Traffic Impact Study

The Riverwalk South

16375 Biscayne Boulevard
North Miami Beach, Florida

RGA
Richard Garcia & Associates, Inc.

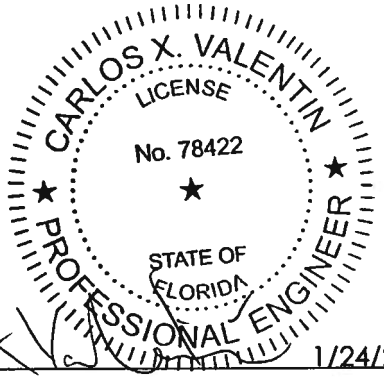
January 24th, 2022

Engineer's Certification

I, Carlos X. Valentin, P.E. # 78422, certify that I currently hold an active Professional Engineers License in the State of Florida and am competent through education and experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. In addition, the firm Richard Garcia & Associates, Inc. holds a Certificate of Authorization # 9592 in the State of Florida. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.

PROJECT DESCRIPTION: The Riverwalk South - Traffic Impact Study

PROJECT LOCATION: 16375 Biscayne Boulevard
North Miami Beach, Florida



Florida Registration No. 78422 Date 1/24/2022

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Executive Summary

The purpose of this study is to evaluate the traffic impacts associated with the new proposed redevelopment for the Riverwalk South project. The analysis documented herewith evaluates the existing traffic condition and future condition with and without project traffic during the adjacent roadway's AM and PM peak hour. Lastly, this traffic study follows the traffic impact study methodology approved by the City of North Miami Beach for previous redevelopment projects on the subject site.

The subject site is located on the southeast corner of Biscayne Boulevard (US 1/SR 5) and NE 165th Terrace in the City of North Miami Beach, Florida. This site has a restaurant with 9,210 square feet that will be demolished as part of the subject project. The subject project consists of *multifamily housing with 363 units, 8,807 square feet of retail and 8,806 square feet of restaurant space*. Also, this project will provide surface parking and a parking garage for residents/patrons while no valet services has been proposed at this time. The project build-out year is slated for 2024. Moreover, the subject project will have several vehicular access points on Biscayne Boulevard and NE 163rd Street. These access points are existing and shared with the adjacent properties.

The trip generation analysis was performed consistent with the methodology described in the *Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition* while the trip generation characteristics were obtained from *ITE's Trip Generation Manual, 11th Edition*. This analysis was performed for a typical weekday's AM and PM peak hour. The following land uses, as identified by the Institute of Transportation Engineers (ITE), most closely resemble the proposed development. These land uses (LU) are as follows:

Existing Use:	*LU 931: Quality Restaurant - 9,210 square feet*
Proposed Uses:	*LU 222: Multifamily Housing (High-Rise) - 363 dwelling units* *LU 822: Retail - 8,807 square feet* *LU 931: Restaurant - 8,806 square feet*

Moreover, the trip generation analysis includes trip reduction factors such as internal capture, pass-by trips and mode split. The internal capture was estimated consistent with the ITE Multi-Use Project Internal Capture methodology while the pass-by trip percentages were obtained from the *ITE Trip Generation Handbook*. The trip reduction percentages for mode split (i.e. transit, walking and bicycle) were obtained from published census data for the location of the subject project (US Census Bureau, Miami-Dade County tract 1.28).

As a result, the trip generation calculations yielded 110 net external trips (42 trips-in & 68 trips-out) during the AM peak hour and 90 net external trips (48 trips-in & 42 trips-out) during the PM peak hour. The peak hour trips were distributed to the studied intersections and assigned to the site's access points consistent with the traffic distribution percentages for the project's Traffic Analysis Zone (TAZ) 94 as documented by the Transportation Planning Organization (TPO) on the Miami-Dade Long Range Transportation Plan (2045 LRTP) Directional Trip Distribution Report, September 2019. The corresponding trip distribution percentages were determined by interpolating between the 2015 TAZ and 2045 TAZ data for the projected design year of 2024.

Manual Turning Movement Counts (TMC's) were collected at the intersections identified in Table 1. These counts were performed on Tuesday, January 11th, 2022 during the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM). The traffic volumes for the AM and PM peak hour were determined, adjusted for peak seasonal variations by utilizing the Florida Department of Transportation Peak Season Conversion Factor (PSCF) as previously requested by the City's traffic consultant and traffic operational analysis for the existing condition. As a result, the studied intersections yielded LOS E or better during the AM and PM peak hour.

Based on historical trends and using traffic data from Florida Department of Transportation (FDOT Count Stations 0556 and 5219), a regression analysis was performed in an effort to estimate any potential background traffic. The resulting growth rates yielded negative percent (decrease in traffic). The average growth rate resulted in 0.47 percent. However, a conservative growth rate of one (1.0) percent was compounded and applied to the existing traffic volumes in order to determine the background traffic for the year 2024 (project build-out year).

The future traffic volumes without project include the existing traffic volumes, background traffic and committed trips. Similarly, the traffic volumes for the future condition with project include the existing traffic, background traffic, committed trips and project trips. These traffic volumes with and without project traffic were evaluated to determine the Level of Service at the studied intersections.

The future intersection traffic volumes without project were evaluated to determine the level of service at the studied intersections. The intersection capacity and LOS analysis revealed that all the studied intersections will maintain acceptable *LOS E or better* during the *AM peak hour*, except for the intersection of NE 163rd Street (SR 826) and West Dixie Highway (SR 909) that yielded LOS F (delay of 105.2 sec). This intersection yielded LOS D (delay of 39.6 sec) for the existing condition but the additional trips generated by the committed developments have significantly deteriorated the capacity and LOS. The committed developments are adding

over 1,000 trips at the intersection including 280 westbound left turns for a single lane that has over 200 existing left-turns.

The analysis for the PM peak hour yielded LOS E or better for all the studied intersections. Note, the traffic impacts by the committed development trips have significantly deteriorated the capacity and LOS at some of these intersections.

The future intersection traffic volumes with project were evaluated to determine the level of service at the studied intersections. The intersection capacity and LOS analysis yielded the same results previously documented for the proposed future condition without project for both the AM and PM peak hour. Table 8 summarizes the LOS results for the future condition with project. Appendix 5 includes the Synchro software sheets with other outputs such as queue lengths and volume to capacity (v/c) ratio.

Moreover, it should be noted that the new additional trips generated by the subject project will have a marginal traffic impact on the capacity and LOS at the studied intersections. Although the intersection of NE 163rd Street and West Dixie Highway yielded LOS F for the future condition with project (AM peak), this intersection is expected to operate at LOS F without the project trips. During the AM peak hour, the subject project will add 35 trips at NE 163rd Street and West Dixie Highway while the committed developments will add 1,073 trips.

In conclusion, the traffic impacts associated with the proposed redevelopment will not have a negative traffic impact on the study area. The studied intersections will maintain the same Level of Service of the proposed future condition without project while the adjacent roadways with the additional project trips will meet the City's adopted Level of Service. Therefore, it is fair to conclude that sufficient roadway capacity exists to support the proposed redevelopment.

Table 1: Intersection LOS Summary - AM & PM Peak Hour

Existing Condition			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		Critical Approach TWSC			Overall		Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	D	54.0	-	-	-	E	56.5	-	-	-
2	Biscayne Boulevard (SR 5 / US 1) & NE 165 Terrace (Project's Main Driveway)	Two-Way Stop	A	0.0	WB	A	0.0	A	0.0	WB	A	9.5
3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	0.4	WB	C	20.3	A	1.6	WB	D	28.4
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	D	39.6	-	-	-	D	44.7	-	-	-
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	2.4	-	-	-	A	3.7	-	-	-
6	NE 163 Street (SR 826) & Existing Driveway	Two-Way Stop	A	0.1	SB	B	12.3	A	0.1	SB	B	13.5
Proposed Future Condition without Project			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		Critical Approach TWSC			Overall		Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	E	60.0	-	-	-	E	69.9	-	-	-
2	Biscayne Boulevard (SR 5 / US 1) & NE 165 Terrace (Project's Main Driveway)	Two-Way Stop	A	0.1	WB	B	10.8	A	0.2	WB	B	11.0
3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	0.9	WB	C	23.2	A	9.8	WB	E	35.1
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	F	105.2	-	-	-	E	75.7	-	-	-
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	4.5	-	-	-	A	7.6	-	-	-
6	NE 163 Street (SR 826) & Existing Driveway	Traffic Signal	A	0.4	SB	C	15.4	A	1.2	SB	D	25.1
Proposed Future Condition with Project			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		Critical Approach TWSC			Overall		Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	E	60.4	-	-	-	E	71.0	-	-	-
2	Biscayne Boulevard (SR 5 / US 1) & NE 165 Terrace (Project's Main Driveway)	Two-Way Stop	A	0.2	WB	B	10.4	A	0.2	WB	A	9.6
3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	1.5	WB	C	23.5	B	12.3	WB	E	35.4
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	F	104.9	-	-	-	E	76.2	-	-	-
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	4.8	-	-	-	A	7.8	-	-	-
6	NE 163 Street (SR 826) & Existing Driveway	Two-Way Stop	A	0.5	SB	C	16.2	A	1.3	SB	D	26.7

Introduction

The purpose of this study is to evaluate the traffic impacts associated with the new proposed redevelopment for the Riverwalk South project. The analysis documented herewith evaluates the existing traffic condition and future condition with and without project traffic during the adjacent roadway's AM and PM peak hour. Lastly, this traffic study follows the traffic impact study methodology approved by the City of North Miami Beach for previous redevelopment projects on the subject site.

Project Location / Description

The subject site is located on the southeast corner of Biscayne Boulevard (US 1/SR 5) and NE 165th Terrace in the City of North Miami Beach, Florida. This site has a restaurant with 9,210 square feet that will be demolished as part of the subject project. The subject project consists of *multifamily housing with 363 units, 8,807 square feet of retail and 8,806 square feet of restaurant space*. Also, this project will provide surface parking and a parking garage for residents/patrons while no valet services has been proposed at this time. The project build-out year is slated for 2024. Figure 1 depicts the site's location map while Figure 2 is the site plan provided for illustrative purposes only.

Moreover, the subject project will have several vehicular access points on Biscayne Boulevard and NE 163rd Street. These access points are existing and shared with the adjacent properties. Below is a description of each access point for this project.

Biscayne Boulevard & NE 165th Terrace

This intersection operates with a stop control and is restricted to right-turn vehicle movements only (northbound right and westbound right). It has an exclusive northbound right-turn lane and serves as the main driveway for the subject project and the future Soleste North Miami Beach project (aka The Riverwalk North Parcel). Therefore, most of the project traffic will utilize this access point.

Biscayne Boulevard & NE 16400 Block

This intersection was recently constructed and currently operating as approved by FDOT. It has a signal control and a median opening on Biscayne that was built to provide direct vehicular access from the north to the future Uptown Biscayne development (property south of the subject project). This signalized intersection provides protected phase for the dual southbound left-turn lanes into the Uptown Biscayne main driveway, northbound approach and westbound approach.

Moreover, this intersection is utilized as the main access point for the existing The Harbour building and will serve as a secondary driveway for the Riverwalk

South project and adjacent properties since most if not all the traffic coming from the north will utilize the new signalized intersection for direct access. Note, all these properties interconnect and allow cross-access which improve the traffic flow and operations.

Existing Driveway at NE 163rd Street (east of Biscayne Boulevard)

This existing driveway has a stop control and is restricted to right-turn vehicle movements only (westbound right and southbound right). It is located within the exclusive westbound right-turn lane for the intersection of Biscayne Boulevard and NE 163rd Street. This driveway is a secondary access point for the subject project and adjacent properties. It is expected to be utilized mainly by traffic coming from the east and traffic traveling west.

Figure 1: Location Map

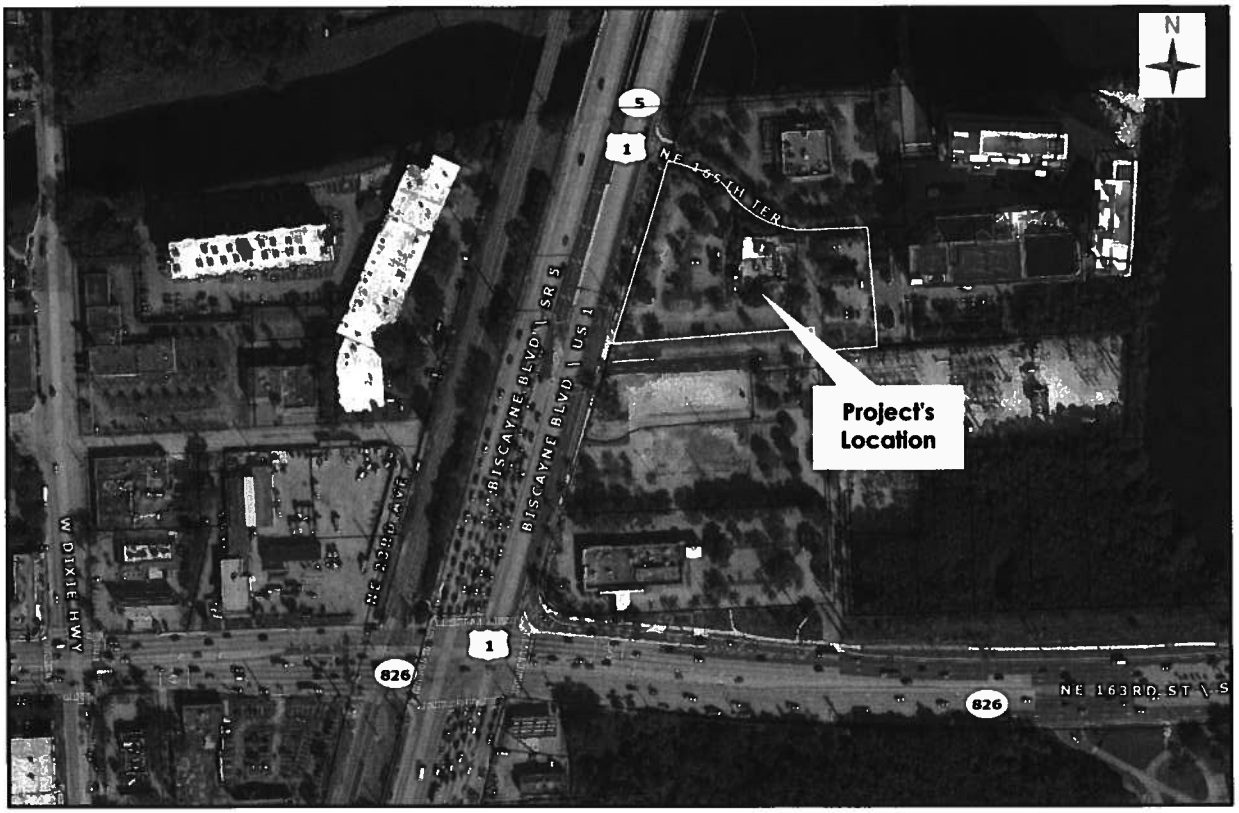
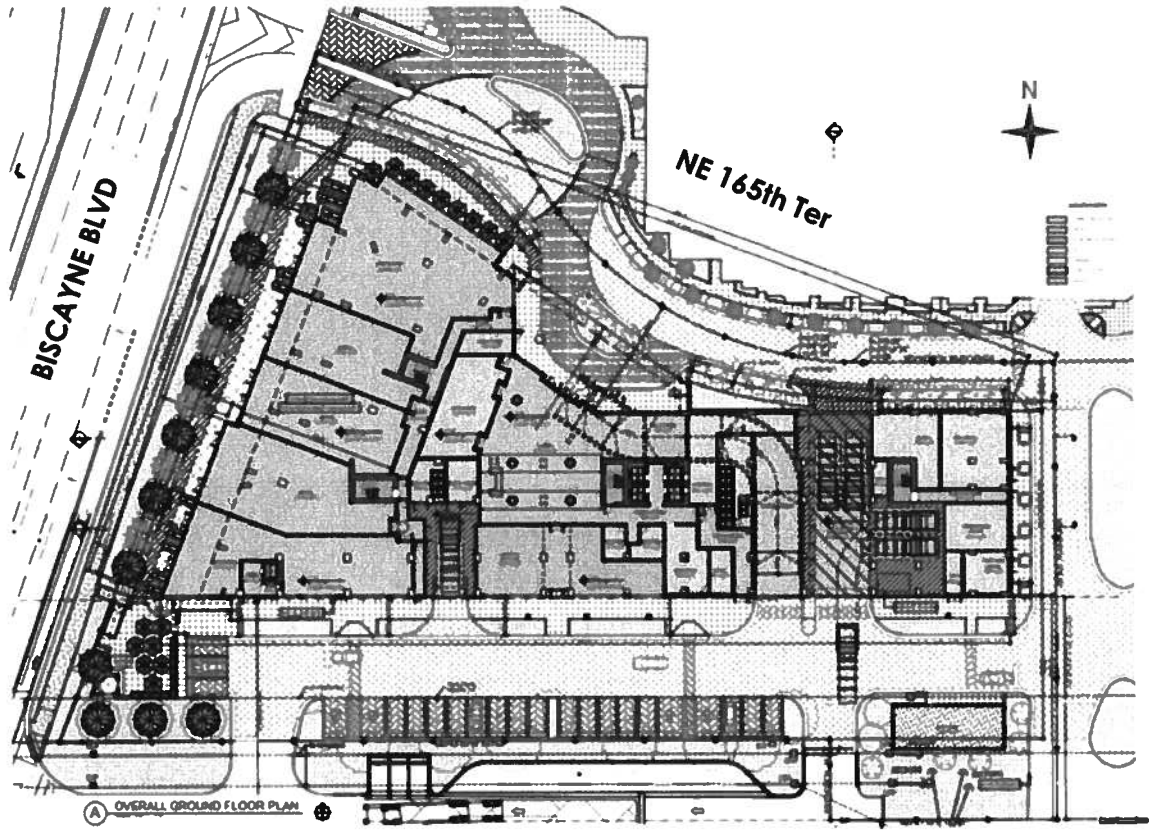


Figure 2: Site Plan



NE 164 Block

Existing Condition

The purpose of this section is to identify the current operational and geometric characteristics at the intersections and roadways within the study area in order to provide a comparison to future conditions.

Turning Movement Counts (TMC's)

Manual Turning Movement Counts (TMC's) were collected at the intersections identified below. These counts were performed on Tuesday, January 11th, 2022 during the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM). The traffic volumes for the AM and PM peak hour were determined, adjusted for peak seasonal variations by utilizing the Florida Department of Transportation Peak Season Conversion Factor (PSCF) as previously requested by the City's traffic consultant and utilized in the traffic operational analysis for the existing condition. Note, the appropriate traffic data adjustment is the Seasonal Factor (SF) and not the Peak Season Conversion Factor (PSCF) as indicated by FDOT which is the agency responsible for developing the adjustment factors and their respective uses. FDOT has stated to us the following:

"Unless you are feeding your data into an urban model, use the Seasonal Factors to turn your counts into AADT estimates."

Figures 3 and 4 depict the existing seasonally adjusted traffic volumes for the AM and PM peak hour, respectively. Appendix 5 contains the raw data and the tables utilized to develop the seasonally adjusted turning movement counts. Traffic counts and operational characteristics were gathered at the following intersections:

1. *Biscayne Boulevard & NE 163rd Street (Traffic Signal, Asset ID 2010)*
2. *Biscayne Boulevard & NE 165th Terrace (TWSC)*
3. *Biscayne Boulevard & East Greynolds Park Driveway (TWSC)*
4. *NE 163rd Street & West Dixie Highway/NE 22nd Avenue (Traffic Signal, Asset ID 2019)*
5. *Biscayne Boulevard & NE 16400 Block (Traffic Signal, Asset ID 7659)*
6. *NE 163rd Street & Existing Driveway*

Existing Intersection Capacity / Level of Service (LOS) Analysis

The existing traffic volumes shown in Figures 3 and 4 were utilized to perform the intersection capacity and LOS analysis. This analysis was performed using the Synchro software and follows the latest Highway Capacity Manual (HCM) methodology. Moreover, this analysis includes the traffic operational characteristics at the time data collection took place (i.e. lane geometry, traffic control, etc). As a result, the studied intersections yielded LOS D or better during the AM peak hour and LOS E or better for the PM peak hour. Table 2 summarizes the LOS and vehicle delay results while Appendix 5 contains other outputs such as volume to capacity ratio (V/C) and 95th Percentile Queue.

Table 2: Existing Condition LOS & Delay - AM & PM Peak

Existing Condition			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		Critical Approach TWSC			Overall		Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	D	54.0	-	-	-	E	56.5	-	-	-
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3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	0.4	WB	C	20.3	A	1.6	WB	D	28.4
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	D	39.6	-	-	-	D	44.7	-	-	-
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	2.4	-	-	-	A	3.7	-	-	-
6	NE 163 Street (SR 826) & Existing Driveway	Two-Way Stop	A	0.1	SB	B	12.3	A	0.1	SB	B	13.5

Figure 3: Existing Seasonally Adjusted TMC's - AM Peak Hour

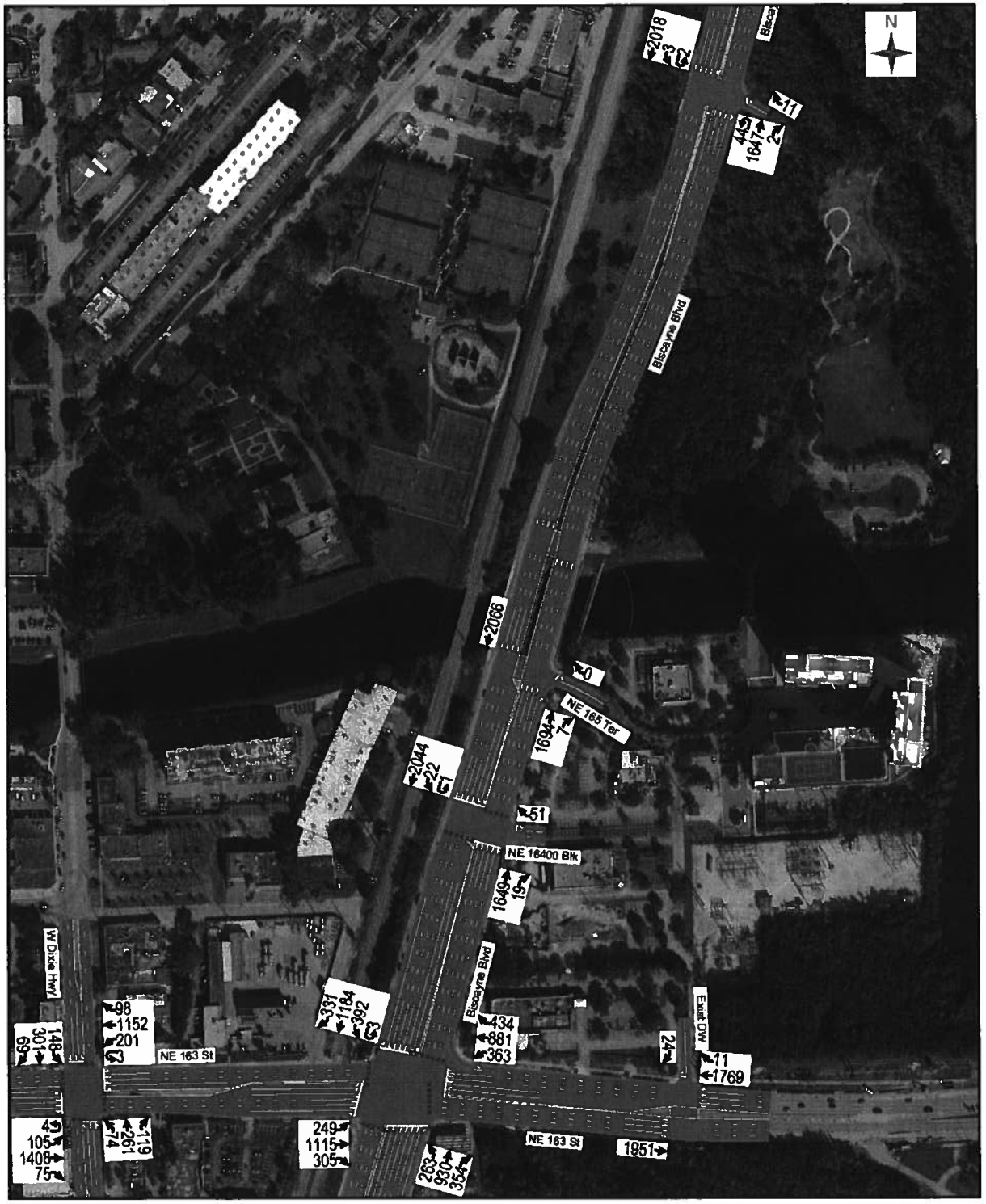
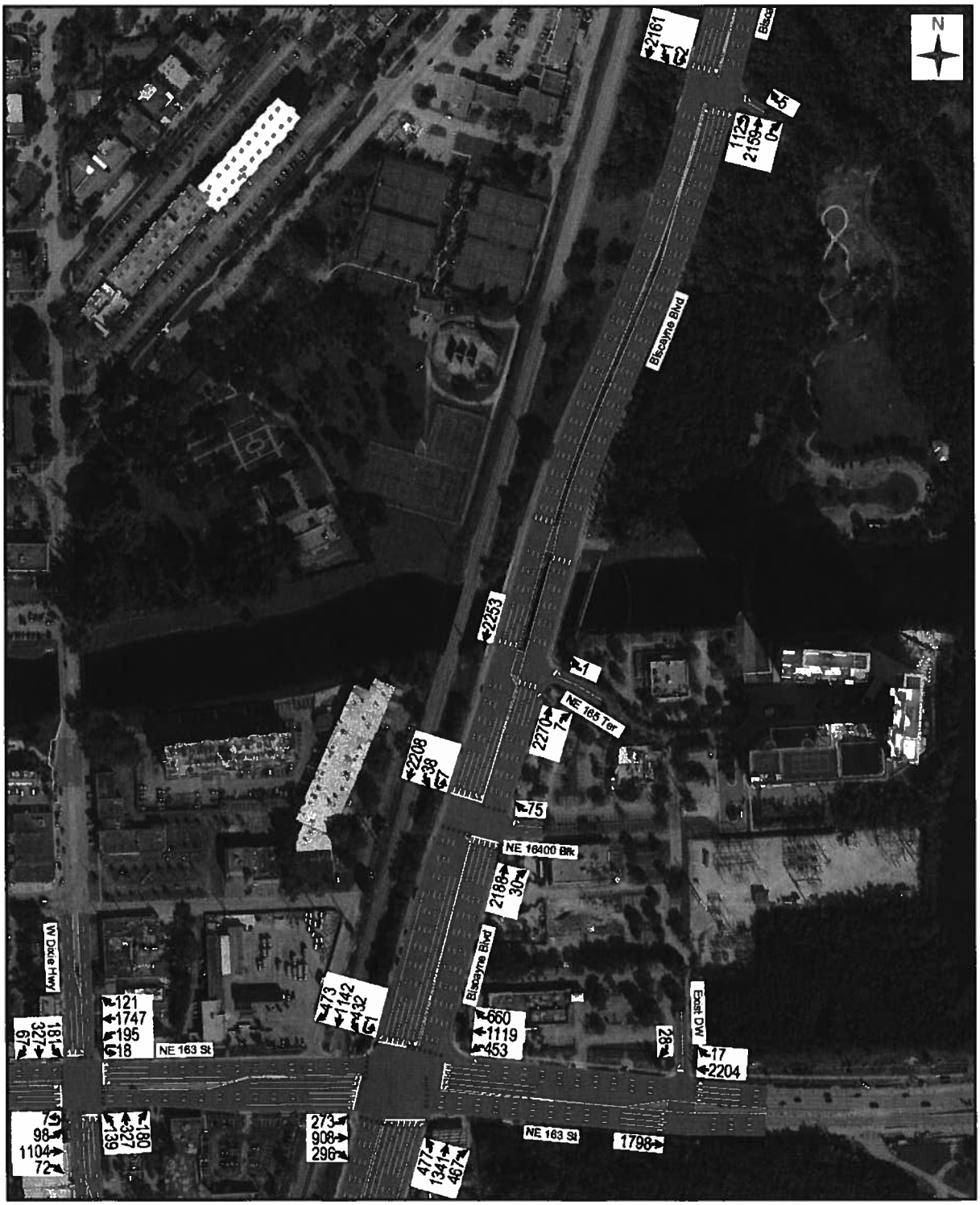


Figure 4: Existing Seasonally Adjusted TMC's - PM Peak Hour



Project Traffic

This section of the report describes the analysis for estimating the trip generation and trip distribution associated with the subject project.

Trip Generation

The trip generation analysis was performed consistent with the methodology described in the *Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition* while the trip generation characteristics were obtained from *ITE's Trip Generation Manual, 11th Edition*. This analysis was performed for a typical weekday's AM and PM peak hour. The following land uses, as identified by the Institute of Transportation Engineers (ITE), most closely resemble the proposed development. These land uses (LU) are as follows:

Existing Use: *LU 931: Quality Restaurant - 9,210 square feet*

Proposed Uses: *LU 222: Multifamily Housing (High-Rise) - 363 dwelling units*
LU 822: Retail - 8,807 square feet
LU 931: Restaurant - 8,806 square feet

Moreover, the trip generation analysis includes trip reduction factors such as internal capture, pass-by trips and mode split. The internal capture was estimated consistent with the ITE Multi-Use Project Internal Capture methodology while the pass-by trip percentages were obtained from the *ITE Trip Generation Handbook*. The trip reduction percentages for mode split (i.e. transit, walking and bicycle) were obtained from published census data for the location of the subject project (US Census Bureau, Miami-Dade County tract 1.28).

As a result, the trip generation calculations yielded 110 net external trips (42 trips-in & 68 trips-out) during the AM peak hour and 90 net external trips (48 trips-in & 42 trips-out) during the PM peak hour. The ITE rates and percentages for the AM and PM peak hour are included in Appendix 1. Tables 3 and 4 summarize the trip generation calculations and results for the AM and PM peak hour, respectively.

Table 3: Trip Generation - AM Peak Hour

LAND USE (LU)		UNITS	ITE LU CODE	ITE TRIP GENERATION RATE	AM PEAK HOUR TRIPS		
					IN	OUT	TOTAL
Existing							
Fine Dining Restaurant		9.210 Th.SF.	931	0.73	4	3	7
[a] *Mode Split Reductions*	*Transit (Public Transportation)* 0.95% of External Trips				*0*	*0*	*0*
	Bicycle 0.0% of External Trips				*0*	*0*	*0*
	Walking 0.30% of External Trips				*0*	*0*	*0*
[b] *Pass-By Trips (Restaurant)* 0.0%					*0*	*0*	*0*
Net Existing Trips *(Existing Trips - Mode Split Reduction Trips - Pass By Trips)*					**4**	**3**	**7**
Proposed							
Multi-Family Housing (High-Rise)		363 D.U.	222	0.27	33	65	98
Retail (<40k)		8.807 Th.SF.	822	2.36	13	8	21
Fine Dining Restaurant		8.806 Th.SF.	931	0.73	3	3	6
Proposed Site Gross Trips					49	76	125
[c] *Multi-Use Development Internal Capture* 5.6%					*3*	*4*	*7*
External Trips *(Proposed Site Gross Trips - Internal Trips)*					**46**	**72**	**118**
[a] *Mode Split Reductions*	*Transit (Public Transportation)* 0.95% of External Trips				*0*	*1*	*1*
	Bicycle 0.0% of External Trips				*0*	*0*	*0*
	Walking 0.30% of External Trips				*0*	*0*	*0*
Total Mode Split Reduction Trips					*0*	*1*	*1*
[b] *Pass-By Trips (Retail)* 0.0%					*0*	*0*	*0*
[b] *Pass-By Trips (Restaurant)* 0.0%					*0*	*0*	*0*
Net Existing Trips					4	3	7
Net External Trips *(External Trips - Mode Split Reduction Trips - Existing Trips)*					**42**	**68**	**110**

Notes:

Sources: *ITE Trip Generation, 11th Edition & ITE Trip Generation Handbook, 3rd Edition.*

1 Th.SF.= 1,000 Square Feet; D.U.= Dwelling Unit

[a] Mode split is the anticipated reduction of trips attributed to alternative transportation modes other than automobiles. Census data was used to estimate the mode split reductions.

[b] Pass-by percentage was obtained from the ITE Trip Generation Handbook 3rd Edition.

[c] Internal Capture was calculated consistent with the ITE methodology.

Table 4: Trip Generation - PM Peak Hour

LAND USE (LU)		UNITS	ITE LU CODE	ITE TRIP GENERATION RATE	PM PEAK HOUR TRIPS		
					IN	OUT	TOTAL
Existing							
Fine Dining Restaurant		9.210 Th.SF.	931	7.80	48	24	72
[a] *Mode Split Reductions*	*Transit (Public Transportation) 0.95% of External Trips*				*1*	*0*	*1*
	Bicycle 0.0% of External Trips				*0*	*0*	*0*
	Walking 0.30% of External Trips				*0*	*0*	*0*
[b] *Pass-By Trips (Restaurant) 44.0%*					*21*	*11*	*32*
Net Existing Trips *(Existing Trips - Mode Split Reduction Trips - Pass By Trips)*					**26**	**13**	**39**
Proposed							
Multi-Family Housing (High-Rise)		363 D.U.	222	0.32	65	51	116
Retail (<40k)		8.807 Th.SF.	822	6.59	29	29	58
Fine Dining Restaurant		8.806 Th.SF.	931	7.80	46	23	69
Proposed Site Gross Trips					140	103	243
[c] *Multi-Use Development Internal Capture 32.0%*					*45*	*33*	*78*
External Trips *(Proposed Site Gross Trips - Internal Trips)*					**95**	**70**	**165**
[a] *Mode Split Reductions*	*Transit (Public Transportation) 0.95% of External Trips*				*1*	*1*	*2*
	Bicycle 0.0% of External Trips				*0*	*0*	*0*
	Walking 0.30% of External Trips				*0*	*0*	*0*
Total Mode Split Reduction Trips					*1*	*1*	*2*
[b] *Pass-By Trips (Retail) 34.0%*					*6*	*7*	*13*
[b] *Pass-By Trips (Restaurant) 44.0%*					*14*	*7*	*21*
Net Existing Trips					26	13	39
Net External Trips *(External Trips - Mode Split Reduction Trips - Pass By Trips - Net Existing Trips)*					**48**	**42**	**90**

Notes:
Sources: *ITE Trip Generation, 11th Edition & ITE Trip Generation Handbook, 3rd Edition.*
1 Th.SF.= 1,000 Square Feet; D.U.= Dwelling Unit
[a]Mode split is the anticipated reduction of trips attributed to alternative transportation modes other than automobiles. Census data was used to estimate the mode split reductions.
[b]Pass-by percentage was obtained from the ITE Trip Generation Handbook 3rd Edition.
[c]Internal Capture was calculated consistent with the ITE methodology.

Trip Distribution

The subject project is located within the Traffic Analysis Zone (TAZ) 94 as assigned by the Transportation Planning Organization (TPO) on the Miami-Dade Long Range Transportation Plan (2045 LRTP) Directional Trip Distribution Report, September 2019. As such, the trip distribution was performed consistent with the trip distribution percentages of TAZ 94 and by interpolating between the 2015 and 2045 TAZ data for the design year of 2024. Figure 5 depicts the TAZ map while the directional trip distribution percentages are outlined in Table 5. Appendix 2 contains the supporting documentation.

Figure 5: TAZ Map

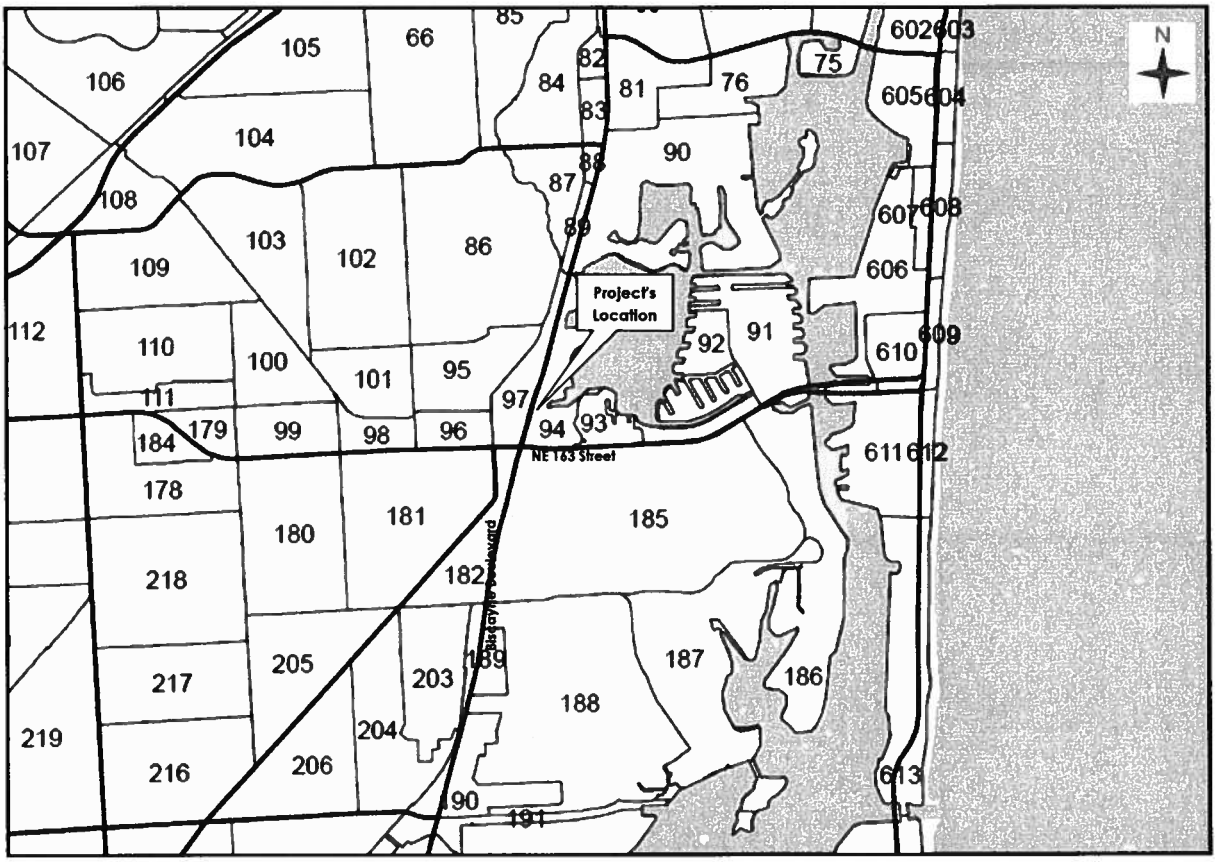


Table 5: Directional Trip Distribution Percentages

DIRECTION	DISTRIBUTION PERCENTAGES (%)		
	MIAMI-DADE LRTP MODEL YEAR		DESIGN YEAR
	2015	2045	2024
NNE	23.90	22.50	23.48
ENE	5.60	3.70	5.03
ESE	1.30	0.50	1.06
SSE	5.60	6.80	5.96
SSW	19.20	21.10	19.77
WSW	16.80	17.70	17.07
WNW	14.10	15.00	14.37
NNW	13.50	12.70	13.26
TOTAL	100.00	100.00	100.00

Trip Assignment

The net external trips have been further distributed into the four quadrants: North, South, East and West. Table 6 includes the trip distribution percentages and the corresponding trip assignments for the AM and PM peak hour. Lastly, Figures 6 and 7 depict the net trips assigned to the studied intersections and project's driveways for the AM and PM peak hour, respectively.

Table 6: Directional Trip Assignment

DIRECTION	DISTRIBUTION (%) DESIGN YEAR	DIRECTION	DISTRIBUTION	AM PEAK HOUR			PM PEAK HOUR		
				IN	OUT	TOTAL	IN	OUT	TOTAL
NNE	23.48	NORTH	36.74%	16	25	41	17	16	33
ENE	5.03								
ESE	1.06	EAST	6.09%	2	4	6	3	2	5
SSE	5.96								
SSW	19.77	SOUTH	25.73%	11	17	28	13	11	24
WSW	17.07								
WNW	14.37	WEST	31.44%	13	22	35	15	13	28
NNW	13.26								
TOTAL	100.00		100.00%	42	68	110	48	42	90

Figure 6: Site Traffic (Project Net Trips) - AM Peak Hour

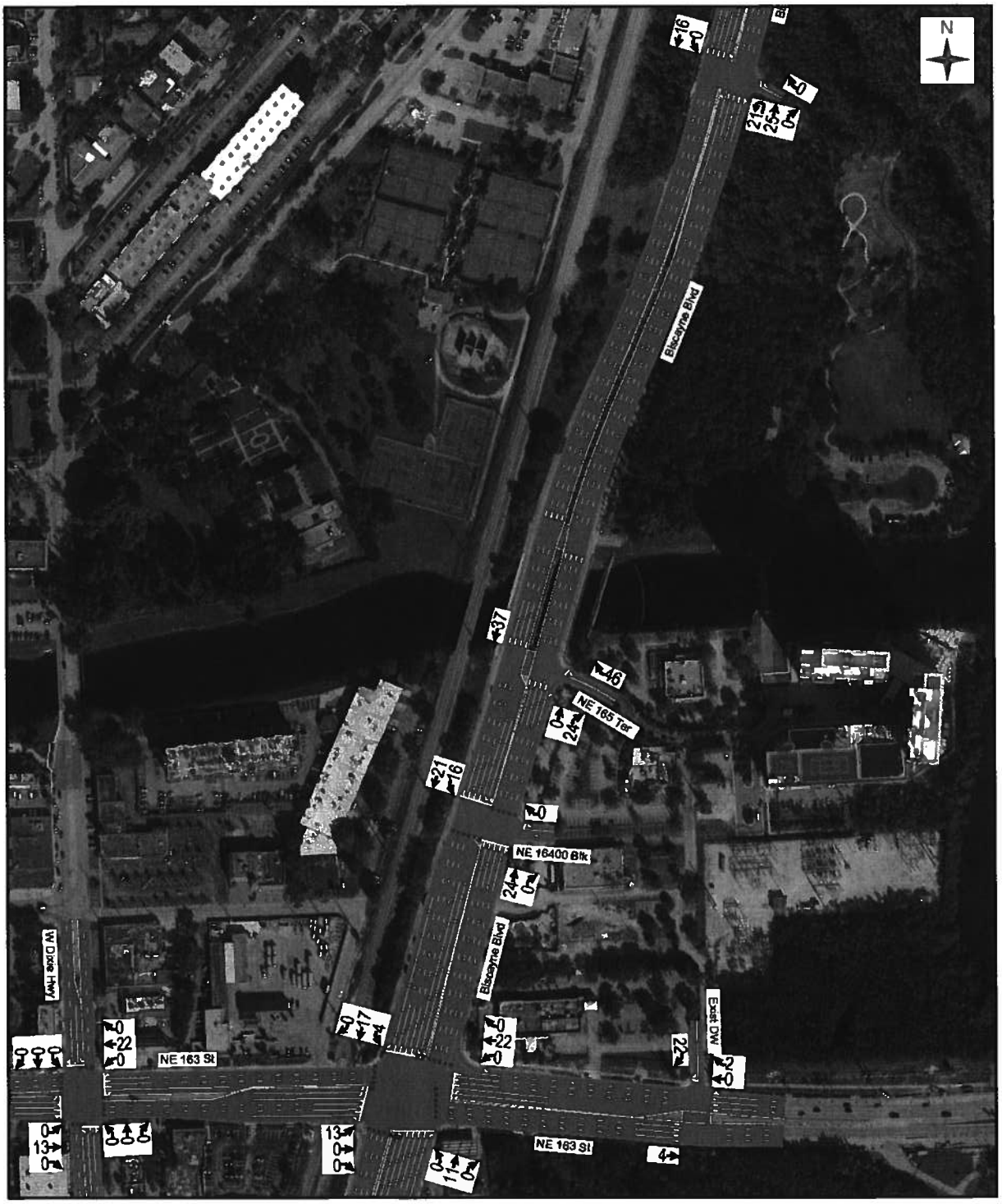
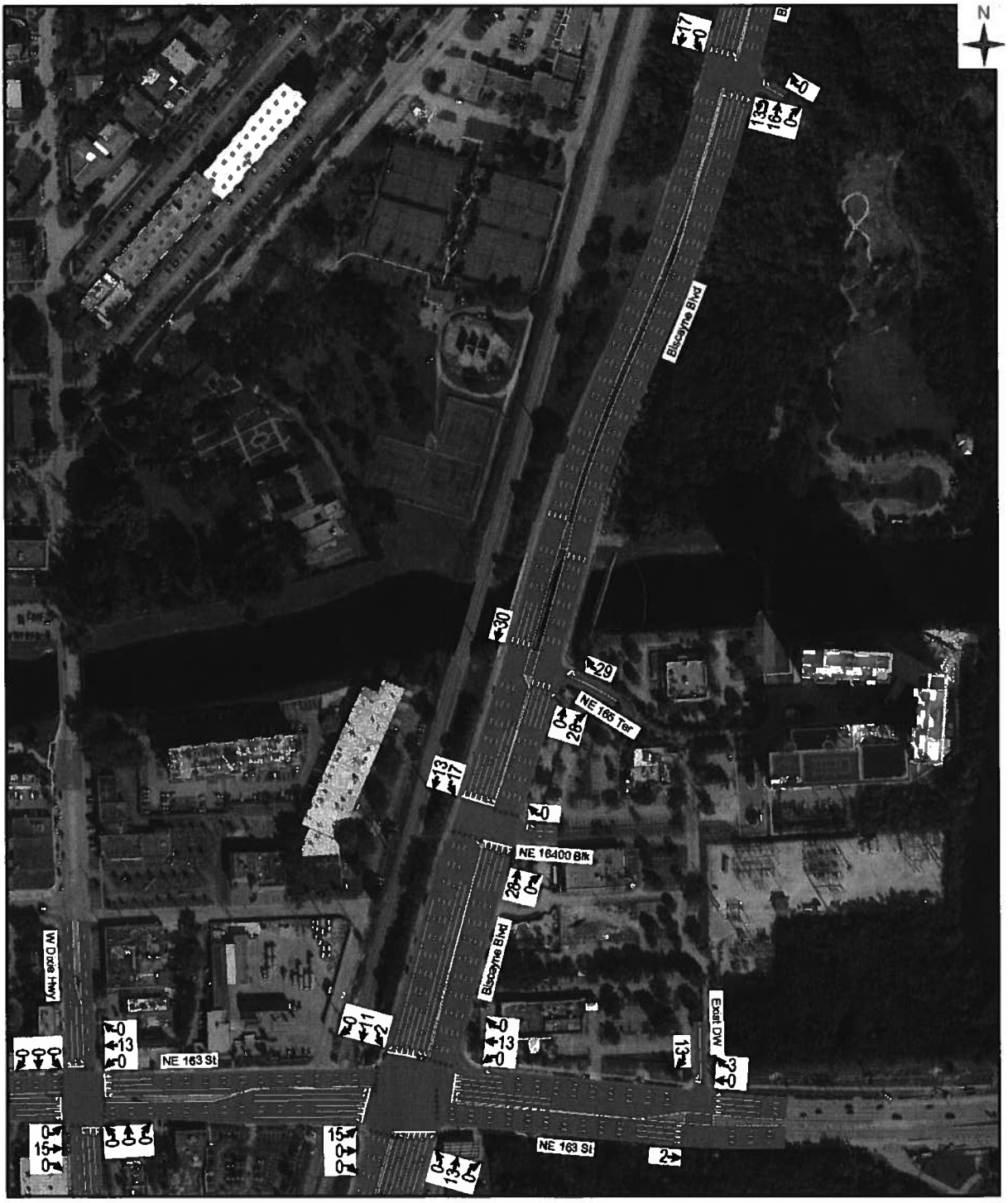


Figure 7: Site Traffic (Project Net Trips) - PM Peak Hour



Proposed Future Condition

This section of the report describes the traffic parameters utilized to develop the future peak hour volumes and to evaluate the future condition with and without the project trips.

Background Traffic Growth

Using historical traffic data from the Florida Department of Transportation (FDOT Count Stations 0556 and 5219), a regression analysis was performed in an effort to estimate any potential background traffic. The resulting growth rates yielded negative percent (decrease in traffic). The average growth rate resulted in 0.47 percent. However, a conservative growth rate of one (1.0) percent was compounded and applied to the existing traffic volumes in order to determine the background traffic for the year 2024 (project build-out year). Appendix 3 contains the supporting documentation.

Committed Developments

In addition to background traffic, the analysis includes the the following projects:

- *15699 West Dixie Highway*
- *15780 West Dixie Highway*
- *16051 West Dixie Highway*
- *Uptown Biscayne*
- *5 Park North Miami Beach*
- *Soleste NoMi Beach*
- *Cambria Hotels & Suites*
- *Bizzi and Partners Mixed Use*
- *Intracoastal Mall Redevelopment*

The committed trips for these projects were included in the traffic operational analysis for the proposed future condition with and without project. Note, some of these committed trips may not materialize by the year 2024 due to their projected build-out years and potential long-lasting impacts from COVID-19 conditions that has changed traffic patterns and have a lot more people working for home and/or traveling less. Appendix 4 contains the committed developments supporting documentation.

Future Intersection Traffic Volumes - AM & PM Peak Hour

The future traffic volumes without project include the existing traffic volumes, background traffic and committed trips. Similarly, the traffic volumes for the future condition with project include the existing traffic, background traffic, committed trips and project trips. The resulting AM and PM pea k hour traffic volumes were evaluated for Level of Service. Figures 8 and 9 depict the future intersection traffic volumes with project trips for the AM and PM peak hour, respectively. Appendix 4 contains the calculations for the specific movements while Appendix 5 includes the figures for the proposed future condition without project.

Future Intersection Capacity / LOS Analysis without Project

The future intersection traffic volumes without project were evaluated to determine the level of service at the studied intersections. The intersection capacity and LOS analysis revealed that all the studied intersections will maintain acceptable *LOS E or better* during the *AM peak hour*, except for the intersection of NE 163rd Street (SR 826) and West Dixie Highway (SR 909) that yielded LOS F (delay of 105.2 sec). This intersection yielded LOS D (delay of 39.6 sec) for the existing condition but the additional trips generated by the committed developments have significantly deteriorated the capacity and LOS. The committed developments are adding over 1,000 trips at the intersection including 280 westbound left turns for a single lane that has over 200 existing left-turns.

The analysis for the PM peak hour yielded LOS E or better for all the studied intersections. Note, the traffic impacts by the committed development trips have significantly deteriorated the capacity and LOS at some of these intersections. Table 7 summarizes the LOS results for the future condition without project. Appendix 5 includes the Synchro software sheets with other outputs such as queue lengths and volume to capacity (v/c) ratio.

Table 7: Future Intersection LOS & Delay without Project - AM & PM Peak Hour

Proposed Future Condition without Project			AM Peak Hour					PM Peak Hour				
	Location	Intersection Control	Overall		Critical Approach TWSC			Overall		Critical Approach TWSC		
			LOS	Delay (sec)	Approach	LOS	Delay (sec)	LOS	Delay (sec)	Approach	LOS	Delay (sec)
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	E	60.0	-	-	-	E	69.9	-	-	-
2	Biscayne Boulevard (SR 5 / US 1) & NE 165 Terrace (Project's Main Driveway)	Two-Way Stop	A	0.1	WB	B	10.8	A	0.2	WB	B	11.0
3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	0.9	WB	C	23.2	A	9.8	WB	E	35.1
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	F	105.2	-	-	-	E	75.7	-	-	-
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	4.5	-	-	-	A	7.6	-	-	-
6	NE 163 Street (SR 826) & Existing Driveway	Traffic Signal	A	0.4	SB	C	15.4	A	1.2	SB	D	25.1

Future Intersection Capacity / LOS Analysis with Project

The future intersection traffic volumes with project were evaluated to determine the level of service at the studied intersections. The intersection capacity and LOS analysis yielded the same results previously documented for the proposed future condition without project for both the AM and PM peak hour. Table 8 summarizes the LOS results for the future condition with project. Appendix 5 includes the Synchro software sheets with other outputs such as queue lengths and volume to capacity (v/c) ratio.

Moreover, it should be noted that the new additional trips generated by the subject project will have a marginal traffic impact on the capacity and LOS at the studied intersections. Although the intersection of NE 163rd Street and West Dixie

Highway yielded LOS F for the future condition with project (AM peak), this intersection is expected to operate at LOS F without the project trips. During the AM peak hour, the subject project will add 35 trips at NE 163rd Street and West Dixie Highway while the committed developments will add 1,073 trips.

Table 8: Future Intersection LOS & Delay with Project - AM & PM Peak Hour

Proposed Future Condition with Project			AM Peak Hour						PM Peak Hour					
	Location	Intersection Control	Overall		Critical Approach TWSC				Overall		Critical Approach TWSC			
			LOS	Delay (sec)	Approach	LOS	Delay (sec)		LOS	Delay (sec)	Approach	LOS	Delay (sec)	
1	Biscayne Boulevard (SR 5 / US 1) & NE 163 Street (SR 826)	Traffic Signal	E	60.4	-	-	-		E	71.0	-	-	-	
2	Biscayne Boulevard (SR 5 / US 1) & NE 165 Terrace (Project's Main Driveway)	Two-Way Stop	A	0.2	WB	B	10.4		A	0.2	WB	A	9.6	
3	Biscayne Boulevard (SR 5 / US 1) & Median Opening (E Greynolds Park D/W)	Two-Way Stop	A	1.5	WB	C	23.5		B	12.3	WB	E	35.4	
4	NE 163 Street (SR 826) & NE 22 Avenue / West Dixie Highway (SR 909)	Traffic Signal	F	104.9	-	-	-		E	76.2	-	-	-	
5	Biscayne Boulevard (SR 5 / US 1) & NE 16400 Block	Traffic Signal	A	4.8	-	-	-		A	7.8	-	-	-	
6	NE 163 Street (SR 826) & Existing Driveway	Two-Way Stop	A	0.5	SB	C	16.2		A	1.3	SB	D	26.7	

Figure 8: Future Condition with Project - AM Peak Hour

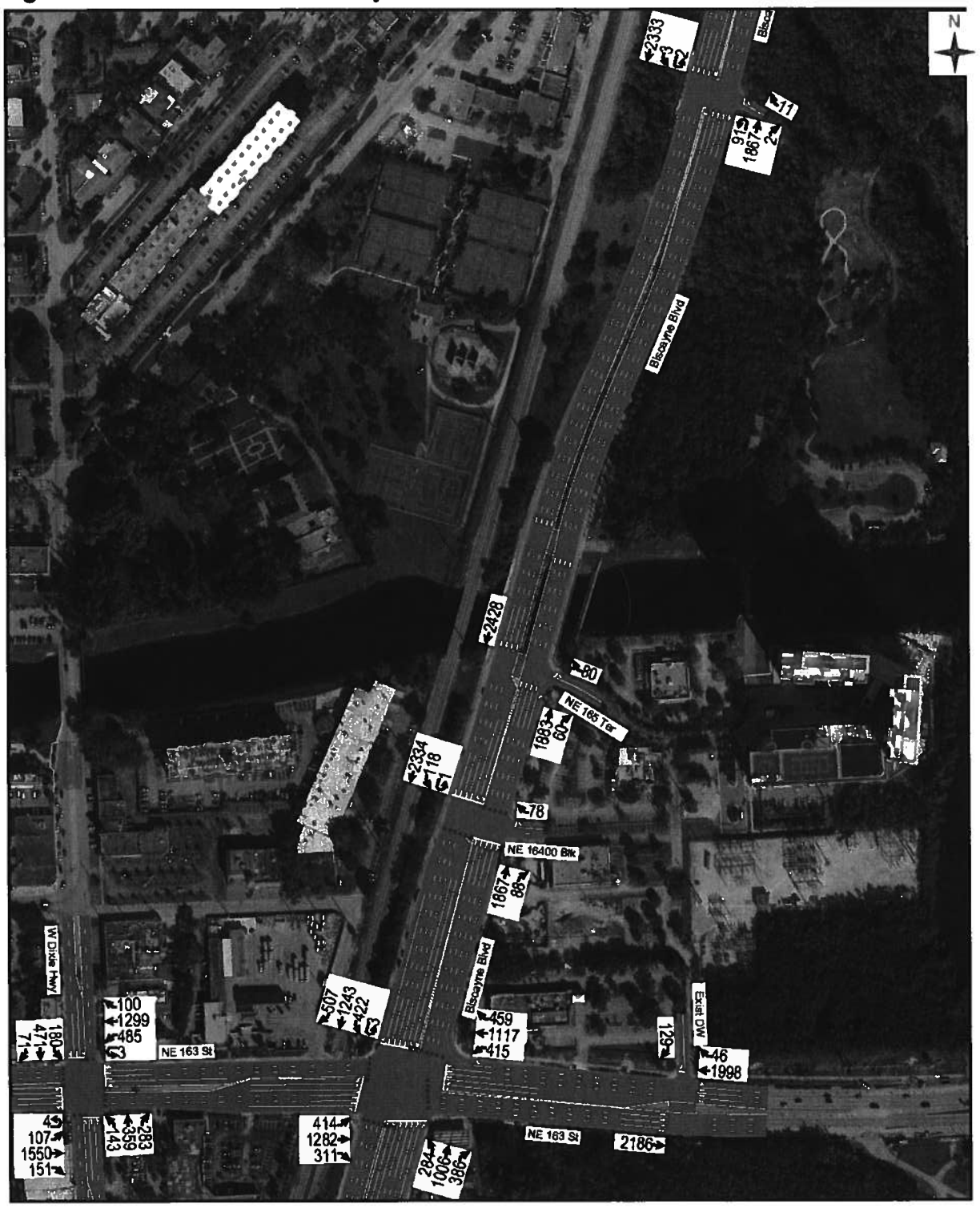
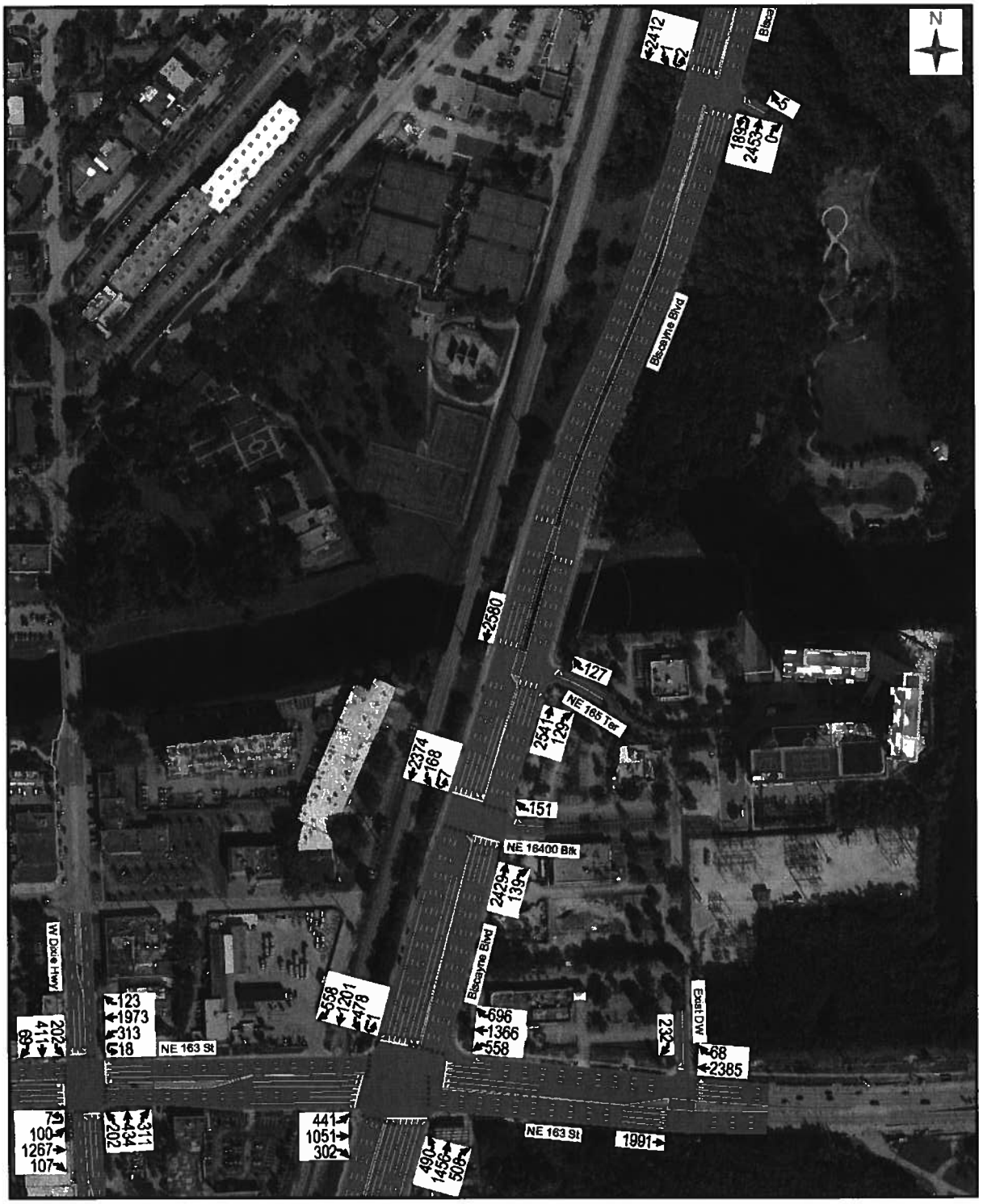


Figure 9: Future Condition with Project - PM Peak Hour



Evaluation of Transportation Element Policy 1.1.2 and 1.1.3

Policy 1.1.2

In summary, this policy adopts the Miami-Dade County CDMP Level of Service (LOS) standards for roadways. As such, a traffic concurrency analysis was performed to evaluate the arterials most impacted by the subject project. This analysis was based on peak period conditions and consistent with the standards established by Miami-Dade County.

The arterials most impacted by the subject project are Biscayne Boulevard (SR 5) and NE 163rd Street (SR 826). These arterials are state roads and were evaluated using published traffic data from the Florida Department of Transportation (FDOT) (Florida Traffic Online). The bi-directional traffic counts were utilized to identify the roadway's Peak Hour Period (PHP) traffic volumes or the average of the two highest consecutive hours of traffic volume.

The resulting PHP traffic volumes were evaluated consistent with the Miami-Dade County Traffic Concurrency methodology and using the generalized Table 4 of the 2020 FDOT Quality / Level of Service Handbook. As a result, the studied roadways yielded acceptable LOS results for the existing condition and future condition with and without project. Therefore, this project meets traffic concurrency. Note, the studied roadways have transit services (i.e. metro bus) with headways of 20 minutes or less and have several bus stops within 0.25 miles of the subject project. As such, the roadways can operate at 120 percent of their capacity (i.e. LOS E+20 or EE) Table 9 summarizes the traffic concurrency analysis. Appendix 6 contains the supporting documentation.

Table 9: Traffic Concurrency Summary

Traffic Concurrency Analysis				Existing Condition			Proposed Future Condition w/o Project				Proposed Future Condition w/ Project			
	Roadway	Location	LOS / Volume Standard	PHP Volume	Available Capacity	LOS	Committed Development Trips (PM Peak Hour)	PHP Volume	Available Capacity	LOS	Project Net Trips (PM Peak Hour)	PHP Volume	Available Capacity	LOS
1	Biscayne Boulevard (US-1 / SR 5)	North of SR 826	LOS D+20 / 8,652 VPH Class I - 8LD	5,001	3,651	C	382	5,383	3,269	C	59	5,442	3,210	C
2	Biscayne Boulevard (US-1 / SR 5)	South of SR 826	LOS D+20 / 8,652 VPH Class I - 8LD	4,453	4,199	C	232	4,685	3,967	C	24	4,709	3,943	C
3	NE 163 Street (SR 826)	East of SR 5	LOS D+20 / 8,652 VPH Class I - 8LD	4,489	4,164	C	522	5,010	3,642	C	15	5,025	3,627	C
4	NE 163 Street (SR 826)	West of SR 5	LOS E+20 / 5,508 VPH Class II - 6LD	3,216	2,293	D	564	3,779	1,729	D	28	3,807	1,701	D

Policy 1.1.3

In summary, this policy states that no project or redevelopment should be approved if the projected impacts reduce the LOS below the adopted standards, unless the development qualifies for a transportation concurrency exception. As documented above, the roadways most impacted by the subject project will maintain acceptable LOS for the future condition with project. However, we have further evaluated if the proposed redevelopment qualifies for a transportation concurrency exception consistent with Policy 1.1.3 and as requested by the City's traffic consultant.

The subject project is located within 0.25 miles of several Miami-Dade Transit (MDT) bus stops and the transit service has headways of 20 minutes or less which is required to qualify for a transportation concurrency exception. In addition, the redevelopment shall comply with one of the alternative requirements of Policy 1.1.3. As such, we have evaluated alternative requirement (a.) which states that additional project trips do not exceed 0.25 percent of the peak hour capacity of any Strategic Intermodal System (SIS) facility, adjacent to the City, at the adopted LOS standard.

The City of North Miami Beach is adjacent to three (3) SIS facilities (i.e. freeways): SR 826 (Palmetto Expressway), I-95 and SR 91 (Florida's Turnpike). These facilities were evaluated to determine whether the additional project trips (PM Peak) will exceed the 0.25 percent of the freeways' peak hour capacity. The freeways adopted standard is LOS E and the service volumes were obtained from the 2020 FDOT Quality / Level of Service Handbook (Table 4: Generalized Peak Hour Two-Way Volumes for Florida's Urbanized Areas).

Moreover, the additional trips on the freeways were estimated based on the project's TAZ, area demographics and surrounding roadway network. As a result, the additional project trips did not exceed the 0.25 percent of the freeways peak hour capacity and the alternative requirement (a.) is met. Based on the above analysis, the subject project qualifies as a transportation concurrency exception based on Policy 1.1.3. Table 10 summarizes the results while Appendix 6 contains the supporting documentation.

Table 10: Evaluation of Alternative Requirement (a.) of Policy 1.1.3

SIS Facility (Freeway)	Direction	Freeway Description			Project Net Trips (PM Peak)	Project Net Trip To Freeway Capacity Ratio (%)	Less Than 0.25% Threshold
		Lanes	LOS	Volume			
SR 826 / Palmetto Expressway	Two-way	6	E	12,950	9	0.07%	Met
I-95	Two-way	8	E	17,483	5	0.03%	Met
SR 91 / Florida's Turnpike	Two-way	6	E	12,950	5	0.04%	Met

Notes:
LOS / Volume Standard based on the FDOT Q/LOS Handbook (Table 4, Peak Hour Two-Way Volumes for Florida's Urbanized Areas).

Conclusion

In conclusion, the traffic impacts associated with the proposed redevelopment will not have a negative traffic impact on the study area. The studied intersections will maintain the same Level of Service of the proposed future condition without project while the adjacent roadways with the additional project trips will meet the City's adopted Level of Service. Therefore, it is fair to conclude that sufficient roadway capacity exists to support the proposed redevelopment.

Appendix 1: Trip Generation

TABLE A1

TRIP GENERATION ANALYSIS
AM PEAK HOUR

Project Name: The Riverwalk South

LAND USE (LU)	UNITS	ITE LU CODE	ITE TRIP GENERATION RATE	AM PEAK HOUR TRIPS				
				%	IN	%	OUT	TOTAL
Existing								
Fine Dining Restaurant	9.210 Th.SF.	931	0.73	50%	4	50%	3	7
[a] *Mode Split Reductions* — *Transit (Public Transportation)* 0.95% of External Trips				-	*0*	-	*0*	*0*
[a] *Mode Split Reductions* — *Bicycle* 0.0% of External Trips				-	*0*	-	*0*	*0*
[a] *Mode Split Reductions* — *Walking* 0.30% of External Trips				-	*0*	-	*0*	*0*
[b] *Pass-By Trips (Restaurant) 0.0%*				-	*0*	-	*0*	*0*
Net Existing Trips *(Existing Trips - Mode Split Reduction Trips - Pass By Trips)*				**57%**	**4**	**43%**	**3**	**7**
Proposed								
Multi-Family Housing (High-Rise)	363 D.U.	222	0.27	34%	33	66%	65	98
Retail (<40k)	8.807 Th.SF.	822	2.36	60%	13	40%	8	21
Fine Dining Restaurant	8.806 Th.SF.	931	0.73	50%	3	50%	3	6
Proposed Site Gross Trips				39%	49	61%	76	125
[c] *Multi-Use Development Internal Capture* 5.6%				*43%*	*3*	*57%*	*4*	*7*
External Trips *(Proposed Site Gross Trips - Internal Trips)*				**39%**	**46**	**61%**	**72**	**118**
[a] *Mode Split Reductions* — *Transit (Public Transportation)* 0.95% of External Trips				*0%*	*0*	*100%*	*1*	*1*
[a] *Mode Split Reductions* — *Bicycle* 0.0% of External Trips				-	*0*	-	*0*	*0*
[a] *Mode Split Reductions* — *Walking* 0.30% of External Trips				-	*0*	-	*0*	*0*
Total Mode Split Reduction Trips				*0%*	*0*	*100%*	*1*	*1*
[b] *Pass-By Trips (Retail) 0.0%*				-	*0*	-	*0*	*0*
[b] *Pass-By Trips (Restaurant) 0.0%*				-	*0*	-	*0*	*0*
Net Existing Trips				57%	4	43%	3	7
Net External Trips *(External Trips - Mode Split Reduction Trips - Existing Trips)*				**38%**	**42**	**62%**	**68**	**110**

Notes:

Sources: *ITE Trip Generation, 11th Edition & ITE Trip Generation Handbook, 3rd Edition*

1 Th.SF.= 1,000 Square Feet; D.U.= Dwelling Unit

[a]Mode split is the anticipated reduction of trips attributed to alternative transportation modes other than automobiles. Census data was used to estimate the mode split reductions.

[b]Pass-by percentage was obtained from the ITE Trip Generation Handbook 3rd Edition.

[c]Internal Capture was calculated consistent with the ITE methodology.

TABLE: A2

TRIP GENERATION ANALYSIS
PM PEAK HOUR

Project Name: The Riverwalk South

LAND USE (LU)	UNITS	ITE LU CODE	ITE TRIP GENERATION RATE	PM PEAK HOUR TRIPS				
				%	IN	%	OUT	TOTAL
Existing								
Fine Dining Restaurant	9.210 Th.SF.	931	7.80	67%	48	33%	24	72
[a] *Mode Split Reductions* — *Transit (Public Transportation)* 0.95% of External Trips				*100%*	*1*	*0%*	*0*	*1*
[a] *Mode Split Reductions* — *Bicycle* 0.0% of External Trips				*0%*	*0*	*0%*	*0*	*0*
[a] *Mode Split Reductions* — *Walking* 0.30% of External Trips				*0%*	*0*	*0%*	*0*	*0*
[b] *Pass-By Trips (Restaurant) 44.0%*				*66%*	*21*	*34%*	*11*	*32*
Net Existing Trips *(Existing Trips - Mode Split Reduction Trips - Pass By Trips)*				**67%**	**26**	**33%**	**13**	**39**
Proposed								
Multi-Family Housing (High-Rise)	363 D.U.	222	0.32	56%	65	44%	51	116
Retail (<40k)	8.807 Th.SF.	822	6.59	50%	29	50%	29	58
Fine Dining Restaurant	8.806 Th.SF.	931	7.80	67%	46	33%	23	69
Proposed Site Gross Trips				58%	140	42%	103	243
[c] *Multi-Use Development Internal Capture 32.0%*				*58%*	*45*	*42%*	*33*	*78*
External Trips *(Proposed Site Gross Trips - Internal Trips)*				**58%**	**95**	**42%**	**70**	**165**
[a] *Mode Split Reductions* — *Transit (Public Transportation)* 0.95% of External Trips				*50%*	*1*	*50%*	*1*	*2*
[a] *Mode Split Reductions* — *Bicycle* 0.0% of External Trips				*0%*	*0*	*0%*	*0*	*0*
[a] *Mode Split Reductions* — *Walking* 0.30% of External Trips				*0%*	*0*	*0%*	*0*	*0*
Total Mode Split Reduction Trips				*50%*	*1*	*50%*	*1*	*2*
[b] *Pass-By Trips (Retail) 34.0%*				*46%*	*6*	*53%*	*7*	*13*
[b] *Pass-By Trips (Restaurant) 44.0%*				*67%*	*14*	*33%*	*7*	*21*
Net Existing Trips				67%	26	33%	13	39
Net External Trips *(External Trips - Mode Split Reduction Trips - Pass By Trips - Net Existing Trips)*				**53%**	**48**	**47%**	**42**	**90**

Notes:

Sources: *ITE Trip Generation, 11th Edition & ITE Trip Generation Handbook, 3rd Edition.*

1 Th.SF.= 1,000 Square Feet; D.U.= Dwelling Unit

[a]Mode split is the anticipated reduction of trips attributed to alternative transportation modes other than automobiles. Census data was used to estimate the mode split reductions.

[b]Pass-by percentage was obtained from the ITE Trip Generation Handbook 3rd Edition.

[c]Internal Capture was calculated consistent with the ITE methodology.

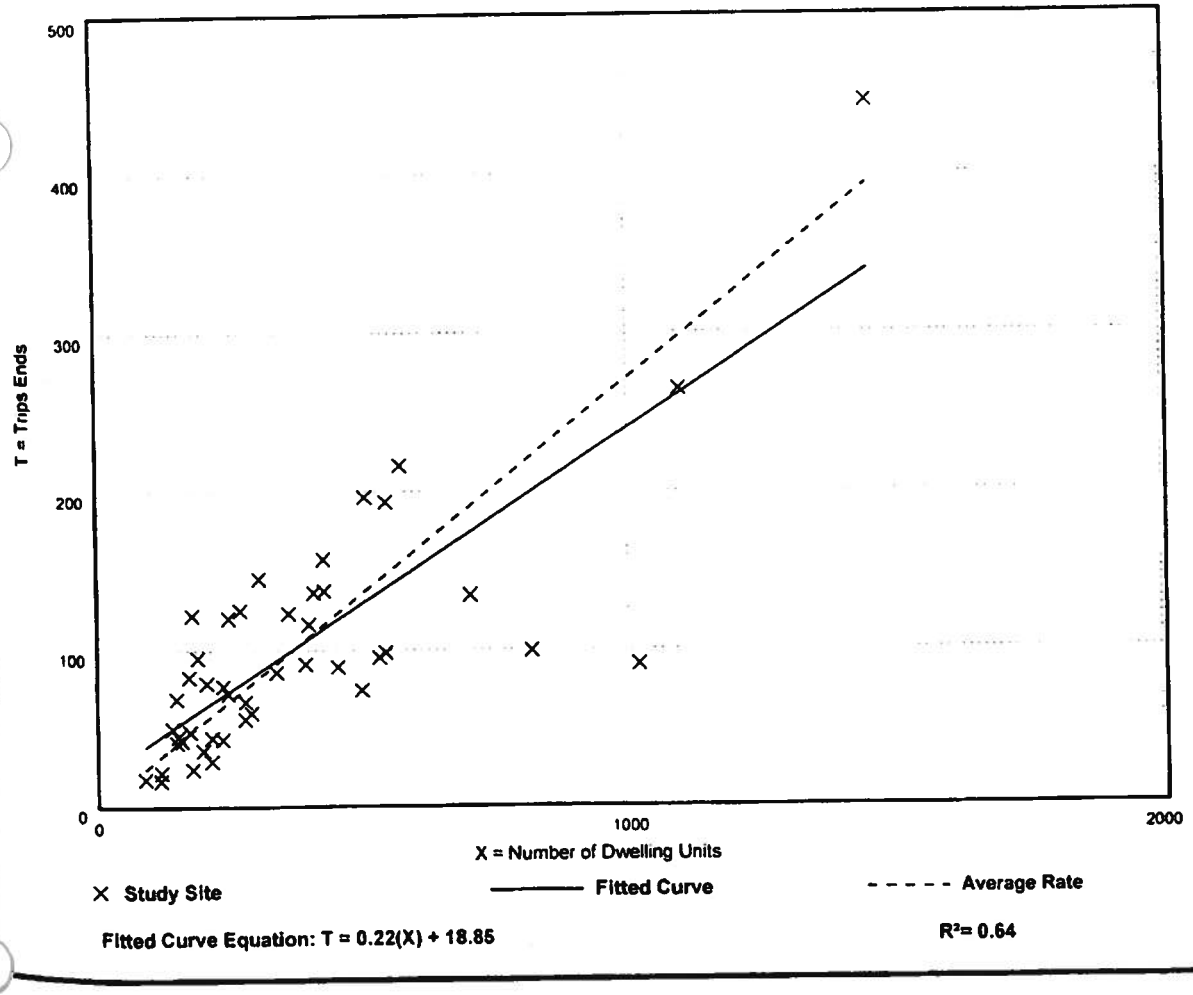
Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 45
Avg. Num. of Dwelling Units: 372
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.27	0.09 - 0.67	0.11

Data Plot and Equation



Fitted Curve Equation: T = 0.22(X) + 18.85

R^2= 0.64

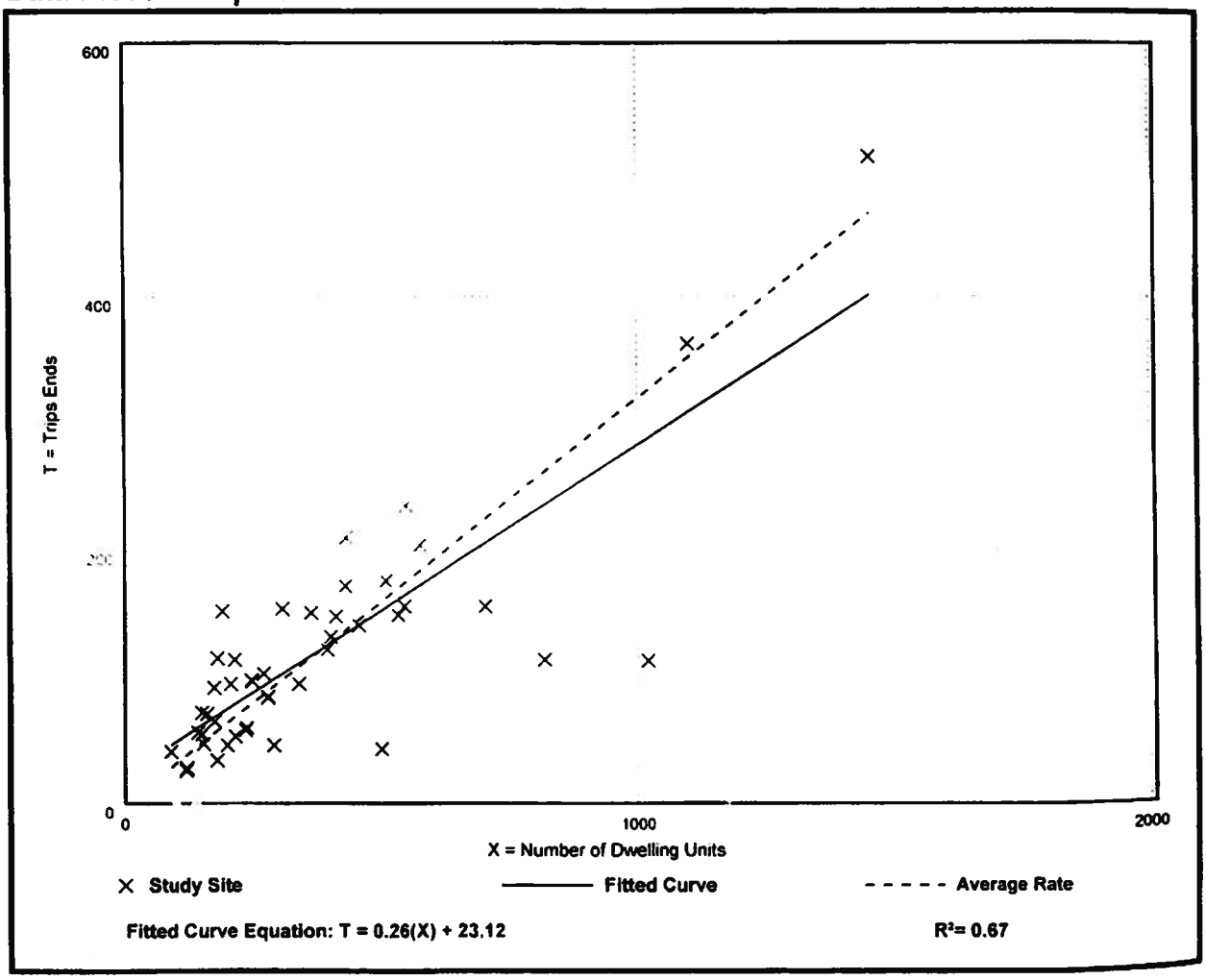
Multifamily Housing (High-Rise)
Not Close to Rail Transit (222)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 45
Avg. Num. of Dwelling Units: 372
Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.09 - 0.80	0.13

Data Plot and Equation



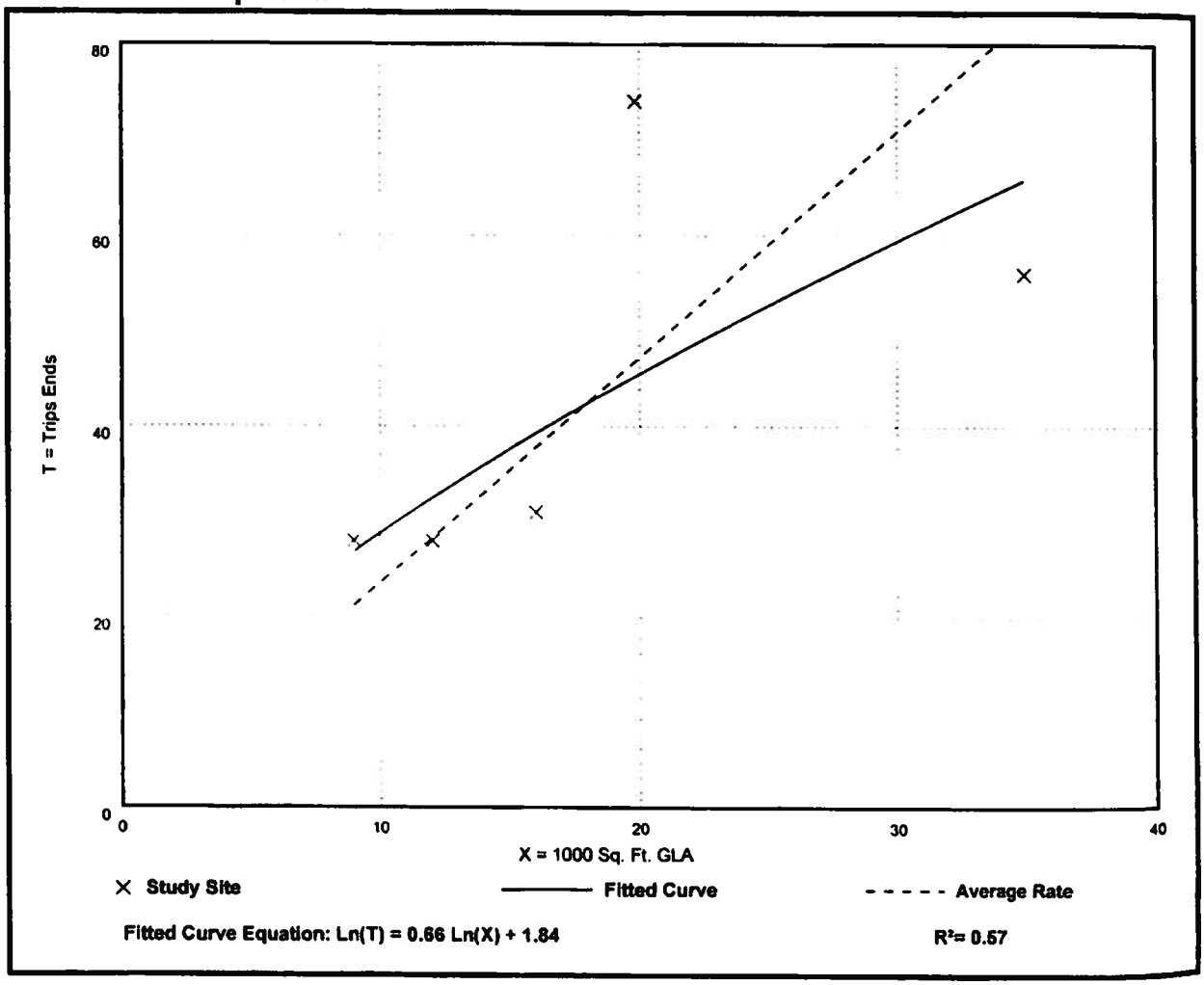
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.66 Ln(X) + 1.84

R^2= 0.57

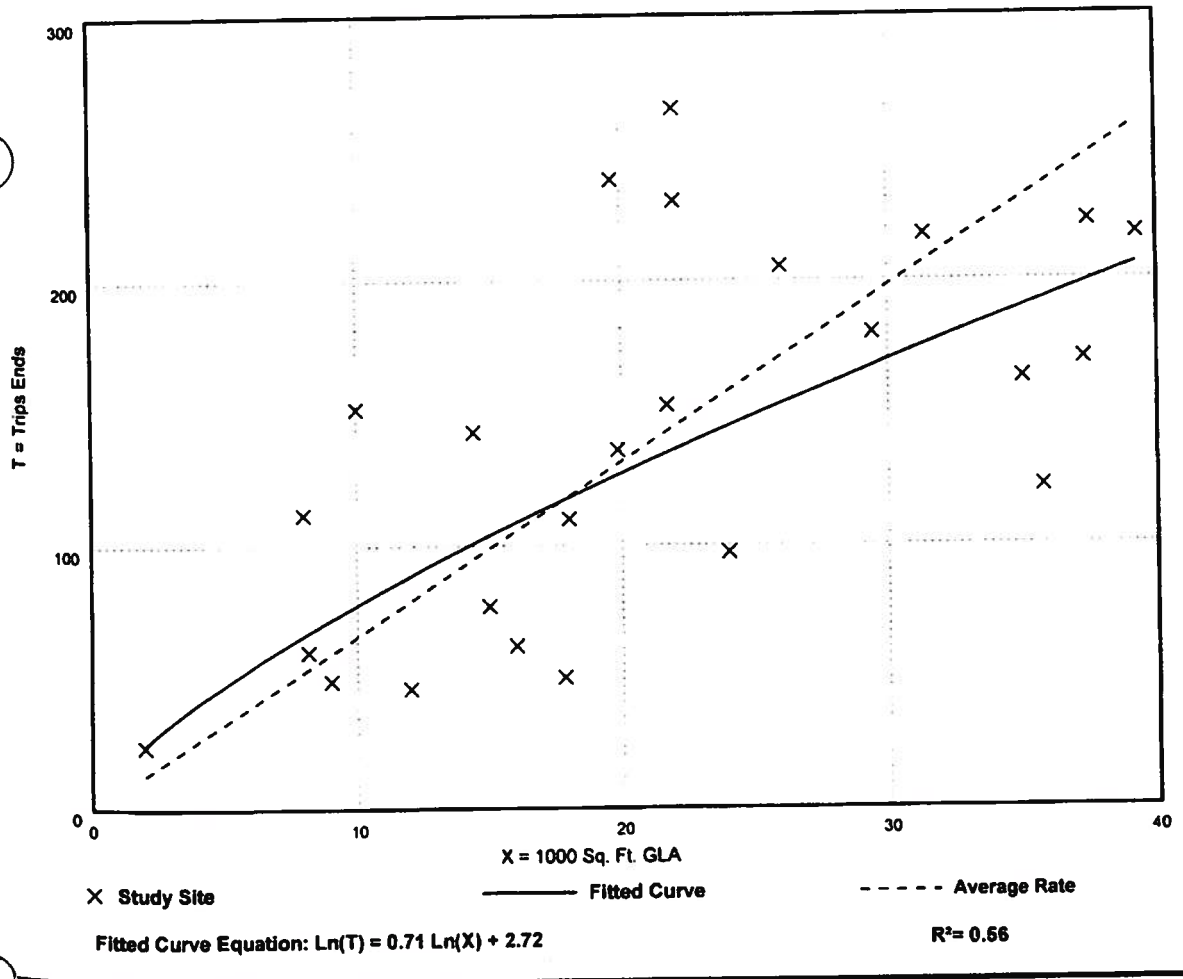
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) + 2.72

R^2= 0.66

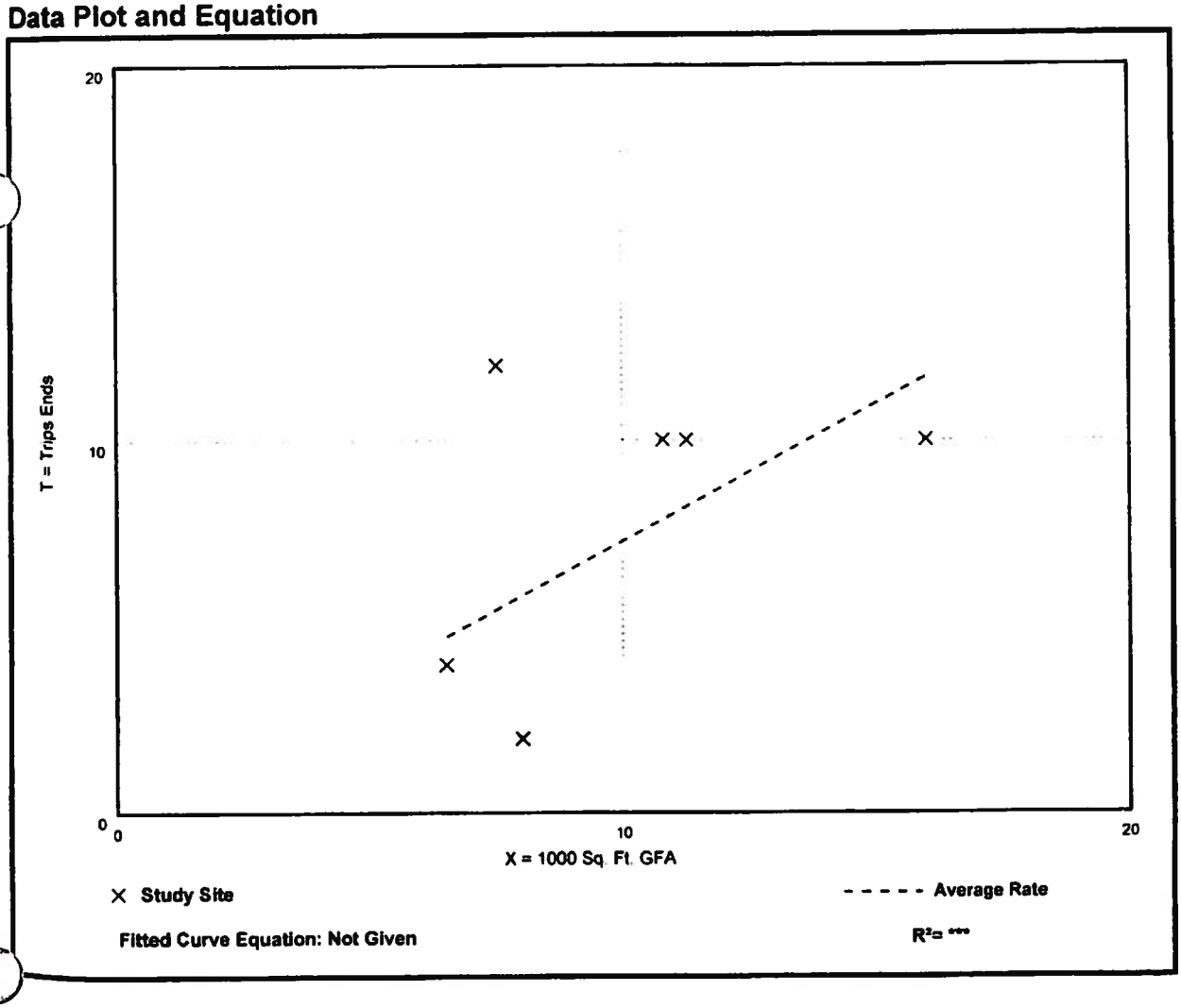
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation

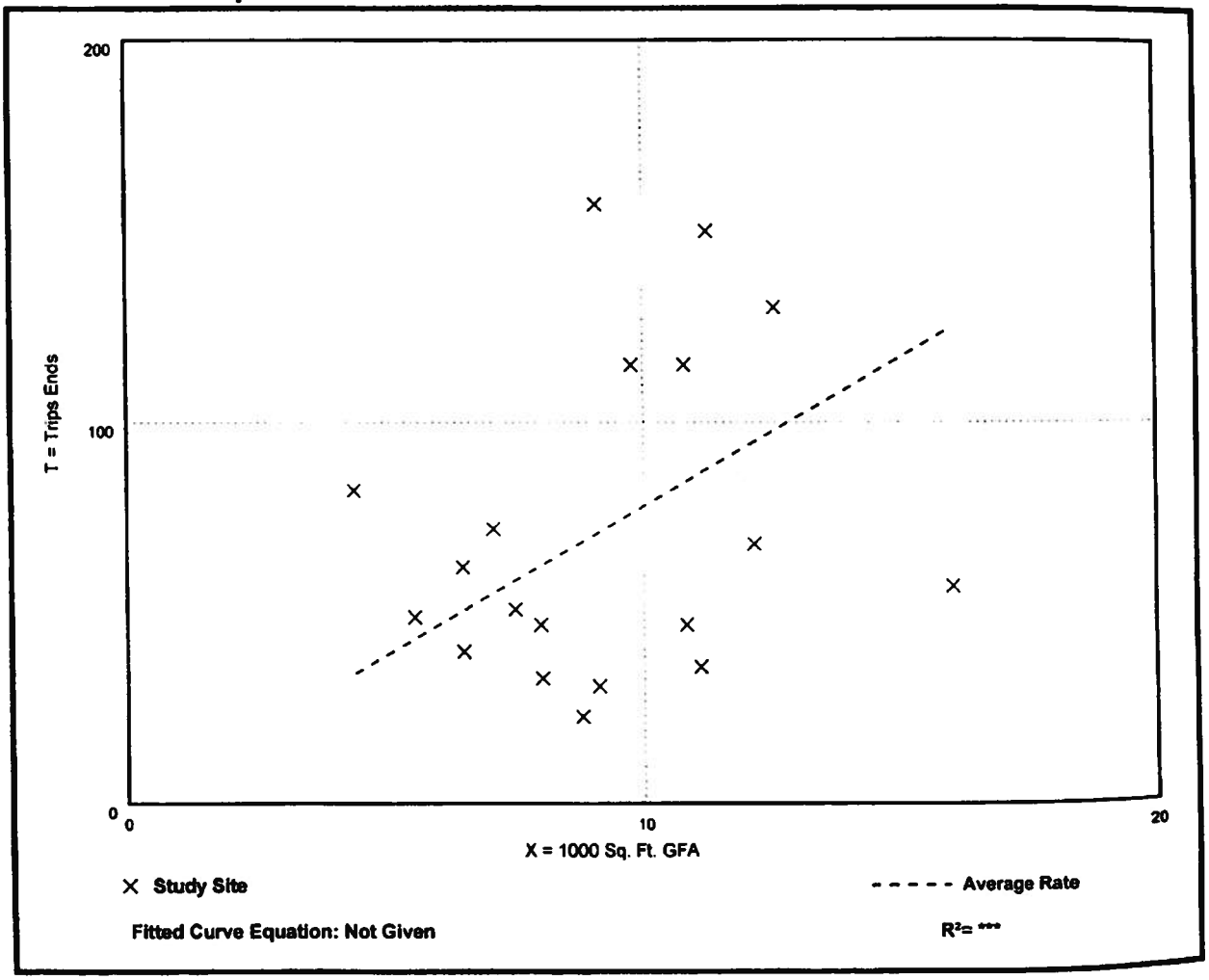


Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 820—Shopping Center

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
921	Albany, NY	July & Aug. 1985	196	4:00–6:00 p.m.	23	42	35	77	—	60,950	Raymond Keyes Assoc.
108	Overland Park, KS	July 1988	111	4:30–5:30 p.m.	26	61	13	74	—	34,000	—
118	Overland Park, KS	Aug. 1988	123	4:30–5:30 p.m.	25	55	20	75	—	—	—
256	Greece, NY	June 1988	120	4:00–6:00 p.m.	38	62	—	62	—	23,410	Sear Brown
160	Greece, NY	June 1988	78	4:00–6:00 p.m.	29	71	—	71	—	57,306	Sear Brown
550	Greece, NY	June 1988	117	4:00–6:00 p.m.	48	52	—	52	—	40,763	Sear Brown
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.
1,090	Ross Twp, PA	July 1988	411	2:00–6:00 p.m.	34	56	10	66	—	51,500	Wilbur Smith and Assoc.
97	Upper Dublin Twp. PA	Winter 1988/89	—	4:00–6:00 p.m.	41	—	—	59	—	34,000	McMahon Associates
118	Tredyffrin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	24	—	—	76	—	10,000	Booz Allen & Hamilton
122	Lawnside, NJ	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	20,000	Pennoni Associates
126	Boca Raton, FL	Winter 1988/89	—	4:00–6:00 p.m.	43	—	—	57	—	40,000	McMahon Associates
150	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	39	—	—	61	—	28,000	Booz Allen & Hamilton
153	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	50	—	—	50	—	85,000	McMahon Associates
153	Arden, DE	Winter 1988/89	—	4:00–6:00 p.m.	30	—	—	70	—	28,000	Orth-Rodgers & Assoc. Inc.
154	Doylestown, PA	Winter 1988/89	—	4:00–6:00 p.m.	32	—	—	68	—	29,000	Orth-Rodgers & Assoc. Inc.
164	Middletown Twp. PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	25,000	Booz Allen & Hamilton
166	Haddon Twp. NJ	Winter 1988/89	—	4:00–6:00 p.m.	20	—	—	80	—	6,000	Pennoni Associates
205	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	55	—	—	45	—	62,000	McMahon Associates

Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 820—Shopping Center

SIZE (1 000 SQ. FT GLA)	LOCATION	WEEKDAY SURVEY DATE	NO OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON PASS-BY TRIP (%)			ADJ STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
237	W. Windsor Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	48	—	—	52	—	46,000	Booz Allen & Hamilton
242	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	26,000	McMahon Associates
297	Whitehall, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	26,000	Orth-Rodgers & Assoc. Inc.
360	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	44	—	—	56	—	73,000	McMahon Associates
370	Pittsburgh, PA	Winter 1988/89	—	4:00–6:00 p.m.	19	—	—	81	—	33,000	Wilbur Smith
150	Portland, OR	—	519	4:00–6:00 p.m.	68	6	26	32	—	25,000	Kittelson and Associates
150	Portland, OR	—	655	4:00–6:00 p.m.	65	7	28	35	—	30,000	Kittelson and Associates
760	Calgary, Alberta	Oct.-Dec. 1987	15,436	4:00–6:00 p.m.	20	39	41	80	—	—	City of Calgary DOT
178	Bordentown, NJ	Apr. 1989	154	2:00–6:00 p.m.	35	—	—	65	—	37,980	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	176	3:30–6:15 p.m.	32	44	24	68	—	69,347	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	4:45–5:45 p.m.	33	26	41	67	—	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 34

"—" means no data were provided

Table E.28 Pass-By and Non-Pass-By Trips Saturday, Mid-Day Peak Period
Land Use Code 912—Drive-in Bank

SIZE (1,000 SQ. FT. GFA)	LOCATION	SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
3.8	Colonial Park, PA	March 2005	63	11:15 a.m.–12:15 p.m.	33	—	—	67	—	McMahon Associates, Inc.
3.8	Camp Hill Mall, PA	March 2005	103	11:00 a.m.–12:00 p.m.	77	—	—	23	—	McMahon Associates, Inc.
3.8	Exeter Twp, PA	March 2005	34	10:30–11:30 a.m.	37	—	—	63	—	McMahon Associates, Inc.
3.8	York, PA	March 2005	53	10:15–11:15 a.m.	33	—	—	67	—	McMahon Associates, Inc.
3.8	York, PA	March 2005	25	10:45–11:45 a.m.	12	—	—	88	—	McMahon Associates, Inc.

Average Pass-By Trip Percentage: 38
"—" means no data were provided

Table E.29 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 931—Quality Restaurant

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
240	12	Louisville area, KY	July 1993	38	4:00–6:00 p.m.	26	36	38	74	4,145	Barton-Aschman Assoc.
—	8	Orlando, FL	1992	168	4:00–6:00 p.m.	45	—	—	55	—	TPD Inc.
—	8.8	Orlando, FL	1992	84	2:00–6:00 p.m.	44	40	16	56	—	TPD Inc.
—	6.5	Orlando, FL	1995	173	2:00–6:00 p.m.	62	—	—	38	—	TPD Inc.

Average Pass-By Trip Percentage: 44
"—" means no data were provided

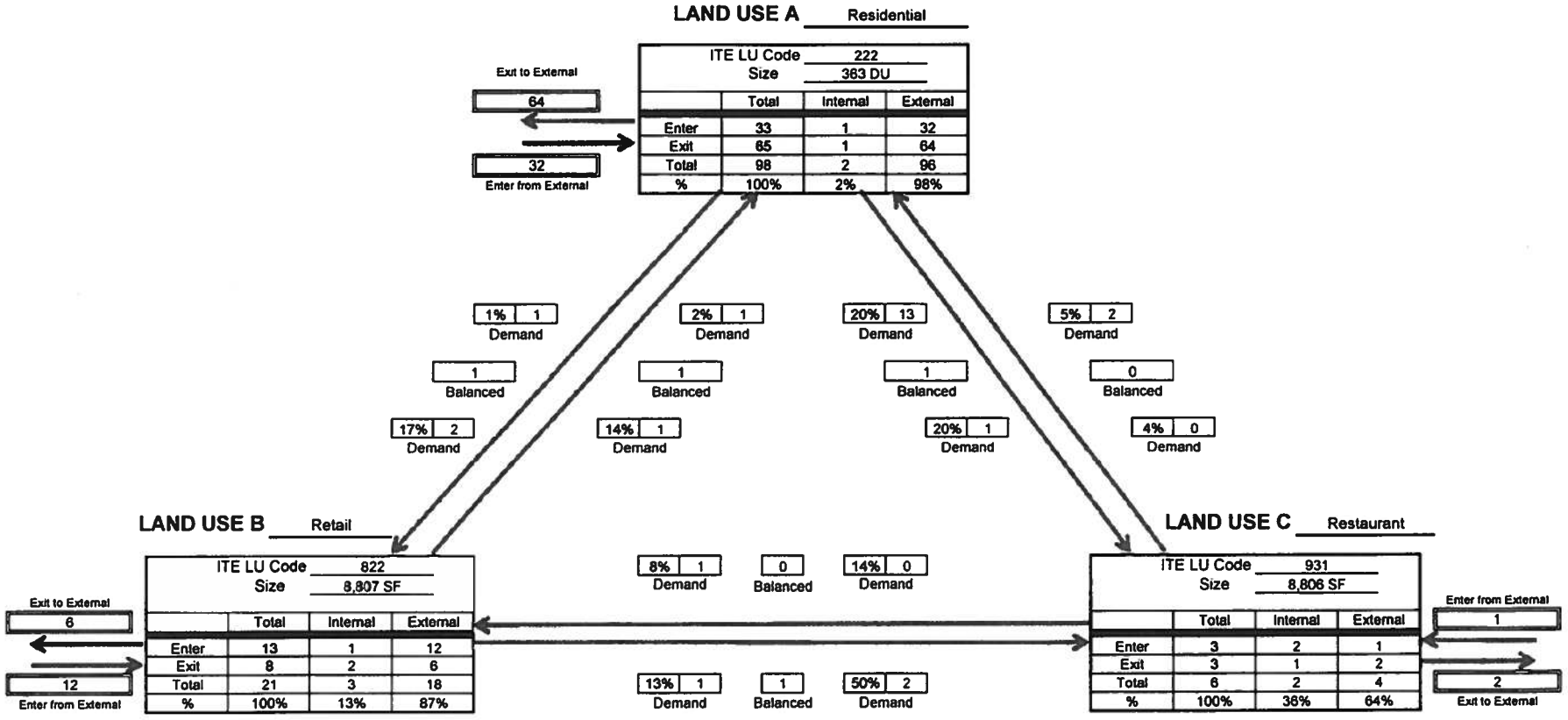
Riverwalk South

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst: CV

Date: 1/13/2022

Time Period: AM Peak Hour



Net External Trips for Multi-Use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	32	12	1	46	INTERNAL CAPTURE
Exit	64	6	2	73	
Total	96	18	4	118	5.6%
Single-Use Trip Gen. Est.	98	21	6	125	

Source: Trip Generation Handbook, 3rd Edition.

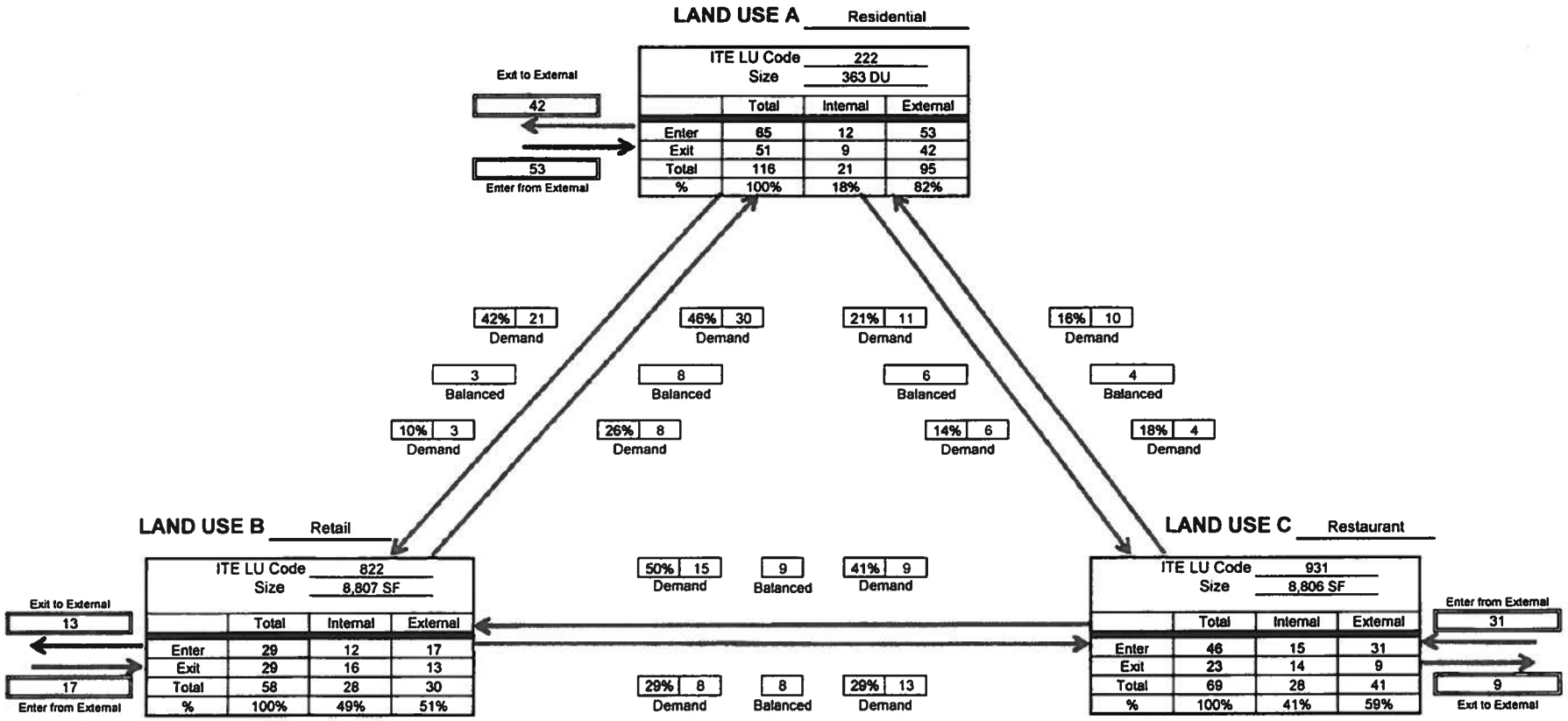
Riverwalk South

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst: CV

Date: 1/13/2022

Time Period: PM Peak Hour



Net External Trips for Multi-Use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	53	17	31	101	INTERNAL CAPTURE
Exit	42	13	9	64	
Total	95	30	41	165	32.0%
Single-Use Trip Gen. Est.	116	58	69	243	

Source: Trip Generation Handbook, 3rd Edition.

MEANS OF TRANSPORTATION TO WORK

United States® Census Bureau

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.

	Census Tract 1.28, Miami-Dade County, Florida	
Label	**Estimate**	**Margin of Error**
Total:	1,991	±314
Car, truck, or van:	1,925	±310
Drove alone	1,773	±332
Carpooled:	152	±101
In 2-person carpool	140	±97
In 3-person carpool	12	±19
In 4-person carpool	0	±14
In 5- or 6-person carpool	0	±14
In 7-or-more-person carpool	0	±14
Public transportation (excluding taxicab):	19 0.9%.	±23
Bus	19	±23
Subway or elevated rail	0	±14
Long-distance train or commuter rail	0	±14
Light rail, streetcar or trolley (carro público in Puerto Rico)	0	±14
Ferryboat	0	±14
Taxicab	15	±17
Motorcycle	0	±14
Bicycle	0	±14
Walked	6 0.3 %.	±15
Other means	0	±14
Worked from home	26	±25

Table Notes

MEANS OF TRANSPORTATION TO WORK

Survey/Program: American Community Survey
Universe: Workers 16 years and over
Year: 2019
Estimates: 5-Year
Table ID: B08301

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.

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

2019 ACS data products include updates to several categories of the existing means of transportation question. For more information, see: Change to Means of Transportation.

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 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 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 delineation lists 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:

An "**" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.
An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.
An "***" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
An "(X)" means that the estimate is not applicable or not available.

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.

Project's Census Tract

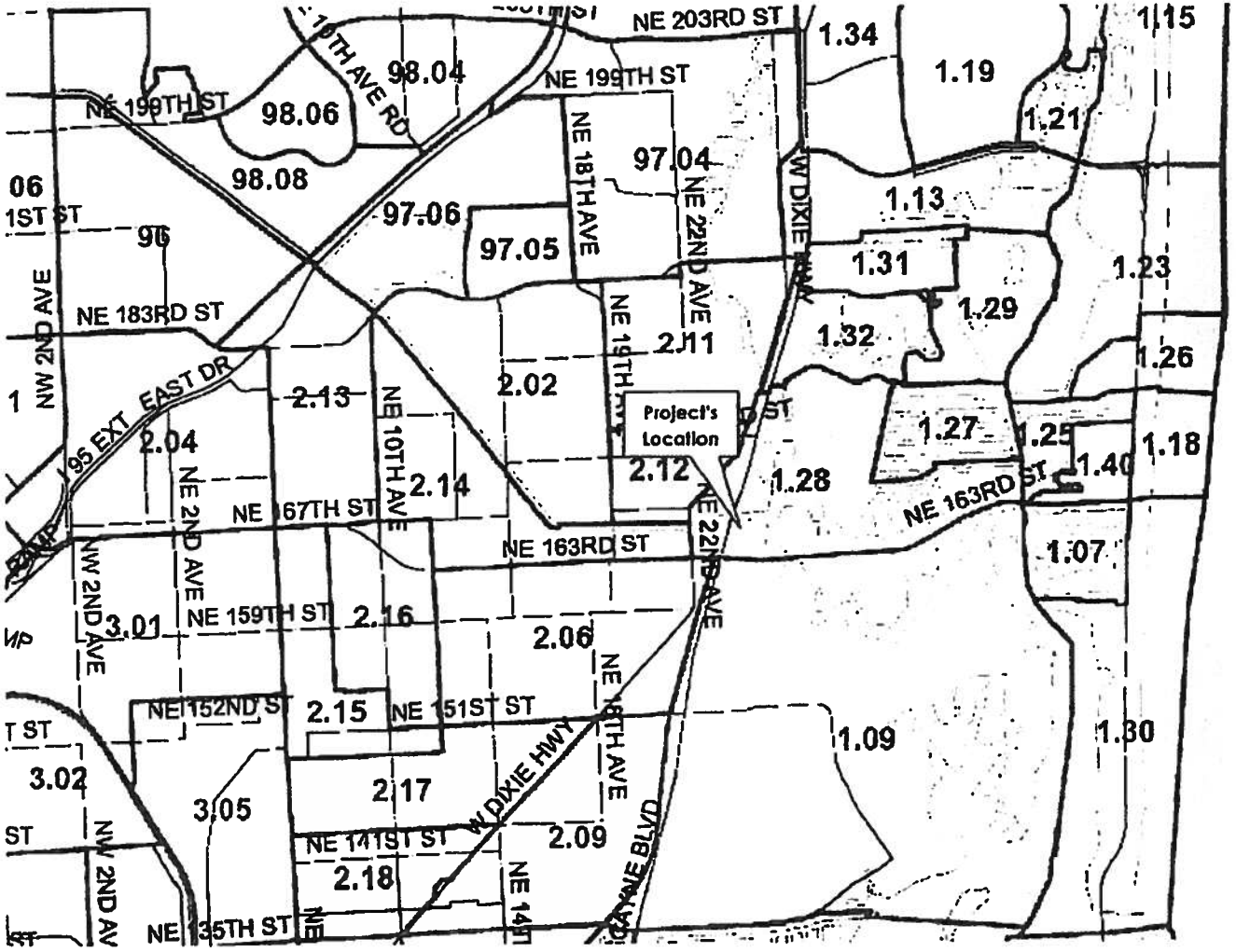


Table 6.1 Unconstrained Internal Person Trip Capture Rates for Trip Origins within a Mixed-Use Development

		WEEKDAY	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Retail	28%	20%
	To Restaurant	63%	4%
	To Cinema/Entertainment	0%	0%
	To Residential	1%	2%
	To Hotel	0%	0%
From RETAIL	To Office	29%	2%
	To Restaurant	13%	29%
	To Cinema/Entertainment	0%	4%
	To Residential	14%	26%
	To Hotel	0%	5%
From RESTAURANT	To Office	31%	3%
	To Retail	14%	41%
	To Cinema/Entertainment	0%	8%
	To Residential	4%	18%
	To Hotel	3%	7%
From CINEMA/ENTERTAINMENT	To Office	0%	2%
	To Retail	0%	21%
	To Restaurant	0%	31%
	To Residential	0%	8%
	To Hotel	0%	2%
From RESIDENTIAL	To Office	2%	4%
	To Retail	1%	42%
	To Restaurant	20%	21%
	To Cinema/Entertainment	0%	0%
	To Hotel	0%	3%
From HOTEL	To Office	75%	0%
	To Retail	14%	16%
	To Restaurant	9%	68%
	To Cinema/Entertainment	0%	0%
	To Residential	0%	2%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 99 and 100, 2011.

Table 6.2 Unconstrained Internal Person Trip Capture Rates for Trip Destinations within a Mixed-Use Development

		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Retail	4%	31%
	From Restaurant	14%	30%
	From Cinema/Entertainment	0%	6%
	From Residential	3%	57%
	From Hotel	3%	0%
To RETAIL	From Office	32%	8%
	From Restaurant	8%	50%
	From Cinema/Entertainment	0%	4%
	From Residential	17%	10%
	From Hotel	4%	2%
To RESTAURANT	From Office	23%	2%
	From Retail	50%	29%
	From Cinema/Entertainment	0%	3%
	From Residential	20%	14%
	From Hotel	6%	5%
To CINEMA/ENTERTAINMENT	From Office	0%	1%
	From Retail	0%	26%
	From Restaurant	0%	32%
	From Residential	0%	0%
	From Hotel	0%	0%
To RESIDENTIAL	From Office	0%	4%
	From Retail	2%	46%
	From Restaurant	5%	16%
	From Cinema/Entertainment	0%	4%
	From Hotel	0%	0%
To HOTEL	From Office	0%	0%
	From Retail	0%	17%
	From Restaurant	4%	71%
	From Cinema/Entertainment	0%	1%
	From Residential	0%	12%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 101 and 102, 2011.

Appendix 2: Trip Distribution / Assignment

The Riverwalk South

Site Traffic (Project Net Trips) - AM Peak Hour

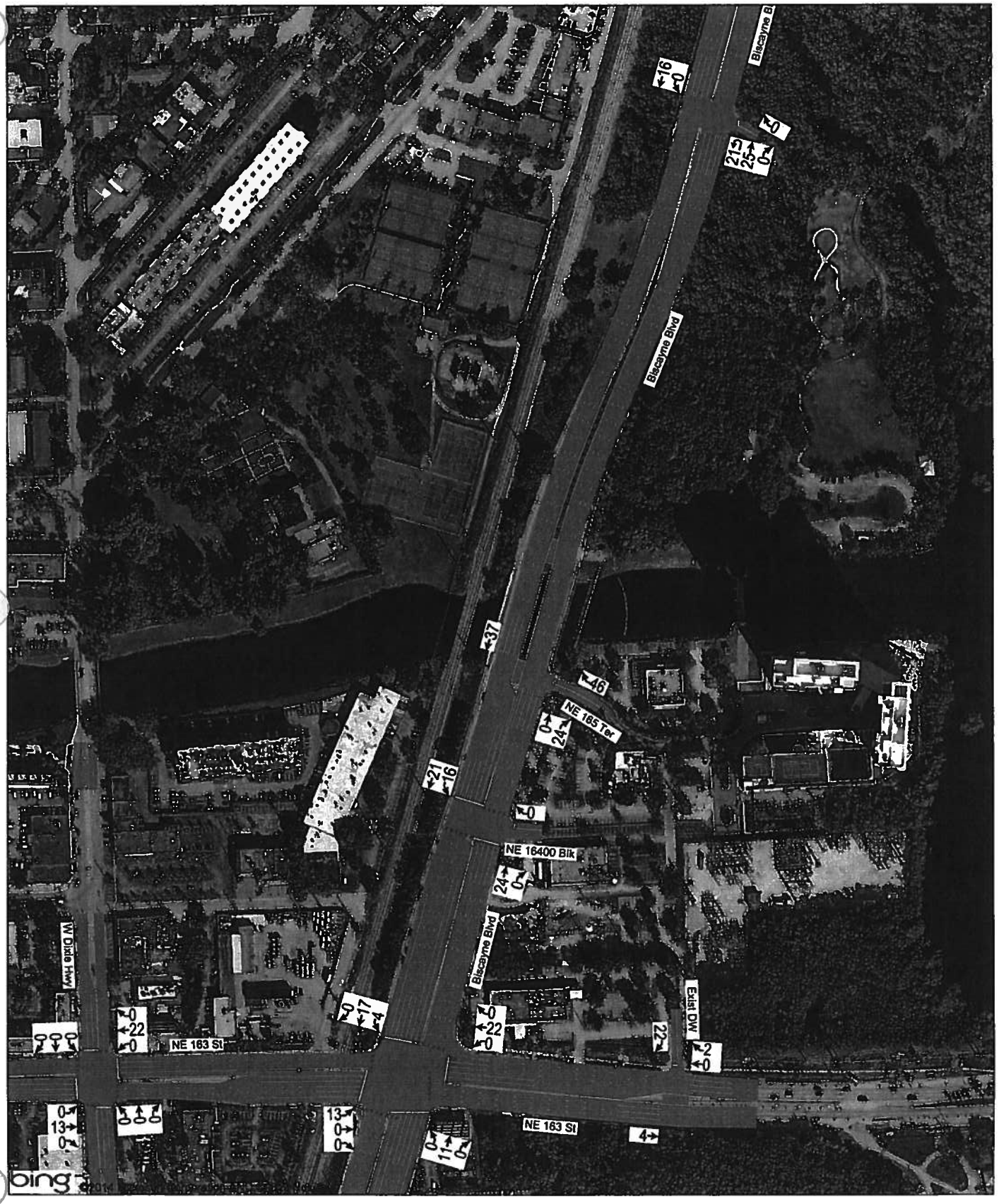
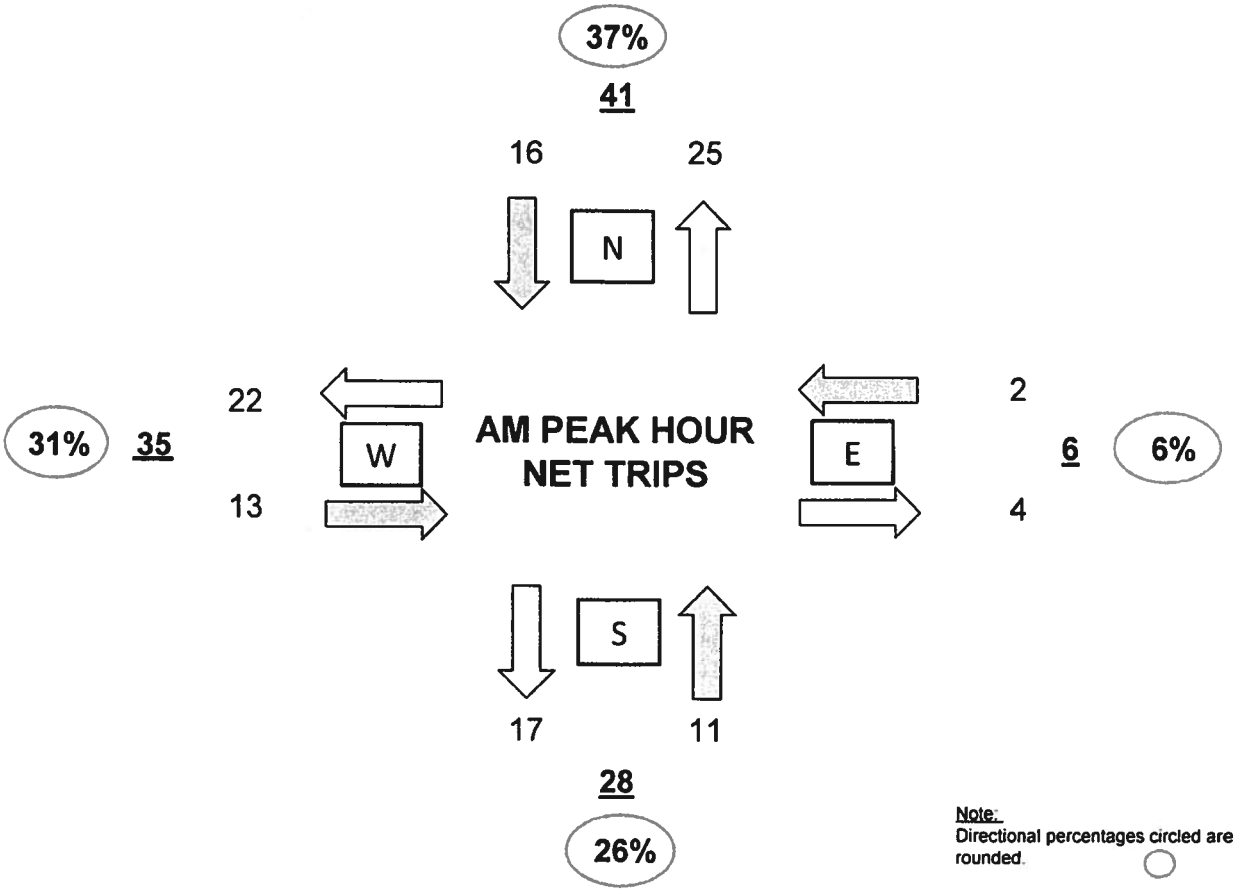


TABLE A3

Cardinal Distribution
AM Peak Hour
Traffic Analysis Zone (TAZ) 94

Project Name: The Riverwalk South

DIRECTION	DISTRIBUTION (%) DESIGN YEAR	DIRECTION	DISTRIBUTION	AM PEAK HOUR		
				IN	OUT	TOTAL
NNE	23.48	NORTH	36.74%	16	25	41
ENE	5.03					
ESE	1.06	EAST	6.09%	2	4	6
SSE	5.96					
SSW	19.77	SOUTH	25.73%	11	17	28
WSW	17.07					
WNW	14.37	WEST	31.44%	13	22	35
NNW	13.26					
TOTAL	100.00		100.00%	42	68	110



Note:
Directional percentages circled are rounded.

TABLE A3-1

Cardinal Distribution
AM Peak Hour
Traffic Analysis Zone (TAZ) 94

Project Name: The Riverwalk South

DIRECTION	DISTRIBUTION PERCENTAGES (%)			AM PEAK HOUR		
	MIAMI-DADE LRTP MODEL YEAR		DESIGN YEAR	IN	OUT	TOTAL
	2015	2045	2024			
NNE	23.90	22.50	23.48	10	16	26
ENE	5.60	3.70	5.03	2	3	5
ESE	1.30	0.50	1.06	0	1	1
SSE	5.60	6.80	5.96	3	4	7
SSW	19.20	21.10	19.77	8	13	21
WSW	16.80	17.70	17.07	7	12	19
WNW	14.10	15.00	14.37	6	10	16
NNW	13.50	12.70	13.26	6	9	15
TOTAL	100.00	100.00	100.00	42	68	110

Note:

Based on Miami-Dade Transportation Planning Organization 2045 LRTP Directional Trip Distribution Report, September 2019. Since the current data is only available for the model years 2015 and 2045, the eight (8) cardinal directions were interpolated to the design year of 2024.

TABLE A3-2

AM PEAK HOUR	IN	OUT	TOTAL
NET TRIPS:	42	68	110
PERCENT:	38.18%	61.82%	(Calculated)

DIRECTION	DISTRIBUTION %	INGRESS		EGRESS		TOTAL
		CALCULATED	USED	CALCULATED	USED	
NNE	23.48	9.862	10	15.966	16	26
ENE	5.03	2.113	2	3.420	3	5
ESE	1.06	0.445	0	0.721	1	1
SSE	5.96	2.503	3	4.053	4	7
SSW	19.77	8.303	8	13.444	13	21
WSW	17.07	7.169	7	11.608	12	19
WNW	14.37	6.035	6	9.772	10	16
NNW	13.26	5.569	6	9.017	9	15
TOTAL	100.00	42.000	42	68.000	68	110

The Riverwalk South

Site Traffic (Project Net Trips) - PM Peak Hour

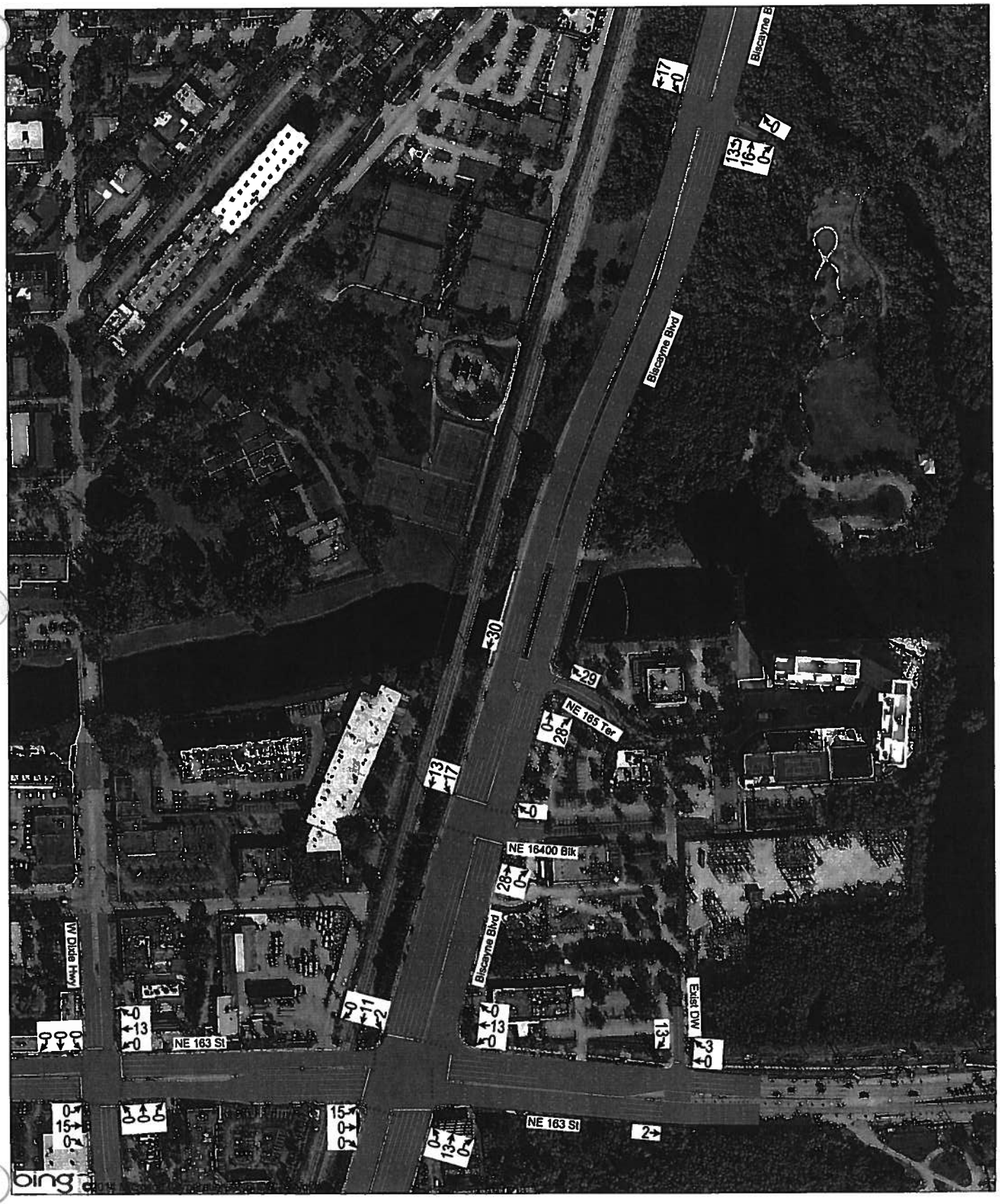
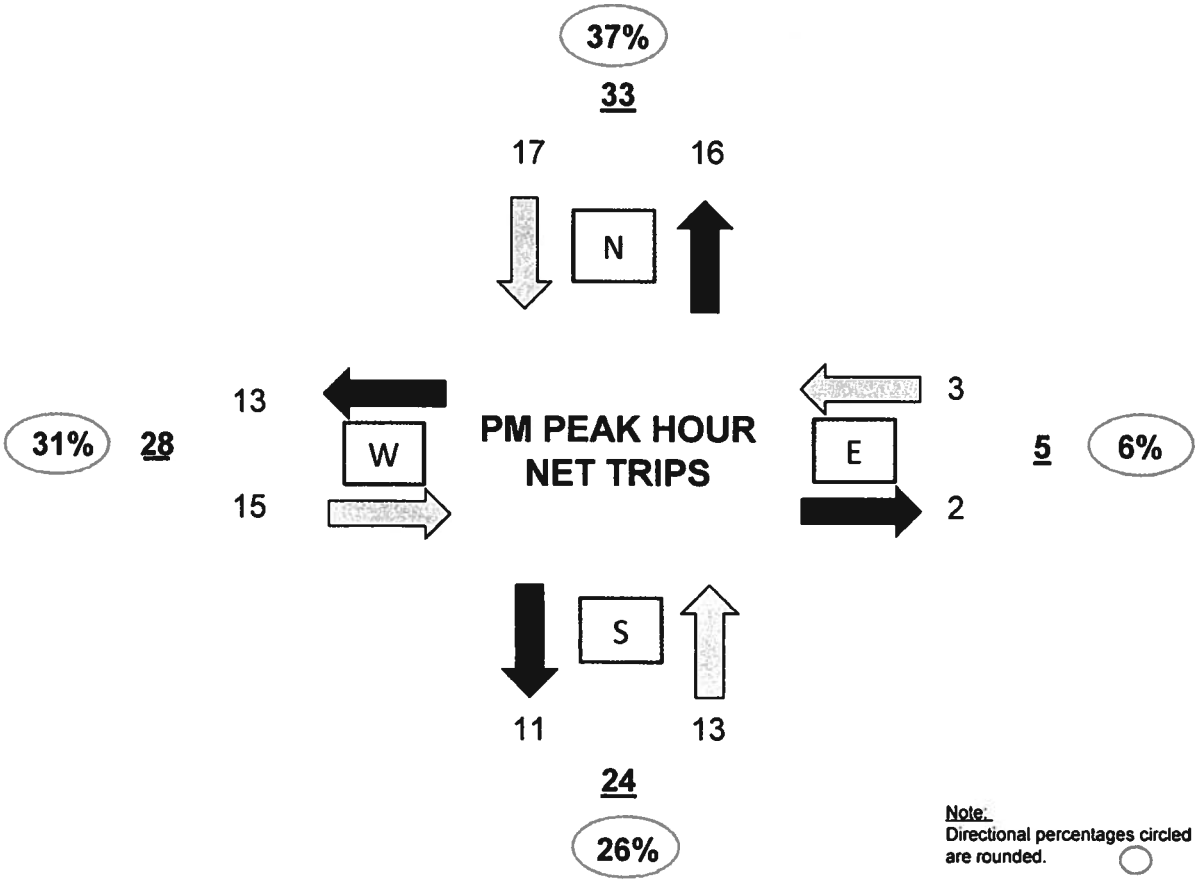


TABLE A4

Cardinal Distribution
PM Peak Hour
Traffic Analysis Zone (TAZ) 94

Project Name: The Riverwalk South

DIRECTION	DISTRIBUTION (%) DESIGN YEAR	DIRECTION	DISTRIBUTION	PM PEAK HOUR		
				IN	OUT	TOTAL
NNE	23.48	NORTH	36.74%	17	16	33
ENE	5.03					
ESE	1.06	EAST	6.09%	3	2	5
SSE	5.96					
SSW	19.77	SOUTH	25.73%	13	11	24
WSW	17.07					
WNW	14.37	WEST	31.44%	15	13	28
NNW	13.26					
TOTAL	100.00		100.00%	48	42	90



Note:
Directional percentages circled are rounded.

TABLE A4-1

Cardinal Distribution
PM Peak Hour
Traffic Analysis Zone (TAZ) 94

Project Name: The Riverwalk South

DIRECTION	DISTRIBUTION PERCENTAGES (%)			PM PEAK HOUR		
	MIAMI-DADE LRTP MODEL YEAR		DESIGN YEAR	IN	OUT	TOTAL
	2015	2045	2024			
NNE	23.90	22.50	23.48	11	10	21
ENE	5.60	3.70	5.03	2	2	4
ESE	1.30	0.50	1.06	1	0	1
SSE	5.60	6.80	5.96	3	3	6
SSW	19.20	21.10	19.77	10	8	18
WSW	16.80	17.70	17.07	8	7	15
WNW	14.10	15.00	14.37	7	6	13
NNW	13.50	12.70	13.26	6	6	12
TOTAL	100.00	100.00	100.00	48	42	90

Note:

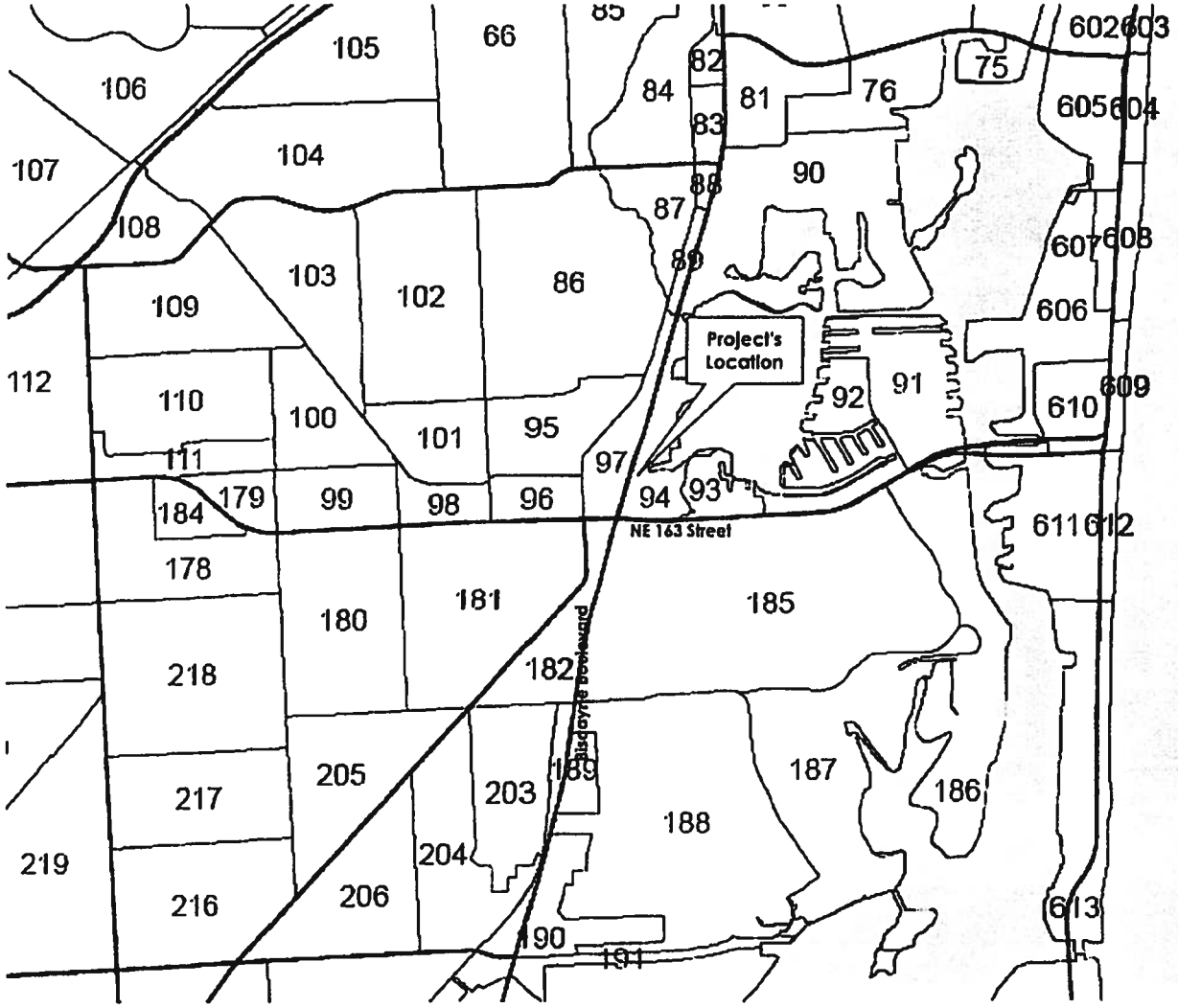
Based on Miami-Dade Transportation Planning Organization 2045 LRTP Directional Trip Distribution Report, September 2019. Since the current data is only available for the model years 2015 and 2045, the eight (8) cardinal directions were interpolated to the design year of 2024.

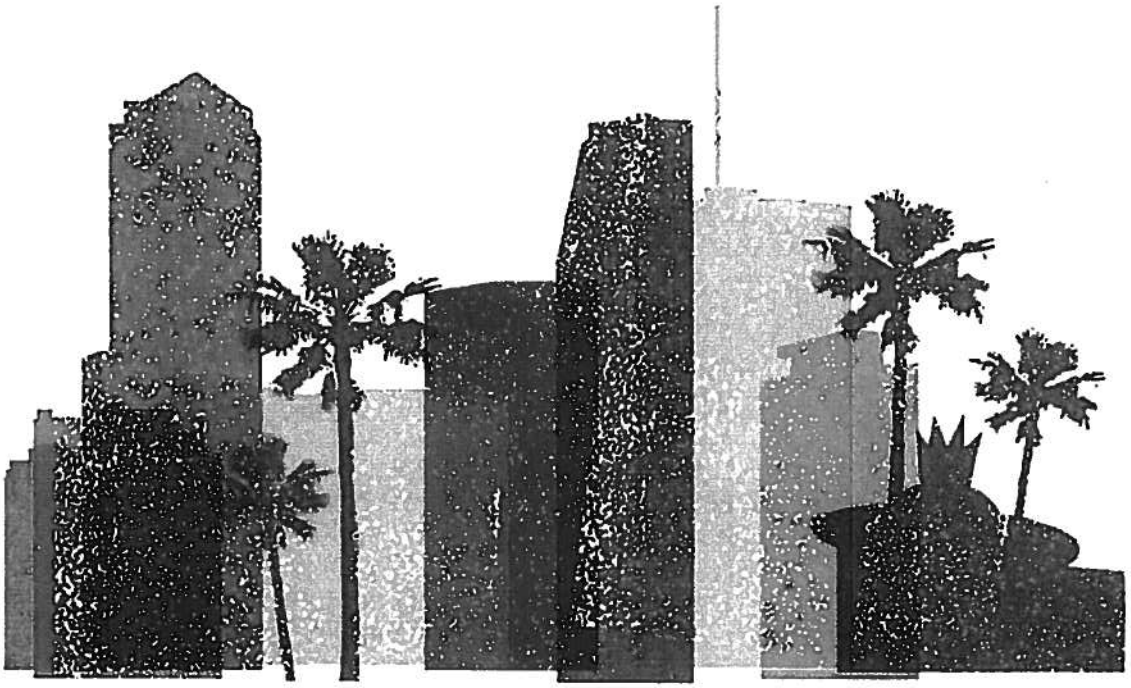
TABLE A4-2

PM PEAK HOUR	IN	OUT	TOTAL
NET TRIPS:	48	42	90
PERCENT:	53.33%	46.67%	(Calculated)

DIRECTION	DISTRIBUTION %	INGRESS		EGRESS		TOTAL
		CALCULATED	USED	CALCULATED	USED	
NNE	23.48	11.270	11	9.862	10	21
ENE	5.03	2.414	2	2.113	2	4
ESE	1.06	0.509	1	0.445	0	1
SSE	5.96	2.861	3	2.503	3	6
SSW	19.77	9.490	10	8.303	8	18
WSW	17.07	8.194	8	7.169	7	15
WNW	14.37	6.898	7	6.035	6	13
NNW	13.26	6.365	6	5.569	6	12
TOTAL	100.00	48.000	48	42.000	42	90

TRAFFIC ANALYSIS ZONE (TAZ)





MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION

2045 LRTP

SUPPORTING DOCUMENTS

DIRECTIONAL TRIP DISTRIBUTION REPORT

SEPTEMBER 2019

DIRECTIONAL TRIP DISTRIBUTION REPORT

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	
79	2979	Trips	191	104	78	284	397	273	195	326	1,875
79	2979	Percent	10.4	5.6	4.3	15.4	21.5	14.8	10.6	17.6	
80	2980	Trips	8,681	2,809	1,368	5,932	13,818	10,867	8,744	14,261	73,625
80	2980	Percent	13.1	4.2	2.1	8.9	20.8	16.4	13.2	21.5	
81	2981	Trips	1,647	1,897	537	1,291	2,397	1,683	1,326	1,826	13,373
81	2981	Percent	13.1	15.1	4.3	10.2	19.0	13.4	10.5	14.5	
82	2982	Trips	4	8	0	8	11	5	14	3	54
82	2982	Percent	7.7	14.8	0.0	14.8	21.1	9.3	26.2	5.9	
83	2983	Trips	273	57	13	127	235	168	102	126	1,111
83	2983	Percent	24.8	5.2	1.2	11.6	21.4	15.3	9.3	11.4	
84	2984	Trips	432	452	108	276	747	592	444	462	3,632
84	2984	Percent	12.3	12.9	3.1	7.9	21.3	16.8	12.6	13.1	
85	2985	Trips	261	89	194	118	388	325	270	362	2,042
85	2985	Percent	13.0	4.4	9.7	5.9	19.3	16.2	13.5	18.0	
86	2986	Trips	771	180	89	332	764	741	432	552	3,920
86	2986	Percent	20.0	4.7	2.3	8.6	19.8	19.2	11.2	14.3	
87	2987	Trips	570	56	151	125	505	344	317	381	2,512
87	2987	Percent	23.3	2.3	6.2	5.1	20.6	14.0	13.0	15.6	
88	2988	Trips	474	50	21	119	300	208	162	216	1,570
88	2988	Percent	30.6	3.2	1.3	7.7	19.4	13.4	10.5	13.9	
89	2989	Trips	331	79	39	34	347	282	145	213	1,495
89	2989	Percent	22.5	5.4	2.6	2.3	23.6	19.2	9.9	14.5	
90	2990	Trips	4,146	286	429	825	3,640	2,975	2,072	3,514	19,467
90	2990	Percent	23.2	1.6	2.4	4.6	20.4	16.6	11.6	19.6	
91	2991	Trips	259	269	65	347	858	1,335	524	1,228	5,195
91	2991	Percent	5.3	5.5	1.3	7.1	17.6	27.3	10.7	25.1	
92	2992	Trips	349	364	45	275	580	901	348	802	3,879
92	2992	Percent	9.5	9.9	1.2	7.5	15.8	24.6	9.5	21.9	
93	2993	Trips	195	74	12	52	224	221	153	156	1,098
93	2993	Percent	18.0	6.8	1.1	4.8	20.6	20.3	14.0	14.4	
94	2994	Trips	701	165	38	164	564	493	412	394	2,980
94	2994	Percent	23.9	5.6	1.3	5.6	19.2	16.8	14.1	13.5	
95	2995	Trips	1,157	251	112	411	943	782	652	644	5,051
95	2995	Percent	23.4	5.1	2.3	8.3	19.0	15.8	13.2	13.0	
96	2996	Trips	334	88	58	100	222	229	226	189	1,480
96	2996	Percent	23.1	6.1	4.0	6.9	15.4	15.9	15.6	13.1	
97	2997	Trips	364	65	29	103	330	278	294	257	1,751
97	2997	Percent	21.2	3.8	1.7	6.0	19.2	16.1	17.1	14.9	
98	2998	Trips	388	202	52	214	475	336	344	343	2,414
98	2998	Percent	16.5	8.6	2.2	9.1	20.2	14.3	14.6	14.6	
99	2999	Trips	3,253	1,254	599	1,888	3,041	2,026	1,990	2,271	16,984
99	2999	Percent	19.9	7.7	3.7	11.6	18.6	12.4	12.2	13.9	
100	3000	Trips	1,054	1,070	420	946	1,241	1,166	758	737	7,600
100	3000	Percent	14.3	14.5	5.7	12.8	16.8	15.8	10.3	10.0	
101	3001	Trips	1,050	272	61	208	446	420	463	772	3,735
101	3001	Percent	28.4	7.4	1.7	5.6	12.1	11.4	12.5	20.9	
102	3002	Trips	1,000	1,037	351	727	1,353	1,013	956	831	7,620
102	3002	Percent	13.8	14.3	4.8	10.0	18.6	13.9	13.2	11.4	
103	3003	Trips	535	384	275	305	768	438	327	391	3,487
103	3003	Percent	15.6	11.2	8.0	8.9	22.4	12.8	9.6	11.4	
104	3004	Trips	817	817	333	688	1,488	854	412	712	6,219
104	3004	Percent	13.4	13.3	5.4	11.2	24.3	14.0	6.7	11.6	

DIRECTIONAL TRIP DISTRIBUTION REPORT

Miami-Dade 2015 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	
79	2979	Trips	432	111	79	570	940	474	311	510	3,577
79	2979	Percent	12.6	3.3	2.3	16.6	27.4	13.8	9.1	14.9	
80	2980	Trips	9,844	1,997	1,773	7,477	20,304	14,012	10,711	17,394	92,886
80	2980	Percent	11.8	2.4	2.1	9.0	24.3	16.8	12.8	20.8	
81	2981	Trips	1,842	1,762	455	1,081	3,190	2,037	1,539	1,744	14,144
81	2981	Percent	13.5	12.9	3.3	7.9	23.4	14.9	11.3	12.8	
82	2982	Trips	83	40	16	29	96	76	43	67	449
82	2982	Percent	18.5	8.8	3.5	6.4	21.3	16.9	9.7	15.0	
83	2983	Trips	377	47	26	111	348	272	152	160	1,501
83	2983	Percent	25.3	3.2	1.7	7.5	23.3	18.2	10.2	10.7	
84	2984	Trips	735	496	111	444	1,156	923	572	670	5,268
84	2984	Percent	14.4	9.7	2.2	8.7	22.6	18.1	11.2	13.1	
85	2985	Trips	290	76	195	158	538	388	266	307	2,249
85	2985	Percent	13.1	3.4	8.8	7.1	24.3	17.5	12.0	13.8	
86	2986	Trips	983	178	103	371	1,133	1,011	480	563	4,931
86	2986	Percent	20.4	3.7	2.1	7.7	23.5	21.0	10.0	11.7	
87	2987	Trips	890	81	242	222	904	629	429	529	4,032
87	2987	Percent	22.7	2.1	6.2	5.7	23.0	16.0	10.9	13.5	
88	2988	Trips	474	33	38	179	497	307	206	277	2,062
88	2988	Percent	23.6	1.6	1.9	8.9	24.7	15.3	10.2	13.8	
89	2989	Trips	359	73	61	68	402	399	199	286	1,883
89	2989	Percent	19.4	4.0	3.3	3.7	21.7	21.6	10.8	15.5	
90	2990	Trips	3,842	246	298	943	5,243	4,449	2,670	3,717	22,961
90	2990	Percent	18.0	1.2	1.4	4.4	24.5	20.8	12.5	17.4	
91	2991	Trips	311	248	41	363	1,180	1,730	706	1,403	6,349
91	2991	Percent	5.2	4.2	0.7	6.1	19.7	28.9	11.8	23.5	
92	2992	Trips	279	279	37	350	745	927	488	802	4,303
92	2992	Percent	7.1	7.1	1.0	9.0	19.1	23.7	12.5	20.5	
93	2993	Trips	197	19	2	75	255	244	176	174	1,145
93	2993	Percent	17.3	1.6	0.2	6.6	22.3	21.4	15.4	15.3	
94	2994	Trips	1,520	252	35	456	1,425	1,197	1,012	860	7,203
94	2994	Percent	22.5	3.7	0.5	6.8	21.1	17.7	15.0	12.7	
95	2995	Trips	1,340	181	119	476	1,334	974	745	709	6,013
95	2995	Percent	22.8	3.1	2.0	8.1	22.7	16.6	12.7	12.1	
96	2996	Trips	659	143	83	236	701	501	494	380	3,367
96	2996	Percent	20.6	4.5	2.6	7.4	21.9	15.7	15.5	11.9	
97	2997	Trips	674	92	48	196	724	476	461	424	3,226
97	2997	Percent	21.8	3.0	1.6	6.3	23.4	15.4	14.9	13.7	
98	2998	Trips	584	205	53	311	657	444	446	391	3,171
98	2998	Percent	18.9	6.6	1.7	10.1	21.3	14.4	14.4	12.7	
99	2999	Trips	3,843	1,448	804	1,816	3,592	2,286	2,527	2,624	19,836
99	2999	Percent	20.3	7.6	4.3	9.6	19.0	12.1	13.3	13.9	
100	3000	Trips	1,170	1,188	470	1,050	1,554	1,358	947	778	8,796
100	3000	Percent	13.7	14.0	5.5	12.3	18.3	15.9	11.1	9.1	
101	3001	Trips	1,373	134	82	208	663	517	510	941	4,546
101	3001	Percent	31.0	3.0	1.9	4.7	15.0	11.7	11.5	21.3	
102	3002	Trips	1,239	1,159	383	1,201	2,090	1,709	989	1,160	10,403
102	3002	Percent	12.5	11.7	3.9	12.1	21.1	17.2	10.0	11.7	
103	3003	Trips	566	483	242	390	1,115	701	423	486	4,574
103	3003	Percent	12.9	11.0	5.5	8.9	25.3	15.9	9.6	11.0	
104	3004	Trips	995	756	259	694	1,848	1,526	568	907	7,641
104	3004	Percent	13.2	10.0	3.4	9.2	24.5	20.2	7.5	12.0	

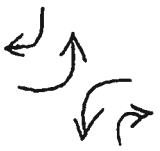
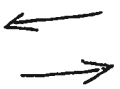
Appendix 3: Signal Timing, Background Growth and Adjustment Factor

MIAMI-DADE ATMS
SIGNAL DATA SHEET

Signal Asset ID: 2010
Signal Location: SR-826 & US1
Analysis Period: (AM) / PM (Circle One)
Local Time of Day Schedule: 4 Plan
Local Time of Day Function: Blank Setting (Blank or Number#)

Signal Settings: _____
(i.e. Blank, Plan #1 – Phase Bank 1, Max 1)

Cycle Length: 169.5 seconds
Offset: 77 seconds

PHASE:	Φ1	Φ2	Φ3	Φ4
				
WALK	0	4	0	4
DON'TWALK	0	38	0	47
MIN INITIAL	5	7	5	7
VEH EXT	3	1	3	2.5
GREEN	22	44	26	49
YELLOW	4.8	4.8	4.8	4.8
RED	2	2.4	2	2.9
SPLIT	28.8	51.2	32.8	56.7

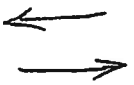
RICHARD GARCIA & ASSOCIATES, INC.

MIAMI-DADE ATMS
SIGNAL DATA SHEET

Signal Asset ID: 2010
Signal Location: SR 826 & US
Analysis Period: AM / (PM) (Circle One)
Local Time of Day Schedule: 11 Plan
Local Time of Day Function: Blank Setting (Blank or Number#)

Signal Settings: –
(i.e. Blank, Plan #1 – Phase Bank 1, Max 1)

Cycle Length: 169.5 seconds
Offset: 77 seconds

PHASE:	Φ1	Φ2	Φ3	Φ4
				
WALK	0	4	0	4
DON'TWALK	0	38	0	47
MIN INITIAL	5	7	5	7
VEH EXT	3	1	3	2.5
GREEN	25	43	26	47
YELLOW	4.8	4.8	4.8	4.8
RED	2	2.4	2	2.9
SPLIT	31.8	50.2	32.8	54.7

TOD Schedule Report
for 2010: SR- 826&US 1

Print Date: 9/24/2019

Print Time: 3:13 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2010	SR- 826&US 1	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 2 3)	Don't Walk (1 2 3)	Min Initial (1 2 3)	Veh Ext (1 2 3)	Max Limit (1 2 3)	Max 2 (1 2 3)	Yellow	Red
1 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	24 - 24 - 24	27 - 27 - 27	4.8	2
2 SBT	4 - 4 - 4	38 - 38 - 38	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	50 - 50 - 50	4.8	2.4
3 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	25 - 25 - 25	34 - 34 - 34	4.8	2
4 WBT	4 - 4 - 4	47 - 47 - 47	7 - 7 - 7	2.5 - 2.5 - 2.5	55 - 55 - 55	55 - 55 - 55	4.8	2.9
5 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	24 - 24 - 24	27 - 27 - 27	4.8	2
6 NBT	4 - 4 - 4	38 - 38 - 38	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	50 - 50 - 50	4.8	2.4
7 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	25 - 25 - 25	34 - 34 - 34	4.8	2
8 EBT	4 - 4 - 4	47 - 47 - 47	7 - 7 - 7	2.5 - 2.5 - 2.5	55 - 55 - 55	55 - 55 - 55	4.8	2.9

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12345678
External Permit 0	------
External Permit 1	------
External Permit 2	------

TOD Schedule Report
for 2010: SR- 826&US 1

Print Date: 9/24/2019

Print Time: 3:13 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 NBL	2 SBT	3 EBL	4 WBT	5 SBL	6 NBT	7 WBL	8 EBT	Ring Offset	Offset
	1	140	13	57	14	27	13	57	14	27	0	56
	2	125	15	32	17	32	15	32	17	32	0	107
	3	170	25	43	26	47	25	43	26	47	0	77
AM	4	170	22	44	26	49	22	44	26	49	0	77
	5	130	14	32	17	38	14	32	17	38	0	18
	6	150	19	48	19	35	19	48	19	35	0	60
	7	150	19	48	19	35	19	48	19	35	0	60
	8	105	10	32	13	21	10	32	13	21	0	60
	9	150	24	33	25	39	24	33	25	39	0	71
	10	125	16	32	17	31	16	32	17	31	0	107
PM	11	170	25	43	26	47	25	43	26	47	0	77
	12	115	12	32	14	28	12	32	14	28	0	79
	13	130	14	32	20	35	14	32	20	35	0	54
	14	130	14	32	17	38	14	32	17	38	0	62
	15	150	15	45	22	39	15	45	22	39	0	81
	16	115	10	34	12	30	10	34	12	30	0	56
	22	145	14	53	14	35	14	53	14	35	0	60
	23	140	14	48	14	35	14	48	14	35	0	60
	25	120	13	33	12	32	14	32	19	26	0	52
	26	135	23	32	17	33	22	33	23	28	0	5
	27	160	23	42	17	48	27	38	28	38	0	34
	28	100	13	31	12	14	12	32	13	14	0	83

Local TOD Schedule

Time	Plan	DOW
0000	23	M T W Th F
0000	23	Su S
0100	22	Su S
0100	22	M T W Th F
0500	7	M T W Th F
0530	4	M T W Th F
0600	1	Su S
1000	11	Su S
1000	3	M T W Th F
1500	11	M T W Th F
2100	6	M T W Th F
2100	6	Su S
2300	23	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

*** 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

RICHARD GARCIA & ASSOCIATES, INC.

MIAMI-DADE ATMS
SIGNAL DATA SHEET

Signal Asset ID: 2019
Signal Location: SR 826 & W Dixie Hwy
Analysis Period: (AM) / (PM) (Circle One)
Local Time of Day Schedule: 4/11 Plan
Local Time of Day Function: Blank Setting (Blank or Number#)

Signal Settings: –
(i.e. Blank, Plan #1 – Phase Bank 1, Max 1)

Cycle Length: 170.8 seconds
Offset: 27 seconds

PHASE:	Φ1	Φ2	Φ3	Φ4
	 EB/WB			
WALK	0	7	0	4
DON'TWALK	0	19	0	20
MIN INITIAL	5	7	5	7
VEH EXT	2 / 3	1	2	2.5
GREEN	18	84	18	26
YELLOW	4	4	4.4	4.4
RED	2	2	2	2
SPLIT	24	90	24.4	32.4

TOD Schedule Report

for 2019: SR- 826&W Dixie Hwy

Print Date: 9/24/2019

Print Time: 3:14 PM

Asset	Intersection	TOD Schedule	On Mode	Plan #	Cycle	Offset	TOD Setting	Active Phaselbank	Active Maximum
2019	SR- 826&W Dixie Hwy	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	SBL	NBT	WBL	EBT	NBL	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 - 2 - 3)	Don't Walk (1 - 2 - 3)	Min Initial (1 - 2 - 3)	Veh Ext (1 - 2 - 3)	Max Limit (1 - 2 - 3)	Max 2 (1 - 2 - 3)	Yellow	Red
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	12 - 12 - 12	25 - 25 - 25	4	2
2 WBT	7 - 7 - 7	19 - 19 - 19	7 - 7 - 7	1 - 1 - 1	45 - 45 - 45	0 - 0 - 0	4	2
3 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	12 - 12 - 12	23 - 23 - 23	4.4	2
4 NBT	4 - 4 - 4	20 - 20 - 20	7 - 7 - 7	2.5 -2.5 - 2.5	25 - 25 - 25	40 - 40 - 40	4.4	2
5 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	12 - 12 - 12	30 - 30 - 30	4	2
6 EBT	7 - 7 - 7	19 - 19 - 19	7 - 7 - 7	1 - 1 - 1	45 - 45 - 45	0 - 0 - 0	4	2
7 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	12 - 12 - 12	26 - 26 - 26	4.4	2
8 SBT	4 - 4 - 4	20 - 20 - 20	7 - 7 - 7	2.5 -2.5 - 2.5	25 - 25 - 25	40 - 40 - 40	4.4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12345678
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	12345678

TOD Schedule Report

for 2019: SR- 826&W Dixie Hwy

Print Date: 9/24/2019

Print Time: 3:14 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 SBL	4 NBT	5 WBL	6 EBT	7 NBL	8 SBT	Ring Offset	Offset
	1	140	12	66	12	26	12	66	12	26	0	12
	2	125	12	51	16	22	12	51	16	22	0	64
	3	170	18	84	18	26	18	84	18	26	0	27
AM	4	170	18	84	18	26	18	84	18	26	0	27
	5	130	12	56	16	22	12	56	16	22	0	88
	6	150	15	75	10	26	15	75	10	26	0	19
	7	150	15	75	10	26	15	75	10	26	0	19
	8	105	13	45	6	17	13	45	6	17	0	19
	9	150	0	144	0	0	0	144	0	0	0	0
	10	125	14	51	14	22	14	51	14	22	0	64
PM	11	170	18	84	18	26	18	84	18	26	0	27
	12	115	12	45	12	22	12	45	12	22	0	25
	13	130	12	56	16	22	12	56	16	22	0	127
	14	130	12	56	16	22	12	56	16	22	0	5
	15	150	13	66	18	29	13	66	18	29	0	28
	16	115	12	45	12	22	12	45	12	22	0	12
	22	145	14	71	10	26	14	71	10	26	0	19
	23	140	14	66	10	26	14	66	10	26	0	19
	25	120	8	52	10	26	14	46	10	26	0	8
	26	135	14	59	14	24	19	54	14	24	0	98
	27	160	19	69	14	34	24	64	19	29	0	137
	28	100	14	31	12	19	14	31	12	19	0	37

Local TOD Schedule

Time	Plan	DOW
0000	23	Su M T W Th F S
0100	22	Su M T W Th F S
0500	7	M T W Th F
0530	4	M T W Th F
0600	1	Su S
1000	3	M T W Th F
1000	11	Su S
1500	11	M T W Th F
2100	6	M T W Th F
2100	6	Su S
2300	23	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

*** 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

MIAMI-DADE ATMS
SIGNAL DATA SHEET

Signal Asset ID: 7659
Signal Location: US1 @ NE 16400 BLK
Analysis Period: (AM) / (PM) (Circle One)
Local Time of Day Schedule: 4/11 Plan
Local Time of Day Function: - Setting (Blank or Number#)

Signal Settings: -
(i.e. Blank, Plan #1 – Phase Bank 1, Max 1)

Cycle Length: 169.9 seconds
Offset: 127 seconds

PHASE:	Φ1	Φ2		
				
WALK	0	7		
DON'TWALK	0	23		
MIN INITIAL	5	7		
VEH EXT	3	1		
GREEN	25	131		
YELLOW	4.8	4.8		
RED	2.3	2		
SPLIT	32.1	137.8		

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
7659	US 1@NE 16400 Blk	DOW-2	TOD	[06] MID-MORNING	150	103	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	-	-	-	SBL	NBT	-	-
0	0	0	0	25	111	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk	Don't Walk	Min Initial	Veh Ext	Max Limit	Max 2	Yellow	Red
	Phase Bank 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 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
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 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3 - 3 - 3	24 - 24 - 24	27 - 27 - 27	4.8	2.3
6 NBT	7 - 7 - 7	23 - 23 - 23	7 - 7 - 7	1 - 1 - 1	50 - 50 - 50	0 - 50 - 50	4.8	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	--56--
External Permit 0	-------
External Permit 1	--56--
External Permit 2	--56--

Print Date:
10/4/2021

TOD Schedule Repo
for 7659: US 1@NE 16400 [illegible]

Print Time:
10:14 PM

Current TOD Schedule	Plan	Cycle	Green Time 1	2	3	4	5	6	7	8	Ring Offset	Offset
			-	-	-	-	SBL	NBT	-	-		
	1	140	0	0	0	0	25	101	0	0	0	94
	3	170	0	0	0	0	25	131	0	0	0	127
AM	4	170	0	0	0	0	25	131	0	0	0	127
	6	150	0	0	0	0	25	111	0	0	0	103
	7	150	0	0	0	0	25	111	0	0	0	103
PM	11	170	0	0	0	0	25	131	0	0	0	127
	22	145	0	0	0	0	25	106	0	0	0	98
	23	140	0	0	0	0	25	101	0	0	0	98

Local TOD Schedule

Time	Plan	DOW
0000	23	M T W Th F
0000	23	Su S
0100	22	Su S
0100	22	M T W Th F
0500	7	M T W Th F
0530	4	M T W Th F
0600	1	Su S
1000	11	Su S
1000	3	M T W Th F
1500	11	M T W Th F
2100	6	M T W Th F
2100	6	Su S
2300	23	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	——	SuM T W ThF S

*** 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

TABLE: A5

Average Growth Rate Calculation

Project Name: The Riverwalk South

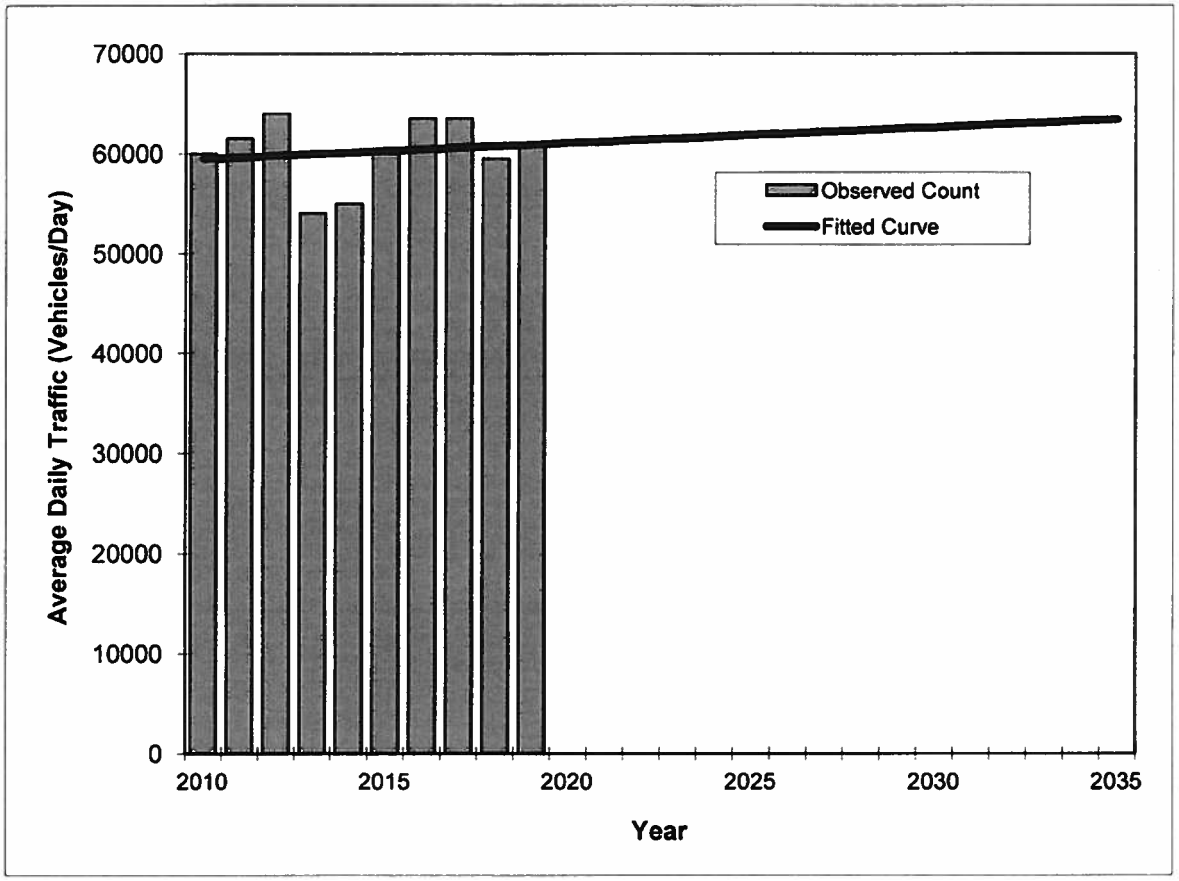
Count Station	Road	Location	Growth Rate (2024)
0556	SR 826 / NE 163 ST	1700' E SR 5/US-1	0.26%
5219	SR 5 / US-1	300' S NE 163 ST/SUNNY ISLES CSWY	0.67%
Average			0.47%

Traffic Trends - V03.a

SR 5 / US 1 -- 300' S NE 163 ST/SUNNY ISLES CSWY

FIN#	0
Location	1

County:	Miami-Dade (87)
Station #:	5219
Highway:	SR 5 / US 1



Year	Traffic (ADT/AADT) Count*	Trend**
2010	60000	59500
2011	61500	59600
2012	64000	59800
2013	54000	60000
2014	55000	60100
2015	60000	60300
2016	63500	60400
2017	63500	60600
2018	59500	60800
2019	61000	60900
2022 Opening Year Trend		
2022	N/A	61400
2023 Mid-Year Trend		
2023	N/A	61500
2024 Design Year Trend		
2024	N/A	61700
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	158
Trend R-squared:	1.96%
Trend Annual Historic Growth Rate:	0.26%
Trend Growth Rate (2019 to Design Year):	0.26%
Printed:	13-Jan-22
Straight Line Growth Option	