collins Avenue, between 6th and 7th Street a 72-hour traffic volume count was completed from Thursday 07/27/2023 to Saturday 07/29/2023. The observed peak hour occurred from 2:15 to 3:15 pm with 971 vehicles but due to the nature of the proposed use of the site, the 6:00 pm to 7:00 pm peak hour was analyzed using 964 vehicles (Please refer to Appendix I for Traffic Volume Counts). Intersection turning movement counts were collected within this peak hour at the intersection north of the project site (Collins at 7th Street) and the intersection south of the project site (Collins at 6th Street). The intersection at 7th Street is controlled via a traffic signal. The signal operations plan was obtained from Miami Dade County and is included in Appendix J. The existing roadway network volumes are summarized in Figure 5.

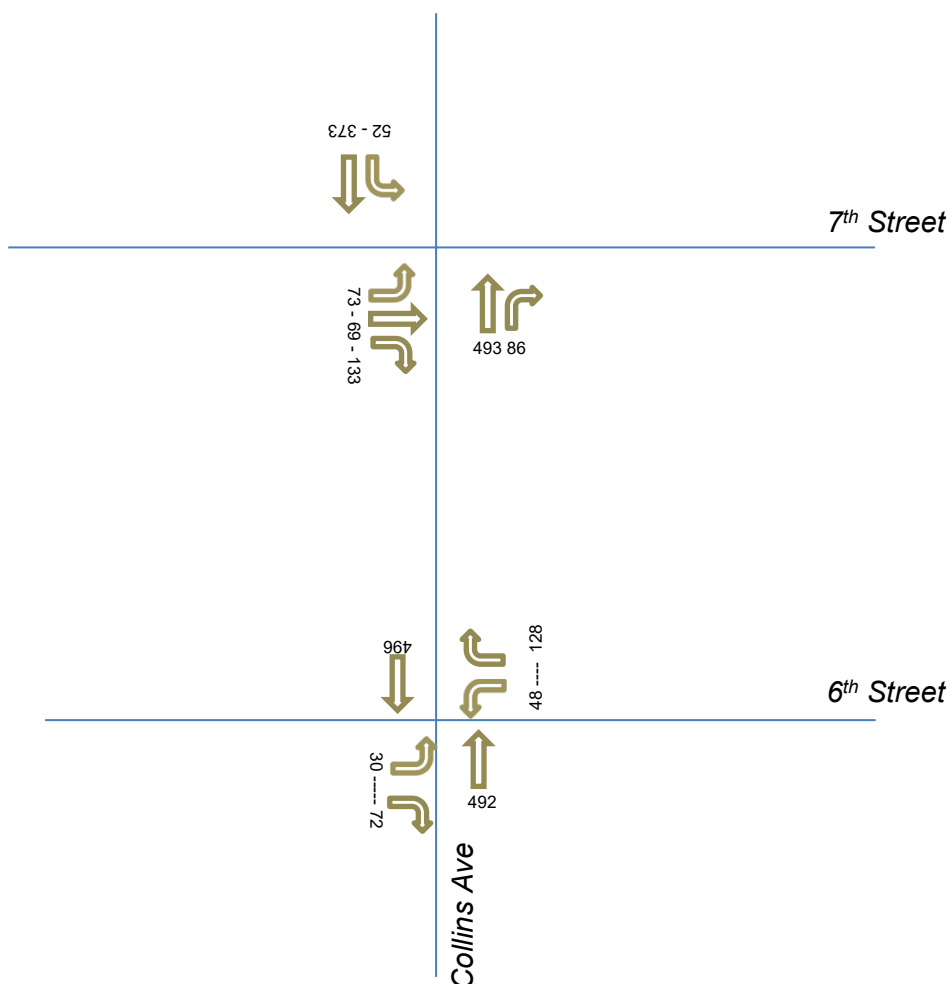


Figure 5 – Existing Traffic Volumes



The Fine Dining Restaurant is anticipated to open in 2024, thus the year 2024 was selected as the build-out year for the project site, in order to evaluate proposed conditions. Available FDOT and Miami-Dade County traffic counts were consulted to determine a growth factor consistent with historical annual growth in the area. The growth factor was applied to the existing traffic volumes to establish background traffic.

Collins Ave	2018	2019	2020	2021	2022
AADT	11,800	12,900	14,500	15,700	14,600
Growth Rate		9%	12%	8%	-7%
Average Growth Rate	6%				

The FDOT Peak Season Factor (Appendix K) was used to estimate the traffic volumes in 2024. The peak season conversion was selected for I-395 and the coinciding factor for the analysis date was determined to be 1.07. Future without project turning movement volumes were obtained by applying one year of background growth to the existing network. Future Background without project trips is summarized in Figure 6.

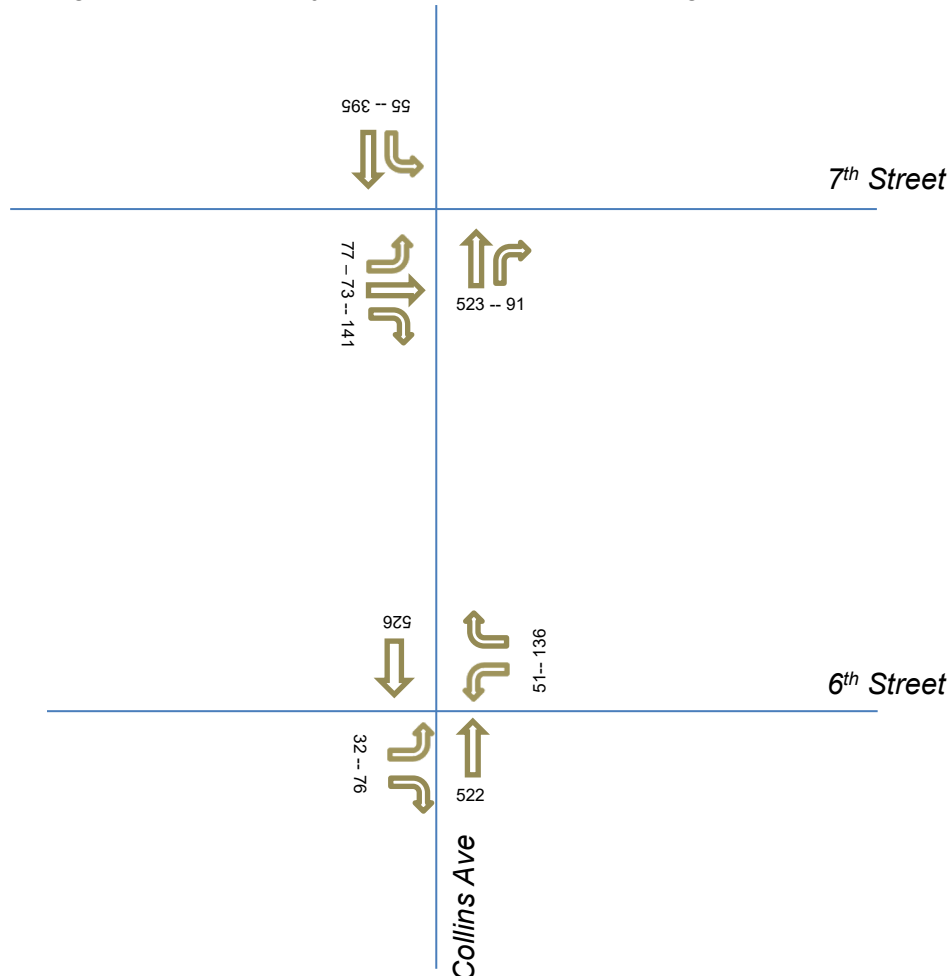


Figure 6 – Background Growth Future Volumes without Project in 2024

Trip generation calculations were performed using Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 11th Edition. ITE Land Use Code (LUC) 931 (Fine-Dining Restaurant) was used to estimate traffic from the proposed redevelopment. The redevelopment will function as a sit-down fine-dining restaurant with a total of 318



dining seats. The proposed redevelopment is anticipated to generate 50 inbound and 34 outbound trips during the Saturday PM peak period. The development will utilize the valet operation of all inbound and outbound trips.

Project Trip Assignment

Project traffic was distributed and assigned to the study area using the Cardinal Distribution for TAZ 655 shown in Table 4. The Cardinal Distribution gives a generalized distribution of trips from a TAZ to other parts of Miami-Dade County (see Appendix L). For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. The future with project volumes is shown on figure 7.

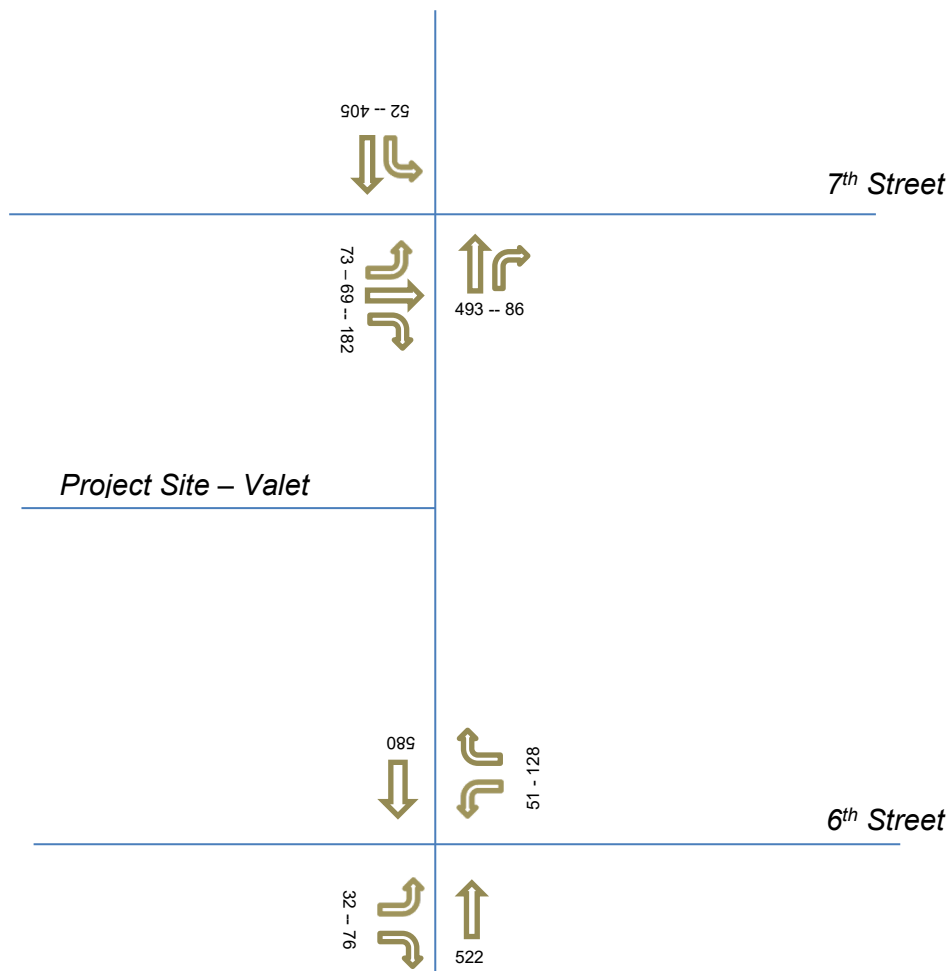


Figure 7 – Future with Project Traffic Volumes in 2024

**Table 4 – Cardinal Distribution**

Direction	2015	2045	2024
NNE	20.80%	17.60%	19.70%
ENE	0.00%	0.00%	0.00%
ESE	0.00%	0.00%	0.00%
SSE	0.00%	0.00%	0.00%
SSW	8.30%	6.90%	7.80%
WSW	20.40%	21.90%	20.90%
WNW	27.10%	31.80%	28.70%
NNW	23.40%	21.90%	22.90%

An intersection capacity analysis was performed utilizing Synchro 11 Traffic Modelling software for the signalized Collins Avenue and 7th Street intersection and the HCM 6th Edition for the unsignalized Collins Avenue and 6th Street intersection. The analysis show that all intersections are projected to operate within acceptable LOS standards except for the Collins Avenue and 6th Street intersection in background future and future with project scenarios. The delay experienced at the 6th Street intersection is due to the high volume of pedestrians that negatively impact the EB and WB movements. Synchro results for the Intersection Capacity Analysis are included in Appendix M. A 95th percentile queue analysis was performed to determine if the roadway network have sufficient storage to accommodate project vehicle queue lengths for existing and future conditions. Synchro was used for this analysis. Synchro worksheets are included in Appendix M. The results of the analysis indicate that the existing lanes are sufficient to accommodate anticipated vehicle queues at the studied intersections. The results of the future condition analysis are provided in Table 5.

Table 5 – Intersection Capacity Analysis Results

Intersection	Signalized/ Unsignalized	Direction	Scenario LOS Standard	Existing		Background		Future	
				PM LOS	PM Delay	PM LOS	PM Delay	PM LOS	PM Delay
Collins Avenue & 7th Street	S	NB	D + 20%	B	12.6	B	13.3	B	13.3
		SB		A	9.4	A	9.7	A	9.9
		EB		C	27.2	B	27.8	C	33.6
		WB		-	-	-	-	-	-
		Overall		B	14.7	B	15.2	B	17.0
Collins Avenue & 6th Street	U	NB	D + 20%	A	0.0	A	0.0	A	0.0
		SB		A	0.0	A	0.0	A	0.0
		EB		F	98.6	F	168.0	F	183.0
		WB		F	65.8	F	94.7	F	102.8
		Overall		C	22.1	E	36.3	E	38.9



Transportation Demand Management Plan

One of the reasons the proposed Miami Beach location of the 624 Collins Avenue Restaurant was selected is because it is within an urban, dense, and mixed-use land area. This type of land use promotes the use of sustainable transportation modes and provides opportunities to employees and patrons to use transportation modes that do not rely on single-occupant motor vehicle rides. A land-use plan is included under Appendix E to provide information on surrounding land uses.

The 624 Collins Avenue Restaurant Transportation Demand Management Plan (TDMP) includes elements to incentivize the preferred use of transit, cycling, carpooling, and other alternative transportation modes. These strategies have the goal of reducing the impacts of the project traffic on the surrounding roadway network and focus on promoting bicycling and walking, car/vanpooling, and alternatives to the typical single-occupant use of a motor vehicle to access the site, either as a patron or employee. TDMP Strategies include:

Employee Transportation Coordinator. To promote the use of alternative transportation modes, the 624 Collins Avenue Restaurant has designated Ms. Aurora Leigh, as the restaurant's Employee Transportation Coordinator. Ms. Leigh's contact information is as follows:

Ms. Aurora Leigh

Phone: (401) 305-2064

Email: aleigh@fndev.com

Promoting Transit. The 624 Collins Avenue shall promote the use of transit with employees and patrons. Transit information will be posted within the site with information on transit route maps and route schedules. Carpooling and vanpooling program information shall be provided to employees, including the development of economic incentive programs (such as subsidized transit passes) to encourage employees' participation in the reduction of single-occupant vehicular trips or the use of transit facilities.

Promoting Pedestrian and Cycling. Collins Avenue has wide sidewalks (>5ft) which will be maintained as part of the operation of the restaurant with locations for open cafes, well established landscaping and local art which promotes and invites walking. These wide sidewalks and streetscape amenities such as lighting, landscaping, benches, bike racks, and trash cans, create an environment which encourages walking and cycling, and are proposed to remain. Furthermore, Collins Avenue has shared bike lanes on both directions, which serve as a major north-south connector for the bicycle network. In addition, Collins Avenue has designated micro-mobility on-street parking spaces, further promoting the use of alternative transportation modes. The project site is located right within this livable corridor, promoting and inviting the use of alternative transportation modes for patrons and employees.



APPENDIX A

US Census Means of Transportation to Work

MEANS OF TRANSPORTATION TO WORK BY VEHICLES AVAILABLE

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

United States		
Label	Estimate	Margin of Error
▼ Total:	152,891,752	±149,819
No vehicle available	6,298,680	±49,012
1 vehicle available	31,422,618	±117,551
2 vehicles available	61,801,315	±185,070
3 or more vehicles available	53,369,139	±166,780
▼ Car, truck, or van - drove alone:	104,249,513	±136,937
No vehicle available	1,580,531	±29,738
1 vehicle available	19,701,567	±73,979
2 vehicles available	43,283,148	±133,720
3 or more vehicles available	39,684,267	±142,947
▼ Car, truck, or van - carpooled:	11,921,065	±69,985
No vehicle available	599,486	±17,049
1 vehicle available	2,452,307	±34,518
2 vehicles available	4,366,569	±44,474
3 or more vehicles available	4,502,703	±44,867
▼ Public transportation (excluding taxicab):	3,728,343	±36,906
No vehicle available	1,554,809	±25,465
1 vehicle available	1,137,414	±22,511
2 vehicles available	640,079	±14,107
3 or more vehicles available	396,041	±13,136
▼ Walked:	2,858,418	±31,619
No vehicle available	709,516	±18,908
1 vehicle available	857,169	±20,321
2 vehicles available	753,612	±15,296
3 or more vehicles available	538,121	±15,860
▼ Taxicab, motorcycle, bicycle, or other means:	2,850,491	±34,969
No vehicle available	561,967	±12,777
1 vehicle available	778,691	±17,553
2 vehicles available	846,256	±21,567
3 or more vehicles available	663,577	±19,392
▼ Worked from home:	27,283,922	±105,055
No vehicle available	1,292,371	±19,631
1 vehicle available	6,495,470	±61,103
2 vehicles available	11,911,651	±89,390
3 or more vehicles available	7,584,430	±56,519

Table Notes

MEANS OF TRANSPORTATION TO WORK BY VEHICLES AVAILABLE

Survey/Program: American Community Survey
Universe: Workers 16 years and over in households
Year: 2021
Estimates: 1-Year
Table ID: B08141

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.

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.

Source: U.S. Census Bureau, 2021 American Community Survey 1-Year Estimates

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 ACS Technical Documentation). 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.

The 2021 American Community Survey (ACS) data generally reflect the March 2020 Office of Management and Budget (OMB) delineations 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 delineations due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.
- N
The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.
- (X)
The estimate or margin of error is not applicable or not available.
- median-
The median falls in the lowest interval of an open-ended distribution (for example "2,500-")
- median+
The median falls in the highest interval of an open-ended distribution (for example "250,000+").
- **
The margin of error could not be computed because there were an insufficient number of sample observations.
- ***
The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.
- *****
A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.



APPENDIX B

Miami-Dade Transit Bus Service Routes



METROBUS SYSTEM

MAY 2019

METROBUS ROUTES

- Limited-Stop Service
- Express Service
- Non-stop Service
- East-West Local-Stop Service
- North-South Local-Stop Service
- Local Shuttle or Circulator Service

METROBUS DESTINATIONS

- Service Endpoint - Single Route Type
- Service Endpoints - Multiple Route Types
- Terminal
- Park and Ride Lot
- South Dade TransitWay Station
- Metrorail & Station - Routes Serving Station
- Tri-Rail
- Brightline

THIS IS A GENERAL REFERENCE MAP. CONSULT INDIVIDUAL ROUTE MAPS FOR DETAILS.

BROWARD COUNTY



FLORIDA KEYS



DOWNTOWN MIAMI



Connects with Metrorail Serves Park & Ride Lot Overnight Service Serves Miami International Airport Connects with Tri-Rail Connects with Brightline

- 1 Perrine ↔ Quail Roost Dr/SW 117 Ave
- 2 163 St Mall, 84 St ↔ Downtown Miami
- 3 Aventura Mall ↔ Downtown Miami
- 7 Dolphin Mall, Miami Intl Airport ↔ Downtown Miami
- 8 FIU Maidique Campus ↔ Brickell Metrorail
- 9 Aventura, 163 St Mall ↔ Downtown Miami
- 10 Skylake Mall ↔ Omni Metrobus Terminal
- 11 FIU Maidique Campus, Mall of the Americas ↔ Downtown Miami
- 12 Northside Metrorail ↔ Mercy Hospital
- 16 163 St Mall ↔ Omni Metrobus Terminal
- 17 Norwood ↔ Vizzaya Metrorail
- 19 (WEEKDAYS ONLY) MDC North Campus ↔ 163 St Mall
- 21 Northside Metrorail ↔ Downtown Miami
- 22 163 St Mall ↔ Coconut Grove Metrorail
- 24 CORAL WAY LIMITED - West Dade ↔ Brickell Metrorail
- 27 Miami Gardens ↔ Coconut Grove Metrorail
- 29 (WEEKDAYS ONLY) Miami Lakes Education Center ↔ Hialeah
- 31 BUSWAY LOCAL - South Dade Government Center ↔ Dadeland South Metrorail
- 32 Carol City ↔ Omni Metrobus Terminal
- 33 Hialeah ↔ NE 79 St/Biscayne Blvd
- 34 EXPRESS (WEEKDAY RUSH-HOUR ONLY) Florida City ↔ Dadeland South Metrorail
- 35 MDC Kendall Campus ↔ Florida City
- 36 Dolphin Mall, Doral, Miami Springs ↔ Midtown Miami
- 37 Hialeah ↔ South Miami Metrorail
- 38 BUSWAY MAX Dadeland South Metrorail ↔ Florida City
- 39 EXPRESS (WEEKDAY RUSH-HOUR ONLY) Dade Govt Ctr ↔ Dadeland South Metrorail
- 40 Lakes of the Meadow, Tamiami Trail/SW 132 Ave ↔ Douglas Road Metrorail
- 42 Opa-locka Tri-Rail ↔ Douglas Road Metrorail
- 46 LIBERTY CITY CONNECTION (WEEKDAY RUSH-HOUR ONLY) Brownsville Metrorail ↔ Seventh Avenue Transit Village
- 51 FLAGLER MAX (WEEKDAYS ONLY) West Dade ↔ Downtown Miami
- 52 Dadeland South Metrorail ↔ South Dade Health Center
- 54 Miami Gardens Dr/NW 87 Ave, Hialeah Gardens ↔ Biscayne Blvd/NE 54 St
- 56 (WEEKDAYS ONLY) West Dade ↔ Miami Children's Hospital
- 57 (WEEKDAYS ONLY) Miami Intl Airport ↔ Jackson South Hospital
- 62 Hialeah ↔ Biscayne Blvd / 62 St
- 71 Dolphin Mall ↔ MDC Kendall Campus
- 72 West Kendall Terminal, Miller Square ↔ South Miami Metrorail
- 73 Miami Gardens Dr & NW 73 Ave Park & Ride ↔ Dadeland South Metrorail
- 75 Miami Lakes Educational Center ↔ FIU Biscayne Bay Campus
- 77 Norwood ↔ Downtown Miami
- 79 79 STREET MAX (WEEKDAY RUSH-HOUR ONLY) Northside Metrorail ↔ 72 St / Miami Beach
- 82 WESTCHESTER CIRCULATOR (NO SUNDAYS) FIU Maidique Campus ↔ Flagami
- 87 Palmetto Metrorail, Doral ↔ Dadeland North Metrorail
- 88 Dadeland North Metrorail ↔ West Kendall Terminal
- 93 BISCAYNE MAX (WEEKDAYS ONLY) Downtown Miami ↔ Aventura Mall
- 95 EXPRESS GOLDEN GLADES (WEEKDAY RUSH-HOUR ONLY) Carol City, Aventura Mall, Golden Glades ↔ Downtown Miami, Civic Center
- 95 EXPRESS DADE BROWARD (WEEKDAY RUSH-HOUR ONLY) ROUTE 195: Broward Blvd ↔ Downtown Miami
- ROUTE 196: Sheridan St ↔ Downtown Miami
- ROUTE 295: Broward Blvd ↔ Civic Center
- ROUTE 296: Sheridan St ↔ Civic Center

- 99 Miami Gardens Dr & NW 73 Ave Park & Ride ↔ Aventura Mall
- A ROUTE 101: Omni ↔ 20th Street & West Avenue / Miami Beach
- B ROUTE 102: Brickell Metrorail ↔ Key Biscayne
- C ROUTE 103: South Beach ↔ Mt. Sinai Medical Center
- 104 West Kendall Terminal ↔ Dadeland North Metrorail
- E ROUTE 105: Golden Glades ↔ Hallandale Beach
- G ROUTE 107: 94 St / Miami Beach ↔ MDC North Campus
- H ROUTE 108: 163 Street Mall ↔ Haulover Park
- J ROUTE 110: Miami Intl Airport ↔ 41 St / Miami Beach
- L ROUTE 112: Lincoln Rd ↔ Hialeah Metrorail
- M ROUTE 113: Civic Center ↔ Mt. Sinai Hospital
- 115 MID-NORTH BEACH CONNECTION - Collins Ave / 88 St ↔ Lincoln Rd
- S ROUTE 119: Downtown Miami ↔ Aventura Mall
- 120 BEACH MAX Downtown Miami ↔ Haulover Park, Aventura Mall
- 132 TRI-RAIL DORAL SHUTTLE (WEEKDAY RUSH-HOUR ONLY): Doral ↔ Hialeah Market Tri-Rail
- 135 Hialeah Metrorail, Miami Lakes ↔ FIU Biscayne Bay Campus
- 136 (WEEKDAY RUSH-HOUR ONLY) SW 136 St / US1 ↔ Douglas Road Metrorail
- 137 WEST DADE CONNECTION Dolphin Mall ↔ South Dade Gov Center
- 150 MIAMI BEACH AIRPORT EXPRESS Miami Intl Airport ↔ South Beach
- 155 BISCAYNE GARDENS CIRCULATOR (WEEKDAYS ONLY)
- 183 Miami Gardens Dr & NW 73 Ave Park & Ride ↔ Aventura Mall
- 200 CUTLER BAY LOCAL
- 202 LITTLE HAITI CONNECTION Biscayne Shopping Plaza, NW 5 Ave / 83 St ↔ Miami Design District
- 204 KILLIAN KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal ↔ Dadeland North Metrorail
- 207 LITTLE HAVANA CONNECTION (CLOCKWISE) Downtown Miami, Brickell ↔ SW 25 Ave via SW 1 St & SW 7 St
- 208 LITTLE HAVANA CONNECTION (COUNTERCLOCKWISE) Downtown Miami, Brickell ↔ SW 27 Ave via W Flagler St & S
- 210 SKYLAKES CIRCULATOR Skylake Mall ↔ 163 Street Mall
- 211 OVERTOWN CIRCULATOR (WEEKDAYS ONLY)
- 212 SWEETWATER CIRCULATOR (WEEKDAYS ONLY)
- 217 BUNCHE PARK CIRCULATOR (WEEKDAYS ONLY) NW 127 St / 22 Ave ↔ N Dade Health Center
- 238 EAST-WEST CONNECTION (WEEKDAYS ONLY) Dolphin Mall ↔ Miami Intl. Airport
- 246 NIGHT OWL Downtown Miami ↔ 163 St Mall
- 248 PRINCETON CIRCULATOR Southland Mall ↔ SW 264 St, Naranja (Weekdays Only)
- 252 CORAL REEF MAX Country Walk ↔ Dadeland South Metrorail, Zoo Miami (Weekends Only)
- 254 BROWNSVILLE CIRCULATOR (WEEKDAYS ONLY) Caleo Center ↔ Jefferson Reeves Park, Hialeah (Thursday only)
- 267 LUDLAM LIMITED (WEEKDAY RUSH-HOUR ONLY) NW 186 St/87 Ave ↔ Okeechobee Metrorail
- 272 SUNSET KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal ↔ Dadeland North Metrorail
- 277 NW 7 AVENUE MAX (WEEKDAY RUSH-HOUR ONLY) Downtown Miami ↔ Golden Glades Park & Ride
- 286 NORTH POINTE CIRCULATOR (NO SUNDAYS) Miami Gardens Dr & NW 73 Ave Park & Ride ↔ NW 57 Ave/NW 176 St
- 287 SAGA BAY MAX (WEEKDAY RUSH-HOUR ONLY) S Dade Health Center ↔ Dadeland South Metrorail
- 288 KENDALL CRUISER (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal, SW 127 Ave Park & Ride ↔ Dadeland North Metrorail
- 297 27th AVE ORANGE MAX (WEEKDAYS ONLY) Miami Intl Airport ↔ Miami Gardens
- 301 DADE-MONROE EXPRESS Florida City ↔ Marathon Key
- 302 CARD SOUND EXPRESS Florida City ↔ Ocean Reef Club
- 338 WEEKEND EXPRESS (WEEKENDS ONLY) Miami Intl Airport ↔ Dolphin Mall
- 344 (WEEKDAYS ONLY) Florida City ↔ MDC Homestead Campus
- 500 MIDNIGHT OWL Dadeland South Metrorail ↔ Downtown Miami

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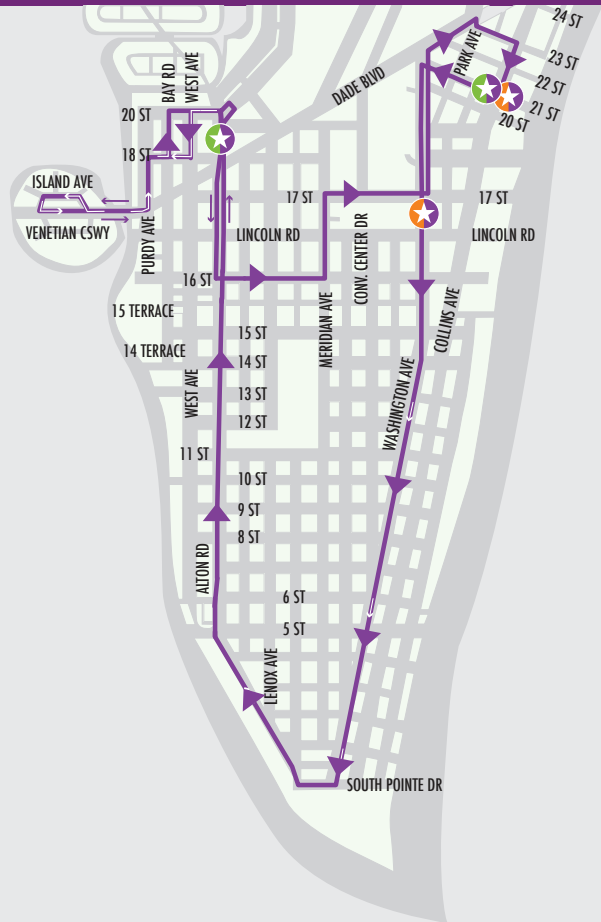
APPENDIX C

City of Miami Beach South Beach Trolley Map



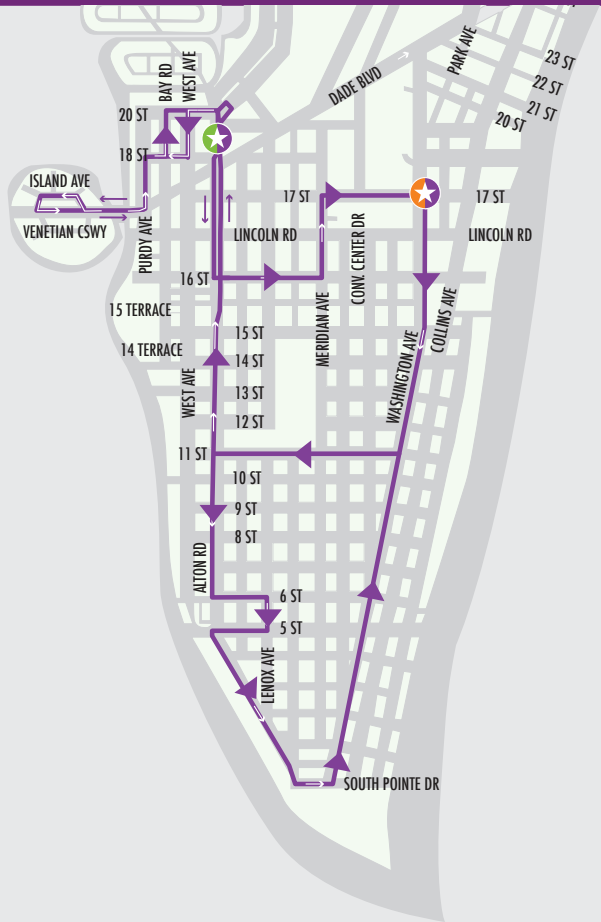
SOUTH BEACH LOOP - A

(Clockwise - Approximately 20 minutes)



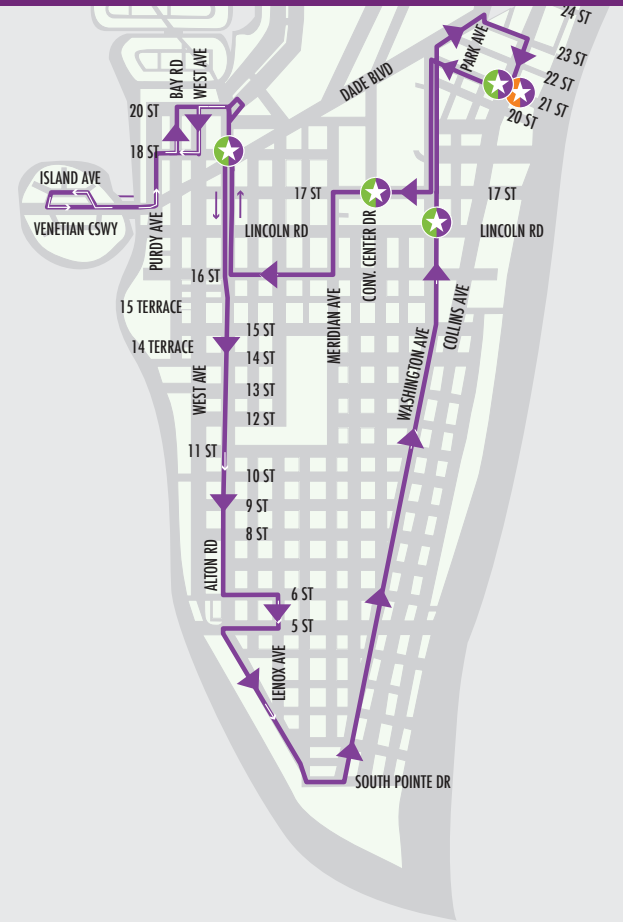
SOUTH BEACH LOOP - VIA 11 ST

(Approximately 40 minutes)



SOUTH BEACH LOOP - B

(Counter Clockwise - Approximately 20 minutes)





APPENDIX D

Context Location Plan



Context Location Plan





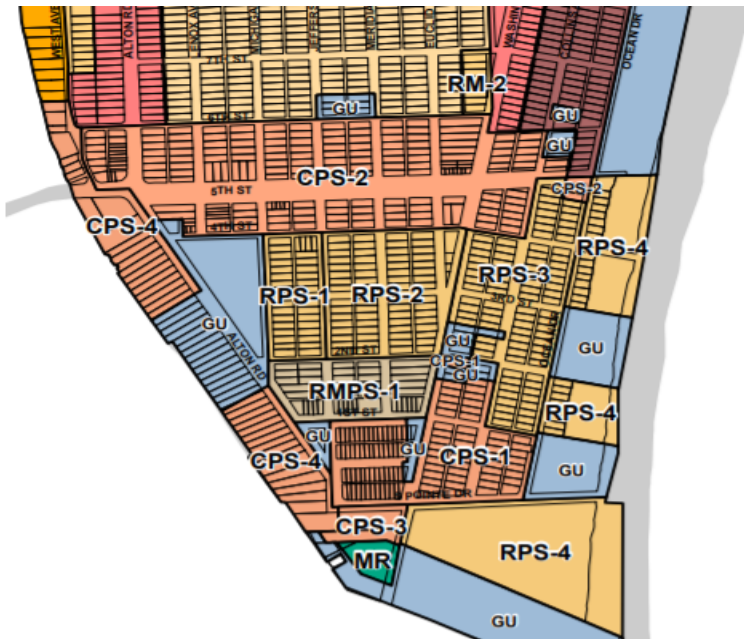
APPENDIX E

Land Use Plan



APPENDIX E

Land Use Plan

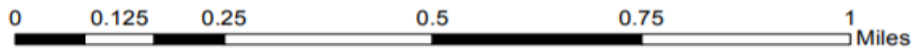


*A t l a n t i c
O c e a n*

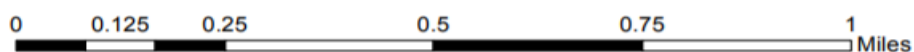
MIAMI BEACH

PLANNING DEPARTMENT

1700 CONVENTION CENTER DRIVE
MIAMI BEACH, FLORIDA 33139
P 305.673.7550 F 305.673.7559



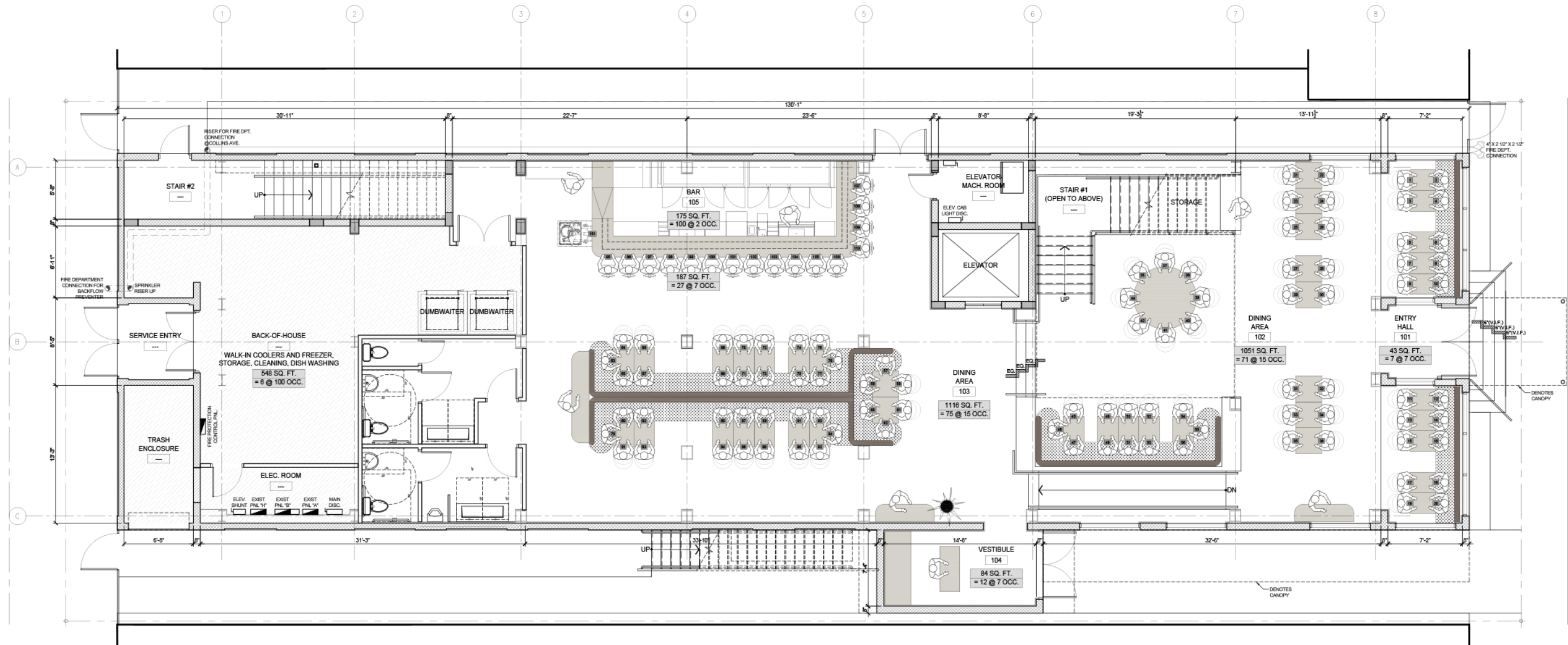
LAND USE MAP MIAMI-DADE COUNTY

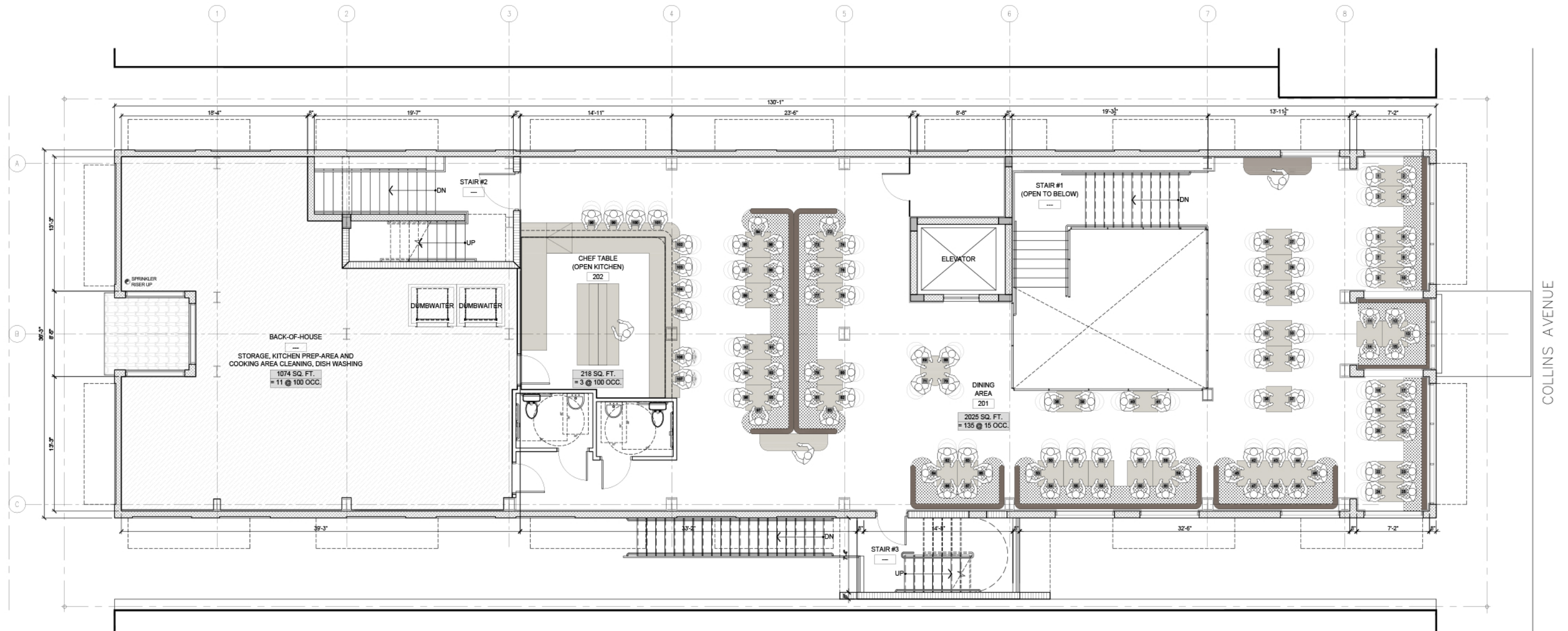




APPENDIX F

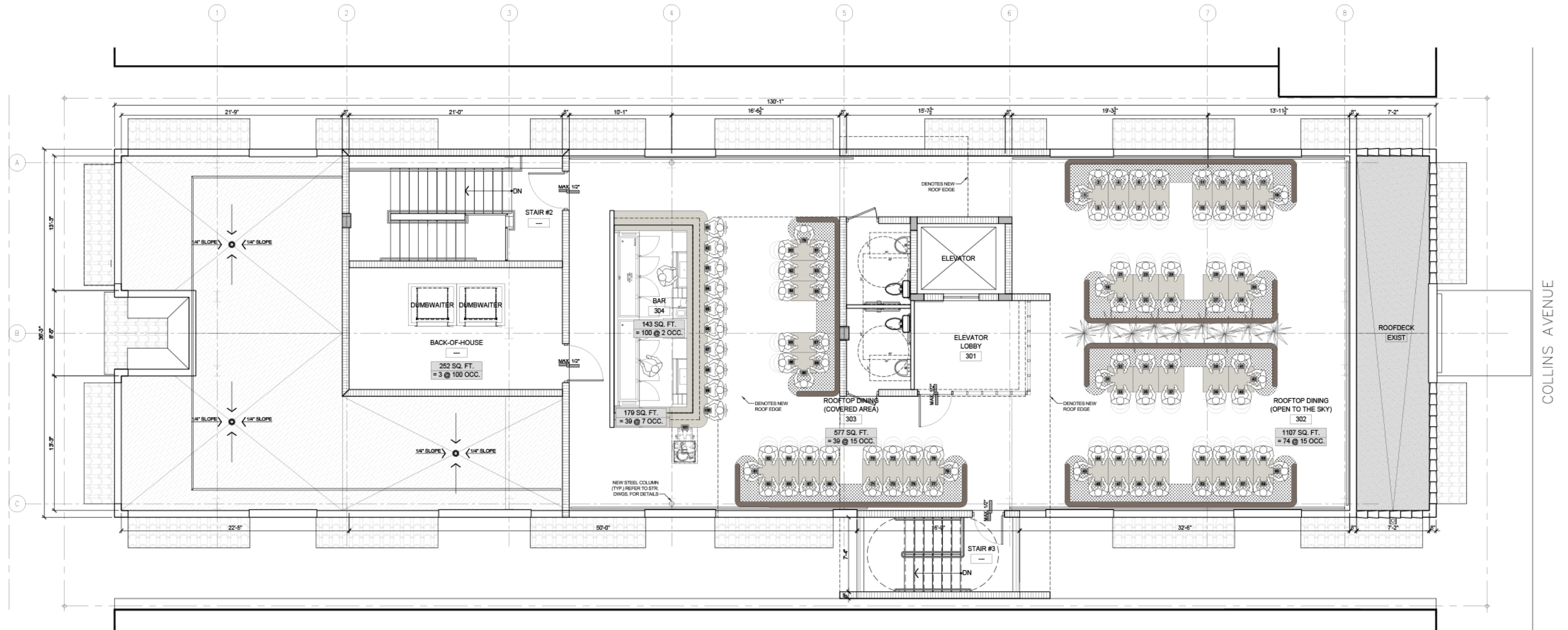
Site Plan, Floor Plan and Site Access





PROPOSED 2ND FLOOR PLAN
SCALE: 3/16" = 1'-0"

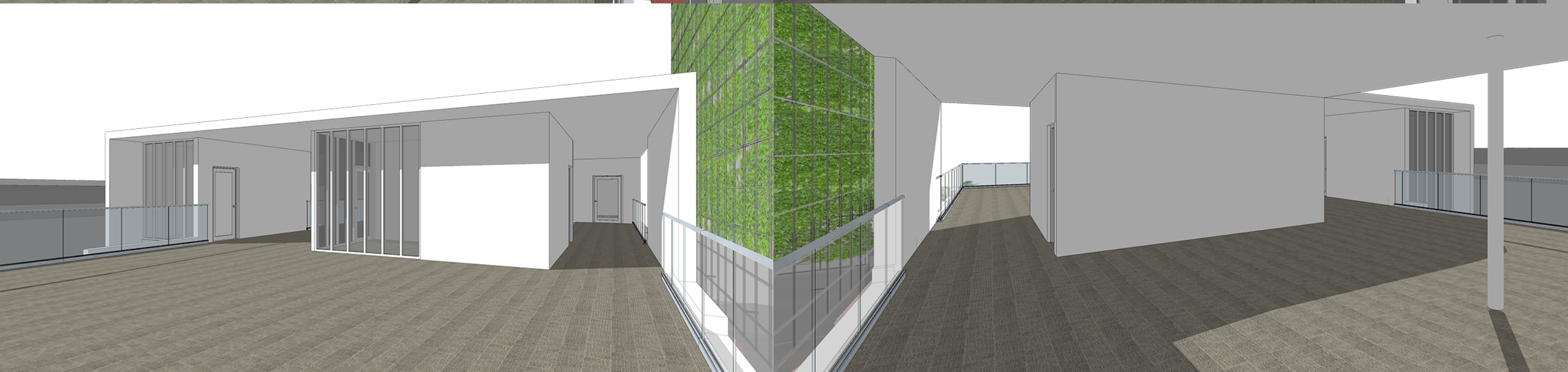
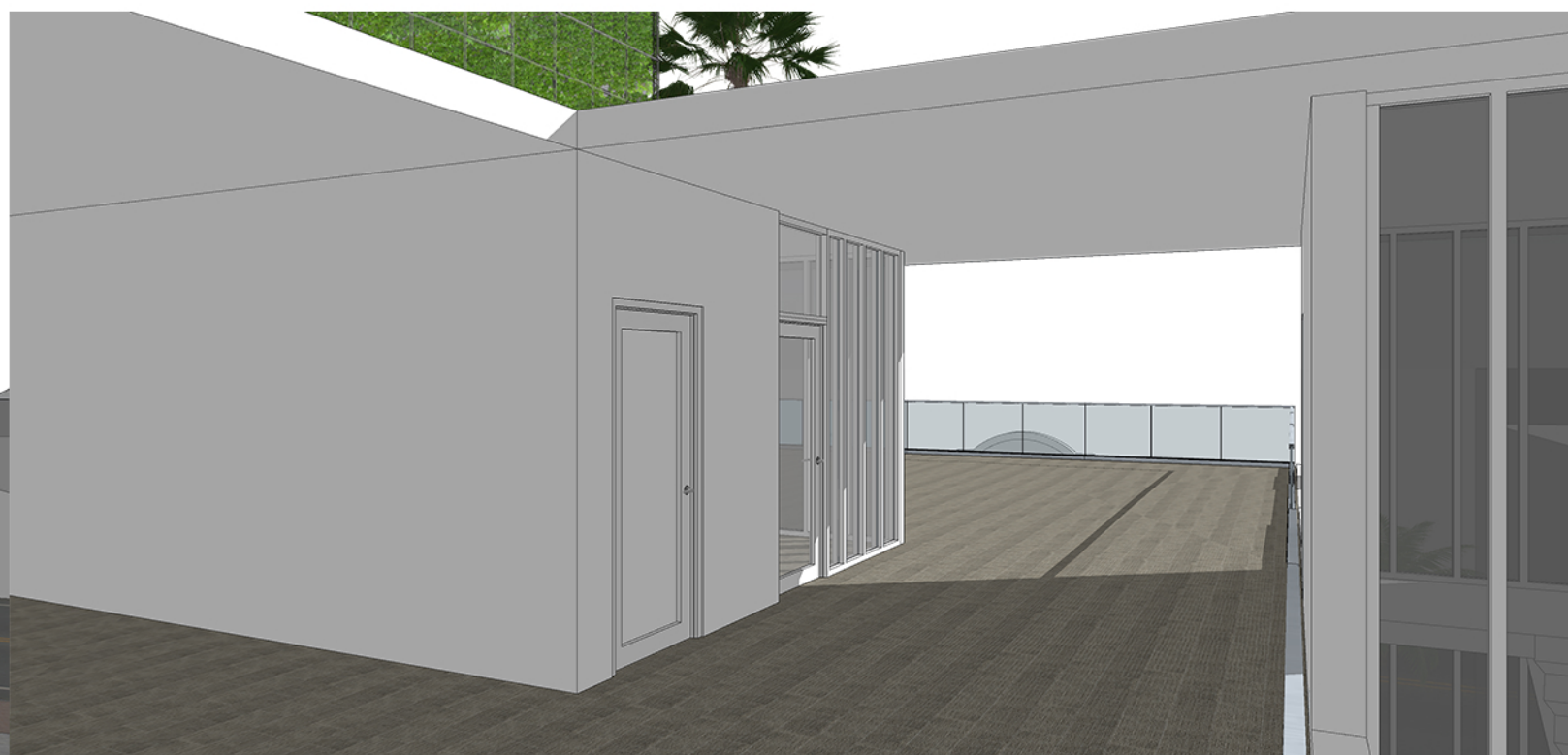
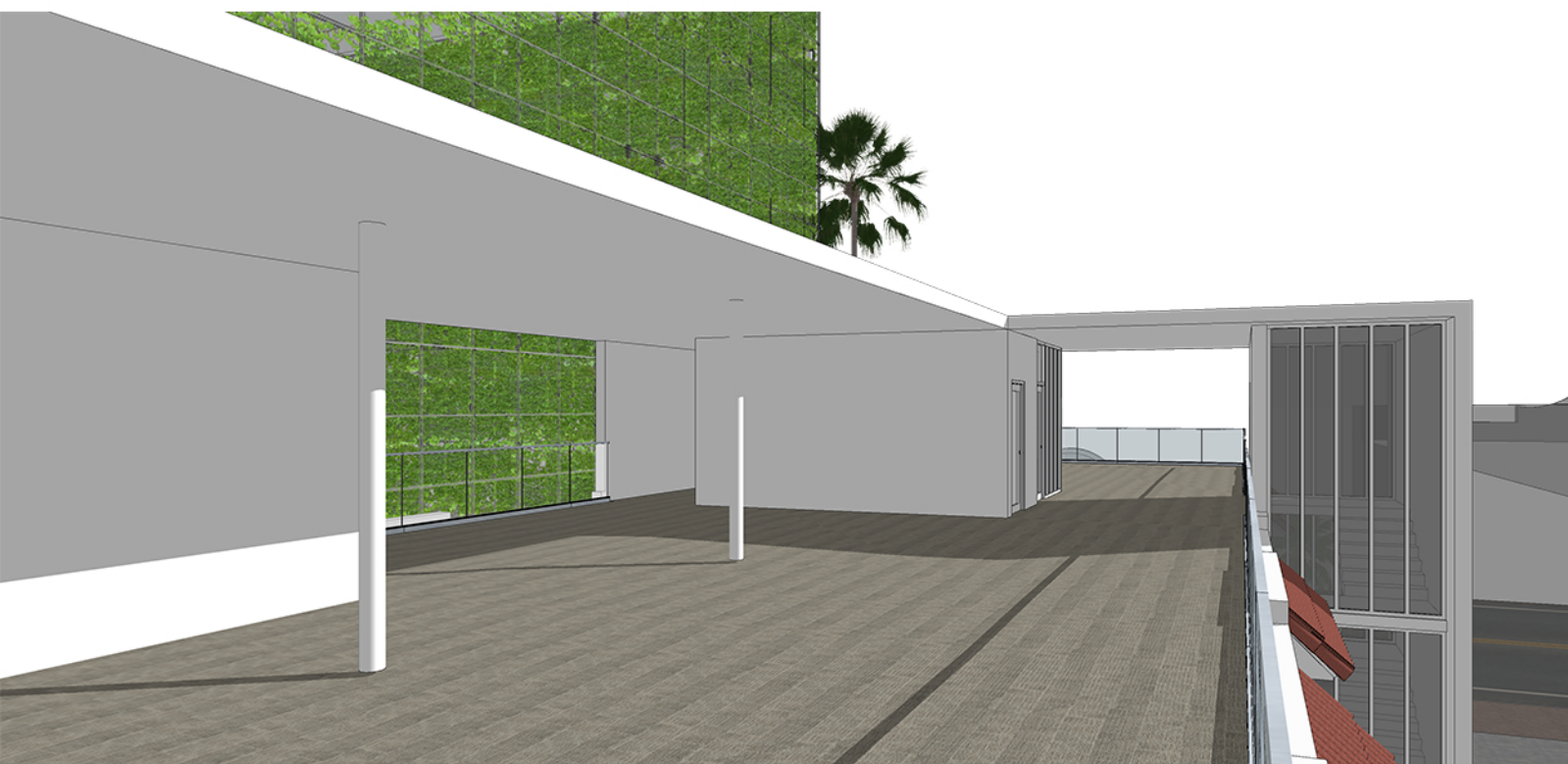


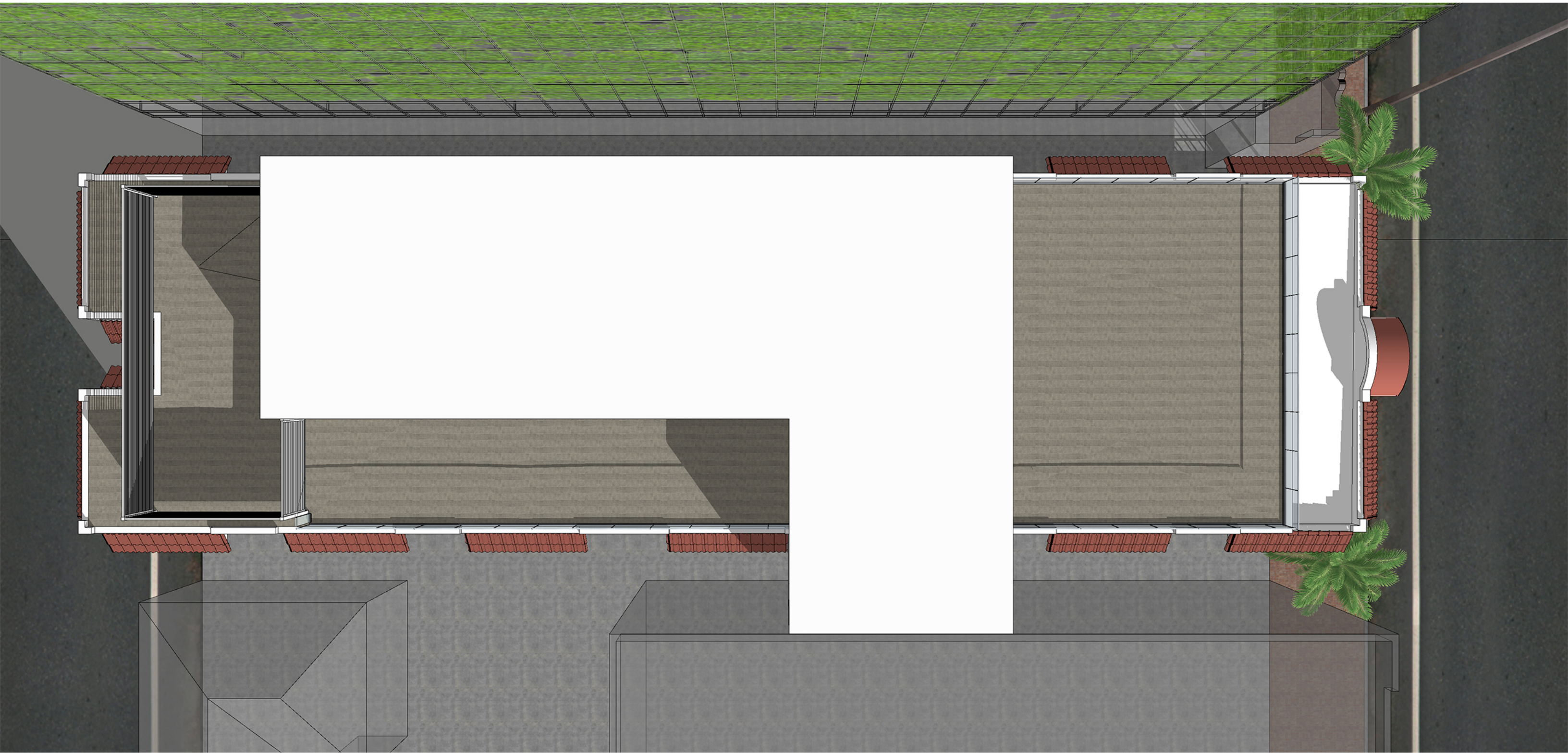


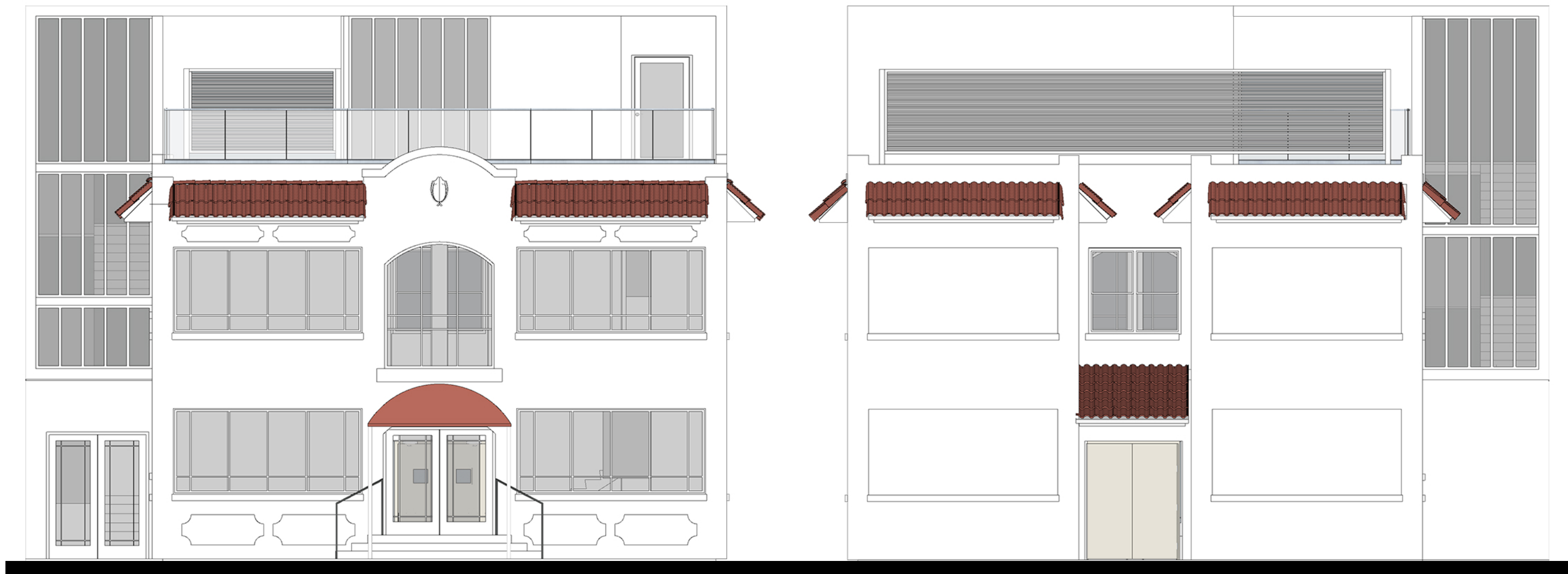
PROPOSED ROOFTOP FLOOR PLAN
 SCALE: 3/16" = 1'-0"

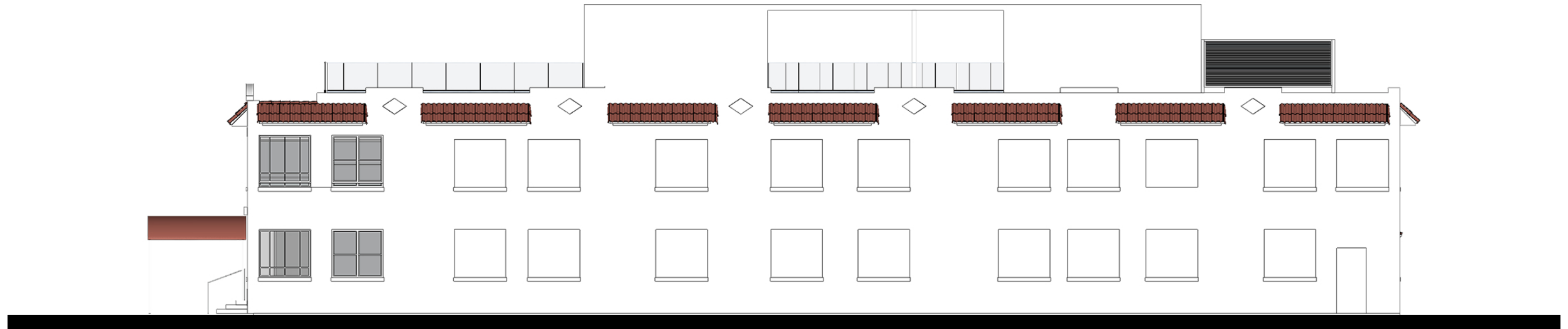
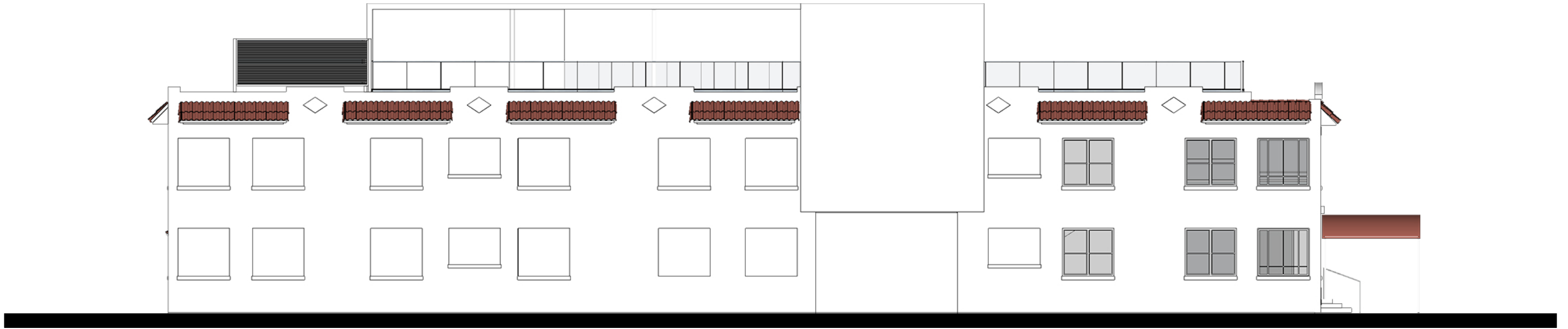
OCCUPANCY LOAD CALCULATION (PRELIMINARY)										
GROUP A-2: ASSEMBLY OCCUPANCY / SUBGROUP: RESTAURANT										
NOTE: BASED ON NFPA 101, F.F.P.C. 2020 7th ED TBL. 7.3.1.2 AND 2020 F.B.C. TABLE 1004.1.2 OCCUPANCY FACTOR WAS USED TO DETERMINED HIGHEST OCCUPANCY LOAD.				AS PER F.B.C. 2020			AS PER F.F.B.C. 2020 / N.F.P.A 101 2020			
ID	ROOM	AREA	FUNCTION	OCUPANT LOAD	NUMBER OF OCUPANTS	TOTAL OF OCUPANTS	OCUPANT LOAD	NUMBER OF OCUPANTS	TOTAL OF OCUPANTS	NUMBER OF SEATS
GROUND FLOOR										
101	ENTRY HALL	43.0 SQ.FT.	ASSEMBLY	7	6.1	7.0	7	6.1	7.0	-
102	DINING AREA	1,051.0 SQ.FT.	ASSEMBLY	15	70.1	71.0	15	70.1	71.0	56.0
103	DINING AREA	1,116.0 SQ.FT.	ASSEMBLY	15	74.4	75.0	15	74.4	75.0	38.0
104	VESTIBULE	84.0 SQ.FT.	ASSEMBLY	7	12.0	12.0	7	12.0	12.0	-
105	BAR	175.0 SQ.FT.	KITCHEN	200	0.9	1.0	100	1.8	2.0	-
	- BAR SEATING AREA	187.0 SQ.FT.	ASSEMBLY	7	26.7	27.0	7	26.7	27.0	16.0
	- BACK-OF-HOUSE	560.0 SQ.FT.	KITCHEN	200	2.8	3.0	100	5.6	6.0	-
106	MALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
107	FEMALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
SUB-TOTAL PATRONS / OCCUPANTS						196.0			200.0	110.0
SECOND FLOOR										
201	DINING AREA	2,025.0 SQ.FT.	ASSEMBLY	15	135.0	135.0	15	135.0	135.0	107.0
202	CHEF TABLE (OPEN KITCHEN)	218.0 SQ.FT.	KITCHEN	200	1.1	2.0	100	2.2	3.0	-
	- BACK-OF-HOUSE	1,074.0 SQ.FT.	KITCHEN	200	5.4	6.0	100	10.7	11.0	-
203	MALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
204	FEMALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
SUB-TOTAL PATRONS / OCCUPANTS						143.0			149.0	107.0
ROOFTOP FLOOR										
301	LOBBY	94.0 SQ.FT.	-	-	-	-	-	-	-	-
302	ROOFTOP DINING (OPEN AREA)	1,107.0 SQ.FT.	ASSEMBLY	15	73.8	74.0	15	73.8	74.0	60.0
303	ROOFTOP DINING (COVERED A.)	577.0 SQ.FT.	ASSEMBLY	15	38.5	39.0	15	38.5	39.0	30.0
304	BAR	175.0 SQ.FT.	KITCHEN	200	0.9	1.0	100	1.8	2.0	-
	- BAR SEATING AREA	179.0 SQ.FT.	ASSEMBLY	7	25.6	26.0	7	25.6	26.0	11.0
	- BACK-OF-HOUSE	252.0 SQ.FT.	KITCHEN	200	1.3	2.0	100	2.5	3.0	-
203	MALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
204	FEMALE RESTROOMS	- SQ.FT.	-	-	-	-	-	-	-	-
SUB-TOTAL PATRONS / OCCUPANTS						142.0			144.0	101.0
TOTAL PATRONS / OCCUPANTS						481.0			493.0	318.0













APPENDIX G

ITETripGen Web Application Worksheets and Graphs

624 Collins Avenue

07/05/23

ITE Code / Description	Quantity	Units	Peak Hour Trips			Multimodal Reduction	Net Peak Hour Trips		
			In	Out	Total		In	Out	Total
931 / Fine Dinning Restaurant - Weekday Daily Total	318	Seats	413	414	827	20%	330	331	661
931 / Fine Dinning Restaurant - Weekday AM Peak Hour	318	Seats	48	33	81	20%	38	26	64
931 / Fine Dinning Restaurant - Weekday PM Peak Hour	318	Seats	56	38	94	20%	45	30	75
931 / Fine Dinning Restaurant - Weekend Daily Total	318	Seats	409	408	817	20%	327	326	653
931 / Fine Dinning Restaurant - Weekend Peak Hour	318	Seats	62	43	105	20%	50	34	84

ITE Trip Generation Manual - 11th Edition

Land Use: 931

Fine Dining Restaurant

Description

A fine dining restaurant is a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

Additional Data

If the fine dining restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The sites were surveyed in the 1980s, the 1990s, and the 2010s in Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, New Jersey, and Utah.

Source Numbers

126, 260, 291, 301, 338, 339, 368, 437, 440, 976, 1053

Fine Dining Restaurant

(931)

Vehicle Trip Ends vs: Seats

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

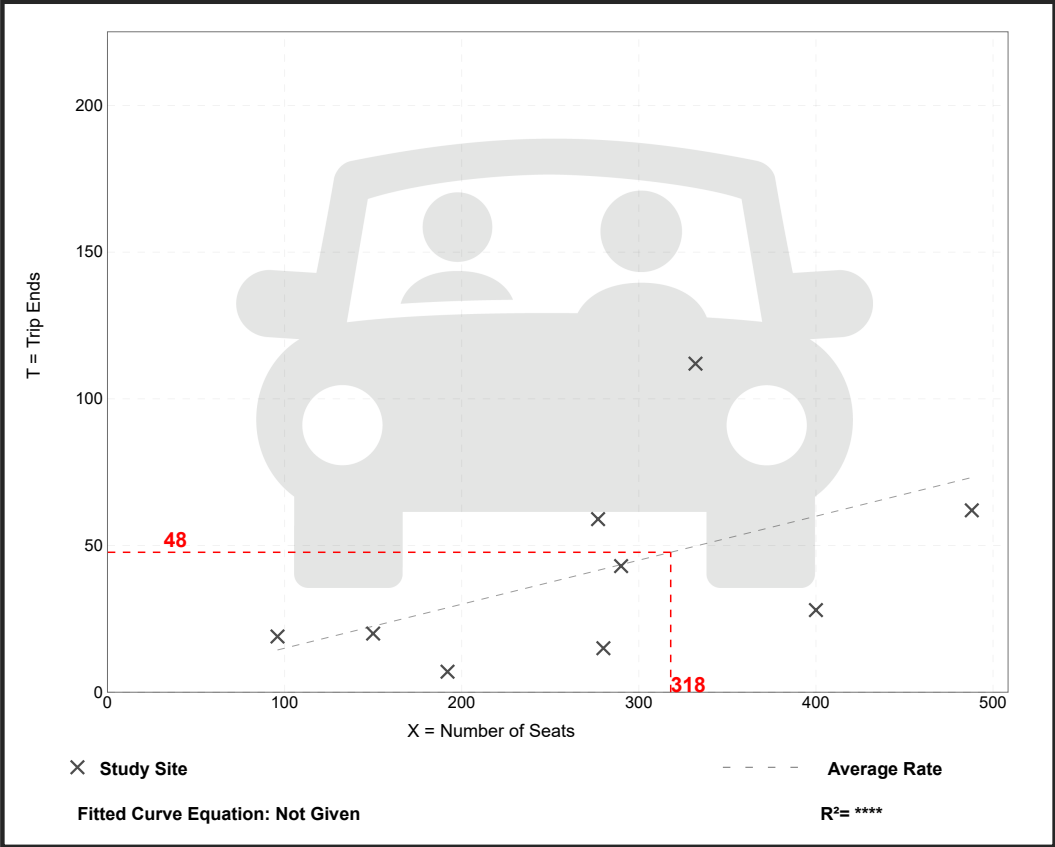
Avg. Num. of Seats: 278

Directional Distribution: 69% entering, 31% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.15	0.04 - 0.34	0.10

Data Plot and Equation



Fine Dining Restaurant (931)

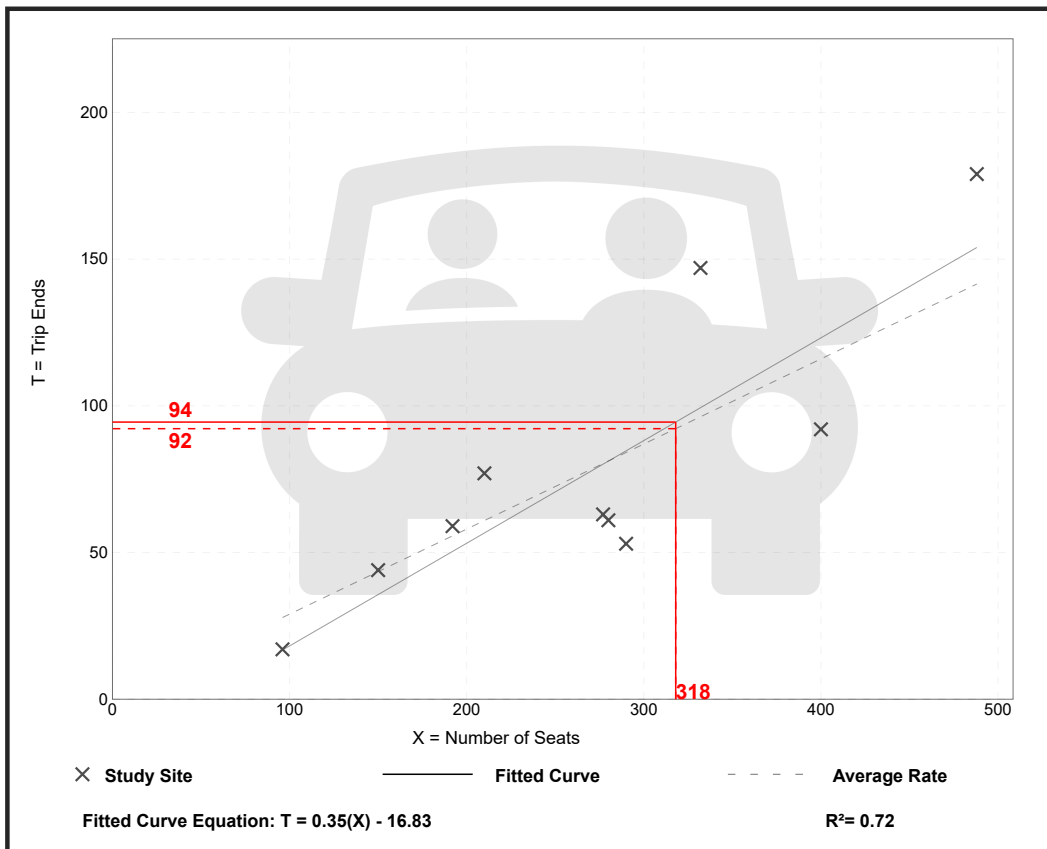
Vehicle Trip Ends vs: Seats
On a: Weekday,
 PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 10
 Avg. Num. of Seats: 272
 Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.29	0.18 - 0.44	0.09

Data Plot and Equation



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Fine Dining Restaurant (931)

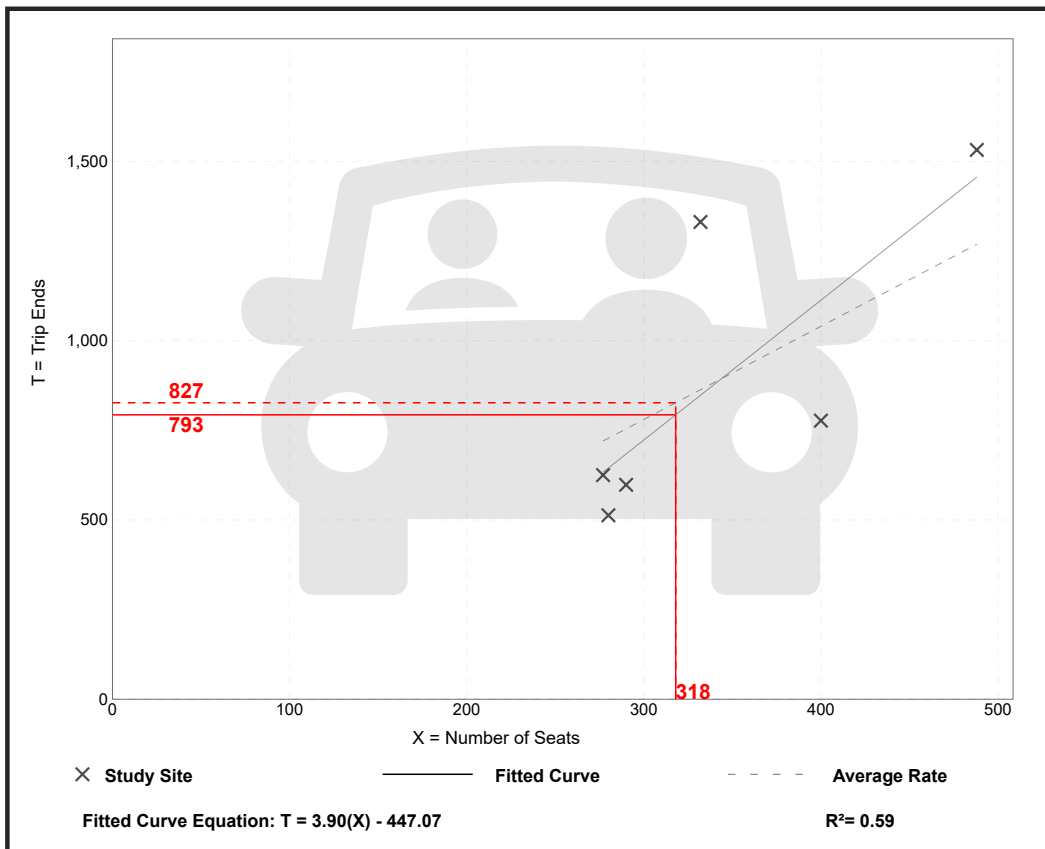
Vehicle Trip Ends vs: **Seats**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 6
Avg. Num. of Seats: 345
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
2.60	1.83 - 4.01	0.85

Data Plot and Equation



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Fine Dining Restaurant (931)

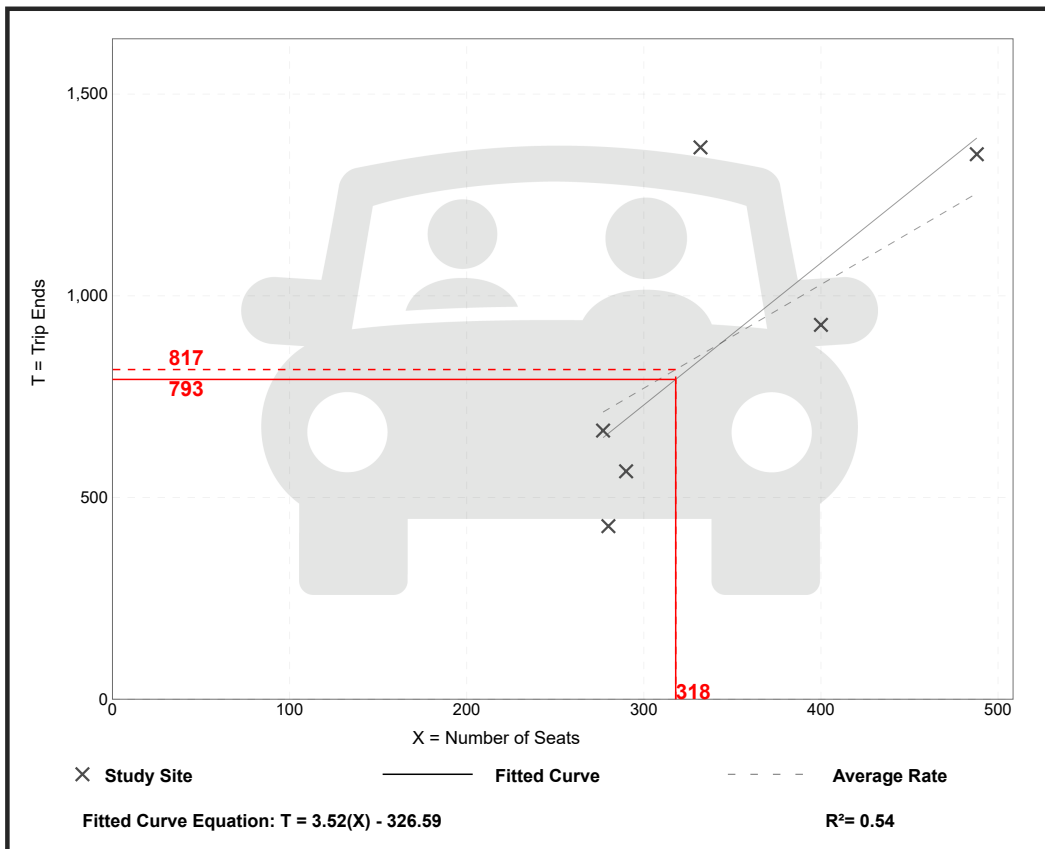
Vehicle Trip Ends vs: **Seats**
On a: **Saturday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 6
Avg. Num. of Seats: 345
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
2.57	1.53 - 4.12	0.86

Data Plot and Equation



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Land Use: 931

Fine Dining Restaurant

Description

A fine dining restaurant is a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

Additional Data

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The sites were surveyed in the 1980s, the 1990s, and the 2010s in Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, New Jersey, and Utah.

Source Numbers

126, 260, 291, 301, 338, 339, 368, 437, 440, 976, 1053

Fine Dining Restaurant (931)

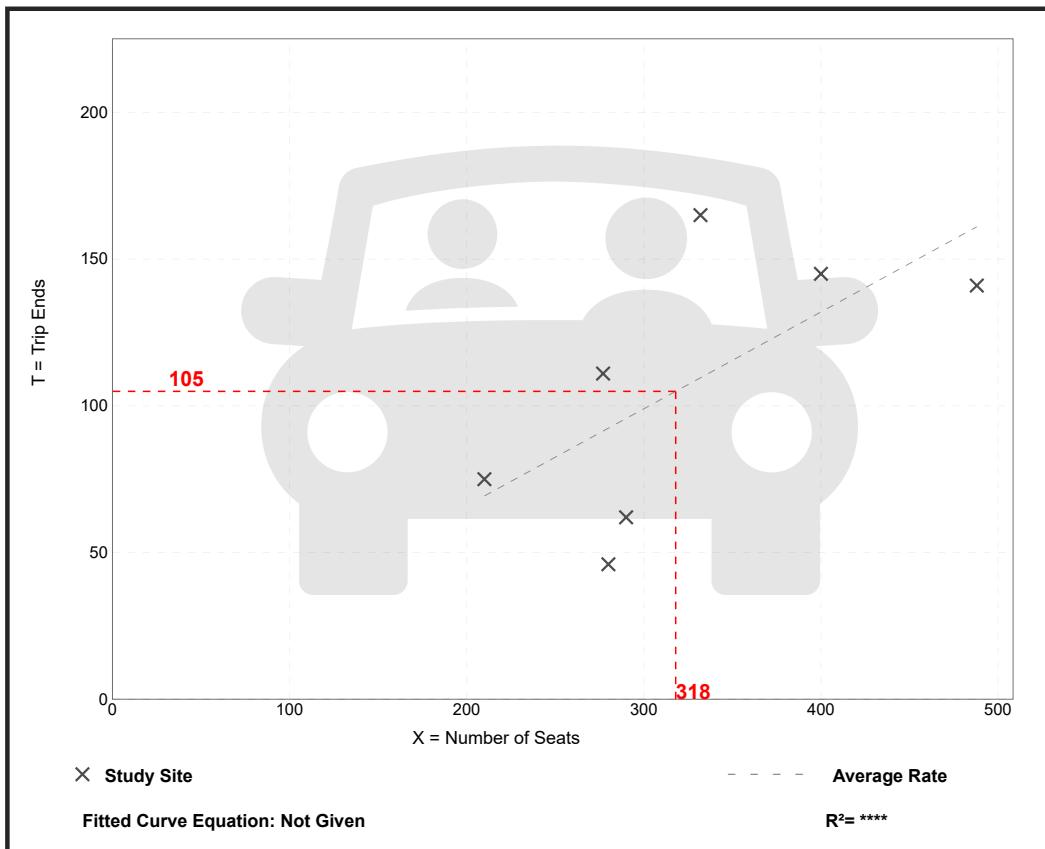
Vehicle Trip Ends vs: Seats
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 7
 Avg. Num. of Seats: 325
 Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.33	0.16 - 0.50	0.11

Data Plot and Equation



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● Institute of Transportation Engineers



APPENDIX H

Coordination with City of Miami Beach Parking Department



Alfredo Cely <alfredo@alfka.com>

CUP Application No. PB23-0621, 624 Collins Avenue - Meeting with Parking Department re: Valet Operations and Available On and Off-Street Parking Spaces

Alejandro Moreno <amoreno@brzoninglaw.com>

Wed, Jul 19, 2023 at 5:13 PM

To: "Beltran, Monica" <MonicaBeltran@miamibeachfl.gov>, "Ventura, Alberto" <AlbertoVentura@miamibeachfl.gov>

Cc: Alfredo Cely <alfredo@alfka.com>, Elvys Penton <epenton@beilinsonarchitectspa.com>, "Marlowe, James" <JamesMarlowe@miamibeachfl.gov>, Ricardo Gijon <rgijon@beilinsonarchitectspa.com>, Yeidy Montesino <ymontesino@brzoninglaw.com>, Diana Ramos <DRamos@brzoninglaw.com>, Aurora Leigh <aleigh@fndev.com>, "Michael W. Larkin" <MLarkin@brzoninglaw.com>, "Webster, Harrison" <HarrisonWebster@miamibeachfl.gov>, "Rodriguez, Otniel" <OtnielRodriguez@miamibeachfl.gov>

Good afternoon Monica and Alberto,

Thank you again for meeting with us today to discuss this project and the potential to rent up to three parking spaces along portion of Collins Avenue that is in front of this property.

During the meeting, you confirmed the permissible use of two spots as valet spots and one spot as a ride-share/passenger loading spot. We also discussed the recent commercial loading space added to the front area of the property which the department will allow us to use as a flex-space, with certain hours used for commercial loading and another set of hours for passenger use.

Again, we appreciate your time and assistance. We will inform you once we have a signed agreement with a valet operator.

Thank you.

-Alejandro



ZONING, LAND USE AND ENVIRONMENTAL LAW

Alejandro Moreno

Bercow Radell Fernandez Larkin + Tapanes

200 S. Biscayne Boulevard, Suite 300, Miami, FL 33131

amoreno@brzoninglaw.com | www.brzoninglaw.com

O: (305) 377 6237 | F: (305) 377 6222

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From: Alejandro Moreno**Sent:** Tuesday, July 18, 2023 3:36 PM**To:** Marlowe, James <JamesMarlowe@miamibeachfl.gov>; Beltran, Monica <MonicaBeltran@miamibeachfl.gov>**Cc:** Alfredo Cely <alfredo@alfka.com>; Elvys Penton <epenton@beilinsonarchitectspa.com>; Ricardo Gijon <rgijon@beilinsonarchitectspa.com>; Yeidy Montesino <ymontesino@brzoninglaw.com>; Diana Ramos <DRamos@brzoninglaw.com>; Ventura, Alberto <AlbertoVentura@miamibeachfl.gov>**Subject:** RE: CUP Application No. PB23-0621, 624 Collins Avenue - Meeting with Parking Department re: Valet Operations and Available On and Off-Street Parking Spaces

Good afternoon James and Monica,

Ahead of tomorrow's meeting, I wanted to provide you with the latest version of the project plans for your reference.

Thank you.



APPENDIX I

Traffic Volume and Turning Movement Counts

VOLUME

Collins Ave/SR A1A Bet. 6th St & 7th St

Day: Thursday
Date: 7/27/2023City: Miami Beach
Project #: FL23_140335_001

DAILY TOTALS					NB	SB						EB	WB						Total
					8,457	5,292						0	0						13,749
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
0:00	73	45			118		12:00	124	73			197							197
0:15	70	28			98		12:15	135	68			203							203
0:30	67	40			107		12:30	134	84			218							218
0:45	47	257	31	144	78	401	12:45	115	508	56	281	171	789						789
1:00	54	24			78		13:00	115	84			199							199
1:15	50	17			67		13:15	120	75			195							195
1:30	44	28			72		13:30	118	86			204							204
1:45	29	177	31	100	60	277	13:45	115	468	86	331	201	799						799
2:00	25	17			42		14:00	122	62			184							184
2:15	31	20			51		14:15	120	93			213							213
2:30	24	22			46		14:30	100	74			174							174
2:45	19	99	25	84	44	183	14:45	117	459	80	309	197	768						768
3:00	27	18			45		15:00	115	73			188							188
3:15	24	26			50		15:15	135	88			223							223
3:30	31	25			56		15:30	111	70			181							181
3:45	21	103	17	86	38	189	15:45	118	479	76	307	194	786						786
4:00	18	28			46		16:00	142	78			220							220
4:15	12	13			25		16:15	125	77			202							202
4:30	25	26			51		16:30	123	83			206							206
4:45	29	84	11	78	40	162	16:45	96	486	83	321	179	807						807
5:00	19	23			42		17:00	117	77			194							194
5:15	21	8			29		17:15	130	76			206							206
5:30	35	15			50		17:30	124	80			204							204
5:45	31	106	21	67	52	173	17:45	110	481	70	303	180	784						784
6:00	42	17			59		18:00	120	61			181							181
6:15	49	26			75		18:15	103	77			180							180
6:30	47	23			70		18:30	96	80			176							176
6:45	69	207	32	98	101	305	18:45	86	405	63	281	149	686						686
7:00	77	34			111		19:00	93	67			160							160
7:15	47	42			89		19:15	121	63			184							184
7:30	86	34			120		19:30	107	78			185							185
7:45	76	286	56	166	132	452	19:45	100	421	54	262	154	683						683
8:00	73	52			125		20:00	101	84			185							185
8:15	85	49			134		20:15	126	66			192							192
8:30	109	54			163		20:30	128	57			185							185
8:45	95	362	43	198	138	560	20:45	106	461	84	291	190	752						752
9:00	93	68			161		21:00	112	68			180							180
9:15	93	65			158		21:15	106	63			169							169
9:30	81	47			128		21:30	105	78			183							183
9:45	90	357	70	250	160	607	21:45	119	442	63	272	182	714						714
10:00	107	61			168		22:00	133	57			190							190
10:15	115	73			188		22:15	101	61			162							162
10:30	115	64			179		22:30	103	55			158							158
10:45	106	443	67	265	173	708	22:45	131	468	51	224	182	692						692
11:00	123	83			206		23:00	115	52			167							167
11:15	117	104			221		23:15	108	60			168							168
11:30	122	95			217		23:30	89	46			135							135
11:45	125	487	83	365	208	852	23:45	99	411	51	209	150	620						620
TOTALS	2968	1901			4869		TOTALS	5489	3391			8880							8880
SPLIT %	61.0%	39.0%			35.4%		SPLIT %	61.8%	38.2%			64.6%							64.6%

DAILY TOTALS					NB	SB						EB	WB						Total
					8,457	5,292						0	0						13,749
AM Peak Hour	11:45	11:00			11:00		PM Peak Hour	12:00	13:00			15:45							15:45
AM Pk Volume	518	365			852		PM Pk Volume	508	331			822							822
Pk Hr Factor	0.959	0.877			0.964		Pk Hr Factor	0.941	0.962			0.934							0.934
7 - 9 Volume	648	364	0	0	1012		4 - 6 Volume	967	624	0	0	1591							1591
7 - 9 Peak Hour	8:00	7:45			8:00		4 - 6 Peak Hour	16:00	16:00			16:00							16:00
7 - 9 Pk Volume	362	211	0	0	560		4 - 6 Pk Volume	486	321	0	0	807							807
Pk Hr Factor	0.830	0.942	0.000	0.000	0.859		Pk Hr Factor	0.856	0.967	0.000	0.000	0.917							0.917

VOLUME

Collins Ave/SR A1A Bet. 6th St & 7th St

Day: Friday

Date: 7/28/2023

City: Miami Beach

Project #: FL23_140335_001

DAILY TOTALS					NB	SB						EB	WB						Total
					8,957	6,166						0	0						15,123
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
0:00	97	52			149		12:00	118	98			216							
0:15	80	41			121		12:15	120	86			206							
0:30	91	50			141		12:30	106	94			200							
0:45	70	338	48	191	118	529	12:45	131	475	83	361	214	836						
1:00	67	44			111		13:00	127	65			192							
1:15	40	43			83		13:15	124	93			217							
1:30	47	40			87		13:30	100	73			173							
1:45	32	186	34	161	66	347	13:45	122	473	84	315	206	788						
2:00	45	39			84		14:00	115	80			195							
2:15	47	21			68		14:15	128	71			199							
2:30	24	27			51		14:30	121	87			208							
2:45	29	145	35	122	64	267	14:45	126	490	79	317	205	807						
3:00	30	30			60		15:00	123	74			197							
3:15	31	22			53		15:15	123	75			198							
3:30	21	31			52		15:30	144	77			221							
3:45	16	98	24	107	40	205	15:45	146	536	73	299	219	835						
4:00	33	35			68		16:00	125	79			204							
4:15	23	21			44		16:15	106	84			190							
4:30	25	20			45		16:30	120	94			214							
4:45	24	105	26	102	50	207	16:45	117	468	76	333	193	801						
5:00	32	19			51		17:00	152	78			230							
5:15	39	17			56		17:15	118	90			208							
5:30	34	26			60		17:30	137	99			236							
5:45	40	145	28	90	68	235	17:45	129	536	83	350	212	886						
6:00	34	34			68		18:00	129	83			212							
6:15	50	30			80		18:15	131	84			215							
6:30	49	34			83		18:30	106	81			187							
6:45	66	199	38	136	104	335	18:45	118	484	81	329	199	813						
7:00	75	43			118		19:00	110	92			202							
7:15	51	53			104		19:15	114	85			199							
7:30	95	39			134		19:30	81	61			142							
7:45	65	286	56	191	121	477	19:45	114	419	87	325	201	744						
8:00	96	57			153		20:00	113	78			191							
8:15	84	69			153		20:15	117	85			202							
8:30	90	80			170		20:30	112	79			191							
8:45	98	368	54	260	152	628	20:45	111	453	87	329	198	782						
9:00	94	71			165		21:00	118	96			214							
9:15	86	64			150		21:15	126	86			212							
9:30	100	65			165		21:30	115	62			177							
9:45	85	365	64	264	149	629	21:45	122	481	71	315	193	796						
10:00	99	84			183		22:00	124	56			180							
10:15	111	74			185		22:15	123	79			202							
10:30	102	64			166		22:30	124	75			199							
10:45	115	427	89	311	204	738	22:45	130	501	78	288	208	789						
11:00	135	90			225		23:00	142	88			230							
11:15	115	74			189		23:15	127	87			214							
11:30	96	99			195		23:30	123	59			182							
11:45	126	472	91	354	217	826	23:45	115	507	82	316	197	823						
TOTALS	3134	2289			5423		TOTALS	5823	3877			9700							
SPLIT %	57.8%	42.2%			35.9%		SPLIT %	60.0%	40.0%			64.1%							

DAILY TOTALS					NB	SB						EB	WB						Total
					8,957	6,166						0	0						15,123
AM Peak Hour	11:00	11:30			11:45		PM Peak Hour	15:15	12:00			17:00							
AM Pk Volume	472	374			839		PM Pk Volume	538	361			886							
Pk Hr Factor	0.874	0.944			0.967		Pk Hr Factor	0.921	0.921			0.939							
7 - 9 Volume	654	451	0	0	1105		4 - 6 Volume	1004	683	0	0	1687							
7 - 9 Peak Hour	8:00	7:45			8:00		4 - 6 Peak Hour	17:00	17:00			17:00							
7 - 9 Pk Volume	368	262	0	0	628		4 - 6 Pk Volume	536	350	0	0	886							
Pk Hr Factor	0.939	0.819	0.000	0.000	0.924		Pk Hr Factor	0.882	0.884	0.000	0.000	0.939							

VOLUME

Collins Ave/SR A1A Bet. 6th St & 7th St

Day: Saturday
Date: 7/29/2023City: Miami Beach
Project #: FL23_140335_001

DAILY TOTALS					NB	SB						EB	WB						Total
					9,611	7,425						0	0						17,036
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
0:00	100	72			172		12:00	123	100			223							223
0:15	89	62			151		12:15	119	107			226							226
0:30	81	76			157		12:30	129	95			224							224
0:45	81	351	80	290	161	641	12:45	142	513	90	392	232	905						
1:00	85	66			151		13:00	128	100			228							228
1:15	84	66			150		13:15	118	77			195							195
1:30	62	57			119		13:30	128	103			231							231
1:45	63	294	66	255	129	549	13:45	107	481	69	349	176	830						
2:00	77	53			130		14:00	127	89			216							216
2:15	78	58			136		14:15	131	112			243							243
2:30	40	59			99		14:30	136	86			222							222
2:45	49	244	66	236	115	480	14:45	136	530	122	409	258	939						
3:00	48	65			113		15:00	137	111			248							248
3:15	56	52			108		15:15	128	100			228							228
3:30	58	61			119		15:30	124	95			219							219
3:45	50	212	58	236	108	448	15:45	138	527	105	411	243	938						
4:00	42	63			105		16:00	127	105			232							232
4:15	35	56			91		16:15	142	84			226							226
4:30	53	48			101		16:30	145	104			249							249
4:45	44	174	44	211	88	385	16:45	125	539	97	390	222	929						
5:00	42	37			79		17:00	112	112			224							224
5:15	36	43			79		17:15	139	92			231							231
5:30	21	25			46		17:30	134	97			231							231
5:45	38	137	21	126	59	263	17:45	125	510	102	403	227	913						
6:00	33	35			68		18:00	137	108			245							245
6:15	36	29			65		18:15	129	116			245							245
6:30	56	25			81		18:30	136	101			237							237
6:45	50	175	35	124	85	299	18:45	126	528	111	436	237	964						
7:00	41	41			82		19:00	129	88			217							217
7:15	57	39			96		19:15	139	89			228							228
7:30	65	45			110		19:30	129	104			233							233
7:45	81	244	36	161	117	405	19:45	136	533	121	402	257	935						
8:00	79	54			133		20:00	126	115			241							241
8:15	77	59			136		20:15	130	101			231							231
8:30	88	51			139		20:30	135	101			236							236
8:45	91	335	73	237	164	572	20:45	124	515	101	418	225	933						
9:00	84	51			135		21:00	123	120			243							243
9:15	82	61			143		21:15	134	89			223							223
9:30	82	61			143		21:30	125	109			234							234
9:45	102	350	55	228	157	578	21:45	95	477	79	397	174	874						
10:00	131	74			205		22:00	133	96			229							229
10:15	118	54			172		22:15	98	103			201							201
10:30	109	58			167		22:30	118	87			205							205
10:45	130	488	76	262	206	750	22:45	100	449	96	382	196	831						
11:00	150	89			239		23:00	98	101			199							199
11:15	159	76			235		23:15	108	93			201							201
11:30	139	87			226		23:30	110	74			184							184
11:45	143	591	72	324	215	915	23:45	98	414	78	346	176	760						
TOTALS	3595	2690			6285		TOTALS	6016	4735			10751							
SPLIT %	57.2%	42.8%			36.9%		SPLIT %	56.0%	44.0%			63.1%							

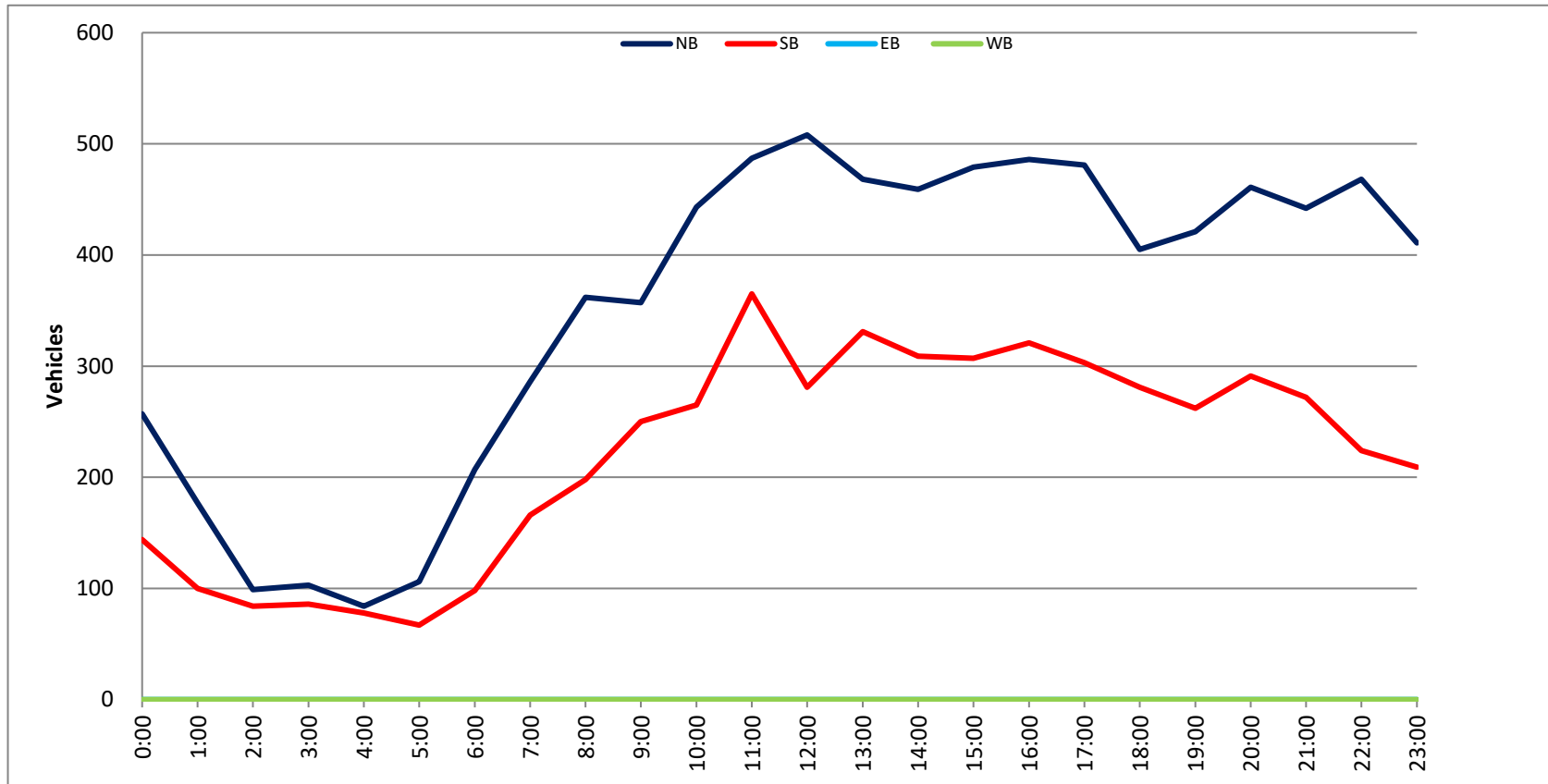
DAILY TOTALS					NB	SB						EB	WB						Total
					9,611	7,425						0	0						17,036
AM Peak Hour	11:00	11:45			11:00		PM Peak Hour	15:45	19:30			14:15							
AM Pk Volume	591	374			915		PM Pk Volume	552	441			971							
Pk Hr Factor	0.929	0.874			0.957		Pk Hr Factor	0.952	0.911			0.941							
7 - 9 Volume	579	398	0	0	977		4 - 6 Volume	1049	793	0	0	1842							
7 - 9 Peak Hour	8:00	8:00			8:00		4 - 6 Peak Hour	16:00	16:30			16:00							
7 - 9 Pk Volume	335	237	0	0	572		4 - 6 Pk Volume	539	405	0	0	929							
Pk Hr Factor	0.920	0.812	0.000	0.000	0.872		Pk Hr Factor	0.929	0.904	0.000	0.000	0.933							

Project #: FL23_140335_001

City: Miami Beach

Location: Collins Ave/SR A1A Bet. 6th St & 7th St

Date: 7/27/2023

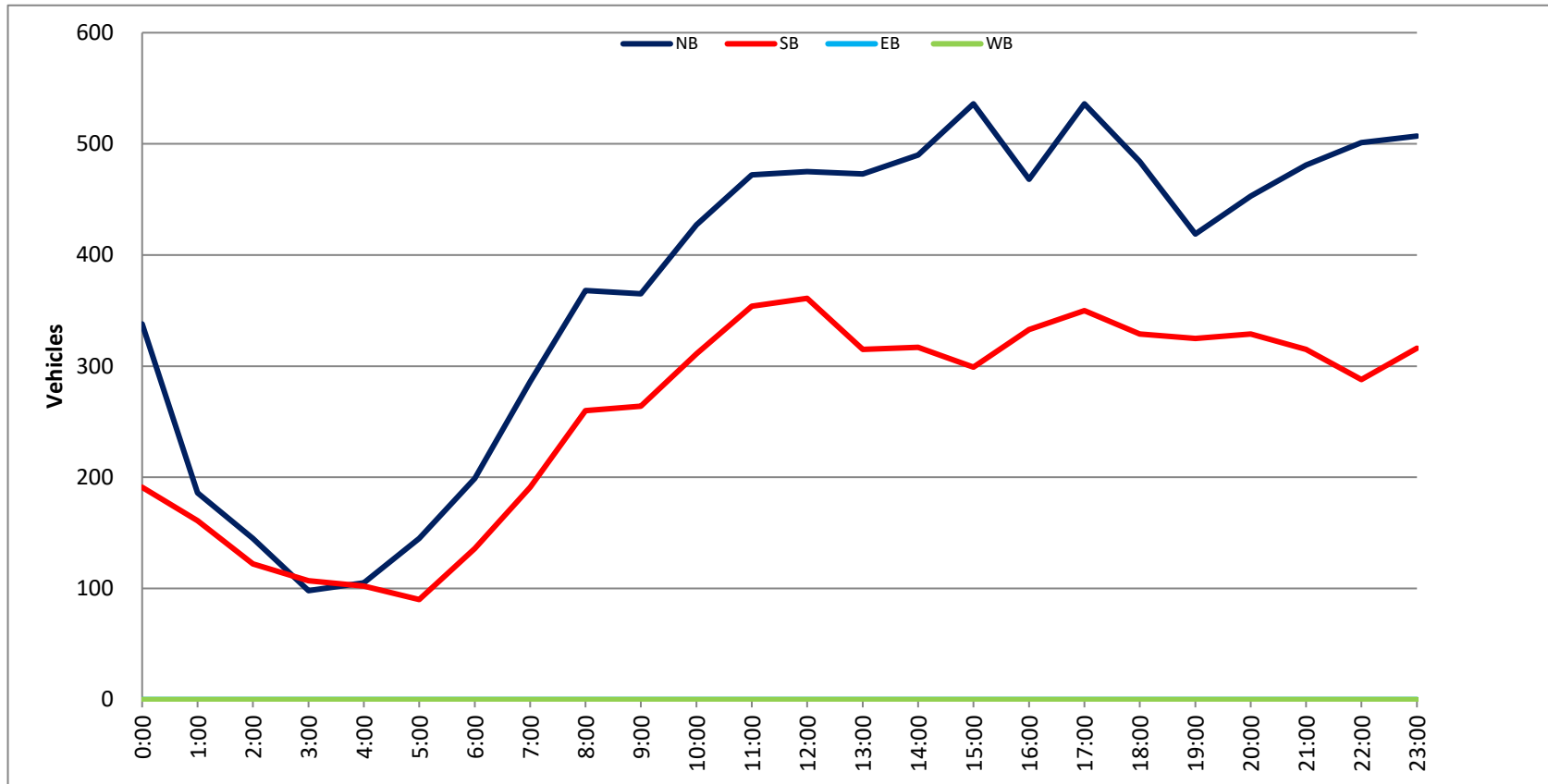


Project #: FL23_140335_001

City: Miami Beach

Location: Collins Ave/SR A1A Bet. 6th St & 7th St

Date: 7/28/2023

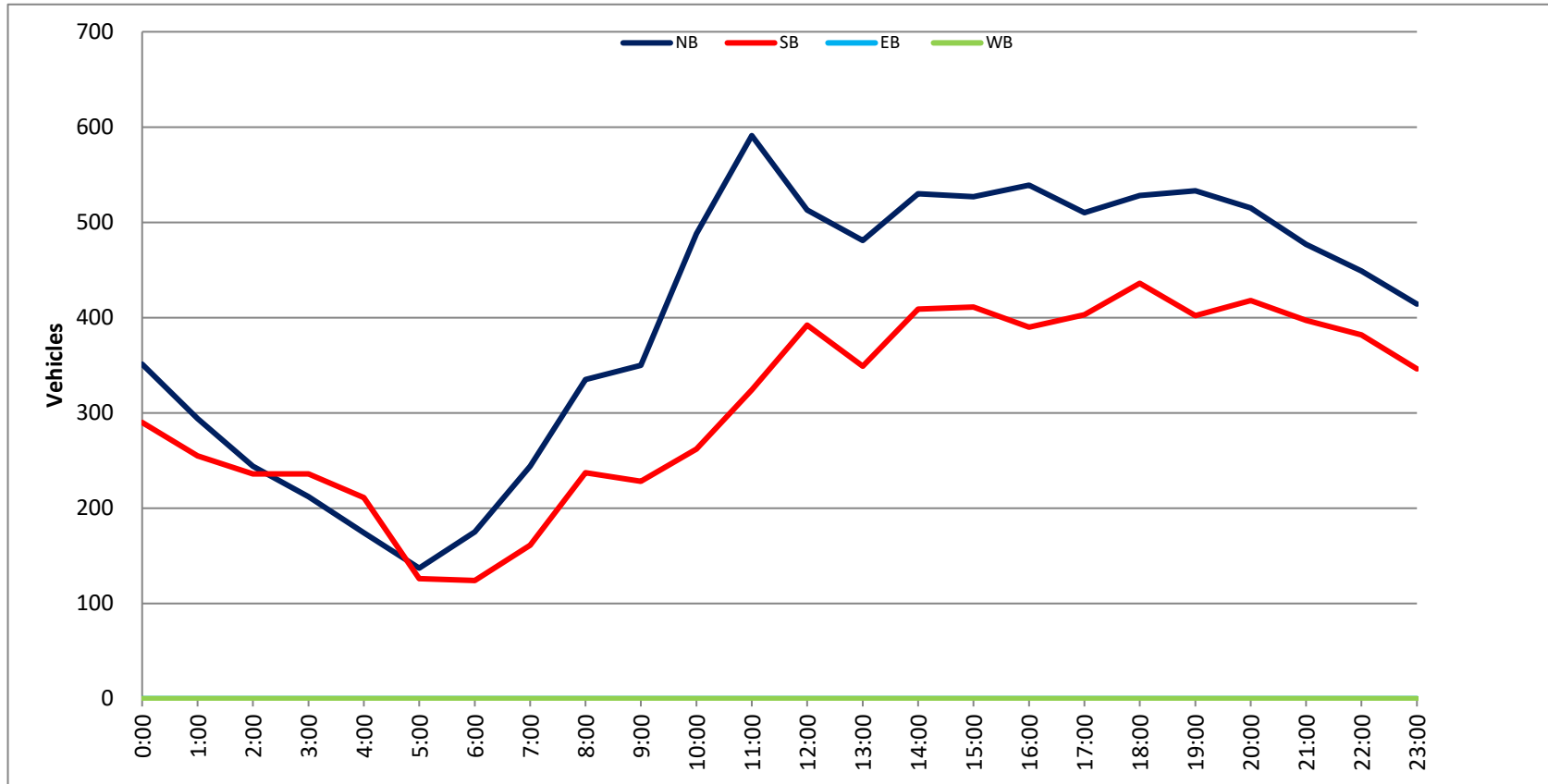


Project #: FL23_140335_001

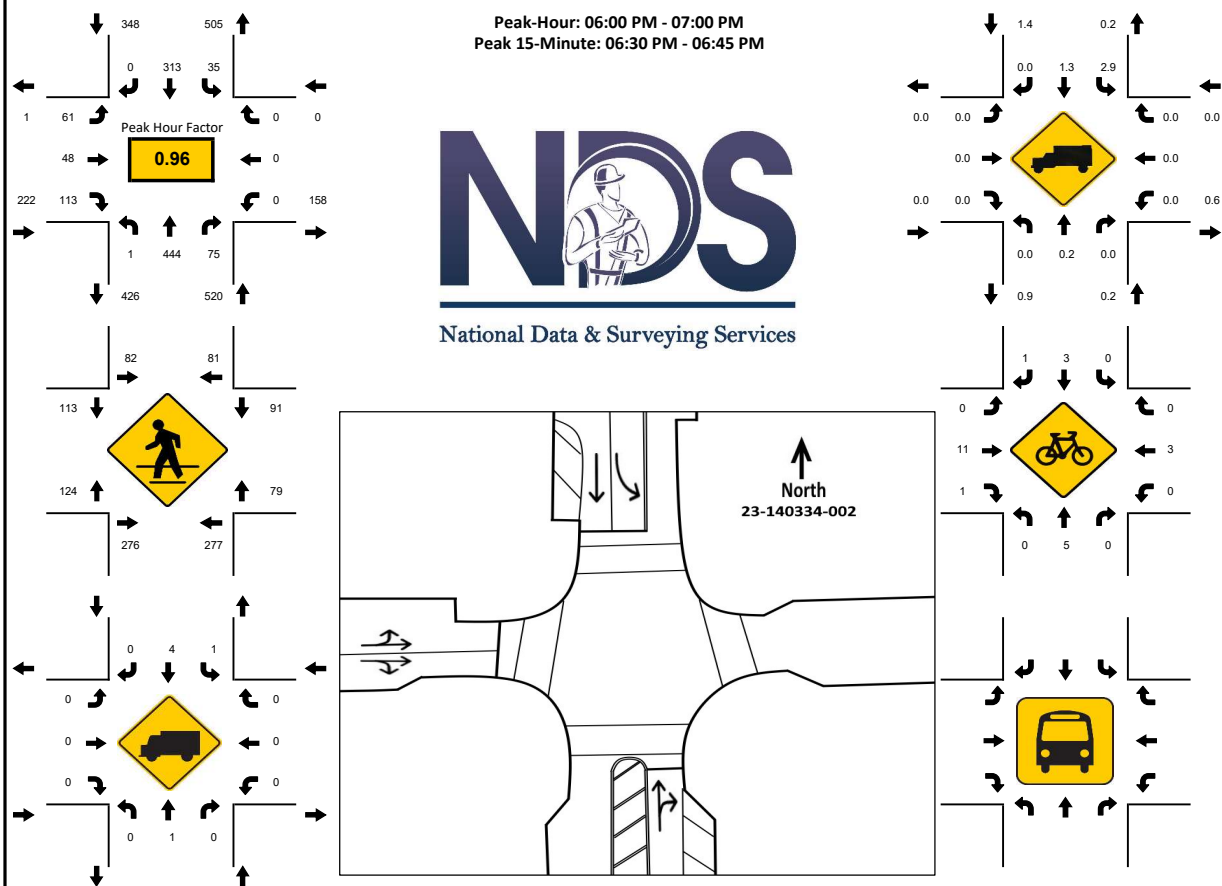
City: Miami Beach

Location: Collins Ave/SR A1A Bet. 6th St & 7th St

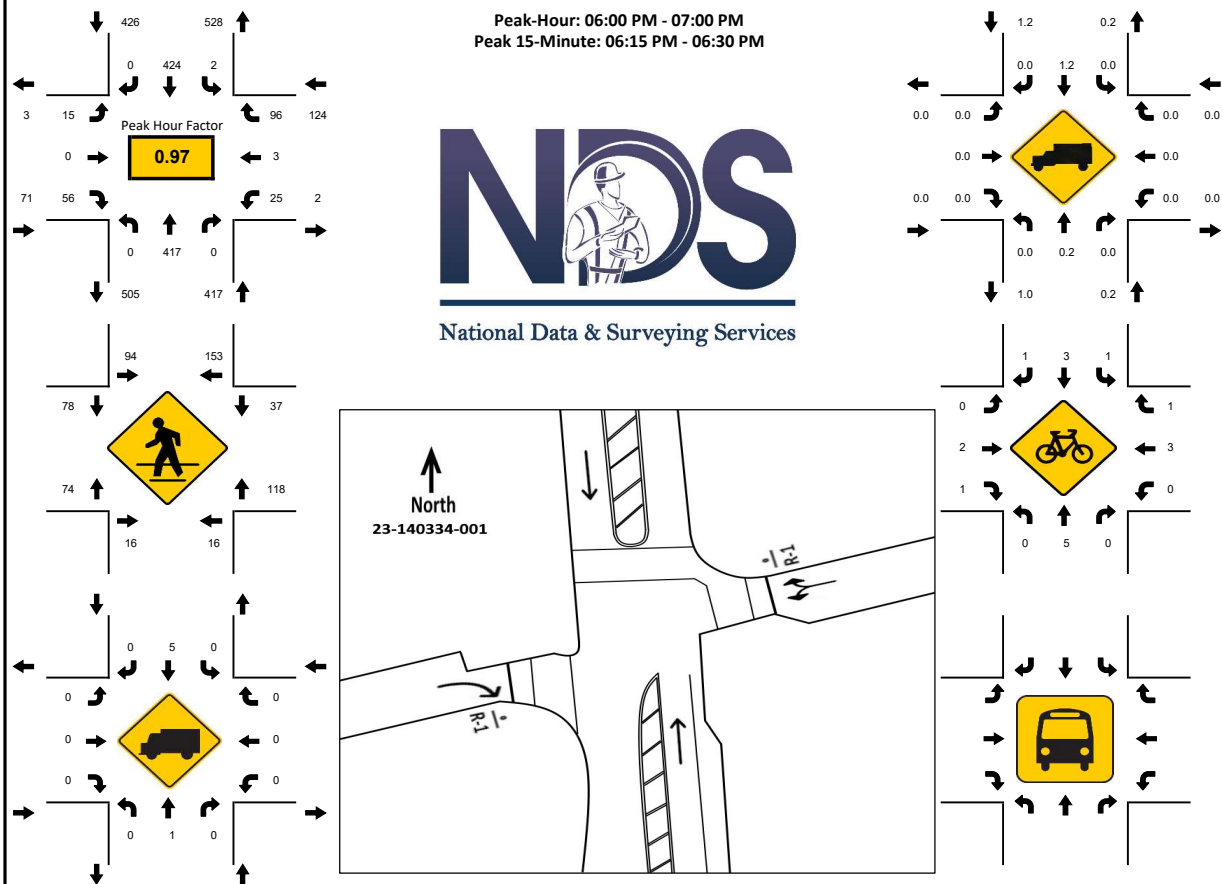
Date: 7/29/2023



PROJECT ID: 23-140334-002
DATE: Sat, Jul 29, 2023

[illegible]

PROJECT ID: 23-140334-001
DATE: Sat, Jul 29, 2023

[illegible]



APPENDIX J

Miami-Dade County Traffic Signal Operations for Collins at 7th Street

TOD Schedule Report
for 6006: Collins Av&7 St

Print Date:
7/21/2023

Print Time:
6:34 PM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
6006	Collins Av&7 St	DOW-6	TOD	[12] HEAVY PM PEAK	90	0	N/A	1	Max 2

Splits

<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>
-	SBT	-	-	-	NBT	-	EBT
0	54	0	0	0	54	0	24



Active Phase Bank: Phase Bank 1

<u>Phase</u>	<u>Walk</u>	<u>Don't Walk</u>	<u>Min Initial</u>	<u>Veh Ext</u>	<u>Max Limit</u>	<u>Max 2</u>	<u>Yellow</u>	<u>Red</u>
<u>Phase Bank</u>								
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2 SBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	0 - 0 - 0	4	2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 NBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	0 - 0 - 0	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 EBT	10 - 10 - 10	10 - 10 - 10	7 - 7 - 7	2.5 - 2.5 - 2.5	10 - 7 - 7	60 - 24 - 24	4	2

Last In Service Date: unknown

Permitted Phases

12345678

Default	-2---6-8
External Permit 0	-2---6-8
External Permit 1	-2---6-8
External Permit 2	-2---6-8

TOD Schedule Report
for 6006: Collins Av&7 St

Print Date:
7/21/2023

Print Time:
6:34 PM

		<u>Green Time</u>											
<u>Current</u>			1	2	3	4	5	6	7	8		<u>Ring Offset</u>	<u>Offset</u>
<u>TOD Schedule</u>	<u>Plan</u>	<u>Cycle</u>	-	SBT	-	-	-	NBT	-	EBT			
0700	1	100	0	64	0	0	0	64	0	24	0	0	95
1000	8	110	0	74	0	0	0	74	0	24	0	0	35
1500	11	120	0	84	0	0	0	84	0	24	0	0	0
1800	12	90	0	54	0	0	0	54	0	24	0	0	0
2200	6	130	0	88	0	0	0	88	0	30	0	0	56
	2	100	0	63	0	0	0	63	0	25	0	0	49
	3	100	0	64	0	0	0	64	0	24	0	0	4
	4	90	0	54	0	0	0	54	0	24	0	0	85
	5	110	0	75	0	0	0	75	0	23	0	0	89
	7	120	0	84	0	0	0	84	0	24	0	0	22
	9	65	0	29	0	0	0	29	0	24	0	0	62
	10	100	0	64	0	0	0	64	0	24	0	0	43
	21	90	0	54	0	0	0	54	0	24	0	0	53
	22	100	0	64	0	0	0	64	0	24	0	0	16
	25	140	0	104	0	0	0	104	0	24	0	0	15

<u>Local TOD Schedule</u>		
<u>Time</u>	<u>Plan</u>	<u>DOW</u>
0000	1	Su M T W Th
0300	22	M T W Th
0300	4	Su
0700	5	Su
0700	1	M T W Th F S
0930	2	M T W Th
1000	8	Su F S
1500	11	Su F S
1500	3	M T W Th
1800	12	M T W Th F
1800	6	Su S
2200	1	M T W Th
2200	6	F

Current Time of Day Function

<u>Time</u>	<u>Function</u>	<u>Settings *</u>	<u>Day of Week</u>
0000	TOD OUTPUTS	-----	SuM T W ThF S
0000	PED RECALL	8---4---	ThF S
0200	PED RECALL	-----	ThF S
0530	PED RECALL	8---4---	M T W ThF

Local Time of Day Function

<u>Time</u>	<u>Function</u>	<u>Settings *</u>	<u>Day of Week</u>
0000	TOD OUTPUTS	-----	SuM T W ThF S
0000	PED RECALL	8---4---	ThF S
0000	PED RECALL	-----	SuM T W
0200	PED RECALL	-----	ThF S
0500	PED RECALL	8---4---	Su S
0530	PED RECALL	8---4---	M T W ThF

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled



APPENDIX K

Peak Season Conversion Factor

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8739 MIAMI-DADE I 395

MOCF: 0.94

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	1.02	1.09
2	01/02/2022 - 01/08/2022	1.02	1.09
3	01/09/2022 - 01/15/2022	1.02	1.09
4	01/16/2022 - 01/22/2022	1.01	1.07
5	01/23/2022 - 01/29/2022	0.99	1.05
6	01/30/2022 - 02/05/2022	0.98	1.04
7	02/06/2022 - 02/12/2022	0.96	1.02
* 8	02/13/2022 - 02/19/2022	0.95	1.01
* 9	02/20/2022 - 02/26/2022	0.94	1.00
*10	02/27/2022 - 03/05/2022	0.94	1.00
*11	03/06/2022 - 03/12/2022	0.93	0.99
*12	03/13/2022 - 03/19/2022	0.93	0.99
*13	03/20/2022 - 03/26/2022	0.93	0.99
*14	03/27/2022 - 04/02/2022	0.94	1.00
*15	04/03/2022 - 04/09/2022	0.94	1.00
*16	04/10/2022 - 04/16/2022	0.95	1.01
*17	04/17/2022 - 04/23/2022	0.95	1.01
*18	04/24/2022 - 04/30/2022	0.95	1.01
*19	05/01/2022 - 05/07/2022	0.95	1.01
*20	05/08/2022 - 05/14/2022	0.96	1.02
21	05/15/2022 - 05/21/2022	0.96	1.02
22	05/22/2022 - 05/28/2022	0.98	1.04
23	05/29/2022 - 06/04/2022	1.00	1.06
24	06/05/2022 - 06/11/2022	1.01	1.07
25	06/12/2022 - 06/18/2022	1.03	1.10
26	06/19/2022 - 06/25/2022	1.02	1.09
27	06/26/2022 - 07/02/2022	1.02	1.09
28	07/03/2022 - 07/09/2022	1.01	1.07
29	07/10/2022 - 07/16/2022	1.00	1.06
30	07/17/2022 - 07/23/2022	1.01	1.07
31	07/24/2022 - 07/30/2022	1.01	1.07
32	07/31/2022 - 08/06/2022	1.02	1.09
33	08/07/2022 - 08/13/2022	1.02	1.09
34	08/14/2022 - 08/20/2022	1.03	1.10
35	08/21/2022 - 08/27/2022	1.04	1.11
36	08/28/2022 - 09/03/2022	1.06	1.13
37	09/04/2022 - 09/10/2022	1.08	1.15
38	09/11/2022 - 09/17/2022	1.10	1.17
39	09/18/2022 - 09/24/2022	1.08	1.15
40	09/25/2022 - 10/01/2022	1.07	1.14
41	10/02/2022 - 10/08/2022	1.05	1.12
42	10/09/2022 - 10/15/2022	1.04	1.11
43	10/16/2022 - 10/22/2022	1.04	1.11
44	10/23/2022 - 10/29/2022	1.04	1.11
45	10/30/2022 - 11/05/2022	1.04	1.11
46	11/06/2022 - 11/12/2022	1.04	1.11
47	11/13/2022 - 11/19/2022	1.05	1.12
48	11/20/2022 - 11/26/2022	1.04	1.11
49	11/27/2022 - 12/03/2022	1.03	1.10
50	12/04/2022 - 12/10/2022	1.03	1.10
51	12/11/2022 - 12/17/2022	1.02	1.09
52	12/18/2022 - 12/24/2022	1.02	1.09
53	12/25/2022 - 12/31/2022	1.02	1.09

* PEAK SEASON

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APPENDIX L

Miami-Dade TPO 2045 Directional Trip Distribution

Miami-Dade 2015 Base Year Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
651	3551	Trips	601	40	126	-	25	267	541	390	2,069
651	3551	Percent	30.2	2.0	6.3	-	1.2	13.4	27.2	19.6	
652	3552	Trips	740	133	112	92	80	539	627	907	3,332
652	3552	Percent	22.9	4.1	3.5	2.8	2.5	16.7	19.4	28.1	
653	3553	Trips	597	120	187	238	48	604	488	661	2,984
653	3553	Percent	20.3	4.1	6.4	8.1	1.6	20.5	16.6	22.5	
654	3554	Trips	648	-	246	192	190	739	849	890	3,940
654	3554	Percent	17.3	-	6.6	5.1	5.1	19.7	22.6	23.7	
655	3555	Trips	2,579	-	-	-	1,029	2,523	3,354	2,903	13,375
655	3555	Percent	20.8	-	-	-	8.3	20.4	27.1	23.4	
656	3556	Trips	683	-	-	-	187	546	1,103	960	3,541
656	3556	Percent	19.6	-	-	-	5.4	15.7	31.7	27.6	

Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
651	3551	Trips	500	33	118	-	44	610	964	424	2,777
651	3551	Percent	18.6	1.2	4.4	-	1.6	22.7	35.8	15.8	
652	3552	Trips	834	141	140	71	102	864	1,319	966	4,613
652	3552	Percent	18.8	3.2	3.2	1.6	2.3	19.5	29.7	21.8	
653	3553	Trips	563	73	181	185	40	875	1,115	522	3,691
653	3553	Percent	15.8	2.1	5.1	5.2	1.1	24.6	31.4	14.7	
654	3554	Trips	527	-	154	189	209	1,276	1,357	971	4,960
654	3554	Percent	11.3	-	3.3	4.0	4.5	27.2	29.0	20.7	
655	3555	Trips	2,507	-	-	-	984	3,119	4,529	3,116	15,245
655	3555	Percent	17.6	-	-	-	6.9	21.9	31.8	21.9	
656	3556	Trips	752	-	-	-	201	872	1,503	1,028	4,509
656	3556	Percent	17.3	-	-	-	4.6	20.0	34.5	23.6	
657	3557	Trips	255	42	13	51	17	325	482	206	1,441
657	3557	Percent	18.4	3.0	1.0	3.7	1.2	23.4	34.6	14.8	



APPENDIX M

Synchro Intersection Capacity Results

Intersection												
Int Delay, s/veh	17.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	0	72	48	0	128	0	492	0	0	496	0
Future Vol, veh/h	30	0	72	48	0	128	0	492	0	0	496	0
Conflicting Peds, #/hr	247	0	32	32	0	247	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	0	78	52	0	139	0	535	0	0	539	0
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	1391	-	571	1145	-	782	-	0	-	-	-	0
Stage 1	539	-	-	535	-	-	-	-	-	-	-	-
Stage 2	852	-	-	610	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	7.12	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	3.518	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	120	0	520	177	0	394	0	-	0	0	-	0
Stage 1	527	0	-	529	0	-	0	-	0	0	-	0
Stage 2	354	0	-	482	0	-	0	-	0	0	-	0
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	49	-	504	145	-	301	-	-	-	-	-	-
Mov Cap-2 Maneuver	49	-	-	145	-	-	-	-	-	-	-	-
Stage 1	527	-	-	529	-	-	-	-	-	-	-	-
Stage 2	146	-	-	395	-	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Control Delay, s	98.6		65.8		0				0			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBT		EBLn1WBLn1		SBT							
Capacity (veh/h)	-		135 233		-							
HCM Lane V/C Ratio	-		0.821 0.821		-							
HCM Control Delay (s)	-		98.6 65.8		-							
HCM Lane LOS	-		F F		-							
HCM 95th %tile Q(veh)	-		5.1 6.3		-							

Lanes, Volumes, Timings
3: Collins Avenue & 7th Street

Existing 2023
Existing Saturday PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	69	133	0	0	0	0	493	86	52	373	0
Future Volume (vph)	73	69	133	0	0	0	0	493	86	52	373	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.55						0.95		0.93		
Frt		0.927						0.980				
Flt Protected		0.987								0.950		
Satd. Flow (prot)	0	2038	0	0	0	0	0	1742	0	1770	1863	0
Flt Permitted		0.987								0.346		
Satd. Flow (perm)	0	1766	0	0	0	0	0	1742	0	596	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		145						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			342			517			153	
Travel Time (s)		7.8			7.8			11.8			3.5	
Confl. Peds. (#/hr)	163		553	553		163	237		167	167		237
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	79	75	145	0	0	0	0	536	93	57	405	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	299	0	0	0	0	0	629	0	57	405	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Detector Phase	4	4						2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0		5.0	5.0	
Minimum Split (s)	27.0	27.0						88.0		88.0	88.0	
Total Split (s)	36.0	36.0						94.0		94.0	94.0	
Total Split (%)	27.7%	27.7%						72.3%		72.3%	72.3%	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		6.0						6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effect Green (s)		30.0						88.0		88.0	88.0	

Lanes, Volumes, Timings
3: Collins Avenue & 7th Street

Existing 2023
Existing Saturday PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.23						0.68		0.68	0.68	
v/c Ratio		0.58						0.53		0.14	0.32	
Control Delay		27.2						12.6		8.6	9.5	
Queue Delay		0.0						0.0		0.0	0.0	
Total Delay		27.2						12.6		8.6	9.5	
LOS		C						B		A	A	
Approach Delay		27.2						12.6			9.4	
Approach LOS		C						B			A	
Queue Length 50th (ft)		60						246		16	130	
Queue Length 95th (ft)		111						338		34	181	
Internal Link Dist (ft)		264			262			437			73	
Turn Bay Length (ft)												
Base Capacity (vph)		519						1179		403	1261	
Starvation Cap Reductn		0						0		0	0	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.58						0.53		0.14	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Pretimed

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 14.7

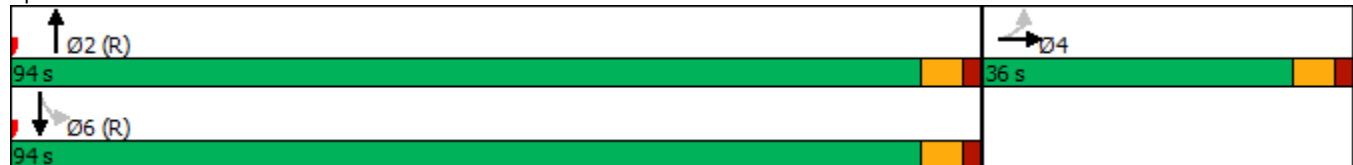
Intersection LOS: B

Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Collins Avenue & 7th Street



Intersection												
Int Delay, s/veh	26.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	76	51	0	136	0	522	0	0	526	0
Future Vol, veh/h	32	0	76	51	0	136	0	522	0	0	526	0
Conflicting Peds, #/hr	247	0	32	32	0	247	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	0	83	55	0	148	0	567	0	0	572	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1460	-	604	1213	-	814	-	0	-	-	-	0
Stage 1	572	-	-	567	-	-	-	-	-	-	-	-
Stage 2	888	-	-	646	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	7.12	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	3.518	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	107	0	498	159	0	378	0	-	0	0	-	0
Stage 1	505	0	-	508	0	-	0	-	0	0	-	0
Stage 2	338	0	-	460	0	-	0	-	0	0	-	0
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	40	-	483	128	-	289	-	-	-	-	-	-
Mov Cap-2 Maneuver	40	-	-	128	-	-	-	-	-	-	-	-
Stage 1	505	-	-	508	-	-	-	-	-	-	-	-
Stage 2	126	-	-	370	-	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	168		94.7		0			0				
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBT		EBLn1WBLn1		SBT							
Capacity (veh/h)	-		113 215		-							
HCM Lane V/C Ratio	-		1.039 0.945		-							
HCM Control Delay (s)	-		168 94.7		-							
HCM Lane LOS	-		F F		-							
HCM 95th %tile Q(veh)	-		6.9 8		-							

Lanes, Volumes, Timings

3: Collins Avenue & 7th Street

Background 2024
without Project

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	73	141	0	0	0	0	523	91	55	395	0
Future Volume (vph)	77	73	141	0	0	0	0	523	91	55	395	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.55						0.95		0.94		
Frt		0.927						0.980				
Flt Protected		0.987								0.950		
Satd. Flow (prot)	0	2040	0	0	0	0	0	1741	0	1770	1863	0
Flt Permitted		0.987								0.324		
Satd. Flow (perm)	0	1766	0	0	0	0	0	1741	0	565	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		153						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			342			517			153	
Travel Time (s)		7.8			7.8			11.8			3.5	
Confl. Peds. (#/hr)	163		553	553		163	237		167	167		237
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	79	153	0	0	0	0	568	99	60	429	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	0	0	0	0	0	667	0	60	429	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Detector Phase	4	4						2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0		5.0	5.0	
Minimum Split (s)	27.0	27.0						88.0		88.0	88.0	
Total Split (s)	36.0	36.0						94.0		94.0	94.0	
Total Split (%)	27.7%	27.7%						72.3%		72.3%	72.3%	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		6.0						6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effect Green (s)		30.0						88.0		88.0	88.0	

Lanes, Volumes, Timings

3: Collins Avenue & 7th Street

Background 2024
without Project

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.23						0.68		0.68	0.68	
v/c Ratio		0.60						0.57		0.16	0.34	
Control Delay		27.8						13.3		8.8	9.7	
Queue Delay		0.0						0.0		0.0	0.0	
Total Delay		27.8						13.3		8.8	9.7	
LOS		C						B		A	A	
Approach Delay		27.8						13.3			9.6	
Approach LOS		C						B			A	
Queue Length 50th (ft)		64						270		17	139	
Queue Length 95th (ft)		117						371		36	194	
Internal Link Dist (ft)		264			262			437			73	
Turn Bay Length (ft)												
Base Capacity (vph)		525						1178		382	1261	
Starvation Cap Reductn		0						0		0	0	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.60						0.57		0.16	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 15.2

Intersection LOS: B

Intersection Capacity Utilization 70.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Collins Avenue & 7th Street



Intersection												
Int Delay, s/veh	27.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	76	51	0	128	0	522	0	0	580	0
Future Vol, veh/h	32	0	76	51	0	128	0	522	0	0	580	0
Conflicting Peds, #/hr	247	0	32	32	0	247	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	0	83	55	0	139	0	567	0	0	630	0
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	1514	-	662	1271	-	814	-	0	-	-	-	0
Stage 1	630	-	-	567	-	-	-	-	-	-	-	-
Stage 2	884	-	-	704	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	7.12	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	3.518	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	98	0	462	145	0	378	0	-	0	0	-	0
Stage 1	470	0	-	508	0	-	0	-	0	0	-	0
Stage 2	340	0	-	428	0	-	0	-	0	0	-	0
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	39	-	448	115	-	289	-	-	-	-	-	-
Mov Cap-2 Maneuver	39	-	-	115	-	-	-	-	-	-	-	-
Stage 1	470	-	-	508	-	-	-	-	-	-	-	-
Stage 2	135	-	-	338	-	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Control Delay, s	183		102.8		0				0			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBT		EBLn1WBLn1		SBT							
Capacity (veh/h)	-		109 202		-							
HCM Lane V/C Ratio	-		1.077 0.963		-							
HCM Control Delay (s)	-		183 102.8		-							
HCM Lane LOS	-		F F		-							
HCM 95th %tile Q(veh)	-		7.2 8.1		-							

Lanes, Volumes, Timings
3: Collins Avenue & 7th Street

Future 2024
with Project

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	69	182	0	0	0	0	493	86	52	405	0
Future Volume (vph)	73	69	182	0	0	0	0	493	86	52	405	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.51						0.95		0.94		
Frt		0.916						0.980				
Flt Protected		0.989								0.950		
Satd. Flow (prot)	0	1830	0	0	0	0	0	1741	0	1770	1863	0
Flt Permitted		0.989								0.324		
Satd. Flow (perm)	0	1622	0	0	0	0	0	1741	0	565	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		176						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			342			517			153	
Travel Time (s)		7.8			7.8			11.8			3.5	
Confl. Peds. (#/hr)	163		553	553		163	237		167	167		237
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	106%	106%	106%	106%	106%	106%	106%	106%	106%	106%	106%	106%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	80	210	0	0	0	0	568	99	60	467	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	0	0	0	667	0	60	467	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Detector Phase	4	4						2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0		5.0	5.0	
Minimum Split (s)	27.0	27.0						88.0		88.0	88.0	
Total Split (s)	36.0	36.0						94.0		94.0	94.0	
Total Split (%)	27.7%	27.7%						72.3%		72.3%	72.3%	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		6.0						6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effect Green (s)		30.0						88.0		88.0	88.0	

Lanes, Volumes, Timings
3: Collins Avenue & 7th Street

Future 2024
with Project

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.23						0.68		0.68	0.68	
v/c Ratio		0.73						0.57		0.16	0.37	
Control Delay		33.6						13.3		8.8	10.1	
Queue Delay		0.0						0.0		0.0	0.0	
Total Delay		33.6						13.3		8.8	10.1	
LOS		C						B		A	B	
Approach Delay		33.6						13.3			9.9	
Approach LOS		C						B			A	
Queue Length 50th (ft)		83						270		17	156	
Queue Length 95th (ft)		147						371		36	216	
Internal Link Dist (ft)		264			262			437			73	
Turn Bay Length (ft)												
Base Capacity (vph)		509						1178		382	1261	
Starvation Cap Reductn		0						0		0	0	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.73						0.57		0.16	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 115

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 17.0

Intersection LOS: B

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Collins Avenue & 7th Street

