

# **Redevelopment Traffic Study**

624 Collins Ave Fine Dining Restaurant

Prepared by: Alfka, LLC

Prepared for: 624 Collins Avenue, LLC

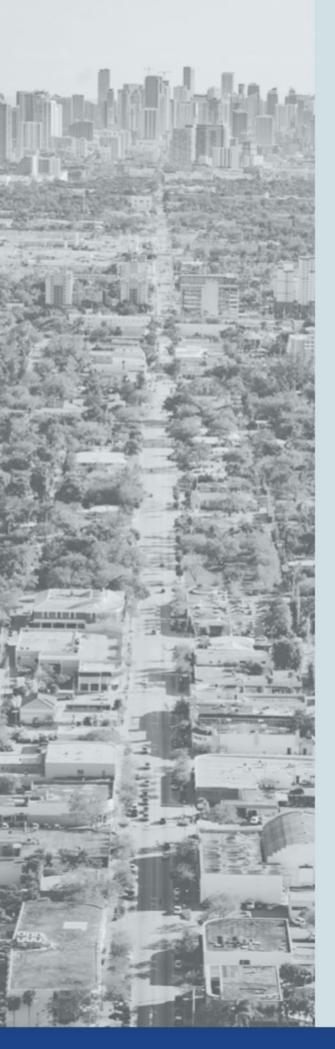
Project Number:

**FNV2301** 



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES Alfka, LLC 400 North Tampa Street. Ste. 1440 Tampa, FL 33602 Certificate of Authorization: 30389 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 7<sup>th</sup> Street intersection and the HCM 6<sup>th</sup> Edition for the unsignalized Collins Avenue and 6<sup>th</sup> 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 7<sup>th</sup> 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.

ITE Code / Description	Quantity	Quantity Units			<b>Frips</b>	Multimodal	Net Peak Hour Trips		
The Code / Description	Quantity	Units	In	Out	Total	Reduction	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

### **Table 1 - Trip Generation Summary**

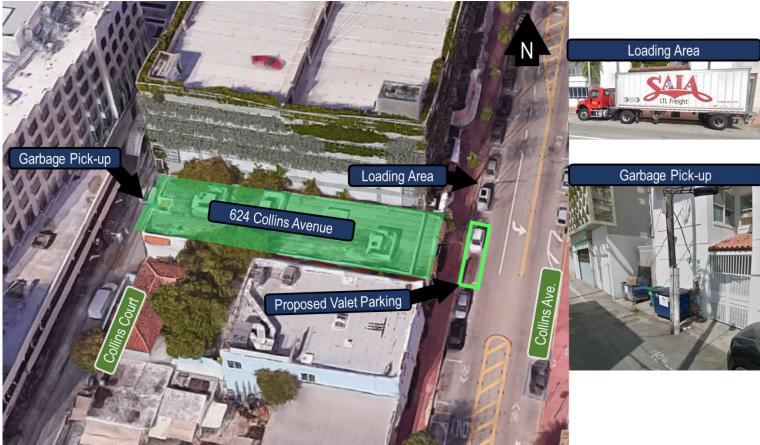
ITE Trip Generation Manual - 11th Edition



# **Queue Analysis**

Two (2) existing on-street parking spaces are proposed to be converted to valet parking spaces. The use of the onstreet 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



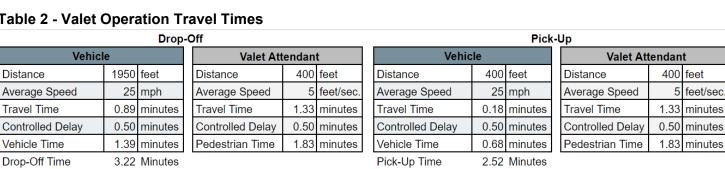
### 624 Collins Avenue - Traffic Study and Valet Analysis

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, 5<sup>th</sup> Street, Washington Avenue and 7<sup>th</sup> Street to pick-up or drop-off vehicles. The calculated service time for vehicles parked at the City's Collins/7<sup>th</sup> 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**

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	]				
Hourly Service Rate per Attendant $(\mu)$	20.9	veh/hr					
Mean Service Rate for System (sµ)	167.4	veh/hr	99.6% Confidence Interval				
Avg. Time Waiting in Queue (Wq)	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 (p)	50.2%		Waiting Vehicles (M)	3.0	veh		
Probability no vehicles on queue (Po)	1.74%		Valet Parking Stalls	2	veh		
Avg. Vehicles Waiting in Queue (Lq)	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 6<sup>th</sup> and 7<sup>th</sup> 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 7<sup>th</sup> Street) and the intersection south of the project site (Collins at 6<sup>th</sup> Street). The intersection at 7<sup>th</sup> 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.

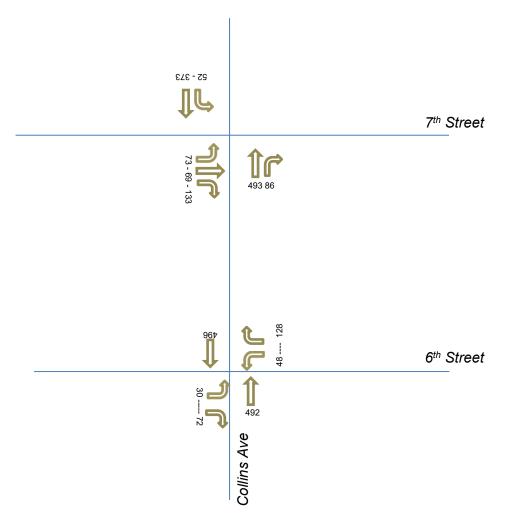


Figure 5 – Existing Traffic Volumes



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.

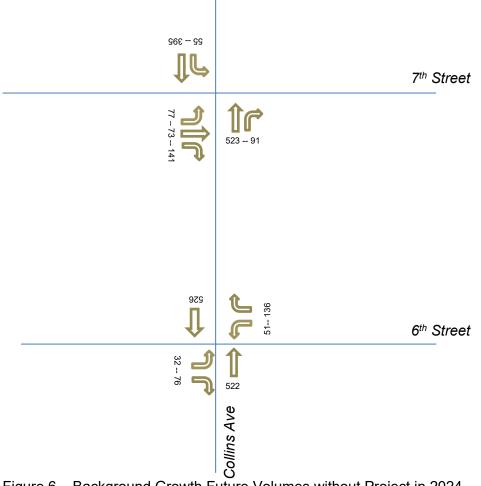


Figure 6 – Background Growth Future Volumes without Project in 2024

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 show on figure 7.

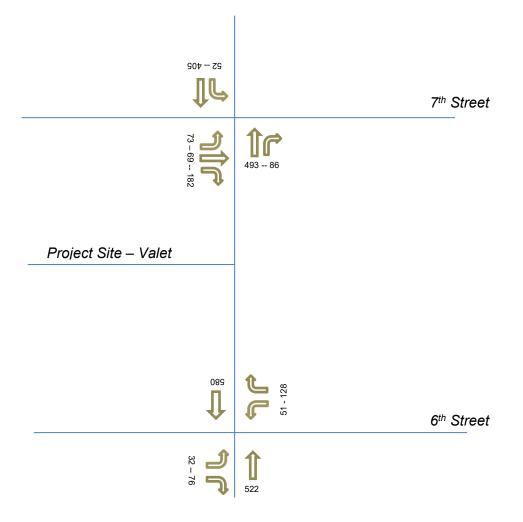


Figure 7 – Future with Project Traffic Volumes in 2024

### 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

			Scenario	Exis	sting	Backg	round	Future		
Intersection	Signalized/ Unsignalized	Direction	LOS Standard	PM LOS	PM Delay	PM LOS	PM Delay	PM LOS	PM Delay	
		NB		В	12.6	В	13.3	В	13.3	
Collins		SB		А	9.4	А	9.7	А	9.9	
Avenue &	S	EB	D + 20%	С	27.2	В	27.8	С	33.6	
7th Street		WB		-	-	-	-	-	-	
		Overall		В	14.7	В	15.2	В	17.0	
	NB			A	0.0	А	0.0	А	0.0	
Collins		SB		A	0.0	А	0.0	А	0.0	
Avenue &	U	EB	D + 20%	F	98.6	F	168.0	F	183.0	
6th Street		WB		F	65.8	F	94.7	F	102.8	
		Overall		С	22.1	Е	36.3	Е	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.

U	nited States	
Label	Estimate	Margin of Err
✔ Total:	152,891,752	±149,8
No vehicle available	6,298,680	±49,0
1 vehicle available	31,422,618	±117,5
2 vehicles available	61,801,315	±185,0
3 or more vehicles available	53,369,139	±166,7
✓ Car, truck, or van - drove alone:	104,249,513	±136,9
No vehicle available	1,580,531	±29,7
1 vehicle available	19,701,567	±73,9
2 vehicles available	43,283,148	±133,7
3 or more vehicles available	39,684,267	±142,9
✓ Car, truck, or van - carpooled:	11,921,065	±69,9
No vehicle available	599,486	±17,0
1 vehicle available	2,452,307	±34,5
2 vehicles available	4,366,569	±44,4
3 or more vehicles available	4,502,703	±44,8
✓ Public transportation (excluding taxicab):	3,728,343	±36,9
No vehicle available	1,554,809	±25,4
1 vehicle available	1,137,414	±22,
2 vehicles available	640,079	±14,
3 or more vehicles available	396,041	±13,1
✓ Walked:	2,858,418	±31,6
No vehicle available	709,516	±18,9
1 vehicle available	857,169	±20,3
2 vehicles available	753,612	±15,2
3 or more vehicles available	538,121	±15,8
➤ Taxicab, motorcycle, bicycle, or other means:	2,850,491	±34,9
No vehicle available	561,967	±12,7
1 vehicle available	778,691	±17,5
2 vehicles available	846,256	±21,5
3 or more vehicles available	663,577	±19,3
V Worked from home:	27,283,922	±105,0
No vehicle available	1,292,371	±19,6
1 vehicle available	6,495,470	±61,1
2 vehicles available	11,911,651	±89,3
3 or more vehicles available	7,584,430	±56,5

**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 openended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

#### Ν

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.

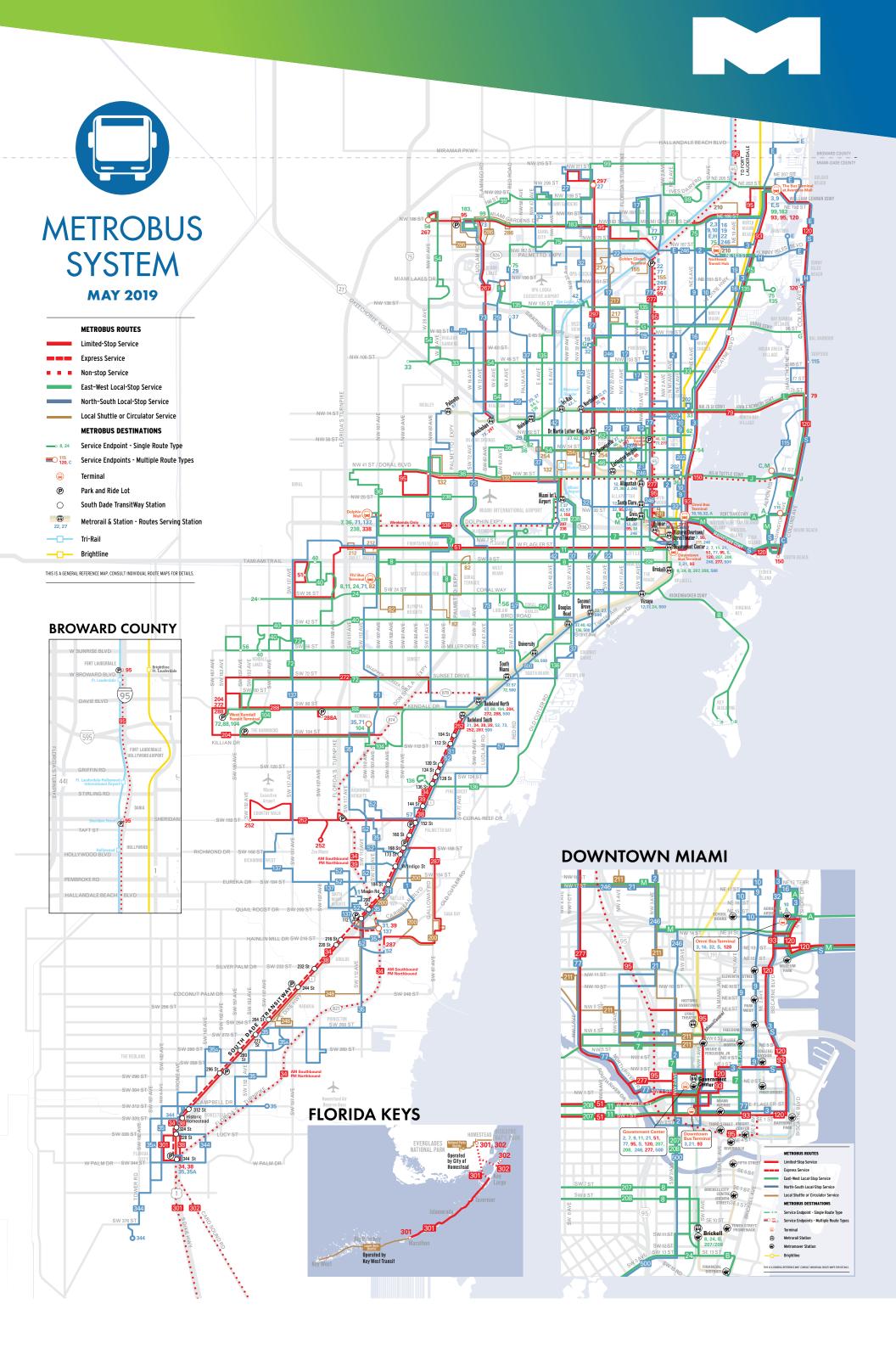
The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution

#### \*\*\*\*

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.

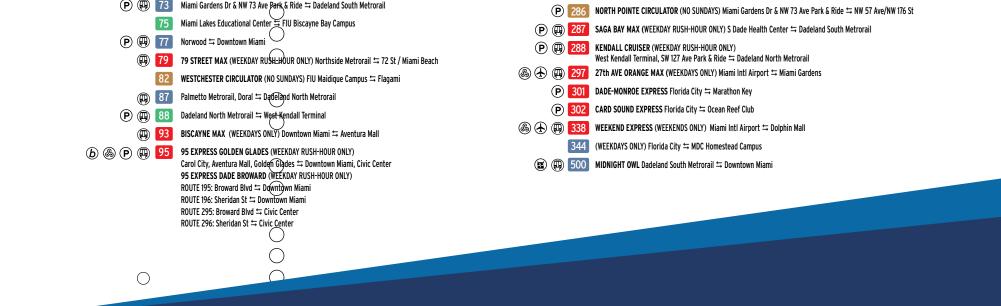


### APPENDIX B Miami-Dade Transit Bus Service Routes



🛱 Connects with Metrorail (P) Serves Park & Ride Lot 😰 Overnight Service 🚓 Serves Miami International Airport 🛞 Connects with Tri-Rail (b) Connects with Brightline

1	Perrine ⇔ Quail Roost Dr/SW 117 Ave	P 99	Miami Gardens Dr & NW 73 Ave Park & Ride ≒ Aventura Mall
<b>P</b> 2	163 St Mall, 84 St ≒ Downtown, <del>Mia</del> mi	Α	ROUTE 101: Omni ≒ 20th Street & West Avenue / Miami Beach
😰 🚇 🖪	Aventura Mall 🛱 Downtown Miami	B	ROUTE 102: Brickell Metrorail ≒ Key Biscayne
(b) 🛞 🛧 🚇 🚺	Dolphin Mall, Miami Intl Airport 🖙 Bowntown Miami	C	ROUTE 103: South Beach 🖴 Mt. Sinai Medical Center
<b>(P)</b> [8]	FIU Maidique Campus 🛱 Brickell Metrorail	P 🚇 104	West Kendall Terminal 🛱 Dadeland North Metrorail
<b>(P)</b>	Aventura, 163 St Mall ≒ Downtown Miami	PE	ROUTE 105: Golden Glades ≒ Hallandale Beach
10	Skylake Mall ≒ Omni Metrobus Terminal	G	ROUTE 107: 94 St / Miami Beach ≒ MDC North Campus
😰 🚇 🚺	FIU Maidique Campus, Mall of the Americas $\leftrightarrows$ Downtown Miami	Н	ROUTE 108: 163 Street Mall ≒ Haulover Park
<b>(III)</b>	Northside Metrorail ≒ Mercy Hospital	I 🕀 🕀 🕲	ROUTE 110: Miami Intl Airport ≒ 41 St / Miami Beach
16	163 St Mall ≒ Omni Metrobus Terminal	🗃 🕮 📘	ROUTE 112: Lincoln Rd ≒ Hialeah Metrorail
<b>(III)</b>	Norwood 🖴 Vizcaya Metrorail	(H) (M)	ROUTE 113: Civic Center 🛱 Mt. Sinai Hospital
19	(WEEKDAYS ONLY) MDC North Qampys $\leftrightarrows$ 163 St Mall	115	MID-NORTH BEACH CONNECTION - Collins Ave / 88 St 🛱 Lincoln Rd
<b>(P)</b> [21]	Northside Metrorail 🖴 Downtown Miami	😰 🚇 🚺	ROUTE 119: Downtown Miami 🛱 Aventura Mall
<b>(III)</b>	163 St Mall ≒ Coconut Grove Metrorail	<b>(III)</b>	BEACH MAX Downtown Miami ≒ Haulover Park, Aventura Mall
<b>(P)</b> 24	CORAL WAY LIMITED - West Dade ≒ Brickell Metrorail	الله 132	<b>TRI-RAIL DORAL SHUTTLE</b> (WEEKDAY RUSH-HOUR ONLY): Doral $\leftrightarrows$ Hialeah Market Tri-Rail
🗃 🚇 🔼	Miami Gardens ≒ Coconut Grove Metrorail	🕲 🕀 135	Hialeah Metrorail, Miami Lakes ≒ FIU Biscayne Bay Campus
<b>(III)</b> [29]	(WEEKDAYS ONLY) Miami Lakes€dugation Center ≒ Hialeah	<b>(III)</b>	(WEEKDAY RUSH-HOUR ONLY) SW 136 St / US1 ≒ Douglas Road Metrorail
P 🕀 🕄	BUSWAY LOCAL - South Dade Government Center 🛱 Dadeland South Metrorail	137	WEST DADE CONNECTION Dolphin Mall 🖴 South Dade Gov Center
🛞 🕀 32	Carol City ≒ Omni Metrobus Terminal	💩 🕁 🚇 <b>1</b> 50	MIAMI BEACH AIRPORT EXPRESS Miami Intl Airport 🖙 South Beach
33	Hialeah ≒ NE 79 St/Biscayne Blvd	P 155	BISCAYNE GARDENS CIRCULATOR (WEEKDAYS ONLY)
P 🕀 34	34 EXPRESS (WEEKDAY RUSH-HOUR ONLY) Florida City $\leftrightarrows$ Dadeland South Metrorail	P 183	Miami Gardens Dr & NW 73 Ave Park & Ride ≒ Aventura Mall
P 35	MDC Kendall Campus ≒ Florida City	200	CUTLER BAY LOCAL
<b>(III)</b> 36	Dolphin Mall, Doral, Miami Springs 🛱 Midtown Miami	202	LITTLE HAITI CONNECTION Biscayne Shopping Plaza, NW 5 AVE / 83 St 🛱 Miami Design District
37 🚯 🕣	Hialeah ≒ South Miami Metrorail	P 🚇 204	KILLIAN KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal $\leftrightarrows$ Dadeland North Metrorail
😰 P 🕀 38	BUSWAY MAX Dadeland South Metrorail 🛱 Florida City	<b>(III)</b> 207	LITTLE HAVANA CONNECTION (CLOCKWISE) Downtown Miami, Brickell 🛱 SW 25 Ave via SW 1 St & SW 7 St
P 🕀 39	<b>39 EXPRESS</b> (WEEKDAY RUSH-H $\partial U$ R ONLY) S Dade Govt Ctr $\leftrightarrows$ Dadeland South Metrorail	<b>(III)</b> 208	LITTLE HAVANA CONNECTION (COUNTERCLOCKWISE) Downtown Miami, Brickell 🛱 SW 27 Ave via W Flagler St & SI
<b>(H)</b> [40]	Lakes of the Meadow, Tamiami Trail/SW 132 Ave ≒ Douglas Road Metrorail	210	SKYLAKE CIRCULATOR Skylake Mall 🛱 163 Street Mall
🛞 🕭 🕀 42	Opa-locka Tri-Rail ≒ Douglas Road Metrorail	<b>b</b> 🚇 211	OVERTOWN CIRCULATOR (WEEKDAYS ONLY)
P 🕀 [46]	LIBERTY CITY CONNECTION (WEEKDAY RUSH-HOUR ONLY)	212	SWEETWATER CIRCULATOR (WEEKDAYS ONLY)
<b>(H)</b> 51	Brownsville Metrorail ≒ SeventA Avenue Transit Village FLAGLER MAX (WEEKDAYS ONLY) West Dade ≒ Downtown Miami	217	BUNCHE PARK CIRCULATOR (WEEKDAYS ONLY) NW 127 St / 22 Ave $\leftrightarrows$ N Dade Health Center
	Dadeland South Metrorail ⇔ South Dade Health Center	🕲 🛧 🚇 🛛	EAST-WEST CONNECTION (WEEKDAYS ONLY) Dolphin Mall $\leftrightarrows$ Miami Int. Airport
<ul><li>(H) 52</li><li>(H) 54</li></ul>	$\sim$	P 🗃 🕀 246	NIGHT OWL Downtown Miami ≒ 163 St Mall
		248	<b>PRINCETON CIRCULATOR</b> Southland Mall $\leftrightarrows$ SW 264 St, Naranja (Weekdays Only)
	(WEEKDAYS ONLY) West Dade = Migmi Children's Hospital	P 🕀 252	CORAL REEF MAX Country Walk $\leftrightarrows$ Dadeland South Metrorail, Zoo Miami (Weekends Only)
	(WEEKDAYS ONLY) Miami Intl Airport ≒ Jackson South Hospital	(III) 254	BROWNSVILLE CIRCULATOR (WEEKDAYS ONLY) Caleb Center 与 Jefferson Reeves Park, Hialeah (Thursday only)
P 🖗 62	Hialeah ≒ Biscayne Blvd / 62 \$t	P 🕀 267	LUDLAM LIMITED (WEEKDAY RUSH-HOUR ONLY) NW 186 St/87 Ave $\leftrightarrows$ Okeechobee Metrorail
71	Dolphin Mall ≒ MDC Kendall Campus	P 🕀 272	SUNSET KAT (WEEKDAY RUSH-HOUR ONLY) West Kendall Terminal $\leftrightarrows$ Dadeland North Metrorail
P 🗭 72	West Kendall Terminal, Miller Square 🛱 South Miami Metrorail	P 🕀 277	NW 7 AVENUE MAX (WEEKDAY RUSH-HOUR ONLY) Downtown Miami $\leftrightarrows$ Golden Glades Park & Ride
P 🕀 73	Miami Gardens Dr & NW 73 Ave Park & Ride 🛱 Dadeland South Metrorail	<b>P</b> 286	NORTH POINTE CIRCULATOR (NO SUNDAYS) Miami Gardens Dr & NW 73 Ave Park & Ride 🖴 NW 57 Ave/NW 176 St



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www.miamidade.gov/transit 🕓 311 (305.468.5900) TTY/FLORIDA RELAY: 711

f 😏 🎯 @GoMiamiDade 🛛 👫 🗰 MDT TRACKER / EASY PAY MIAMI / MDT TRANSIT WATCH





## APPENDIX C

City of Miami Beach South Beach Trolley Map

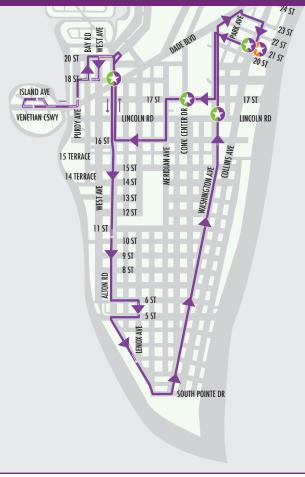






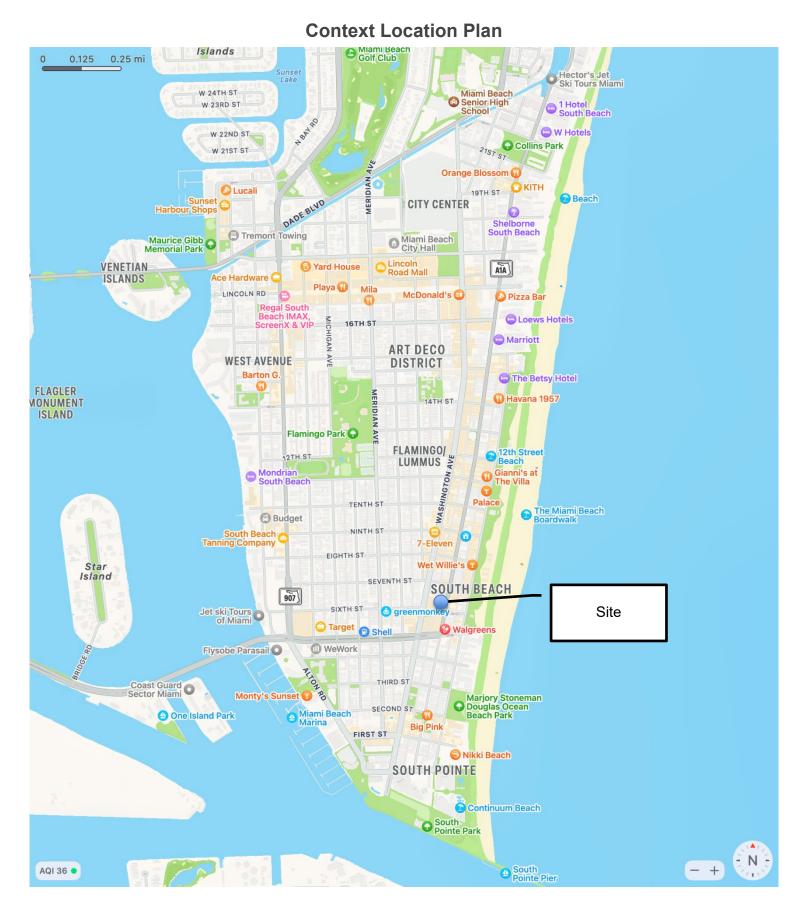


**SOUTH BEACH LOOP - B** (Counter Clockwise - Approximately 20 minutes)





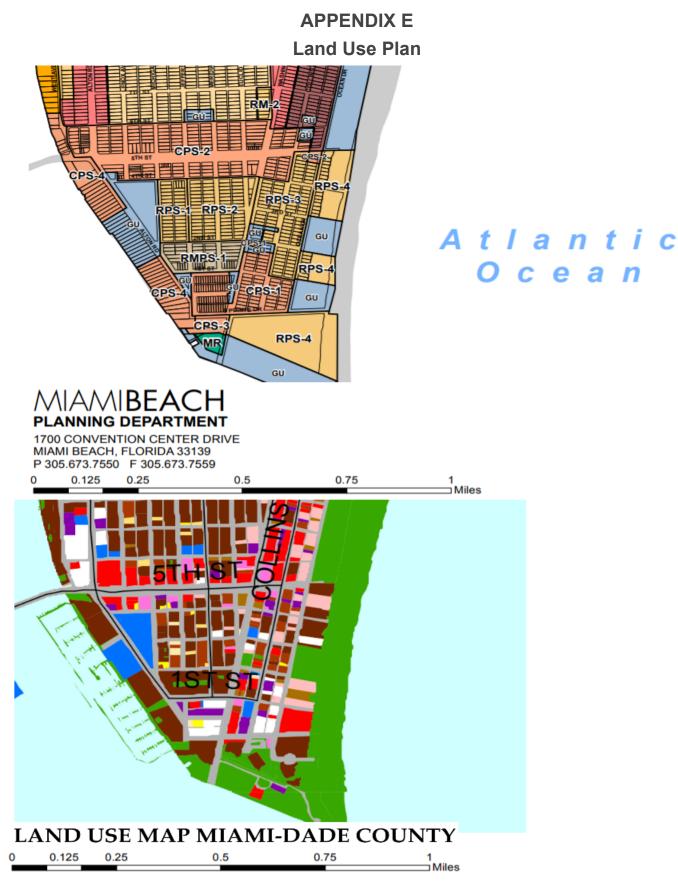
### APPENDIX D Context Location Plan





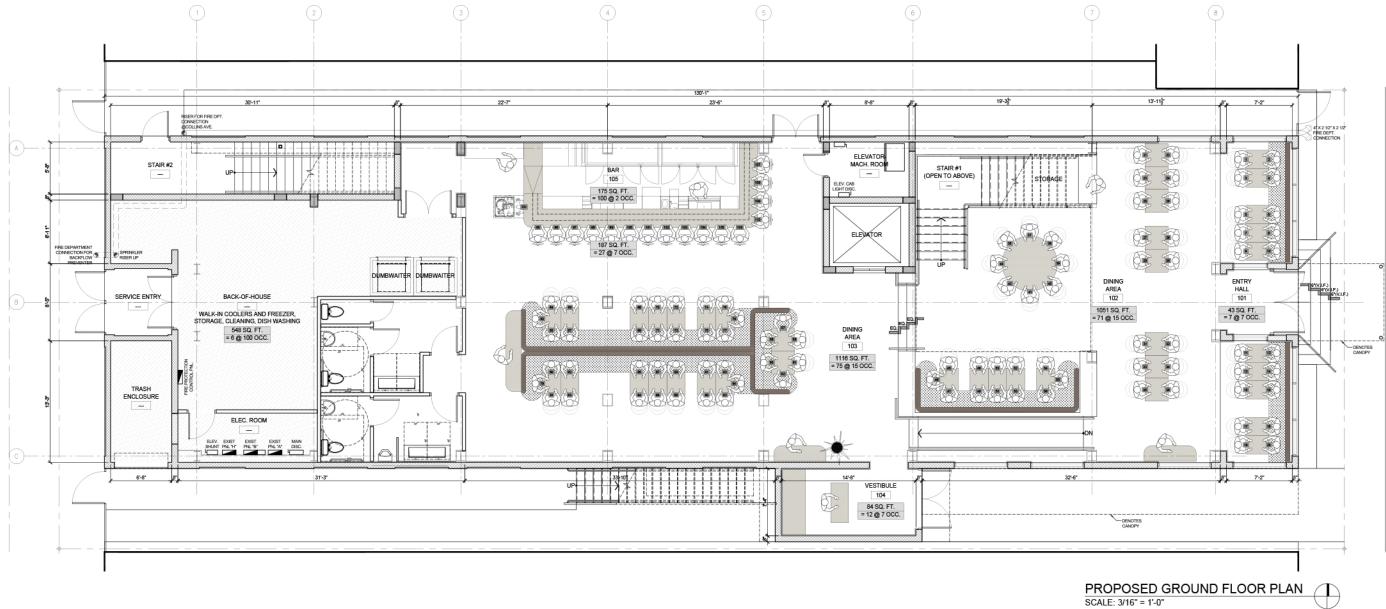
### APPENDIX E Land Use Plan



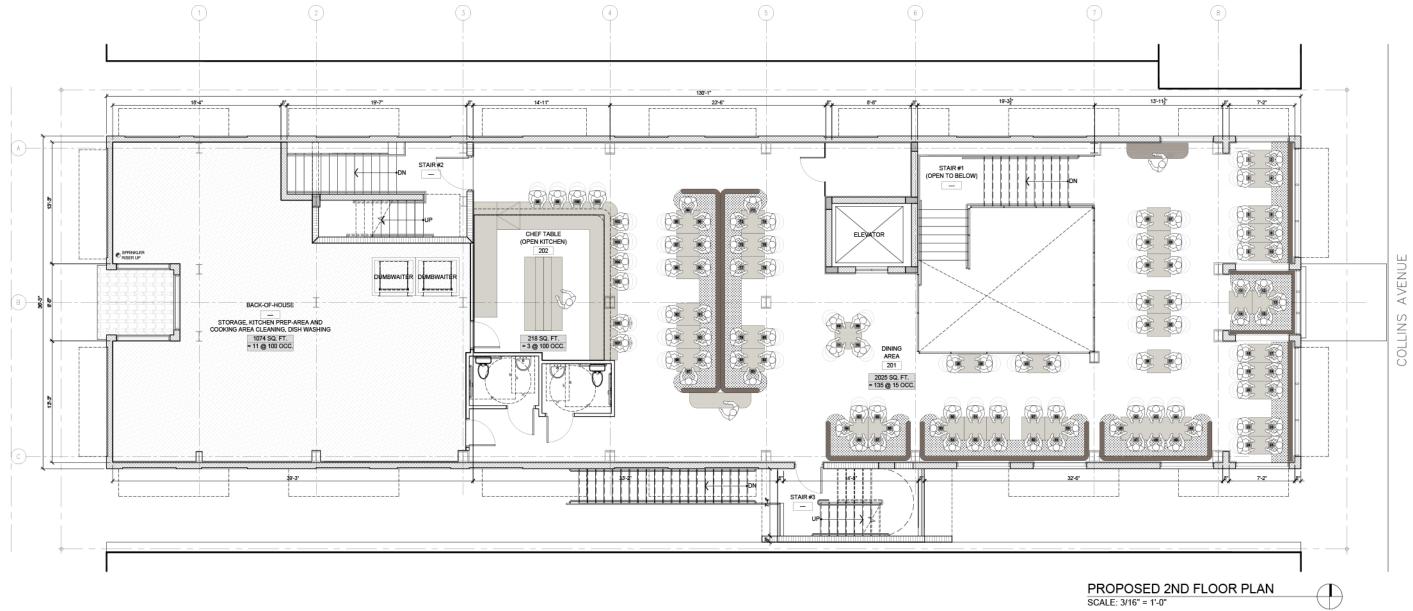




### APPENDIX F Site Plan, Floor Plan and Site Access

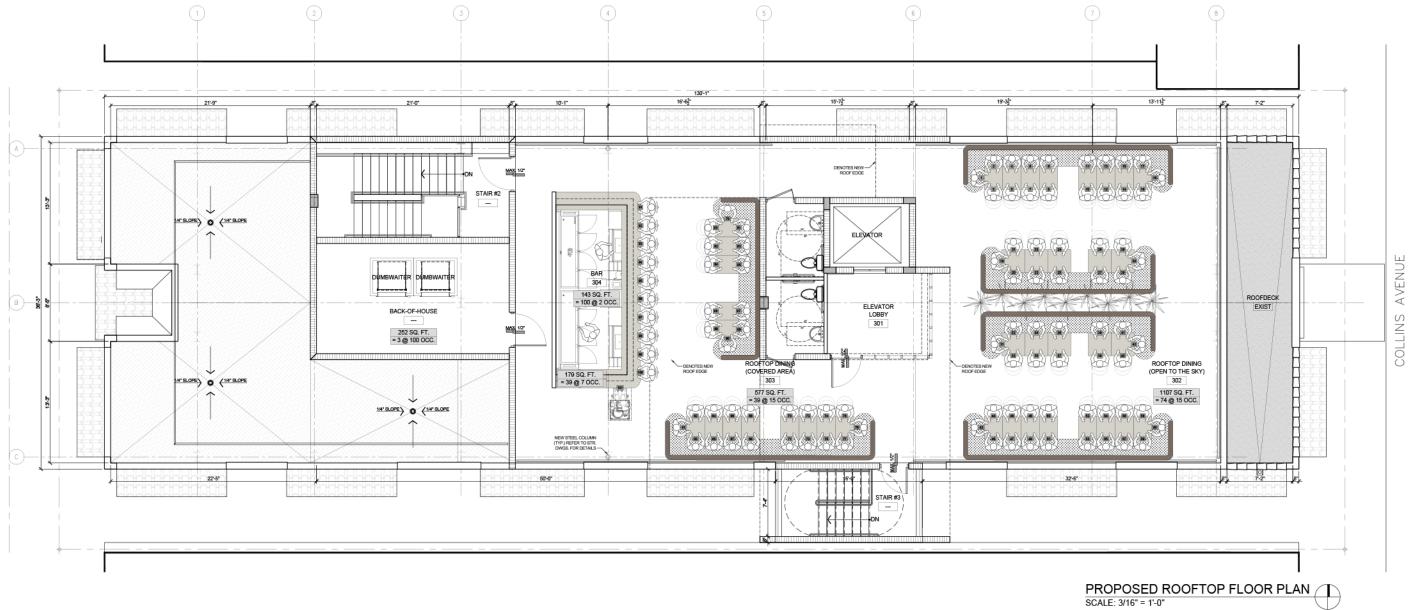






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			Y)	LIMINAR	ON (PRE		LOAD CAI	CUPANCY	00				
				AURANT	GROUP: REST	PANCY / SUB	ASSEMBLY OCCL	GROUP A-2: /					
		PER F.F.B.C. 2 I.F.P.A 101 202		)20	PER F.B.C. 20	AS		, F.F.P.C. 2020 7th ED TBL. 7.3.1.2 AND 2020 F.B.C. TABLE 1004.1.2 WAS USED TO DETERMINED HIGHEST OCCUPANCY LOAD.					
NUMBER OF SEATS	TOTAL OF OCUPANTS	NUMBER OF OCUPANTS	OCUPANT LOAD	TOTAL OF OCUPANTS	NUMBER OF OCUPANTS	OCUPANT LOAD	FUNCTION	AREA	ROOM	ID			
	GROUND FLOOR												
-	7.0	6.1	7	7.0	6.1	7	ASSEMBLY	43.0 SQ.FT.	ENTRY HALL	101			
56.0	71.0	70.1	15	71.0	70.1	15	ASSEMBLY	1,051.0 SQ.FT.	DINING AREA	102			
38.0	75.0	74.4	15	75.0	74.4	15	ASSEMBLY	1,116.0 SQ.FT.	DINING AREA	103			
-	12.0	12.0	7	12.0	12.0	7	ASSEMBLY	84.0 SQ.FT.	VESTIBULE	104			
-	2.0	1.8	100	1.0	0.9	200	KITCHEN	175.0 SQ.FT.	BAR	105			
16.0	27.0	26.7	7	27.0	26.7	7	ASSEMBLY	187.0 SQ.FT.	BAR SEATING AREA	-			
-	6.0	5.6	100	3.0	2.8	200	KITCHEN	560.0 SQ.FT.	BACK-OF-HOUSE	-			
-	-	-	-	-	-	-	-	- SQ.FT.	MALE RESTROOMS	106			
-	-	-	-	-	-	-	-	- SQ.FT.	FEMALE RESTROOMS	107			
110.0	200.0			196.0			•	ANTS	SUB-TOTAL PATRONS / OCCUP				
						ND FLOOR	SECO						
107.0	135.0	135.0	15	135.0	135.0	15	ASSEMBLY	2,025.0 SQ.FT.	DINING AREA	201			
-	3.0	2.2	100	2.0	1.1	200	KITCHEN	218.0 SQ.FT.	CHEF TABLE (OPEN KITCHEN)	202			
-	11.0	10.7	100	6.0	5.4	200	KITCHEN	1,074.0 SQ.FT.	BACK-OF-HOUSE	-			
-	-	-	-	-	-	-	-	- SQ.FT.	MALE RESTROOMS	203			
-	-	-	-	-	-	-	-	- SQ.FT.	FEMALE RESTROOMS	204			
107.0	149.0			143.0				ANTS	SUB-TOTAL PATRONS / OCCUP				
						TOP FLOOR	ROOF						
-	-	-	-	-	-	-	-	94.0 SQ.FT.	LOBBY	301			
60.0	74.0	73.8	15	74.0	73.8	15	ASSEMBLY	1,107.0 SQ.FT.	ROOFTOP DINING (OPEN AREA)	302			
30.0	39.0	38.5	15	39.0	38.5	15	ASSEMBLY	577.0 SQ.FT.	ROOFTOP DINING (COVERED A.)	303			
-	2.0	1.8	100	1.0	0.9	200	KITCHEN	175.0 SQ.FT.	BAR	304			
11.0	26.0	25.6	7	26.0	25.6	7	ASSEMBLY	179.0 SQ.FT.	BAR SEATING AREA	-			
-	3.0	2.5	100	2.0	1.3	200	KITCHEN	252.0 SQ.FT.	BACK-OF-HOUSE	-			
-	-	-	-	-	-	-	-	- SQ.FT.	MALE RESTROOMS	203			
-	-	-	-	-	-	-	-	- SQ.FT.	FEMALE RESTROOMS	204			
101.0	144.0			142.0				ANTS	SUB-TOTAL PATRONS / OCCUP				
318.0	493.0			481.0					TOTAL PATRONS / OCCUPANTS				

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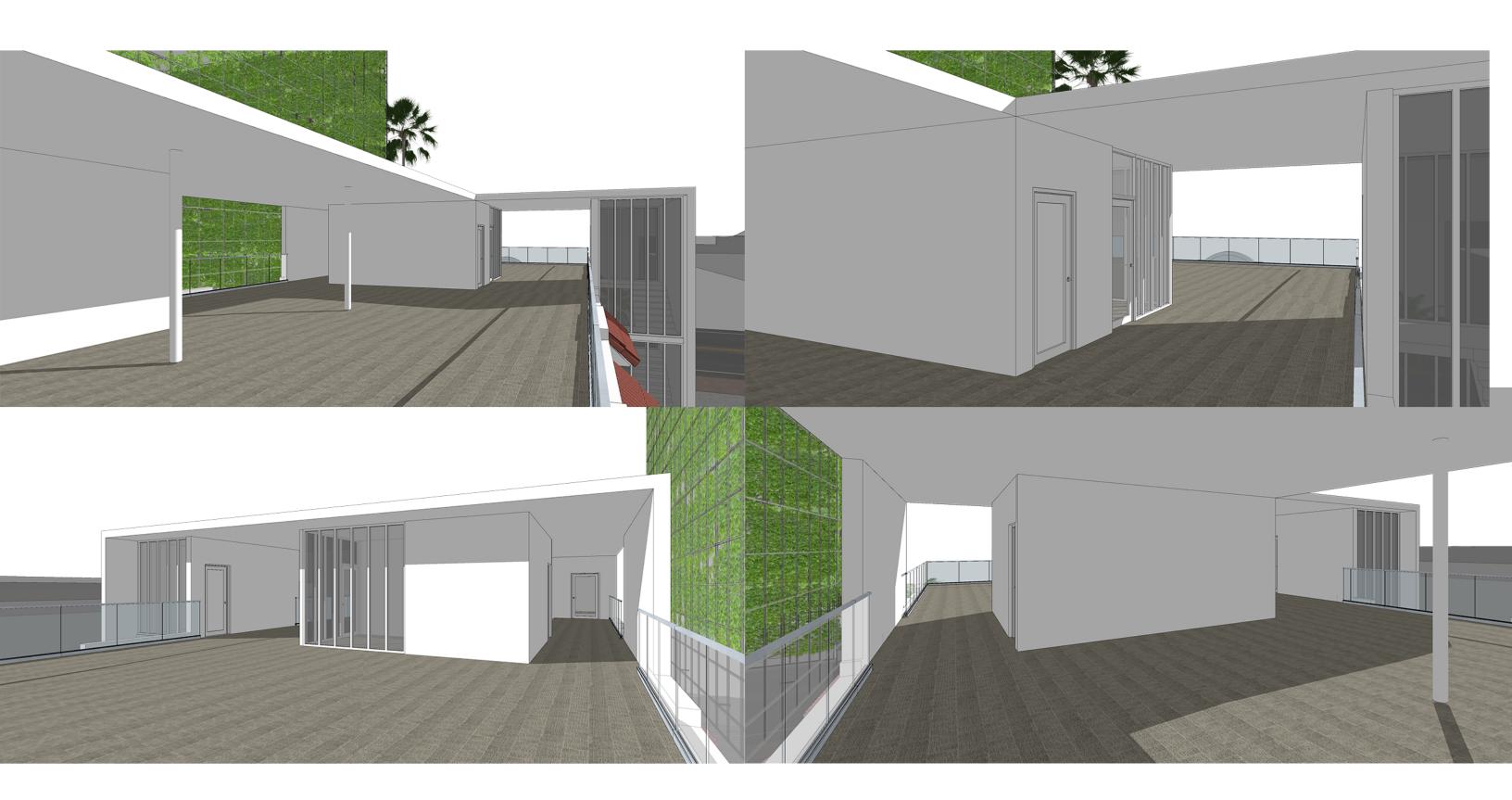
624 COLLINS AVE

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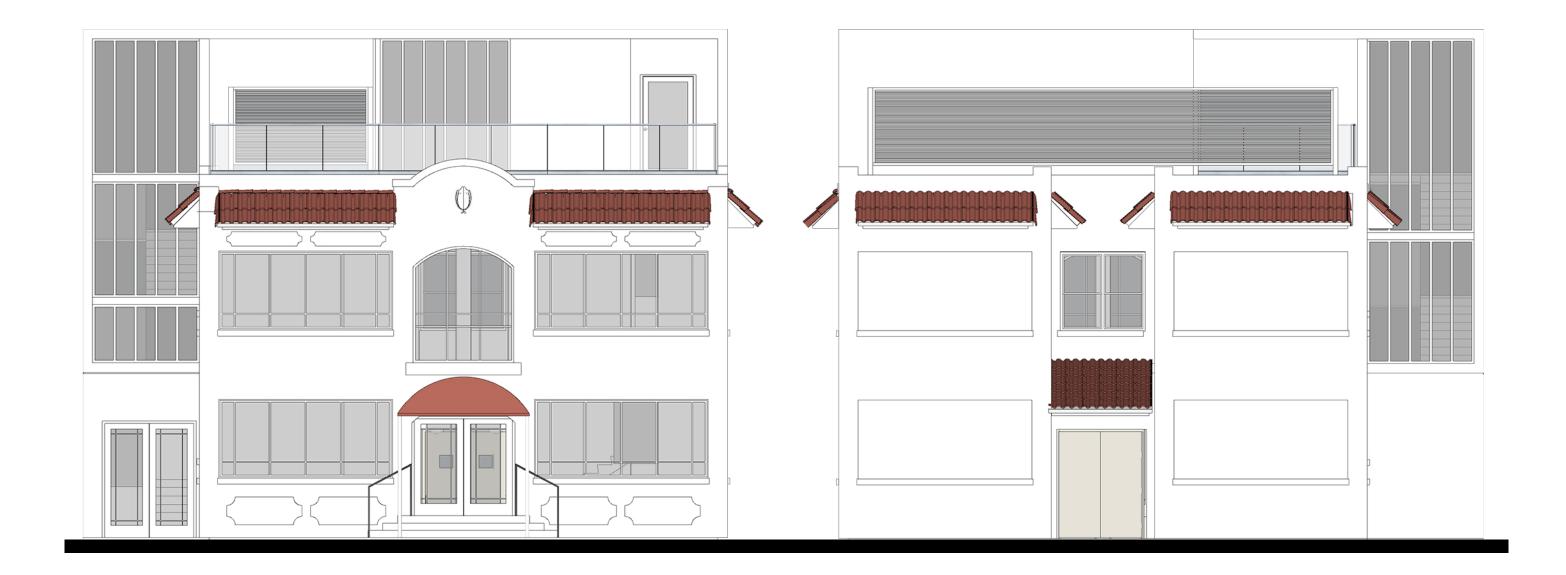
ARCHITECTSpa









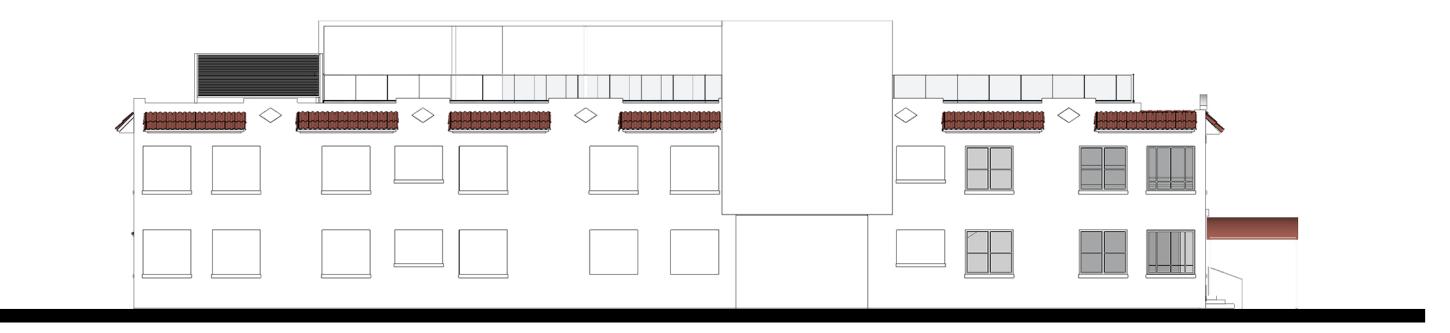


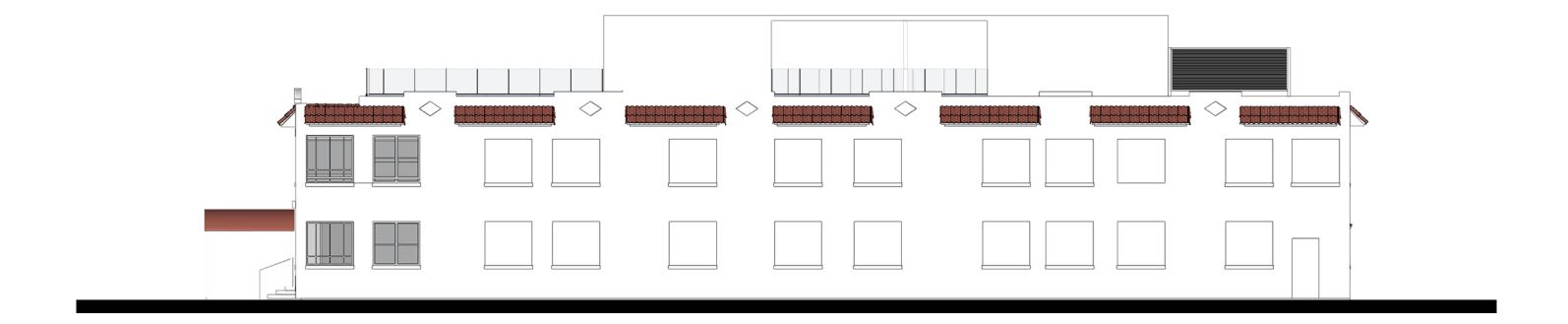
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### **APPENDIX G**

ITETripGen Web Application Worksheets and Graphs

#### 624 Collins Avenue

07/	05/	22
011	00/	20

ITE Code / Description	Quantity	Unite	Peak H	lour	<b>Frips</b>	Multimodal	Net Pea	ak Hour	Trips
	Quantity	Units	In	Out	Total	Reduction	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

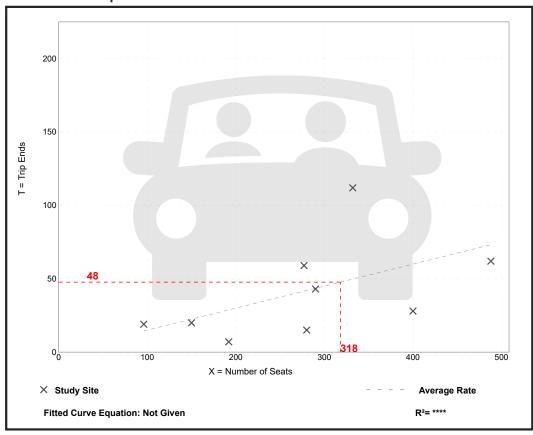
0.10

Vehi	cle Trip Ends vs:	Soats
Vein	•	Weekday, AM Peak Hour of Generator
S	Setting/Location:	General Urban/Suburban
N	umber of Studies:	9
Av	g. Num. of Seats:	278
Direct	ional Distribution:	69% entering, 31% exiting

0.04 - 0.34

# Data Plot and Equation

0.15



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Institute of Transportation Engineers

Standard Deviation

0.09

	<b>g Restaurant</b> 31)
Vehicle Trip Ends vs: On a:	Seats 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

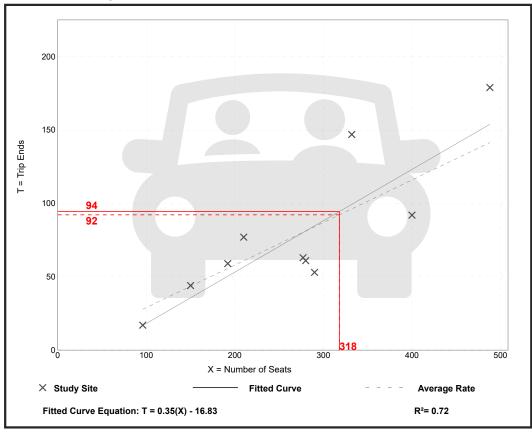
Range of Rates

0.18 - 0.44

#### **Data Plot and Equation**

Average Rate

0.29



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Institute of Transportation Engineers

# Fine Dining Restaurant (931)

Vehicle Trip Ends vs: Seats

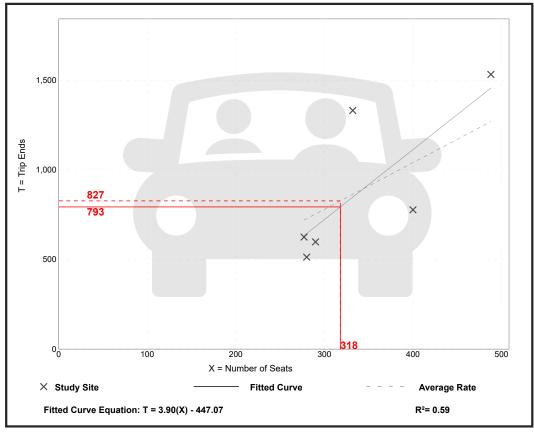
On a: Weekday

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

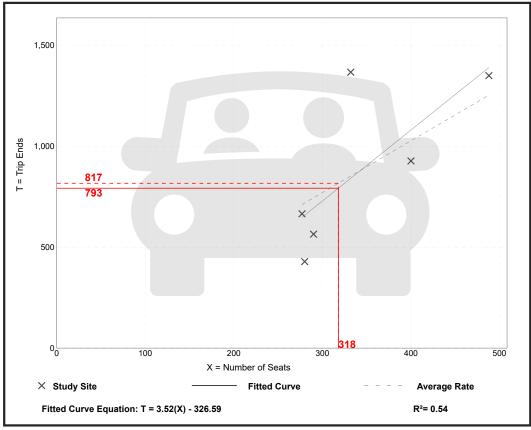
On a: Saturday

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**

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

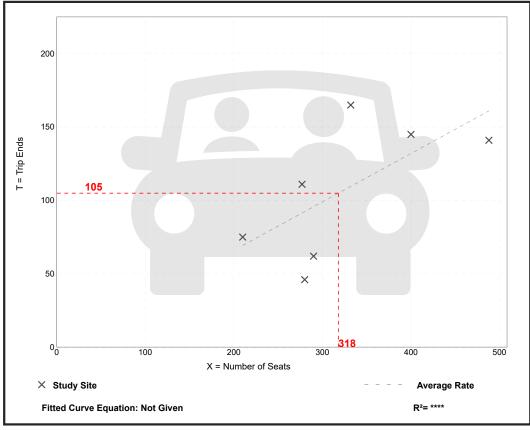
126, 260, 291, 301, 338, 339, 368, 437, 440, 976, 1053

Fine Dining Restaurant (931)							
Vehicle Trip Ends vs: On a:	Seats Saturday, Peak Hour of Generator						
•	General Urban/Suburban						
Number of Studies: Avg. Num. of Seats:	-						
0	59% entering, 41% exiting						

Vahicla	Trin	Generation	nor	Soat	

venicle mp 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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## **APPENDIX H**

Coordination with City of Miami Beach Parking Department

7/19/23, 5:34 PM



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.

https://mail.google.com/mail/u/0/?ik=f64d173650&view=pt&search=all&permmsgid=msg-f:1771885111497497436&simpl=msg-f:1771885111497497436 1/2



# **APPENDIX I**

**Traffic Volume and Turning Movement Counts** 

#### Prepared by National Data & Surveying Services VOLUME Collins Ave/SR A1A Bet. 6th St & 7th St

Day: Thursday Date: 7/27/2023

City: Miami Beach Project #: FL23\_140335\_001

	D					NB	SB		EB		WB						То	tal
	U			ALS		8,457	5,292		0		0						13,	749
AM Period	NB		SB		EB	WB	тот	AL	PM Period	NB		SB		EB	۷	VB	TO	TAL
0:00	73		45				118		12:00	124		73					197	
0:15	70		28				98		12:15	135		68					203	
0:30	67	257	40				107	101	12:30	134	500	84	204				218	700
0:45	47 54	257	31 24	144			78 78	401	12:45 13:00	115 115	508	56 84	281				171 199	789
1:15	54		24 17				67		13:15	120		84 75					199	
1:30	44		28				72		13:30	118		86					204	
1:45	29	177	31	100			60	277	13:45	115	468	86	331				201	799
2:00	25		17				42		14:00	122		62					184	
2:15	31		20				51		14:15	120		93					213	
2:30	24		22				46		14:30	100		74					174	
2:45	19	99	25	84			44	183	14:45	117	459	80	309				197	768
3:00	27		18				45		15:00	115		73					188	
3:15	24 31		26 25				50		15:15 15:30	135 111		88					223	
3:30 3:45	21	103	25 17	86			56 38	189	15:45	111	479	70 76	307				181 194	786
4:00	18	105	28	80			46	105	16:00	142	475	78	307				220	780
4:15	12		13				25		16:15	125		77					202	
4:30	25		26				51		16:30	123		83					206	
4:45	29	84	11	78			40	162	16:45	96	486	83	321				179	807
5:00	19		23				42		17:00	117		77					194	
5:15	21		8				29		17:15	130		76					206	
5:30	35		15				50		17:30	124		80					204	
5:45	31	106	21	67			52	173	17:45	110	481	70	303				180	784
6:00	42		17				59		18:00	120		61					181	
6:15 6:30	49 47		26 23				75 70		18:15 18:30	103 96		77 80					180 176	
6:45	47 69	207	25 32	98			101	305	18:45	90 86	405	63	281				149	686
7:00	77	207	34	50			101	303	19:00	93	405	67	201				160	080
7:15	47		42				89		19:15	121		63					184	
7:30	86		34				120		19:30	107		78					185	
7:45	76	286	56	166			132	452	19:45	100	421	54	262				154	683
8:00	73		52				125		20:00	101		84					185	
8:15	85		49				134		20:15	126		66					192	
8:30	109	262	54	100			163	5.00	20:30 20:45	128	464	57	204				185	750
8:45 9:00	95 93	362	43 68	198			138 161	560	20:45	106 112	461	84 68	291				190 180	752
9:15	93		65				151		21:15	106		68 63					169	
9:30	81		47				128		21:30	105		78					183	
9:45	90	357	70	250			160	607	21:45	119	442	63	272				182	714
10:00	107		61				168		22:00	133		57					190	
10:15	115		73				188		22:15	101		61					162	
10:30	115		64				179		22:30	103		55					158	
10:45	106	443	67	265			173	708	22:45	131	468	51	224				182	692
11:00	123		83				206		23:00	115		52					167	
11:15	117		104 95				221		23:15 23:30	108		60 46					168	
11:30 11:45	122 125	487	95 83	365			217 208	852	23:30	89 99	411	46 51	209				135 150	620
TOTALS	123	2968	03	1901				4869	TOTALS	33	5489	21	3391				130	8880
SPLIT %		61.0%		39.0%				35.4%	SPLIT %		61.8%		38.2%					64.6%
						ND	CD		FD		\A/D							tal
	D	AILY 1	ΓΟΤΑ	LS		NB	SB		EB		WB							tal
						8,457	5,292		0		0						13,	749

		IAL3	8,4	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
AM Pk Volume	518	365			852	PM Pk Volume	508	331			822
Pk Hr Factor	0.959	0.877			0.964	Pk Hr Factor	0.941	0.962			0.934
7 - 9 Volume	648	364	0	0	1012	4 - 6 Volume	967	624	0	0	1591
7 - 9 Peak Hour	8:00	7:45			8:00	4 - 6 Peak Hour	16:00	16:00			16:00
7 - 9 Pk Volume	362	211			560	4 - 6 Pk Volume	486	321			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

#### Prepared by National Data & Surveying Services VOLUME Collins Ave/SR A1A Bet. 6th St & 7th St

Day: Friday Date: 7/28/2023

City:	Miami Beach
Project #:	FL23_140335_001

		AILY 1				NB	SB		EB		WB					Тс	otal
	U.			ALS		8,957	6,166	i i	0		0					15,	,123
AM Period	NB		SB		EB	WB	ТО	TAL	PM Period	NB		SB		EB	WB	ТО	TAL
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 40		44				111		13:00 13:15	127 124		65				192 217	
1:15 1:30	40 47		43 40				83 87		13:30	124		93 73				173	
1:45	32	186	40 34	161			66	347	13:45	122	473	84	315			206	788
2:00	45	100	39	101			84	547	14:00	115	175	80	515			195	700
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 35	107			40 68	205	15:45 16:00	146 125	536	73 79	299			219 204	835
4:00 4:15	33 23		35 21				44		16:15	125		79 84				204 190	
4:15	25		20				44		16:30	120		94 94				214	
4:45	24	105	26	102			50	207	16:45	117	468	76	333			193	801
5:00	32	105	19	102			51	207	17:00	152	100	78	555			230	001
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	100	34	426			83	225	18:30	106		81	220			187	042
6:45 7:00	66	199	<u>38</u> 43	136			104 118	335	18:45 19:00	118 110	484	81 92	329			199 202	813
7:00	75 51		43 53				118		19:00	110		92 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 67				150		21:15	126		86				212	
9:30 9:45	100 85	365	65 64	264			165 149	629	21:30 21:45	115 122	481	62 71	315			177 193	796
9:45 10:00	85 99	505	84	204			149	029	21:45	122	401	56	212			193	790
10:15	111		74				185		22:15	124		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 TOTALS	126	472 3134	91	354 2289			217	826 5423	23:45 TOTALS	115	507 5823	82	316 3877			197	823 9700
SPLIT %				42.2%				5423 35.9%	SPLIT %		60.0%						
SPLIT %		57.8%		42.2%				35.9%	SPLII 70		60.0%		40.0%				64.1%
	D	AILY 1	ΟΤΑ	ALS		NB	SB		EB		WB						otal
						8,957	6,166		0		0					15,	,123

	DAILY TO										
	DAILI IO	IALS	8,9	957 6	5,166	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			628	4 - 6 Pk Volume	536	350			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

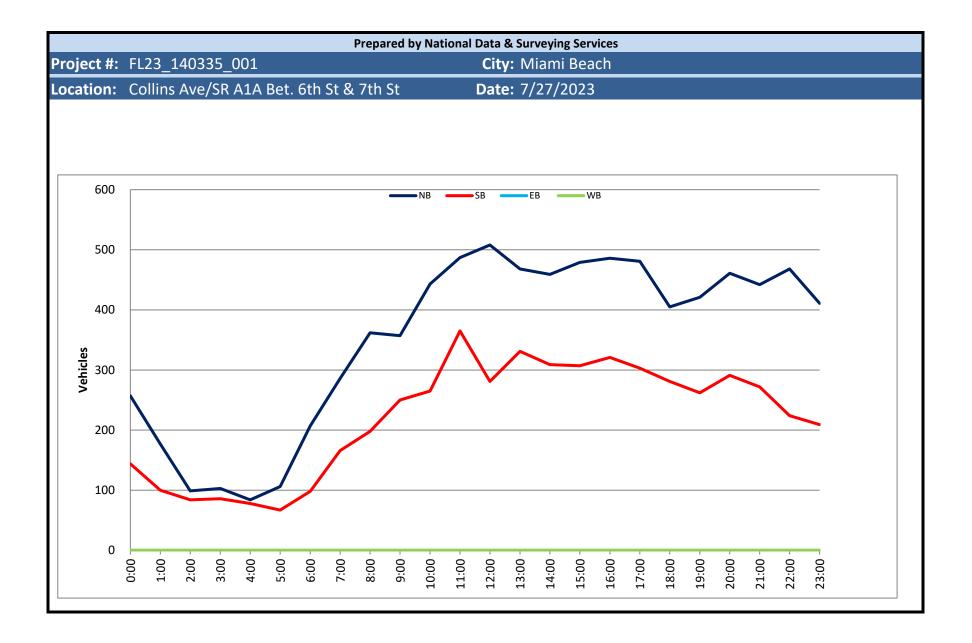
#### Prepared by National Data & Surveying Services VOLUME Collins Ave/SR A1A Bet. 6th St & 7th St

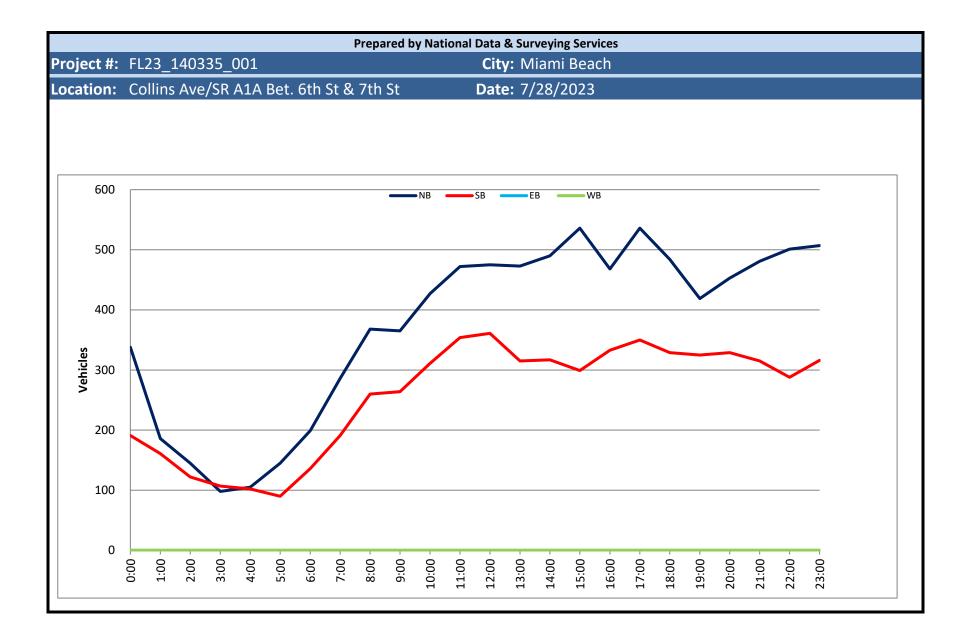
Day: Saturday Date: 7/29/2023

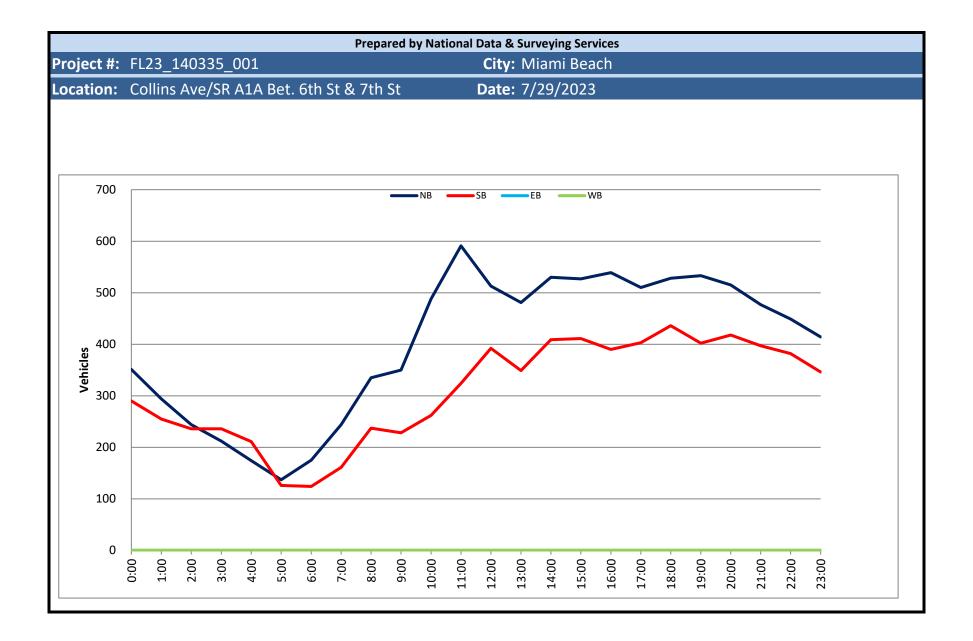
City: Miami Beach Project #: FL23\_140335\_001

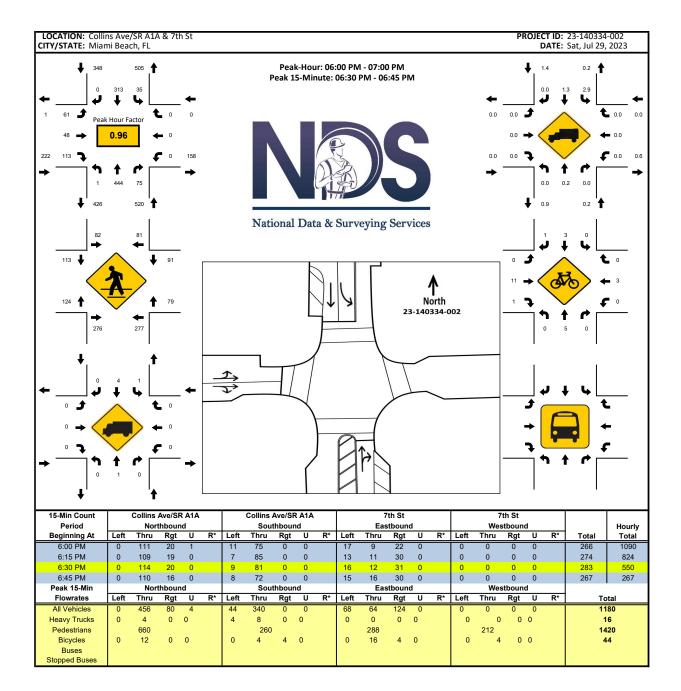
	П	AILY 1				NB	SB		EB		WB						То	tal
	U			ALS		9,611	7,425		0		0						17,	036
AM Period	NB		SB		EB	WB	TO	TAL	PM Period	NB		SB		EB	١	NB	TO	TAL
0:00	100		72				172		12:00	123		100					223	
0:15	89		62				151		12:15	119		107					226	
0:30	81	254	76	200			157	644	12:30	129	540	95	202				224	0.05
0:45	81 85	351	<u>80</u> 66	290			161 151	641	12:45 13:00	142 128	513	90 100	392				232 228	905
1:15	84		66				151		13:15	118		77					195	
1:30	62		57				119		13:30	128		103					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	
2:15	78		58				136		14:15	131		112					243	
2:30	40		59				99		14:30	136		86					222	
2:45	49	244	66	236			115	480	14:45	136	530	122	409				258	939
3:00 3:15	48 56		65 52				113 108		15:00 15:15	137 128		111 100					248 228	
3:30	58		52 61				108		15:30	128		95					228	
3:45	50	212	58	236			108	448	15:45	138	527	105	411				243	938
4:00	42	212	63	250			105	110	16:00	127	527	105	111				232	550
4:15	35		56				91		16:15	142		84					226	
4:30	53		48				101		16:30	145		104					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	
5:15	36		43				79		17:15 17:30	139		92					231	
5:30 5:45	21 38	137	25 21	126			46 59	263	17:30	134 125	510	97 102	403				231 227	913
6:00	33	157	35	120			68	205	18:00	125	510	102	405				245	915
6:15	36		29				65		18:15	129		116					245	
6:30	56		25				81		18:30	136		101					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	
7:15	57		39				96		19:15	139		89					228	
7:30 7:45	65 81	244	45 36	101			110 117	405	19:30 19:45	129 136	<b>F</b> 22	104 121	402				233 257	935
8:00	79	244	54	161			133	405	20:00	126	533	115	402				237	955
8:15	77		59				135		20:15	130		101					231	
8:30	88		51				139		20:30	135		101					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	
9:15	82		61				143		21:15	134		89					223	
9:30	82	252	61	222			143		21:30	125		109	20-				234	07.
9:45	102 131	350	<u>55</u> 74	228			157 205	578	21:45 22:00	95 133	477	79 96	397				174 229	874
10:00 10:15	131		74 54				205 172		22:00	133 98		96 103					229	
10:13	109		54 58				167		22:30	98 118		87					201	
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	
11:15	159		76				235		23:15	108		93					201	
11:30	139		87				226		23:30	110		74					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%
	ם		ОТА	us _		NB	SB		EB		WB						-	tal
	_ 0					9,611	7,425		0		0						17,	036

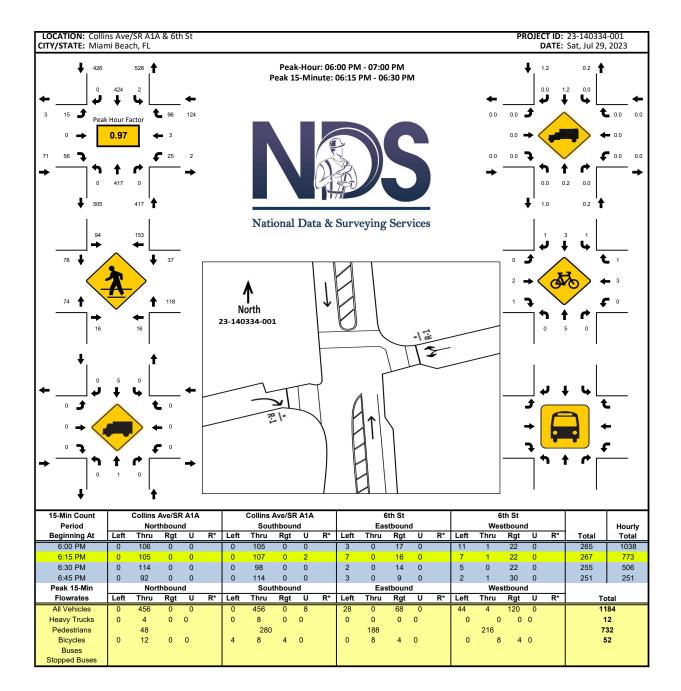
	DAILY TOTALS				50	LD					TOtal
			9,6	511 7	7,425	0	0				17,036
AM Peak Hour	11:00	11:45			11:00	PM Peak Hour	15:45	19:30			14:15
AM Pk Volume	591	374			915	PM Pk Volume	552	441			971
Pk Hr Factor	0.929	0.874			0.957	Pk Hr Factor	0.952	0.911			0.941
7 - 9 Volume	579	398	0	0	977	4 - 6 Volume	1049	793	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			572	4 - 6 Pk Volume	539	405			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













# **APPENDIX J**

Miami-Dade County Traffic Signal Operations for Collins at 7<sup>th</sup> Street

## TOD Schedule Report

Print Date: 7/21/2023						for 6	006: Collins Av&7 St					Print Time: 6:34 PM
Asset		Intersection	L	1	<u>TOD</u> Schedule	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD</u> <u>Setting</u>	<u>Active</u> <u>PhaseBank</u>	<u>Active</u> <u>Maximum</u>
6006		Collins Av&7	St	D	OW-6	TOD	[12] HEAVY PM PEAK	90	0	N/A	1	Max 2
			ŝ	<u>Splits</u>								
<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					
	Ł				↑		→					

#### Active Phase Bank: Phase Bank 1

<u>Phase</u>	<u>Walk</u>	Don't Walk	Min Initial	<u>Veh Ext</u>	Max Limit	<u>Max 2</u>	Yellow	<u>Red</u>	Last In Service Date:	unknown
	Phase Bank								Last III Service Date.	UNKIOWI
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3			Permitted Phases	
1 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0	Fernilleu Filases	
2 SBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	0 - 0 - 0	4	2		<u>12345678</u>
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0	Default	-26-8
4 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0	External Permit 0	-26-8
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0	External Permit 1	-26-8
6 NBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	0 - 0 - 0	4	2	External Permit 2	-26-8
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		

## TOD Schedule Report

for 6006: Collins Av&7 St

Print Date: 7/21/2023

Print Time:	
6:34 PM	

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

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

#### **Current Time of Day Function**

<u>Time</u>	Function	<u>Settings *</u>	Day of Week
0000	TOD OUTPUTS		SuM T W ThF S
0000	PED RECALL	84	ThF S
0200	PED RECALL		ThF S
0530	PED RECALL	84	M T W ThF

Local Time of Day Funct	ion
-------------------------	-----

<u>Time</u>	<b>Function</b>
0000	TOD OUTPUTS
0000	PED RECALL
0000	PED RECALL
0200	PED RECALL
0500	PED RECALL
0530	PED RECALL

<u>Settings *</u>	Day of Week
	SuM T W ThF S
84	ThF S
	SuM T W
	ThF S
84	Su S
84	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 SF WEEK DATES PSCF DEEKDATESSFPSCF101/01/2022 - 01/01/20221.021.09201/02/2022 - 01/08/20221.021.09301/09/2022 - 01/22/20221.021.09401/16/2022 - 01/22/20221.011.07501/23/2022 - 01/29/20220.991.04702/06/2022 - 02/12/20220.961.02802/13/2022 - 02/19/20220.961.02902/20/2022 - 02/26/20220.941.001002/27/2022 - 03/05/20220.941.001103/06/2022 - 03/12/20220.930.991303/20/2022 - 03/26/20220.941.001403/27/2022 - 03/26/20220.941.001504/03/2022 - 04/02/20220.941.001604/10/2022 - 04/02/20220.941.001704/17/2022 - 04/02/20220.951.011804/24/2022 - 04/30/20220.951.011905/01/2022 - 05/14/20220.961.022105/15/2022 - 05/21/20220.961.022205/22/2022 - 05/28/20220.981.042305/29/2022 - 05/28/20220.981.042406/05/2022 - 05/28/20221.031.07\_\_\_\_\_ \* 8 \* 9 \*10 \*11 \*12 \*13 \*14 \*15 \*16 \*17 \*18 \*19 \*20 1.07 24 25 1.10 1.09 26 1.09 27 28 29 1.06 
 30
 07/17/2022
 07/23/2022
 1.01
 1.07

 31
 07/24/2022
 07/30/2022
 1.01
 1.07
 07/31/2022 - 08/06/2022 1.02 32 1.09 07/31/2022 - 08/06/2022 1.02 08/07/2022 - 08/13/2022 1.02 08/14/2022 - 08/20/2022 1.03 08/21/2022 - 08/27/2022 1.04 08/28/2022 - 09/03/2022 1.06 09/04/2022 - 09/10/2022 1.08 09/11/2022 - 09/17/2022 1.10 09/18/2022 - 09/24/2022 1.08 09/25/2022 - 10/01/2022 1.07 33 1.09 34 1.10 35 1.11 36 1.13 37 1.15 38 1.17 1.15 39  $\begin{array}{c} 09/25/2022 - 10/01/2022 \\ 10/02/2022 - 10/08/2022 \\ 1.05 \\ 10/09/2022 - 10/15/2022 \\ 1.04 \end{array}$ 1.14 40 41 1.12 42 1.11 1.11 43 44 1.11 45 46  $1.11 \\ 1.12$ 47 1.11 1.10 1.10 48 49 50 1.09 1.09 51 52 1.09 53 \* PEAK SEASON

23-FEB-2023 09:11:23

830UPD



# APPENDIX L Miami-Dade TPO 2045 Directional Trip Distribution

	County TAZ         Regional TAZ         Percent         NNE         ENE         ESE         SSE         SSW         WSW         WNW         NNW         NNW           651         3551         Trips         601         40         126         -         25         267         541         390           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         1           652         3552         Percent         22.9         4.1         3.5         2.8         2.5         16.7         19.4         28.1										
TAZ of	f Origin					Cardinal D	Directions				Total
			NNE	ENE	ESE	SSE	SSW	wsw	WNW	NNW	Trips
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	

		Mian	ni-Dade 204	5 Cost Fea	sible Plan I	Direction T	rip Distrib	ution Sum	mary		
TAZ of	Origin	Tripe				Cardinal D	irections				Total
County TAZ	Regional TAZ	Trips / Percent	NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	Trips
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

17.1

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	K			K								OBIX	
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	Ũ	0	0	Ũ	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		1	Minor1		Ν	1ajor1		Ма	ajor2			
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	-	-	-	-	-	-	-	-	
•										0.0			_

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	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î Þ						el 🕴		۲	1	
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	0.00	0.55						0.95		0.93		
Frt		0.927						0.980		0.00		
Flt Protected		0.987								0.950		
Satd. Flow (prot)	0	2038	0	0	0	0	0	1742	0	1770	1863	0
Flt Permitted	Ŭ	0.987	Ŭ	Ŭ	Ŭ	Ŭ	Ū		•	0.346	1000	Ū
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	100			100		1	100			100
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	1.0	553	553	1.0	163	237	11.0	167	167	0.0	237
Confl. Bikes (#/hr)	100		000	000		100	201					201
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 Effct Green (s)		30.0						88.0		88.0	88.0	
		00.0						00.0		00.0	00.0	

Existing 2023 Existing Satuday PM Peak 12:22 pm 08/06/2023 Baseline

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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		С						В		А	Α	
Approach Delay		27.2						12.6			9.4	
Approach LOS		С						В			Α	
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 2:1	NBT and	6:SBTL, S	Start of G	ireen							
Natural Cycle: 115												
Control Type: Pretimed												
Maximum v/c Ratio: 0.58												
Intersection Signal Delay: 1					tersectior							
Intersection Capacity Utiliza	ation 68.1%			IC	CU Level of	of Service	С					
Analysis Period (min) 15												

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

∮ø2 (R)	<u>↓</u> <sub>Ø4</sub>
94s	36 s
₩Ø6 (R)	
94 s	

26.7

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	5			5				•			•		
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										
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		l	Minor1		Ν	1ajor1		Ма	ajor2			
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	-	-	-	-	-	-	-	-	
-													
Annroach	FR			W/R			NR			SR			

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	-

3. Collins Avenue o												without i toject			
	٦	-	$\mathbf{\hat{z}}$	4	+	×	1	1	1	1	Ŧ	-			
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations		ፋጉ						eî 👘		<u> </u>	•				
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	0	0,0	0	0	0,0	0			
Storage Lanes	0		0	0		0	0 0		0	1		0			
Taper Length (ft)	25		Ŭ	25		Ū	25		Ŭ	25		Ŭ			
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	0.00	0.55	0.00	1.00	1.00	1.00	1.00	0.95	1.00	0.94	1.00	1.00			
Frt		0.927						0.980		0.04					
Flt Protected		0.987						0.500		0.950					
Satd. Flow (prot)	0	2040	0	0	0	0	0	1741	0	1770	1863	0			
Flt Permitted	U	0.987	0	0	0	U	0	1741	0	0.324	1005	U			
	0	1766	0	0	0	0	0	1741	0	0.324 565	1863	0			
Satd. Flow (perm)	U	1700		U	U		U	1/41		505	1003	0			
Right Turn on Red		450	Yes			Yes		4	Yes			Yes			
Satd. Flow (RTOR)		153			20			1			20				
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)	2.0	0.0						0.0		0.0	0.0				
Total Lost Time (s)		6.0						6.0		6.0	6.0				
Lead/Lag		0.0						0.0		0.0	0.0				
Lead-Lag Optimize?															
Recall Mode	Max	Max						Max		Max	Max				
Act Effct Green (s)	IVIAX	30.0						88.0		88.0	88.0				
		50.0						00.0		00.0	00.0				

Background 2024 without Project 1:07 pm 08/06/2023

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_ane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Actuated g/C Ratio		0.23						0.68		0.68	0.68	
/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		С						В		А	А	
Approach Delay		27.8						13.3			9.6	
Approach LOS		С						В			А	
Queue Length 50th (ft)		64						270		17	139	
Queue Length 95th (ft)		117						371		36	194	
nternal 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	
ntersection Summary												
<b>V</b> 1	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced t	to phase 2:1	NBT and	6:SBTL, S	Start of G	ireen							
Natural Cycle: 115												
Control Type: Pretimed												
Vaximum v/c Ratio: 0.60												
ntersection Signal Delay: 15					tersectior							
ntersection Capacity Utilizat	tion 70.4%			IC	CU Level	of Service	С					
Analysis Period (min) 15												

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

∮ø2 (R)	<u>→</u> <sub>Ø4</sub>
94 s	36 s
Ø6 (R)	
94 s	

27.5

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	۲.			<u> </u>				1			1		
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		Ν	1ajor1		Ma	ajor2				
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	-

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		-	•	•				T		*	÷	*
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ îr						ef 👘		ሻ	<b>↑</b>	
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	1.0	553	553	1.0	163	237	11.0	167	167	0.0	237
Confl. Bikes (#/hr)	100		000	000		100	201		107	107		201
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)	0	0	U	U	U	U	U	U	U	U	U	Ŭ
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 (%)	01	00	210	U	U	U	U	000	00	00	101	Ū
Lane Group Flow (vph)	0	374	0	0	0	0	0	667	0	60	467	0
Turn Type	Perm	NA	U	U	U	U	U	NA	U	Perm	NA	U
Protected Phases	T OIIII	4						2		T OIIII	6	
Permitted Phases	4	т						2		6	U	
Detector Phase	4	4						2		6	6	
Switch Phase	т	т						2		U	U	
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%						94.0 72.3%		94.0 72.3%	94.0 72.3%	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	4.0 2.0	4.0						4.0		4.0 2.0	4.0	
Lost Time Adjust (s)	2.0	2.0						2.0		2.0	2.0	
		0.0 6.0						0.0 6.0		6.0	0.0 6.0	
Total Lost Time (s)		0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?	Max	Max						Max		Max	Max	
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						88.0		88.0	88.0	

Future 2024 with Project 1:11 pm 08/06/2023

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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		С						В		А	В	
Approach Delay		33.6						13.3			9.9	
Approach LOS		С						В			А	
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: 0	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to	o phase 2:1	NBT and	6:SBTL, S	Start of G	ireen							
Natural Cycle: 115												
Control Type: Pretimed												
Maximum v/c Ratio: 0.73												
Intersection Signal Delay: 17					tersectior							
Intersection Capacity Utilizat	tion 72.9%			IC	U Level o	of Service	С					
Analysis Period (min) 15												

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

∮ø2 (R)	<u>↓</u> <sub>Ø4</sub>
94s	36 s
₩Ø6 (R)	
94 s	