Traffic Impact Analysis
for Submittal to the
City of North Miami Beach

NMB VENUS
NORTH MIAMI BEACH, FLORIDA

Kimley»Horn

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Updated January 2022
December 2021
143310001

Traffic Impact Analysis for Submittal to the City of North Miami Beach

NMB VENUS

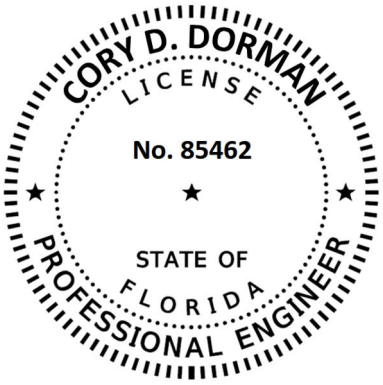
NORTH MIAMI BEACH, FLORIDA

Prepared for:

Carpe Real Estate Partners, LLC

Prepared by:

Kimley-Horn and Associates, Inc.



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Cory D. Dorman, P.E., PTOE
Florida Registration Number 85462
Kimley-Horn and Associates, Inc.
8201 Peters Road, Suite 2200
Plantation, Florida 33324
Registry # 00035106

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EXECUTIVE SUMMARY

Carpe Real Estate Partners, LLC is proposing to develop the property located within the southwest quadrant of the intersection of NE 164th Street and NE 21st Avenue in North Miami Beach, Florida. Currently, the site proposed for development is occupied by a surface parking lot. The proposed development consists of 437 multifamily residential units and approximately 7,440 square feet of retail space. The project is expected to be completed by year 2025.

Access to the proposed development will be provided via one (1) full-access driveway along NE 21st Avenue between NE 164th Street and NE 163rd Street. Note that loading vehicles will access the site via the existing one-way westbound alley located along the south side of the site.

Trip generation for the proposed development was calculated using rates and/or equations contained in ITE's *Trip Generation Manual*, 11th Edition. The project is expected to generate 116 net new weekday A.M. peak hour trips and 144 net new weekday P.M. peak hour trips.

The results of the intersection capacity analysis of the proposed development demonstrate that the intersections in the vicinity of the project site are expected to operate at LOS E or better during the A.M. and P.M. hours under all analysis conditions with the exception of the following intersections:

- SR 826/NE 163rd Street and NE 22nd Avenue is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.6 percent (0.6%) of the overall intersection capacity during the A.M. peak hour and 0.8 percent (0.8%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0 percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.
- SR 826/NE 163rd Street and US-1/Biscayne Boulevard is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.3 percent (0.3%) of the overall intersection capacity during the A.M. peak hour and 0.5 percent (0.5%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0

percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.

The results of the 95th percentile queue analysis indicate that all identified existing turn lanes are able to accommodate the expected vehicle queues under all analysis conditions with the exception of the following turn lanes:

- The eastbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic results in an increase of 33 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 35 feet to mitigate the impact of project traffic at this movement.
- The eastbound left-turn lane at the intersection of NE 163rd Street and NE 21st Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic is expected to result in an increase of 85 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 85 feet to mitigate the impact of project traffic at this movement. Note that this improvement is subject to FDOT review and approval.
- The northbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and P.M. peak hours. Note that signal timing modifications are proposed to mitigate the impact of project traffic at this movement. Further note that the northbound left-turn lane cannot be extended as a result of the existing southbound left-turn lane at the intersection of NE 162nd Street and NE 22nd Avenue.
- The southbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and P.M. peak hours. Note that signal timing modifications are proposed to mitigate that impact of project traffic at this movement. Further note that the southbound left-turn lane cannot be extended as a result of the existing northbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue.

The results of the turn lane analysis indicate that neither a right-turn lane nor a left turn lane are recommended at the project driveway based on FDOT and NCHRP guidelines.

The results of the 95th percentile entry gate analysis indicate that all anticipated queues are expected to be accommodated on-site without extending onto public right-of-way.

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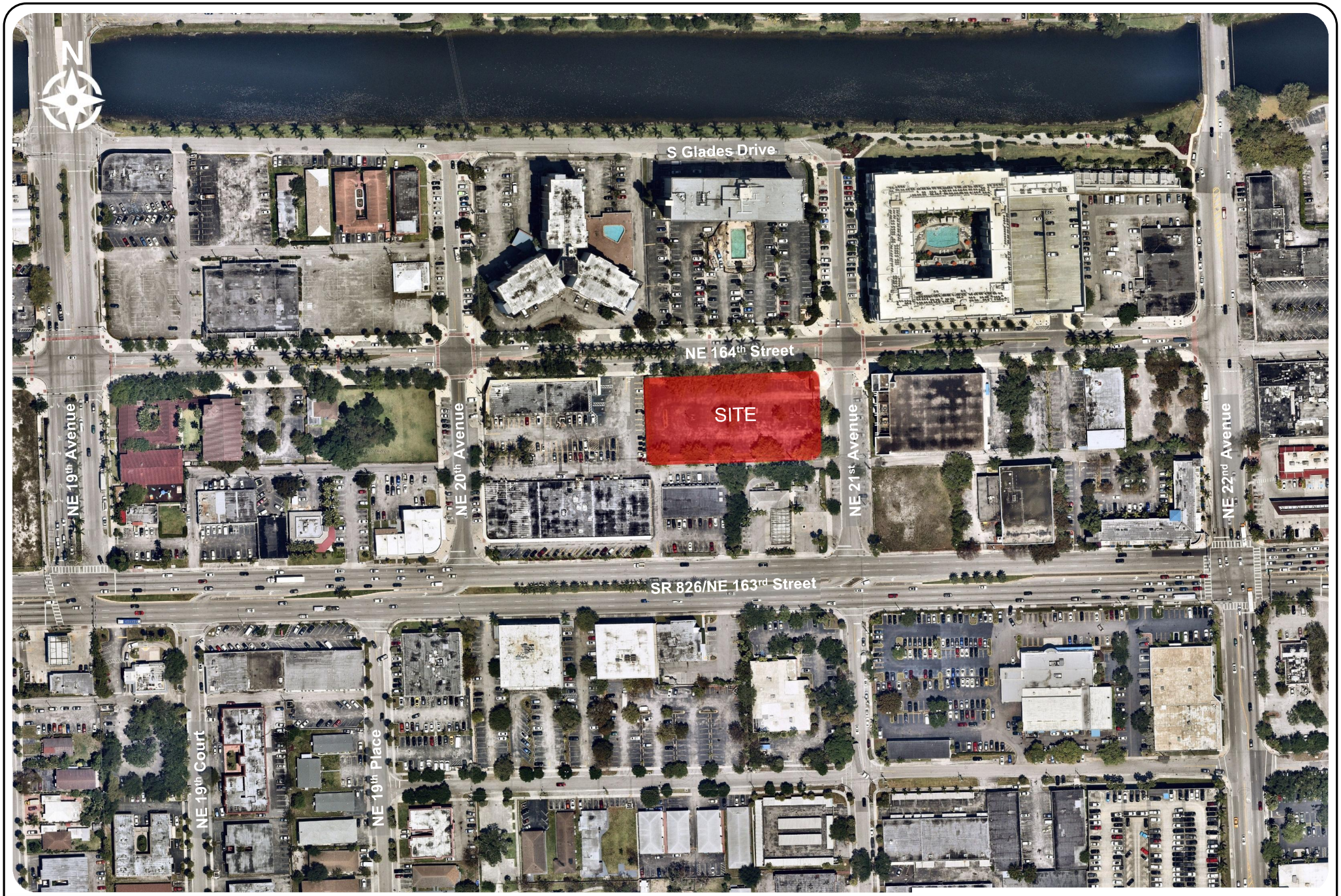
INTRODUCTION

Carpe Real Estate Partners, LLC is proposing to develop the property located within the southwest quadrant of the intersection of NE 164th Street and NE 21st Avenue in North Miami Beach, Florida. Currently, the site proposed for development is occupied by a surface parking lot. The proposed development consists of 437 multifamily residential units and approximately 7,440 square feet of retail space. The project is expected to be completed by year 2025. A project location map is provided as Figure 1. A conceptual site plan is included in Appendix A.

Kimley-Horn and Associates, Inc. has completed this traffic impact analysis consistent with the City of North Miami Beach requirements. Methodology correspondences detailing the traffic study requirements are included in Appendix B. The purpose of the study is to assess the proposed development's impact on the surrounding transportation network. This report summarizes the data collection, project trip generation, trip distribution and assignment, intersection capacity analysis, and entry gate analysis.



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Location Map
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City of North Miami Beach, Florida

EXISTING ROADWAY CHARACTERISTICS

The existing roadway characteristics within the vicinity of the study area were evaluated based on a review of high-resolution aerial imagery. The following describes the roadway characteristics of the study intersections:

- NE 164th Street is a City-maintained, two-lane divided (raised median) local roadway oriented in the east-west direction with a posted speed limit of 25 miles per hour (mph) within the vicinity of the proposed development. Sidewalks and on-street parking are provided along the north and south sides of the roadway within the vicinity of the proposed development.
- NE 19th Avenue is a City-maintained, six-lane divided (raised median) major collector roadway oriented in the north-south direction with a posted speed limit of 30 mph within the vicinity of the proposed development. Sidewalks and on-street parking are provided along the east and west sides of the roadway within the vicinity of the proposed development. Note that signage restricting the northbound and south right-turn movements for trucks/heavy vehicles is provided at the intersection of NE 164th Street and NE 19th Avenue.
- NE 20th Avenue is a City-maintained, two-lane undivided local roadway oriented in the north-south direction with an assumed speed limit of 30 mph as a posted speed limit is not provided within the vicinity of the proposed development. Sidewalks and on-street parking are provided along the east and west sides of the roadway within the vicinity of the proposed development. Note that signage restricting the northbound left-turn movement and southbound right-turn movement for trucks/heavy vehicles is provided at the intersection of NE 164th Street and NE 20th Avenue. Further note that signage with a right-turn only restriction is provided at the southbound approach at the intersection of SR 826/NE 163rd Street and NE 20th Avenue.
- NE 21st Avenue is a City-maintained, two-lane undivided local roadway oriented in the north-south direction with an assumed speed limit of 30 mph as a posted speed limit is not provided within the vicinity of the proposed development. Sidewalks and on-street parking are provided along the east and west sides of the roadway within the vicinity of the proposed development. Note that signage restricting turns for trucks is provided at the northbound and southbound approaches at the intersection of NE 164th Street and NE 21st Avenue.

- NE 22nd Avenue is a City-maintained, four-lane divided (striped median) minor arterial roadway north of SR 826/NE 163rd Street with a posted speed limit of 30 mph and a state-maintained, four-lane divided (striped median) minor arterial roadway south of SR 826/NE 163rd Street with a posted speed limit of 40 mph oriented in the north-south direction in the vicinity of the proposed development. Sidewalks are provided along the east and west sides of the roadway and on-street parking is provided along the east and west sides of the roadway north of SR 826/NE 163rd Street within the vicinity of the proposed development.
- SR 826/NE 163rd Street is a state-maintained, six-lane divided (raised median) principal arterial roadway oriented in the east-west direction with a posted speed limit of 35 mph within the vicinity of the proposed development. Sidewalks are provided along the north and south sides of the roadway within the vicinity of the proposed development.
- US-1/Biscayne Boulevard is a state-maintained, eight-lane divided (raised median) principal arterial roadway oriented in the north-south direction with a posted speed limit of 45 mph within the vicinity of the proposed development. Sidewalks and dedicated bicycle lanes are provided along the east and west sides of the roadway within the vicinity of the proposed development.

EXISTING TRAFFIC

A.M. peak period (7:00 A.M. to 9:00 A.M.) and P.M. peak period (4:00 P.M. to 6:00 P.M.) turning movement counts were collected on December 7, 2021 (Tuesday) at the following intersections:

- NE 164th Street and NE 19th Avenue
- NE 164th Street and NE 20th Avenue
- NE 164th Street and NE 21st Avenue
- NE 164th Street and NE 22nd Avenue
- SR 826/NE 163rd Street and NE 19th Avenue
- SR 826/NE 163rd Street and NE 20th Avenue
- SR 826/NE 163rd Street and NE 21st Avenue
- SR 826/NE 163rd Street and NE 22nd Avenue
- SR 826/NE 163rd Street and US-1/Biscayne Boulevard

As a result of atypical traffic conditions due to the COVID-19 pandemic, 72-hour continuous counts were collected from December 7, 2021 through December 9, 2021 along NE 163rd Street/SR 826 between NE 20th Avenue and NE 21st Avenue. The collected 72-hour traffic counts were compared to historic Annual Average Daily Traffic (AADT) counts collected by the Florida Department of Transportation (FDOT) for the same location (FDOT Site 875225) to determine an adjustment factor applicable to the collected continuous traffic counts to reflect typical traffic conditions. An adjustment factor of 1.16 was applied to all turning movement counts based on the comparison of collected 72-hour traffic counts to historical FDOT AADT counts in the vicinity of the project.

All traffic volumes were collected in 15-minute intervals and the peak hour was determined for each intersection. Turning movement counts also included pedestrian and bicycle data. Additionally, the appropriate FDOT peak season correction factor (PSCF) of 1.05 was applied to the turning movement counts to reflect peak season conditions.

Existing signal phasing and timing patterns were obtained from the Miami-Dade County Department of Transportation and Public Works – Traffic Signals and Signs Division for the signalized intersections required to be evaluated in this analysis.

The turning movement counts, FDOT historic AADT data, 72-hour continuous count, FDOT peak season factor category reports, COVID-19 adjustment factor calculations, and signal timing data are included in Appendix C. Figure 2 presents the existing turning movement volumes at the study intersections during the A.M. and P.M. peak hours.

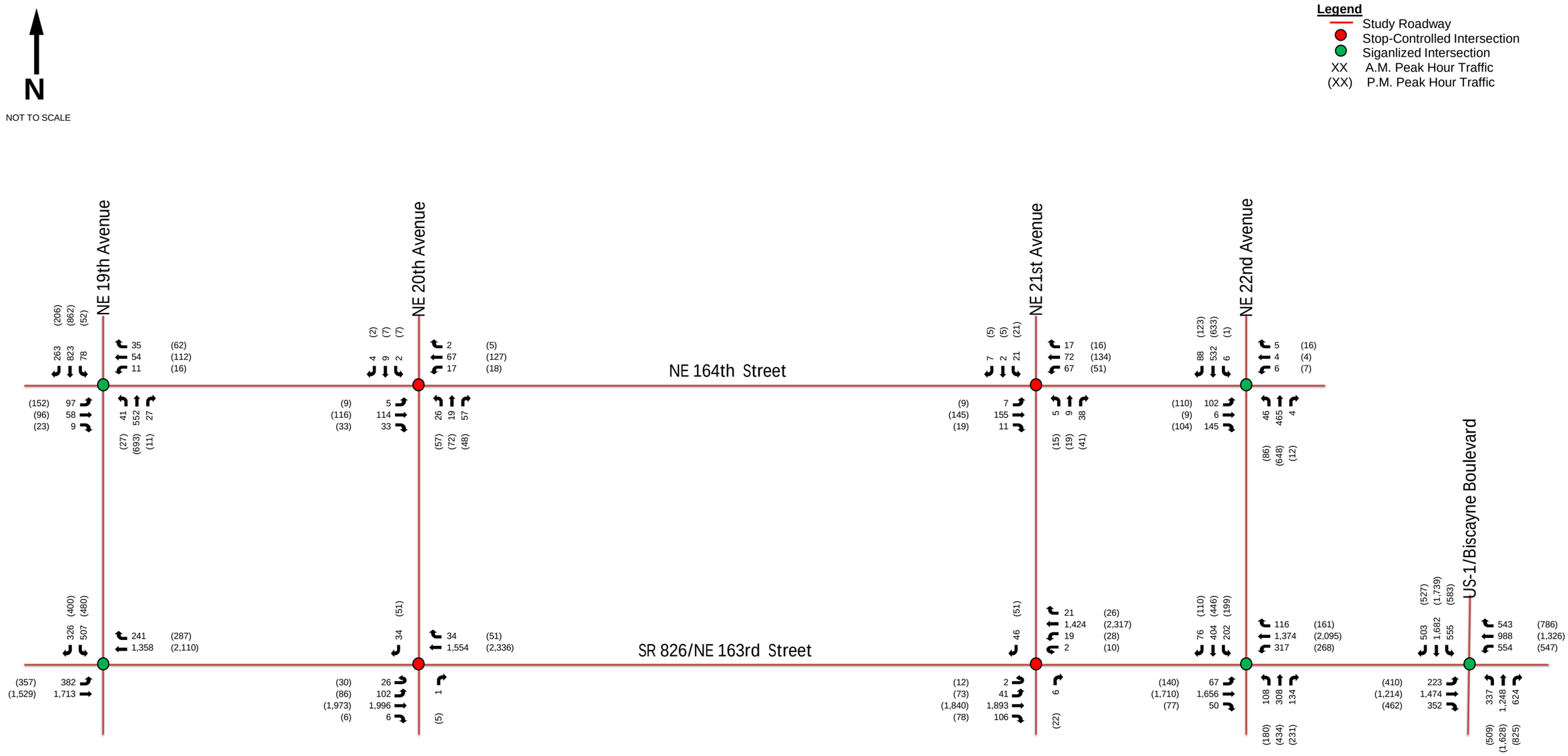

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Figure 2
Existing Peak Hour Traffic
NMB Venus
North Miami Beach, Florida

FUTURE BACKGROUND TRAFFIC

Future background traffic conditions are defined as expected traffic conditions on the roadway network in the year 2025 without the construction of the proposed development. Future background traffic volumes used in the analysis are the sum of the existing traffic and additional traffic generated by growth in the study area. Refer to Figure 3 for the future background peak hour traffic volumes.

BACKGROUND AREA GROWTH

Traffic growth on the transportation network was determined based upon (a) historic growth trends at nearby FDOT traffic count stations and (b) traffic volume comparisons from the year 2015 and 2045 Florida Standard Urban Transportation Model Structure (FSUTMS) - Southeast Florida Regional Planning Model (SERPM).

FDOT count stations referenced in this analysis include:

- Count station no. 0183 located on SR 5/US-1, 800 feet north of NE 172nd Street
- Count station no. 5219 located on SR 5/US-1, 300 feet south of NE 163rd Street/Sunny Isles Causeway
- Count station no. 5225 located on SR 826/NE 163rd Street, 100 feet east of NE 20th Avenue
- Count station no. 8273 located on NE 19th Avenue, 200 feet north of NE 175th Street
- Count station no. 8455 located on NE 171st Street, 200 feet west of NE 20th Avenue
- Count station no. 8505 located on NE 159th Street, 200' West of NE 14th Avenue

The historic growth rate analysis, based on FDOT count stations, examined linear, exponential, and decaying exponential growth rates for the most recent five (5) and ten (10) year periods. The linear growth trend yielded a growth rate of 3.09 percent (3.09%) over the most recent five (5) year period and 0.24 percent (0.24%) over the most recent 10-year period. The exponential growth trend yielded a growth rate of 2.76 percent (2.76%) over the most recent five (5) year period and 0.22 percent (0.22%) over the most recent 10-year period. The decaying exponential growth trend yielded a growth rate of 2.78 percent (2.78%) over the most recent five (5) year period and 0.07 percent (0.07%) over the most recent 10-year period.

Based on the volume information obtained from the years 2015 and 2045 FSUTMS SERPM, an annual growth rate of 1.09 percent (1.09%) in the vicinity of the development was calculated.

To provide a conservative analysis, the highest growth rate of 3.09 percent (3.09%) was applied annually to the existing traffic volumes for future 2025 background conditions. Detailed growth calculations are contained in Appendix D.

COMMITTED DEVELOPMENTS

The following committed developments were identified by the City to be included as part of future traffic conditions. Committed development information is included in Appendix D.

- 15699 West Dixie Highway (Self-Storage)
- 15780 West Dixie Highway (New North Town Center)
- Skygarden Miami
- 16051 West Dixie Highway (Regions Bank)
- Uptown Biscayne

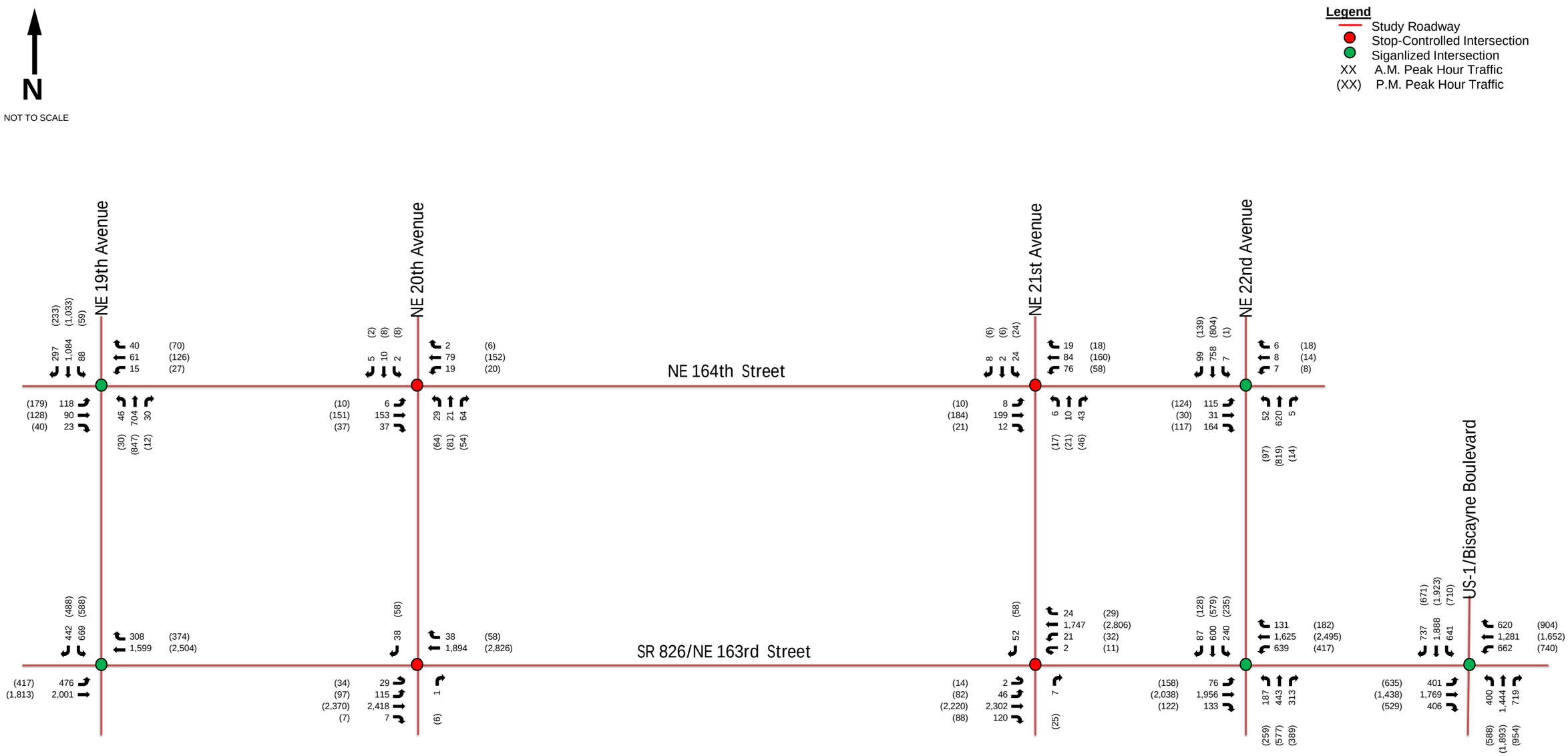

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Figure 3
Future Background Peak Hour Traffic
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North Miami Beach, Florida

PROJECT TRAFFIC

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project and the distribution and assignment of that traffic over the study roadway network.

EXSITNG AND PROPOSED LAND USE

The property proposed for development is currently occupied by a surface parking lot. The proposed development consists of 437 multifamily residential units and approximately 7,440 square feet of retail space.

PROJECT ACCESS

Access to the proposed development will be provided via one (1) full-access driveway along NE 21st Avenue between NE 164th Street and NE 163rd Street. Note that loading vehicles will access the site via the existing one-way westbound alley located along the south side of the site.

TRIP GENERATION

Trip generation calculations for the proposed development were performed using rates and/or equations contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. The trip generation for the proposed development was determined using ITE Land Use Code (LUC) 222 (Multifamily Housing [High-Rise]) and LUC 822 (Strip Retail Plaza).

MULTIMODAL REDUCTION

A multimodal (public transit, bicycle, and pedestrian) factor of 14.8 percent (14.8%) was determined based on *Replica* mode split data for the census tract in which the development is located. *Replica* is a publicly available data set that considers the US Census, land use regulations, aggregate mobile location, credit transaction data, and real estate transaction data. Additionally, *Replica* data evaluates all trips that enter and exit the census tract in which the development is located. It is expected that a portion of residents, guests and patrons will choose to walk, bike, or use public transit to and from the proposed development. However, note that based on input from the City of North Miami Beach, a multimodal factor of 10.0 percent (10.0%) was applied to the trip generation calculations to provide a conservative analysis.

Six (6) Miami-Dade Department of Transportation and Public Works (DTPW) routes and two (2) City of North Miami Beach Trolley routes operate in close proximity (within ½ mile) to the site during the A.M. and P.M. peak hours.

- DTPW Route 3 operates along SR 826/NE 163rd Street in the vicinity of the study area with 20-minute headways in the northbound direction during the A.M. and P.M. peak hours and in the southbound direction during the A.M. peak hour and 10-minute headways in the southbound direction during the P.M. peak hour.
- DTPW Route 75 operates along SR 826/NE 163rd Street in the vicinity of the study area with approximately 30-minute headways in the eastbound and westbound directions during the A.M. and P.M. peak hours.
- DTPW Route 105/E operates along NE 164th Street in the vicinity of the study area with approximately 30-minute headways in the eastbound and westbound directions during the A.M. and P.M. peak hours.
- DTPW Route 93/Biscayne MAX operates along US-1/Biscayne Boulevard in the vicinity of the study area with 15-minute headways in the northbound and southbound directions during the A.M. and P.M. peak hours.
- DTPW Route 108/H operates along NE 163rd Street in the vicinity of the study area with 30-minute headways in the northbound and southbound directions during the A.M. and P.M. peak hours.
- DTPW Route 210/Skylake Circulator operates along NE 163rd Street in the vicinity of the study area with 60-minute headways in the northbound and southbound directions during the A.M. and P.M. peak hours.
- City of North Miami Beach Trolley Route A operates along NE 164th Street in the vicinity of the study with approximately 90-minute headways during the A.M. and P.M. peak hours.
- City of North Miami Beach Trolley Route B operates along NE 19th Avenue in the vicinity of the study area with approximately 45 to 60-minute headways during the A.M and P.M. peak hours.

Detailed route information and headway data is provided in Appendix E.

INTERNAL CAPTURE

Internal capture is expected between the complementary land uses within the project. Internal capture trips for the project were determined based upon methodology contained in the ITE's *Trip Generation Handbook*, 3rd Edition. Internal capture rates of 3.3 percent (3.3%) during the A.M. peak hour and 11.1 percent (11.1%) during the P.M. peak hour are expected for the proposed development.

PASS-BY CAPTURE

In addition to internal capture, pass-by capture trips were also determined based on average rates provided in the *Trip Generation Handbook*, 3rd Edition. The pass-by capture rate for the retail land use is 34.0 percent (34.0%) during the P.M. peak hour.

NET NEW PROJECT TRIPS

As shown in Table 1, the proposed development is expected to generate 116 net new vehicle trips during the A.M. peak hour and 144 net new vehicle trips during the P.M. peak hour. Detailed trip generation information is included in Appendix F.

Table 1: Trip Generation				
A.M. Peak Hour (P.M. Peak Hour)				
Future Land Use (ITE Code)	**Scale**	**Net New External Trips**	**Entering Trips**	**Exiting Trips**
Proposed Development				
Multifamily Housing (High-Rise) (222)	437 dwelling units	102 (113)	34 (62)	68 (51)
Strip Retail Plaza (822)	7,440 square feet	14 (31)	9 (17)	5 (14)
Net New Vehicle Trips		**116 (144)**	**43 (79)**	**73 (65)**

TRIP DISTRIBUTION AND ASSIGNMENT

The likely distribution of project traffic was forecast for the trips expected to be generated by the proposed development. The trip distribution was based on an interpolated cardinal trip distribution for the project site's traffic analysis zone (TAZ) obtained from the Miami-Dade Transportation Planning Organization's (TPO's) *2045 Long Range Transportation Plan Directional Trip Distribution Report*. The trip distribution for the anticipated build-out year of 2025 was interpolated from the

2015 and 2045 data. The project is located within TAZ 96. The cardinal trip distribution for TAZ 96 provided in Table 2.

Table 2: Cardinal Trip Distribution	
Cardinal Direction	Percentage of Trips
North-Northeast	22.0%
East-Northeast	6.0%
East-Southeast	3.0%
South-Southeast	7.0%
South-Southwest	17.0%
West-Southwest	16.0%
West-Northwest	16.0%
North-Northwest	13.0%
Total	100.0%

Figure 4 presents the A.M. and P.M. peak hour net new trip distribution and Figure 5 presents the A.M. and P.M. peak hour net new trip assignment for the proposed development. Figure 6 and Figure 7 detail the project's pass-by trip distribution and assignment for the P.M. peak hour. Detailed cardinal distribution calculations are contained in Appendix G.

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Figure 4
Peak Hour Project Trip Distribution
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Figure 5
Peak Hour Project Trip Assignment
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Figure 6
P.M. Peak Hour Pass-by Trip Distribution
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Figure 7
P.M. Peak Hour Pass-by Trip Distribution
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North Miami Beach, Florida

FUTURE TOTAL TRAFFIC

Future total traffic conditions are defined as the expected traffic conditions after the opening of the project. Total traffic volumes considered in the analysis for this project are the sum of the background traffic volumes, committed development traffic, and the expected project traffic volumes. Figure 8 presents the future total turning movement volumes at the study intersections during the weekday A.M. and P.M. peak hours. Volume development worksheets for the study intersections are included in Appendix H.

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Figure 8
Future Total Peak Hour Traffic
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North Miami Beach, Florida

INTERSECTION CAPACITY ANALYSIS

The study area intersection operating conditions were analyzed for three (3) scenarios (existing conditions, future background conditions, and future total conditions) using Trafficware's *SYNCHRO* software, which applies methodologies outlined in the Transportation Research Board's (TRB's) *Highway Capacity Manual* (HCM) 6th Edition. Synchro worksheets for the study intersections are included in Appendix I.

A summary of the intersection analyses for the proposed development during the A.M. and P.M. hours is presented in Table 3. As Table 3 indicates, the study intersections are expected to operate at level of service (LOS) E or better during the A.M. and P.M. peak hours under all analysis scenarios with the exception of the following intersections:

- SR 826/NE 163rd Street and NE 22nd Avenue is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.6 percent (0.6%) of the overall intersection capacity during the A.M. peak hour and 0.8 percent (0.8%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0 percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.

- SR 826/NE 163rd Street and US-1/Biscayne Boulevard is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.3 percent (0.3%) of the overall intersection capacity during the A.M. peak hour and 0.5 percent (0.5%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0 percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.

Table 3: A.M. Peak Hour Intersection Capacity Analysis						
Intersection	Traffic Control	Overall LOS/Delay	Approach LOS/Delay			
			EB	WB	NB	SB
Existing Conditions (Future Background Conditions) [Future Total Conditions]						
NE 164th Street and NE 19th Avenue	Signalized	A/7.9 sec (A/9.0 sec) [A/9.5 sec]	D (D) [D]	E (E) [E]	A (A) [A]	A (A) [A]
NE 164th Street and NE 20th Avenue	All-Way Stop Control	A/8.4 sec (A/9.0 sec) [A/9.1 sec]	A (A) [A]	A (A) [A]	A (A) [A]	A (A) [A]
NE 164th Street and NE 21st Avenue	Two-Way Stop Control	(1)	(3)	(3)	A (A) [B]	B (B) [B]
NE 164th Street and NE 22nd Avenue	Signalized	B/10.6 sec (B/11.3 sec) [B/11.6 sec]	B (B) [B]	B (B) [B]	A (A) [A]	B (B) [B]
SR 826/NE 163rd Street and NE 19th Avenue	Signalized	B/18.2 sec (D/36.6 sec) [D/36.9 sec]	A (C) [C]	B (C) [C]	(4)	E (E+13.6%) [E+13.5%]
SR 826/NE 163rd Street and NE 20th Avenue	Two-Way Stop Control	(1)	(3)	(3)	B (C) [C]	B (B) [B]
SR 826/NE 163rd Street and NE 21st Avenue	Two-Way Stop Control	(1)	(3)	(3)	B (C) [C]	B (B) [B]
SR 826/NE 163rd Street and NE 22nd Avenue	Signalized	D/35.6 sec (F/145.6 sec) [F/147.5 sec](5)	C (C) [C]	C (F) [F]	E+6.3% (F) [F]	E (F) [F]
SR 826/NE 163rd Street and US-1/Biscayne Boulevard	Signalized	E+20.5%/96.4 sec (F/151.4 sec) [F/152.1 sec]	E+22.6% (F) [F]	E+8.1% (F) [F]	E (E+11.5%) [E+12.4%]	F (F) [F]
NE 21st Avenue and Project Driveway	One-Way Stop Control	(1)	(2) ((2)) [A]	(4)	(3)	(3)

Notes: (1) Overall intersection LOS is not defined, as intersection operates under stop-control conditions.
(2) Intersection does not exist under analysis scenario.
(3) Approach operates under free-flow conditions. LOS is not defined.
(4) Approach does not exist.
(5) Signal timing was optimized.

Table 4: P.M. Peak Hour Intersection Capacity Analysis						
Intersection	Traffic Control	Overall LOS/Delay	Approach LOS/Delay			
			EB	WB	NB	SB
Existing Conditions (Future Background Conditions) [Future Total Conditions]						
NE 164th Street and NE 19th Avenue	Signalized	B/12.9 sec (B/14.4 sec) [B/14.8 sec]	D (D) [D]	D (D) [D]	A (A) [A]	A (A) [A]
NE 164th Street and NE 20th Avenue	All-Way Stop Control	A/9.3 sec (A/10.0 sec) [B/10.3 sec]	A (B) [B]	A (A) [B]	A (B) [B]	A (A) [A]
NE 164th Street and NE 21st Avenue	Two-Way Stop Control	(1)	(3)	(3)	A (B) [B]	B (B) [B]
NE 164th Street and NE 22nd Avenue	Signalized	A/8.2 sec (A/9.1 sec) [B/10.7 sec]	E (E) [E]	E (E) [E]	A (A) [A]	A (A) [A]
SR 826/NE 163rd Street and NE 19th Avenue	Signalized	C/29.4 sec (E/64.9 sec) [E/65.9 sec]	B (C) [C]	C (E+2.5%) [E+5.6%]	(4)	E (E+38.9%) [E+38.8%]
SR 826/NE 163rd Street and NE 20th Avenue	Two-Way Stop Control	(1)	(3)	(3)	B (C) [C]	C (C) [C]
SR 826/NE 163rd Street and NE 21st Avenue	Two-Way Stop Control	(1)	(3)	(3)	B (C) [C]	C (C) [D]
SR 826/NE 163rd Street and NE 22nd Avenue	Signalized	E/60.6 sec (F/151.6 sec) [F/166.4 sec](5)	C (D) [D]	C (E+29.8%) [F]	F (F) [F]	F (F) [F]
SR 826/NE 163rd Street and US-1/Biscayne Boulevard	Signalized	E+36.9%/109.5 sec (F/188.5 sec) [F/189.7 sec]	E (E+49.9%) [F]	E+21.3% (F) [F]	F (F) [F]	F (F) [F]
NE 21st Avenue and Project Driveway	One-Way Stop Control	(1)	(2) ((2)) [A]	(4)	(3)	(3)

Notes: (1) Overall intersection LOS is not defined, as intersection operates under stop-control conditions.
(2) Intersection does not exist under analysis scenario.
(3) Approach operates under free-flow conditions. LOS is not defined.
(4) Approach does not exist.
(5) Signal timing was optimized.

TURN LANE QUEUE LENGTH ANALYSIS

A 95th percentile queue analysis was performed to determine if the identified existing exclusive turn lanes at which project traffic is assigned could accommodate the expected vehicle queue lengths under existing, future background, future total conditions. The 95th percentile queue lengths were calculated using Trafficware's *SYNCHRO* software, which applies methodologies outlined in the Transportation Research Board's (TRB's) *Highway Capacity Manual* (HCM) 6th Edition. The results of the queue length analysis are summarized in Table 5 and Table 6. Synchro worksheets for the study intersections are included in Appendix I. The results of the analysis indicate that all identified existing turn lanes are able to accommodate the expected vehicle queues under all analysis conditions with the exception of the following turn lanes:

- The eastbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic results in an increase of 33 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 35 feet to mitigate the impact of project traffic at this movement.
- The eastbound left-turn lane at the intersection of NE 163rd Street and NE 21st Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic is expected to result in an increase of 85 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 85 feet to mitigate the impact of project traffic at this movement. Note that this improvement is subject to FDOT review and approval.
- The northbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and P.M. peak hours. Note that signal timing modifications are proposed to mitigate the impact of project traffic at this movement. Further note that the northbound left-turn lane cannot be extended as a result of the existing southbound left-turn lane at the intersection of NE 162nd Street and NE 22nd Avenue.
- The southbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and

P.M. peak hours. Note that signal timing modifications are proposed to mitigate that impact of project traffic at this movement. Further note that the southbound left-turn lane cannot be extended as a result of the existing northbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue.

Table 5: A.M. Peak Hour Turn Lane Queuing Analysis				
Existing Conditions (Future Background Conditions) [Future Total Conditions]				
Intersection	Movement	95th Percentile Queue (ft)(1)	Existing Storage Length (ft)	Turn Lane Sufficient?
NE 164th Street and NE 19th Avenue	Southbound Left-Turn	<25 (<25) [25]	90	Yes (Yes) [Yes]
NE 164th Street and NE 21st Avenue	Westbound Left-Turn	<25 (<25) [<25]	85	Yes (Yes) [Yes]
NE 164th Street and NE 22nd Avenue	Eastbound Left-Turn	38 (48) [55]	85	Yes (Yes) [Yes]
SR 826/NE 163rd Street and NE 21st Avenue	Eastbound Left-Turn	<25 (38) [55]	135	Yes (Yes) [Yes]
SR 826/NE 163rd Street and NE 22nd Avenue	Northbound Left-Turn	188 (333) [328](2)	150	No (No) [No]
	Southbound Left-Turn	320 (440) [435](2)	160	No (No) [No]

Notes: (1) Assumes 25 feet per vehicle.
(2) Signal timings were modified..

Table 6: P.M. Peak Hour Turn Lane Queuing Analysis				
Existing Conditions (Future Background Conditions) [Future Total Conditions]				
Intersection	Movement	95th Percentile Queue (ft)(1)	Existing Storage Length (ft)	Turn Lane Sufficient?
NE 164th Street and NE 19th Avenue	Southbound Left-Turn	<25 (25) [33]	90	Yes (Yes) [Yes]
NE 164th Street and NE 21st Avenue	Westbound Left-Turn	<25 (<25) [<25]	85	Yes (Yes) [Yes]
NE 164th Street and NE 22nd Avenue	Eastbound Left-Turn	218 (245) [278]	85	No (No) [No]
SR 826/NE 163rd Street and NE 21st Avenue	Eastbound Left-Turn	173 (283) [368]	135	No (No) [No]
SR 826/NE 163rd Street and NE 22nd Avenue	Northbound Left-Turn	333 (635) [553](2)	150	No (No) [No]
	Southbound Left-Turn	390 (518) [500](2)	160	No (No) [No]

Notes: (1) Assumes 25 feet per vehicle.
(2) Signal timings were modified.

TURN LANE ANALYSIS

A right-turn lane analysis was conducted based on FDOT recommended guidelines and a left-turn lane analysis was conducted based on the turn-lane warrant methodology contained in the National Cooperative Highway Research Program (NCHRP) *Report 457* at the project driveway located along NE 21st Avenue.

FDOT RIGHT-TURN LANE ANALYSIS

The intersection of NE 21st Avenue and Project Driveway has an average southbound A.M. peak hour volume of 82 vehicles per hour per lane and an average southbound P.M. peak hour volume of 91 vehicles per hour per lane. The projected southbound right-turn volume upon build-out of the proposed development at the intersection of NE 21st Avenue and Project Driveway is expected to be 11 vehicles per hour during the A.M. peak hour and 20 vehicles per hour during the P.M. peak hour under future total conditions.

The recommended guidelines for the installation of exclusive right-turn lanes are outlined in FDOT's *Access Management Guidebook*, 2019. The recommended guidelines state that for exclusive right-turn lanes along roadways with a posted speed limit of 45 miles per hour (mph) or less, a threshold of 80 to 125 right-turns per hour should be met. The higher threshold of 125 right-turn movements per hour is for roadways with a volume less than 600 vehicles per hour per lane in one (1) direction on the major roadway. Therefore, right-turn lanes are not recommended at the project driveways. The results are summarized in Table 7.

Table 7: FDOT Right-Turn Lane Analysis

Intersection	Approach	Right-turns per Hour A.M. (P.M.)	Volume Threshold (veh/hr)	Analysis Results
NE 21st Avenue and Project Driveway	Southbound	11 (20)	125	Not Recommended

NCHRP LEFT-TURN LANE ANALYSIS

The analysis was based on the turn-lane warrant methodology contained in the NCHRP *Report 457*. The results indicate that left-turn lanes at the project driveways are not recommended under future total conditions. Detailed left-turn analysis calculations are included in Appendix J. The results are summarized in Table 8.

Table 8: NCHRP Left-Turn Lane Analysis					
Intersection	Approach	% Left-Turns A.M. (P.M.)	Advancing Veh/Hour A.M. (P.M.)	Opposing Veh/Hour A.M. (P.M.)	Analysis Results
NE 21st Avenue and Project Driveway	Northbound	33% (41%)	96 (167)	82 (91)	Not Recommended

ENTRY GATE ANALYSIS

An entry gate queue analysis for the proposed development using the methodology outlined in ITE's *Transportation and Land Development*, 1988 was performed at the garage entry gate. The proposed entry gate provides one (1) resident-only lane.

To determine the residential entry gate volumes, it was assumed that 90 percent (90%) of trips generated by the residential component of the proposed development are residents and 10 percent (10%) of trips generated by the residential component of the proposed development are guests. Therefore, a total of 31 A.M. peak hour and 56 P.M. peak hour inbound residential trips are expected to utilize the entry gate. Note that guests and retail patrons will utilize the parking spaces located prior to the entry gate, as these parking spaces will not be access restricted.

Residents will utilize an automatic vehicle ID/barcode to access the entry gate, with an estimated processing time of 4.5 seconds per vehicle based on Parking Structures 3rd Edition: *Planning, Design, Construction, Maintenance, and Repair*, 2001.

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

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

The results of the entry gate analysis are summarized in Table 9. As Table 9 indicates, the 95th percentile vehicle queue is expected to be less than one (1) vehicle during the A.M. and P.M. peak hours at the entry gate. Therefore, as the entry gate will be located on Level 2 of the parking garage, as indicated on the Level 2 plan provided in Appendix A, the vehicle queue is not expected to extend onto public right-of-way. Detailed entry gate calculations are included in Appendix K.

Table 9: Peak Hour Entry Gate Queuing Analysis			
A.M. Peak Hour (P.M. Peak Hour)			
Entry Lane	Entering Volumes (vph)	Service Rates (minutes/vehicle)	95th Percentile Queue Including Service Position
Resident-Only Lane	31 (56)	0.075	< 1 vehicle (< 1 vehicle)

CONCLUSION

Carpe Real Estate Partners, LLC is proposing to develop the property located within the southwest quadrant of the intersection of NE 164th Street and NE 21st Avenue in North Miami Beach, Florida. Currently, the site proposed for development is occupied by a surface parking lot. The proposed development consists of 437 multifamily residential units and approximately 7,440 square feet of retail space. The project is expected to be completed by year 2025.

Access to the proposed development will be provided via one (1) full-access driveway along NE 21st Avenue between NE 164th Street and NE 163rd Street. Note that loading vehicles will access the site via the existing one-way westbound alley located along the south side of the site.

Trip generation for the proposed development was calculated using rates and/or equations contained in ITE's *Trip Generation Manual*, 11th Edition. The project is expected to generate 116 net new weekday A.M. peak hour trips and 144 net new weekday P.M. peak hour trips.

The results of the intersection capacity analysis of the proposed development demonstrate that the intersections in the vicinity of the project site are expected to operate at LOS E or better during the A.M. and P.M. hours under all analysis conditions with the exception of the following intersections:

- SR 826/NE 163rd Street and NE 22nd Avenue is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.6 percent (0.6%) of the overall intersection capacity during the A.M. peak hour and 0.8 percent (0.8%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0 percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.
- SR 826/NE 163rd Street and US-1/Biscayne Boulevard is expected to operate at LOS F under future background and future total conditions during the A.M. and P.M. peak hours. Note that the project assigns net new traffic of approximately 0.3 percent (0.3%) of the overall intersection capacity during the A.M. peak hour and 0.5 percent (0.5%) of the overall intersection capacity during the P.M. peak hour. As the project contributes less than 5.0

percent (5.0%) to the overall intersection capacity, the project does not significantly nor adversely impact this intersection.

The results of the 95th percentile queue analysis indicate that all identified existing turn lanes are able to accommodate the expected vehicle queues under all analysis conditions with the exception of the following turn lanes:

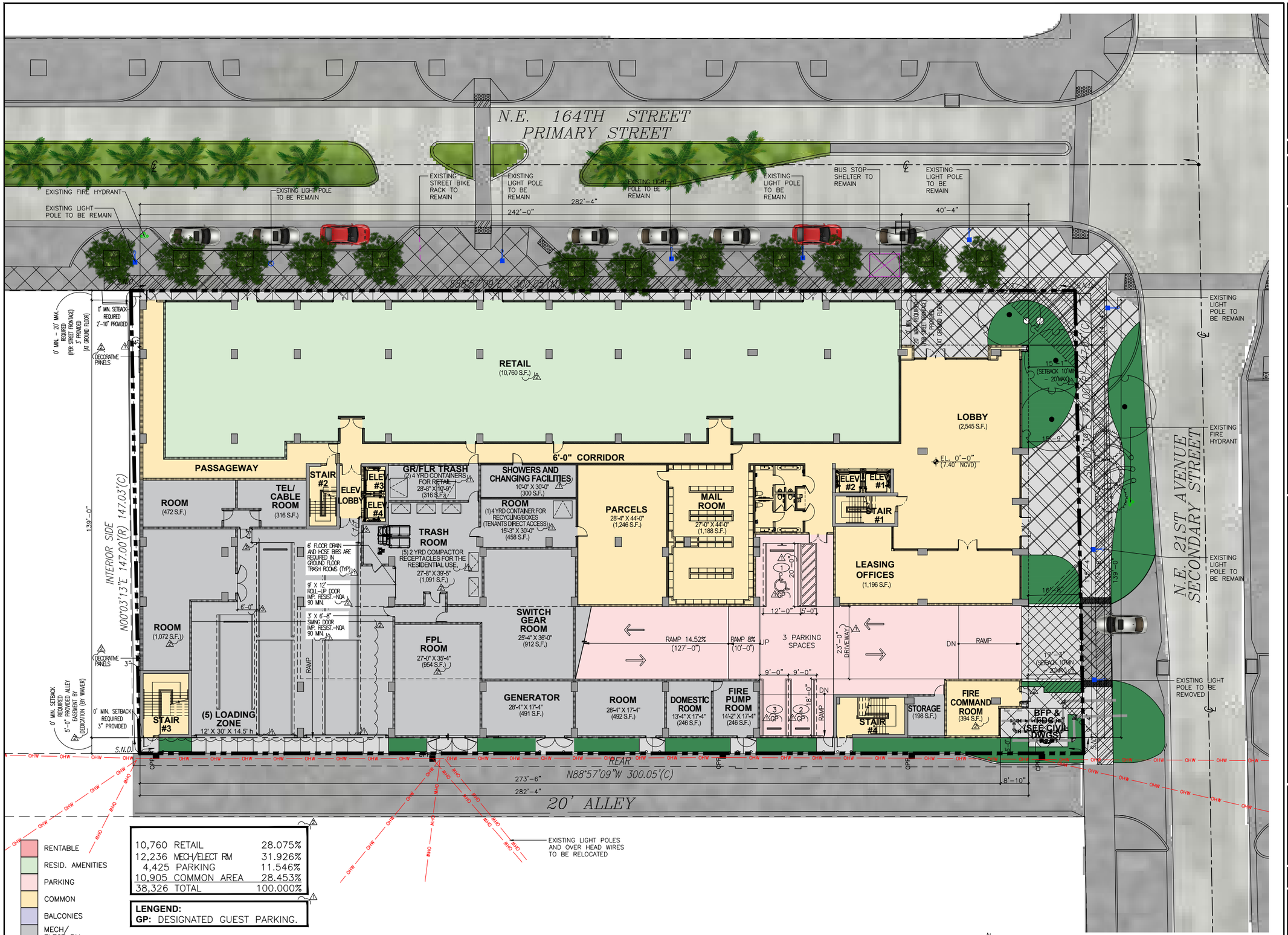
- The eastbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic results in an increase of 33 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 35 feet to mitigate the impact of project traffic at this movement.
- The eastbound left-turn lane at the intersection of NE 163rd Street and NE 21st Avenue under existing, future background, and future total conditions during the P.M. peak hour. Note that project traffic is expected to result in an increase of 85 feet to the vehicle queue at this movement as compared to future background conditions. Therefore, the project is proposing to extend the eastbound left-turn lane by 85 feet to mitigate the impact of project traffic at this movement. Note that this improvement is subject to FDOT review and approval.
- The northbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and P.M. peak hours. Note that signal timing modifications are proposed to mitigate the impact of project traffic at this movement. Further note that the northbound left-turn lane cannot be extended as a result of the existing southbound left-turn lane at the intersection of NE 162nd Street and NE 22nd Avenue.
- The southbound left-turn lane at the intersection of SR 826/NE 163rd Street and NE 22nd Avenue under existing, future background, and future total conditions during the A.M. and P.M. peak hours. Note that signal timing modifications are proposed to mitigate that impact of project traffic at this movement. Further note that the southbound left-turn lane cannot be extended as a result of the existing northbound left-turn lane at the intersection of NE 164th Street and NE 22nd Avenue.

The results of the turn lane analysis indicate that neither a right-turn lane nor a left turn lane are recommended at the project driveway based on FDOT and NCHRP guidelines.

The results of the 95th percentile entry gate analysis indicate that all anticipated queues are expected to be accommodated on-site without extending onto public right-of-way.

Appendix A

Site Plan



10,760	RETAIL	28.075%
12,236	MECH/ELECT RM	31.926%
4,425	PARKING	11.546%
10,905	COMMON AREA	28.453%
38,326	TOTAL	100.000%

LENGEND:
GP: DESIGNATED GUEST PARKING.

REVISIONS:

REV.	REV. ISSUE
1	11/19/21
2	12/16/21
3	01/13/22

2126

PHASE:
TRAD SUBMITTAL

NMB VENUS

LOCATED AT:
N.E. 21ST AVE. AND N.E. 164TH ST.
NORTH MIAMI BEACH, FL 33162

BURGOS LANZA & ASSOCIATES
7245 S. ALHAMBRA CIRCLE
CORAL GABLES, FL 33146
(786) 554-9035
AIA 38052598
WWW.BURGOSLANZA.COM
ARCHITECTS & PLANNERS
CARLOS LANZA ARCHITECT # 0018081

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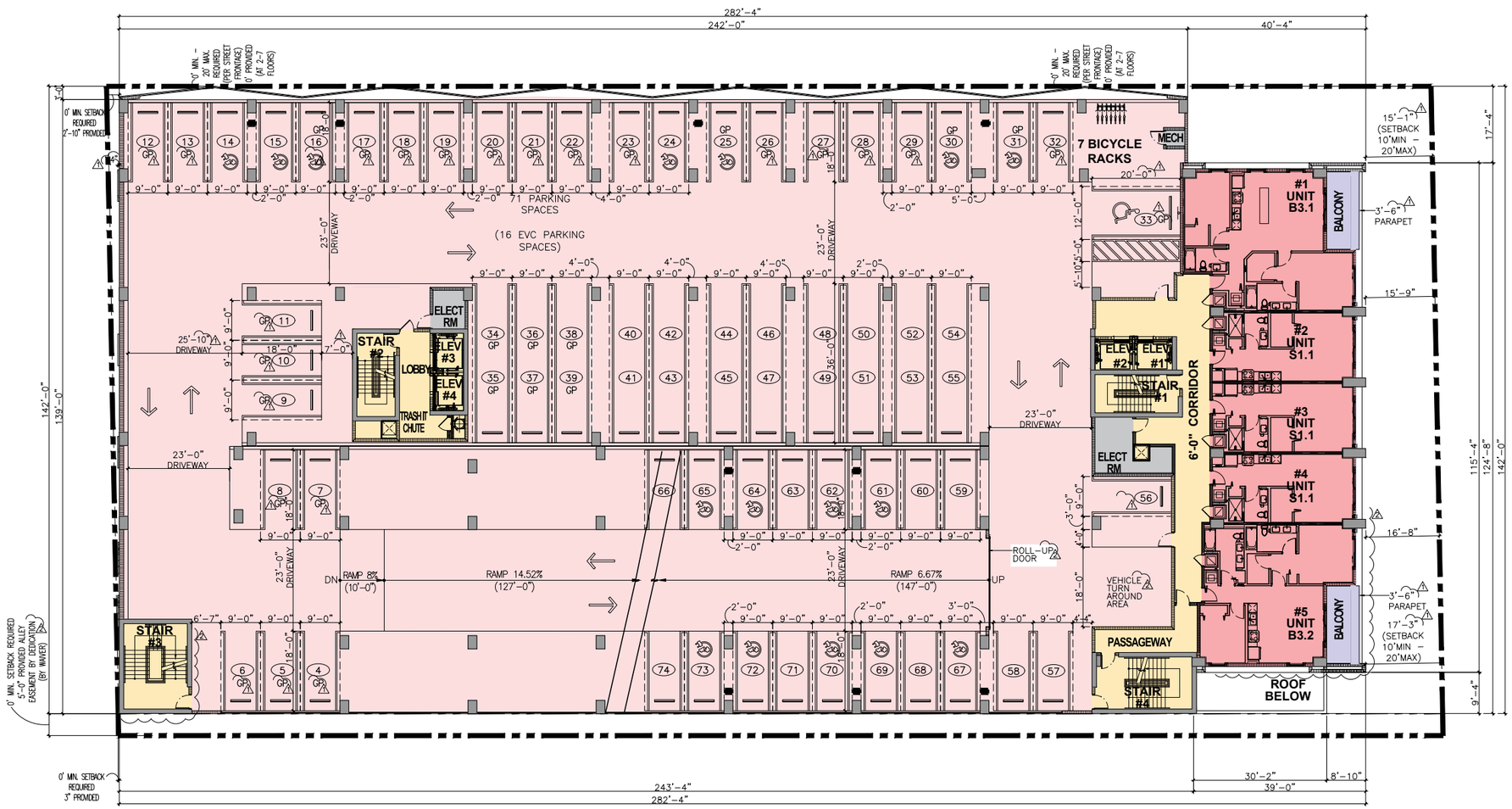
DATE	10/29/2021
DRAWN	CR
PROJECT No.	2126
SCALE	AS-SHOWN

GROUND FLOOR PLAN

SCALE: 3/32" = 1'-0"

A111



RENTABLE
RESID. AMENITIES
PARKING
COMMON
BALCONIES
MECH/ ELECT RM

3,778	RENTABLE	9.903%
222	BALCONY	0.582%
4,000	SUB-TOTAL	10.485%
30,974	PARKING	81.190%
394	MECH/ELECT RM	1.032%
2,782	COMMON AREA	7.293%
38,150	TOTAL	100.000%

LENGEND:
GP: DESIGNATED GUEST PARKING.

SECOND FLOOR BUILDING PLAN
SCALE:3/32" = 1' - 0"

REVISIONS:

REV.	REV. ISSUE
1	11/19/21
2	12/16/21

2126

PHASE:
TRAD SUBMITTAL

NMB VENUS
LOCATED AT:
N.E. 21ST AVE. AND N.E. 164TH ST.
NORTH MIAMI BEACH, FL 33162

BURGOS LANZA & ASSOCIATES
7249 S ALHAMBRA CIRCLE
CORAL GABLES, FL 33146
(786) 554-9035
AIA 38052598
WWW.BURGOSLANZA.COM
BURGOS LANZA ARCHITECTS & PLANNERS
CARLOS LANZA ARCHITECT # 0018081

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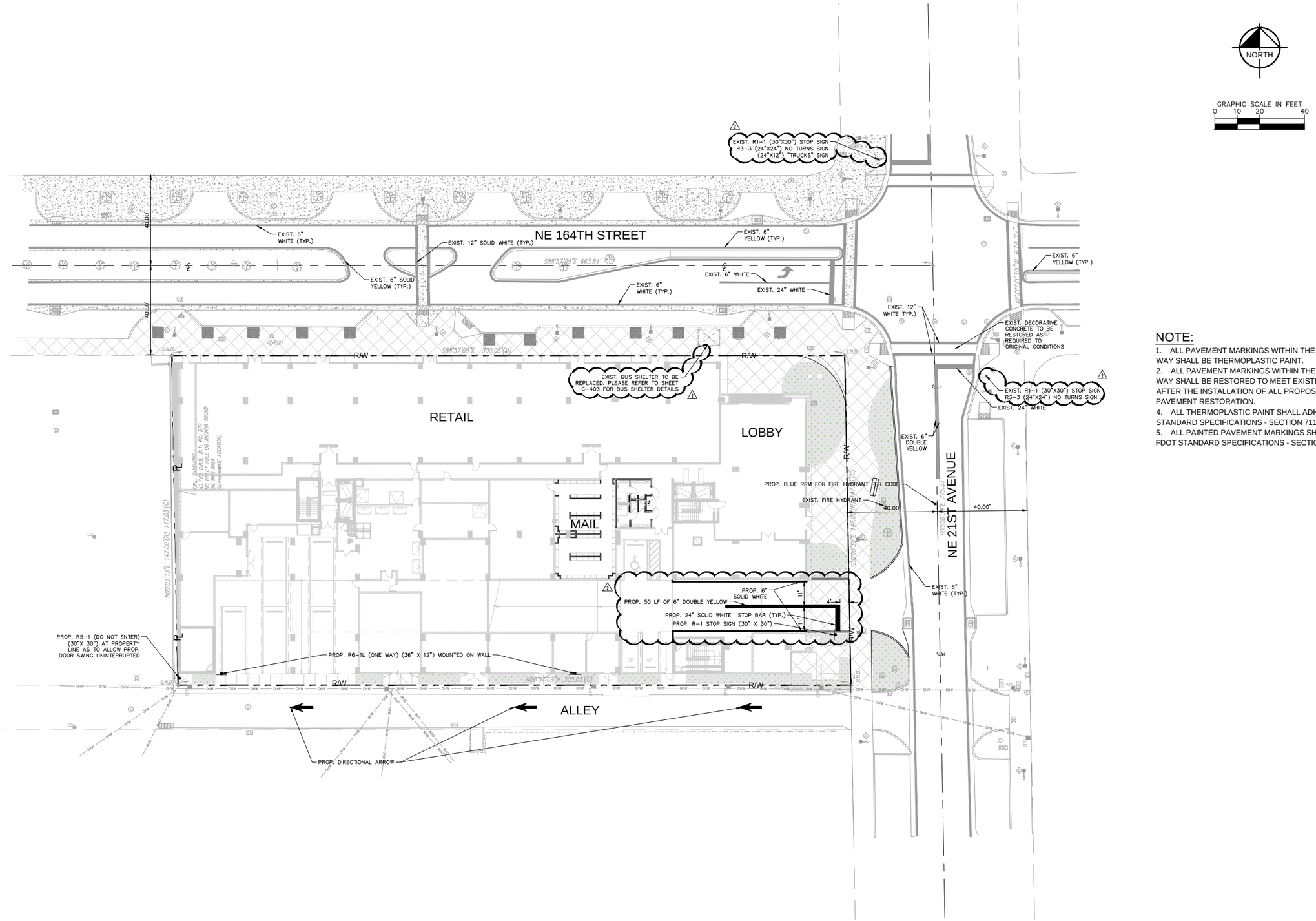
BURGOS LANZA ARCHITECTS & PLANNERS
AA 26001519

DATE	10/29/2021
DRAWN	CR
PROJECT No.	2126
SCALE	AS-SHOWN

SECOND FLOOR BUILDING PLAN
SCALE: 3/32" = 1'-0"

A112



NOTE:

1. ALL PAVEMENT MARKINGS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE THERMOPLASTIC PAINT.
2. ALL PAVEMENT MARKINGS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE RESTORED TO MEET EXISTING CONDITIONS AFTER THE INSTALLATION OF ALL PROPOSED UTILITIES AND PAVEMENT RESTORATION.
4. ALL THERMOPLASTIC PAINT SHALL ADHERE TO FDOT STANDARD SPECIFICATIONS - SECTION 711.
5. ALL PAINTED PAVEMENT MARKINGS SHALL ADHERE TO FDOT STANDARD SPECIFICATIONS - SECTION 710.

No.	REVISIONS	DATE	BY
1	REVISION #2	12.21.2021	MG

Kimley»Horn
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355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM REGISTRY 696

ALBERTO ANTONIO MORA LICENSE No 58710 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 1/25/2022

KHA PROJECT	143310002
DATE	OCT 2021
SCALE	AS SHOWN
DESIGNED BY	AAM
DRAWN BY	MIG
CHECKED BY	AAM

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ALBERTO MORA, P.E. 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.

PAVEMENT MARKINGS AND SIGNAGE PLAN

NMB VENUS
PREPARED FOR
CARPE REAL ESTATE PARTNERS, LLC
NORTH MIAMI BEACH FL

SHEET NUMBER
C-300

Sunshine811
Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.
Check positive response codes before you dig!

Plotted By:Gonzalez, Maria Sheet Set:NMB VENUS Layout:C-300 PAVEMENT MARKINGS AND SIGNAGE PLAN January 27, 2022 04:28:19pm K:\MIB_Civil\143310002-NMB Venus\CIVIL\CADD\PlanSheets\C-300 PAVEMENT MARKINGS AND SIGNAGE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Appendix B

Methodology Correspondence

THE CORRADINO GROUP, INC.

CORRADINO

ENGINEERS · PLANNERS · PROGRAM MANAGERS · ENVIRONMENTAL SCIENTISTS

date: December 13, 2021

to: Kent Walia, AICP, Community Development Director, City of North Miami Beach

from: Eric Czerniejewski, P.E., ENV SP

subject: NMB Venus Development Traffic Study Review

MEMORANDUM

The Corradino Group, Inc (Corradino) has been requested to review the traffic study for a new Mixed-Use development located at the southwest corner of the NE 21st Avenue and NE 164th Street intersection in North Miami Beach, FL. The following are the traffic review comments from the resubmittal dated 12/02/21:

1. Please submit traffic impact study for review and approval per the approved traffic impact study methodology.

   KHA's 12/02/21 Response: Acknowledged. Preparation of the traffic impact study is on-going.

   TCG 12/13/21 Response: This item is still pending.

2. Please provide any comments from FDOT and Miami Dade County Public Works and Waste Management Traffic Engineering Division on the traffic impact study.

   KHA's 12/02/21 Response: Acknowledged. Comments provided by Miami-Dade County will be provided upon receipt.

   TCG 12/13/21 Response: This item is still pending.

4055 NW 97TH AVENUE · SUITE 200 · MIAMI, FL 33178
TEL 800.887.5551 · 305.594.0735
FAX 305.594.0755
WWW.CORRADINO.COM

3. Please update the trip generation calculations to be per the ITE Trip Generation Handbook, 11th Edition.

   KHA's 12/02/21 Response: The traffic study methodology was updated to include trip generation calculations based on ITE's Trip Generation Manual, 11th Edition and will be included as part of the traffic study.

   TCG 12/13/21 Response: Addressed.

4. Please update the 2025 interpolated cardinal trip distribution. The calculations from the interpolation are as follows:
   - NNE- 22.27
   - ENE- 5.57
   - ESE- 3.53
   - SSE- 7.07
   - SSW- 17.57
   - WSW- 15.83
   - WNW- 15.57
   - NNW- 12.70

   KHA's 12/02/21 Response: The traffic study methodology was updated to include the 2025 interpolated cardinal trip distribution as noted and will be utilized in the traffic study.

   TCG 12/13/21 Response: Addressed.

5. The trip reduction for all modes of transportation should be modified to a maximum reduction of 10%.

   KHA's 12/02/21 Response: The trip generation calculations included in the traffic study methodology were updated to include the maximum multimodal reduction of 10 percent (10%) and will be included in the traffic study.

   TCG 12/13/21 Response: Addressed.

6. Please provide AM and PM peak manual turning movement counts and traffic analysis for all scenarios at the following additional intersections:
   - NE 163rd Street and US-1
   - NE 20th Avenue and Existing Alley
   - NE 21st Avenue and Existing Alley

KHA's 12/02/21 Response: Based on a discussion with the City's in-house traffic engineering consultant on Thursday, November 18, as the one-way alley will only be utilized by the site for loading operations, the intersections of the existing alley at NE 20th Avenue and NE 21st Avenue will be excluded from the traffic study. Note that the intersection of NE 163rd Street and US-1 will be included in the traffic study, as requested.

TCG 12/13/21 Response: Addressed.

7. Please include the committed trips for the following approved but unbuilt development projects in the traffic analysis:
    - Regions Bank
    - Self-Storage
    - New North Tower Center
    - Uptown Biscayne Boulevard
    - Skygarden

    The final list of committed trips to use from approved but unbuilt development projects will be provided by the City of North Miami Beach.

    KHA's 12/02/21 Response: The traffic study methodology was updated to include the indicated committed developments identified by the City will be included in the traffic study.

    TCG 12/13/21 Response: Addressed.

8. The calculation of the annual growth rate factor should be based on historical data through 2019. 2020 traffic data collected at nearby FDOT count stations tube counts during the coronavirus pandemic should not be used in these calculations.

    KHA's 12/02/21 Response: The traffic study methodology was updated to indicate that 2020 historic count data will be excluded from the growth rate analysis prepared as part of the traffic study.

    TCG 12/13/21 Response: Addressed.

9. Traffic mitigation improvements should improve the intersection traffic operations (level of services) at the subject location or provide additional improvements at a nearby relevant intersection in the project study area.

   KHA's 12/02/21 Response: Traffic mitigation strategies will be identified, if necessary, based on the results of the intersection capacity analysis conducted as part of the traffic study.

   TCG 12/13/21 Response: Addressed.

10. Please confirm if valet parking will be provided for this development. Please provide a detailed valet parking traffic operational analysis for review and approval if provided. Please also confirm if there will be a guest and visitor gate.

    KHA's 12/02/21 Response: Valet parking will not be provided for the site. Therefore, a valet operations analysis will not be prepared.

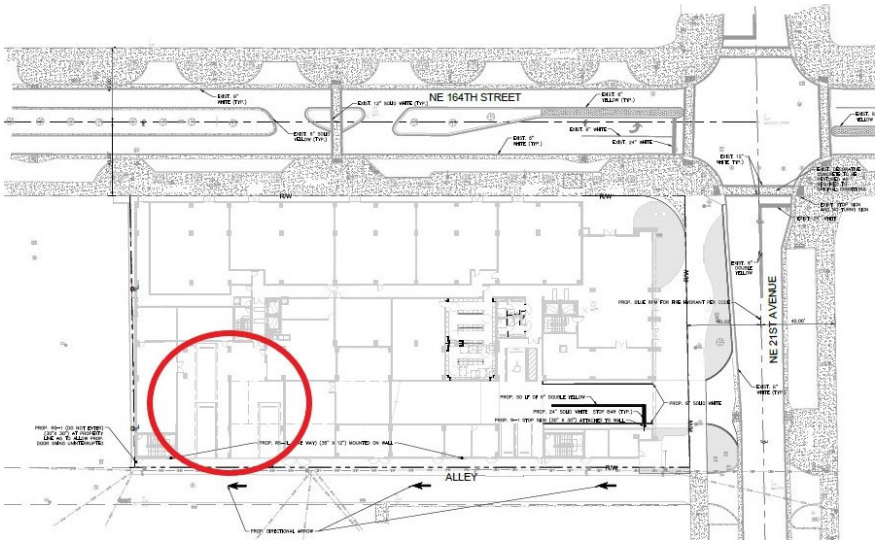
    TCG 12/13/21 Response: Addressed.

11. Please provide sight visibility triangles for the driveway connections to NE 21st Avenue on the pavement marking and signage plans and the site plan like the ones depicted on the landscape plans.

    KHA's 12/02/21 Response: See updated site plan and landscape plans.

    TCG 12/13/21 Response: Addressed.

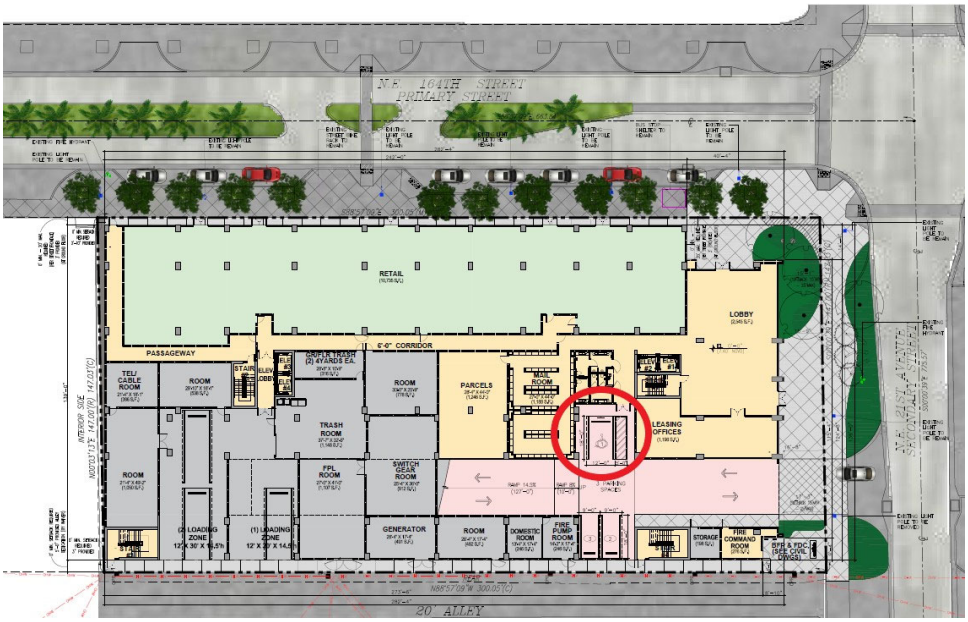
12. The proposed site plan depicts three loading zones that are accessed off the one-way westbound alley on the south side of the building. Two of the loading spaces are designed in tandem. Please confirm how these two back-to-back loading zones will function. Please provide an AutoTURN maneuverability figure that depicts the functional use of all three loading zones.



KHA's 12/02/21 Response: The traffic study methodology was updated to include a maneuverability analysis for the proposed site loading area and will be provided as part of the traffic study.

TCG 12/13/21 Response: Addressed.

13. Please ensure that the handicap parking spaces are oriented appropriately on all plan sheets per the Miami Dade County and North Miami Beach handicap accessible parking space details and criteria. This comment applies to all ADA spaces on all parking garage levels. The standard parking space dimensions should be a minimum of 9' wide x 18' long per Section 24-93 of the Code of Ordinances. The handicap parking space dimensions should be a minimum of 12' wide x 20' long per Section 24-93 of the Code of Ordinances.



KHA's 12/02/21 Response: Please refer to revised building plans – handicaps spaces dimensions and locations (sheets A111 - A117).

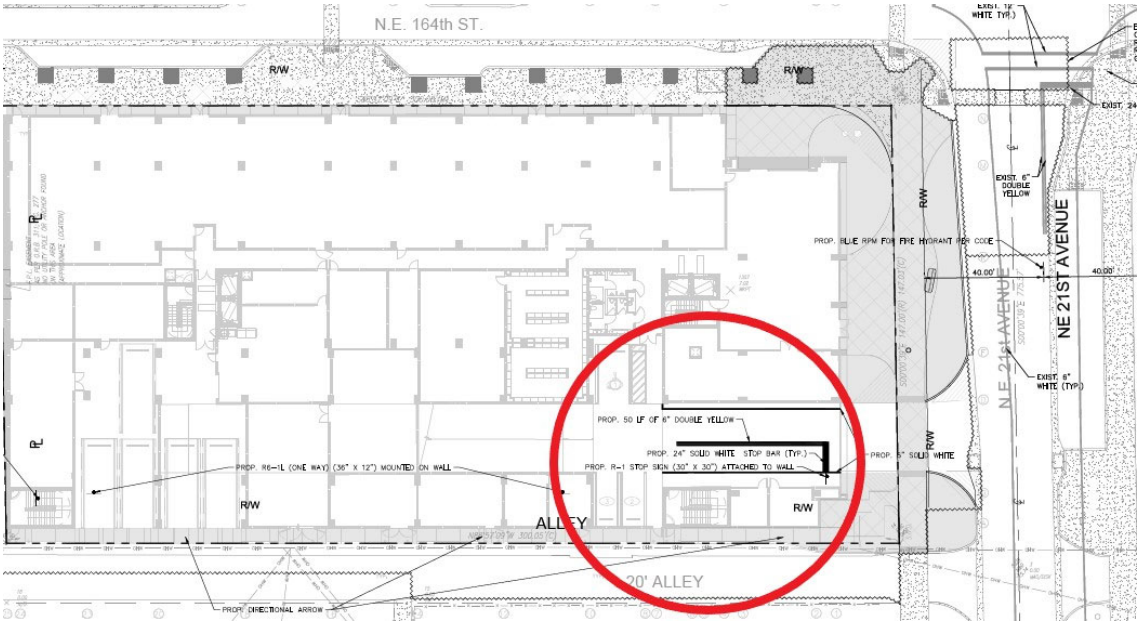
TCG 12/13/21 Response: This item is still pending. The ADA handicap space on the site plan and pavement marking and signage plan is still not oriented correctly.

14. Please confirm how the tandem spaces will work operationally. Please confirm if the tandem spaces will be only valet or will they be assigned together to a unit. Please provide clarity on how these spaces will be accessed and utilized without creating internal traffic circulation issues.

KHA's 12/02/21 Response: Tandem spaces will be self-parked and assigned to two- and three-bedroom units. As a result, each tandem space will store two cars from the same household/unit.

TCG 12/13/21 Response: Addressed.

15. The design of the proposed driveway connection to NE 21st Avenue includes a stop condition with stop bar and sign a decent distance west of the intersection. The proposed sight visibility triangles should be measured from the line of sight of the stopped vehicle. Please confirm if there will be a second stop condition closer to NE 21st Avenue and update the sight triangles per the relevant design standards.



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MEMORANDUM

To: Kent Walia, AICP
City of North Miami Beach

From: Cory D. Dorman, P.E., PTOE

Date: November 29, 2021

Subject: NMB Venus
Traffic Study Methodology

The purpose of this memorandum is to summarize the traffic study methodology for the proposed development located within the southwest quadrant of the intersection of NE 164th Street and NE 21st Avenue in North Miami Beach, Florida. Currently, the site proposed for redevelopment is occupied by a surface parking lot. The proposed redevelopment consists of 437 multifamily residential units and approximately 7,440 square feet of retail space. A conceptual site plan and a site location map are included in Attachment A. The following sections summarize our proposed traffic study methodology.

TRIP GENERATION

Trip generation calculations for the existing and proposed redevelopment were performed using Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. Trip generation calculations for the proposed redevelopment were performed using ITE Land Use Codes (LUC) 222 (Multifamily Housing [High-Rise]) and 820 (Shopping Center).

A multimodal factor of 14.8 percent (14.8%) was calculated using *Replica* mode-split data to account for the urban character of the area. *Replica* is a publicly available data set that considers the US Census, land use regulations, aggregate mobile location, credit transaction data, and real estate transaction data. Additionally, *Replica* data evaluates all trips that enter and exit the census tract in which the redevelopment is located. Note that based on input from the City of North Miami Beach, a multimodal factor of 10.0 percent (10.0%) was applied to the trip generation calculations. It is expected that a portion of residents, guests, employees, and patrons will choose to walk, bike, or use public transit to and from the proposed redevelopment. Please note that Miami-Dade Transit (MDT) provides Metrobus transit Route 105 and Route 108 within the vicinity of the redevelopment. Additionally, the City of North Miami Beach provides the North Miami Beach Line trolley route A which operates within the vicinity of the redevelopment.

Internal capture is expected between the complementary land uses within the project. Internal capture trips for the project were determined based upon methodology contained in the ITE's, *Trip Generation Handbook*, 3rd Edition. Internal capture rates of 3.3 percent (3.3%) for the A.M. peak hour trip generation and 11.1 percent (11.1%) for the P.M. peak hour trip generation are expected for the proposed redevelopment.

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

The proposed redevelopment results in 116 net new vehicle trips during the A.M. peak hour and 144 net new vehicle trips during the P.M. peak hour. Detailed trip generation calculations are included in Attachment B.

DATA COLLECTION

The peak periods selected for this study include typical weekday (Tuesday, Wednesday, or Thursday) 7:00 to 9:00 A.M. and 4:00 to 6:00 P.M. peak periods. Turning movement counts will be collected in 15-minute intervals during the peak periods. Turning movement counts will also include pedestrian, bicycle, and truck data. To account for atypical traffic conditions as a result of the Covid-19 pandemic, 72-hour traffic counts will be collected along SR 826/NE 163rd Street within the vicinity of the proposed development and compared to historic Florida Department of Transportation (FDOT) counts collected at the same location. An adjustment factor will be applied to the collected turning movement counts to establish existing conditions. Additionally, all traffic counts will be adjusted to peak season conditions using the appropriate FDOT peak season category factors. Traffic signal timing information will be obtained from Miami-Dade County Department of Transportation and Public Works – Signals and Signs Division. All traffic data collected will be provided in the Appendix of the traffic impact study.

STUDY AREA

The following intersections will be examined as part of the study area:

- NE 164th Street and NE 19th Avenue
- NE 164th Street and NE 20th Avenue
- NE 164th Street and NE 21st Avenue
- NE 164th Street and NE 22nd Avenue
- SR 826/NE 163rd Street and NE 19th Avenue
- SR 826/NE 163rd Street and NE 20th Avenue
- SR 826/NE 163rd Street and NE 21st Avenue
- SR 826/NE 163rd Street and NE 22nd Avenue
- SR 826/NE 163rd Street and US-1/Biscayne Boulevard

TRIP DISTRIBUTION

The likely distribution of project traffic was forecast for the trips expected to be generated by the proposed development. The trip distribution was based on an interpolated cardinal trip distribution for the project site's traffic analysis zone (TAZ) for the years 2015 and 2045 for the project's opening year of 2025 obtained from the Miami-Dade Transportation Planning Organization's (TPO) *2045 Long Range Transportation Plan Directional Trip Distribution Report*. The project is located within TAZ 96. The cardinal distribution is included in Attachment C.

BACKGROUND GROWTH RATE

A background growth rate will be calculated based on historic growth trends at nearby FDOT traffic count stations. Additionally, growth rates based on the Florida Standard Urban Transportation Model Structure (FSUTMS) Southeast Regional Planning Model (SERPM) projected 2015 and 2045 model network volumes will be examined. The higher of the two (2) growth rates will be used in the analysis. Note that historic FDOT AADT data for year 2020 will be excluded from the growth rate calculations as a result of atypical traffic conditions due to the Covid-19 pandemic.

Additionally, the following committed developments identified by the City of North Miami Beach will be included as part of future background conditions:

- Regions Bank
- Self-Storage
- New North Tower Center
- Uptown Biscayne Boulevard
- Skygarden

Committed development information will be provided in the Appendix of the traffic impact study.

CAPACITY ANALYSIS

Capacity analyses will be conducted for the A.M. and P.M. peak hours at the study intersections. Intersection analyses will be performed using Trafficware's *Synchro* traffic engineering analysis software, which applies methodologies outlined in the Transportation Research Board's (TRB's) *Highway Capacity Manual* (HCM), 2000/2010/6th Editions. Capacity analyses will be conducted for three (3) scenarios: existing, future build-out year without project (future background conditions), future build-out year with project (future total conditions). A build-out year of 2025 will be used in the analysis.

The following graphics will be included for the study intersections:

- Existing conditions
- Future background traffic conditions (with growth rate and committed development traffic)
- Trip distribution
- Trip assignment
- Future total traffic conditions (with project)

GARAGE ENTRY GATE OPERATIONS ANALYSIS

If entry gates are proposed, an entry gate analysis will be prepared for parking garage entry points. The entry gate queuing analysis will be prepared for the weekday A.M. and P.M. peak hours. Entry gate queuing analysis will be conducted consistent with the procedures outlined in ITE's *Transportation and Land Development,* 1988 and/or *Parking Structures – Planning, Design, Construction, Maintenance, and Repair*, 2000 and 2011. The purpose of this analysis is to determine any future queue storage deficiencies at the entry gates and provide preliminary recommendations for mitigating these deficiencies.

DOCUMENTATION

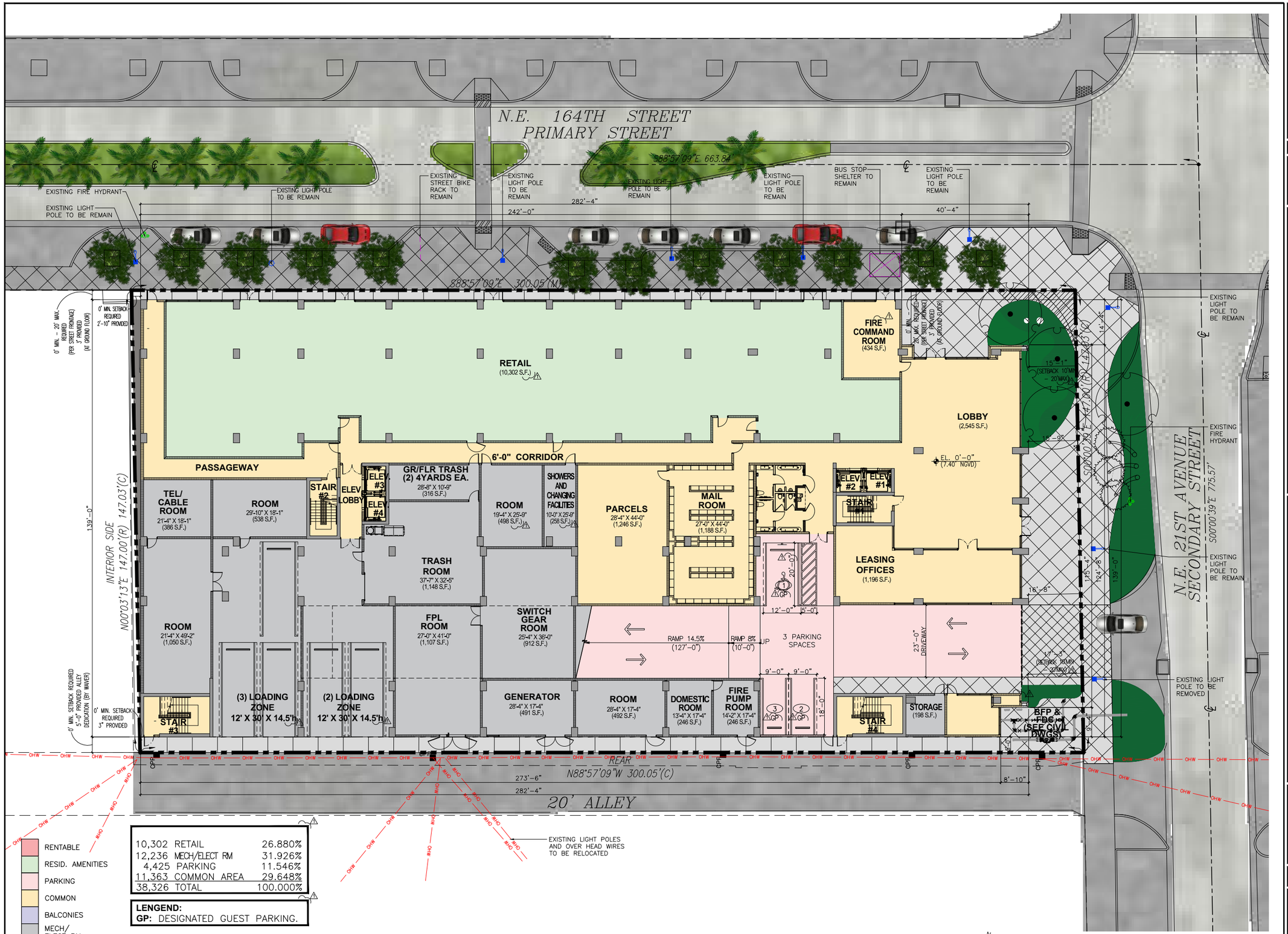
The results of the traffic analysis and signal warrant analysis will be summarized in a report. The report will include supporting documents including signal timings, lane geometry, and software output sheets. The report will also include text and graphics necessary to summarize the assumptions and analysis.

MANEUVERABILITY ANALYSIS

A maneuverability analysis for the site loading area will be performed utilizing Transoft Solutions' *AutoTURN* software. The results of the maneuverability analysis will be documented in a technical memorandum.

Attachment A

Conceptual Site Plan and Location Map



REVISIONS:

REV.	REV. ISSUE
1	11/19/21

2126

PHASE:
TRAD SUBMITTAL

NMB VENUS

LOCATED AT:
N.E. 21ST AVE. AND N.E. 164TH ST.
NORTH MIAMI BEACH, FL 33162

BURGOS LANZA & ASSOCIATES
7245 S. ALHAMBRA CIRCLE
CORAL GABLES, FL 33146
(786) 554-9035
AIA 38052598
WWW.BURGOSLANZA.COM
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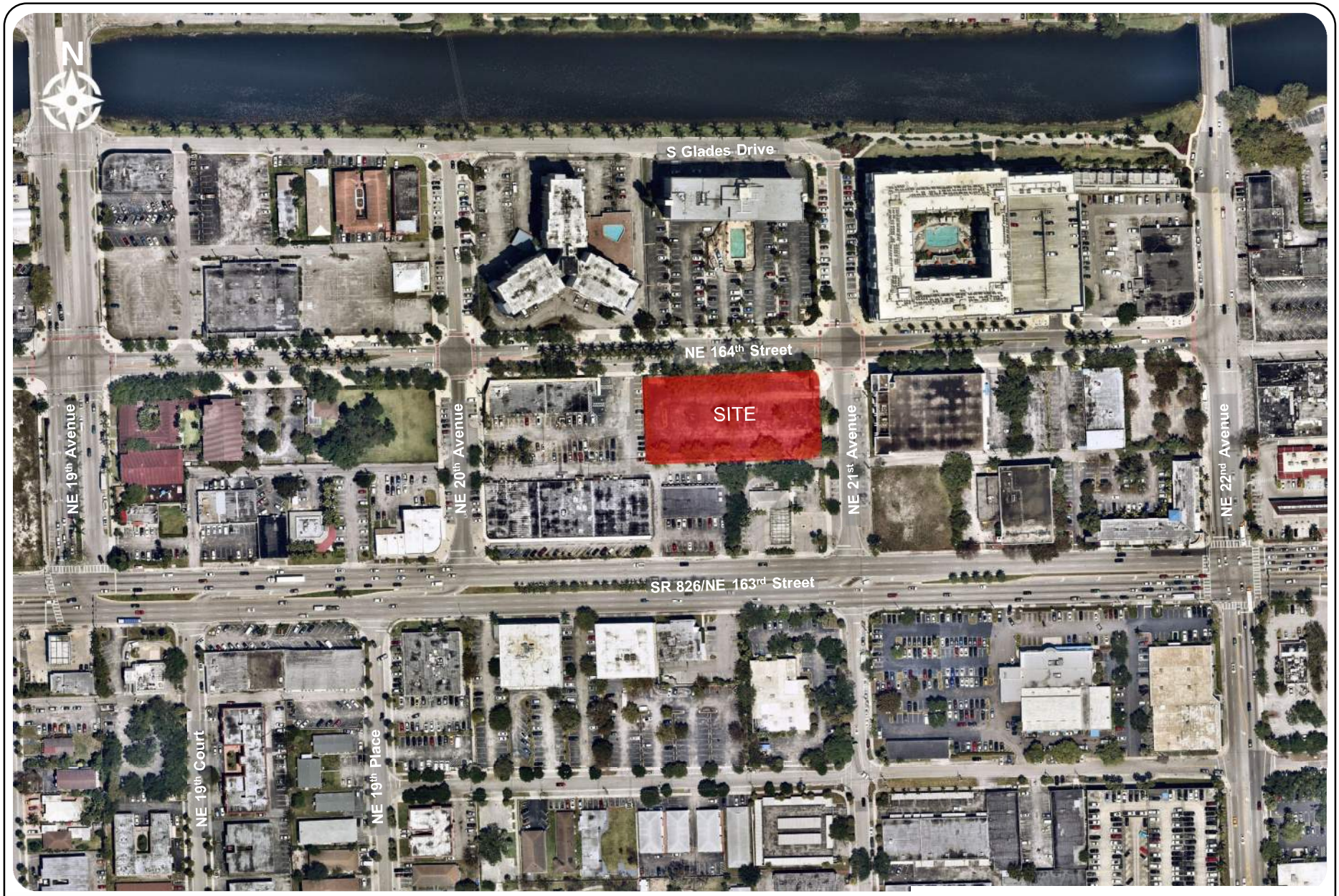
DATE	10/29/2021
DRAWN	CR
PROJECT No.	2126
SCALE	AS-SHOWN

GROUND FLOOR PLAN

SCALE: 3/32" = 1'-0"

A111



Kimley»Horn

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Location Map
NMB Venus
City of North Miami Beach, Florida

Attachment B

Trip Generation Calculations

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 1	1	Multifamily Housing (High-Rise) Not Close to Rail Transit	11	222	437	du	34%	66%	39	76	115	10.0%	11	35	69	104	1.9%	2	34	68	102	0.0%	0	34	68	102
	2	Strip Retail Plaza	11	822	7.44	ksf	60%	40%	11	7	18	10.0%	2	10	6	16	12.5%	2	9	5	14	0.0%	0	9	5	14
	3																									
	4																									
	5																									
	6																									
	7																									
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	10																									
	11																									
	12																									
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	14																									
	15																									
		ITE Land Use Code		Rate or Equation				Total:	50	83	133	10.0%	13	45	75	120	3.3%	4	43	73	116	0.0%	0	43	73	116
		222		Y=0.22*(X)+18.85																						
		822		Y=2.36(X)																						

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 2	1	Multifamily Housing (High-Rise) Not Close to Rail Transit	11	222	437	du	56%	44%	77	60	137	10.0%	14	69	54	123	8.1%	10	62	51	113	0.0%	0	62	51	113
	2	Strip Retail Plaza	11	822	7.44	ksf	50%	50%	32	31	63	10.0%	6	29	28	57	17.5%	10	26	21	47	34.0%	16	17	14	31
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code		Rate or Equation				Total:	109	91	200	10.0%	20	98	82	180	11.1%	20	88	72	160	10.0%	16	79	65	144
		222		Y=0.26*(X)+23.12																						
		822		LN(Y) = 0.71*LN(X)+2.72																						

Internal Capture Reduction Calculations

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

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

SUMMARY (PROPOSED)

GROSS TRIP GENERATION

INPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	10	6	29	28
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	35	69	69	54
Hotel	0	0	0	0
	45	75	98	82

INTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	1	1	3	7
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	1	1	7	3
Hotel	0	0	0	0
	2	2	10	10

OUTPUT

Total % Reduction	*3.3%*	*11.1%*
Office		
Retail	12.5%	17.5%
Restaurant		
Cinema/Entertainment		
Residential	1.9%	8.1%
Hotel		

EXTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	9	5	26	21
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	34	68	62	51
Hotel	0	0	0	0
	43	73	88	72

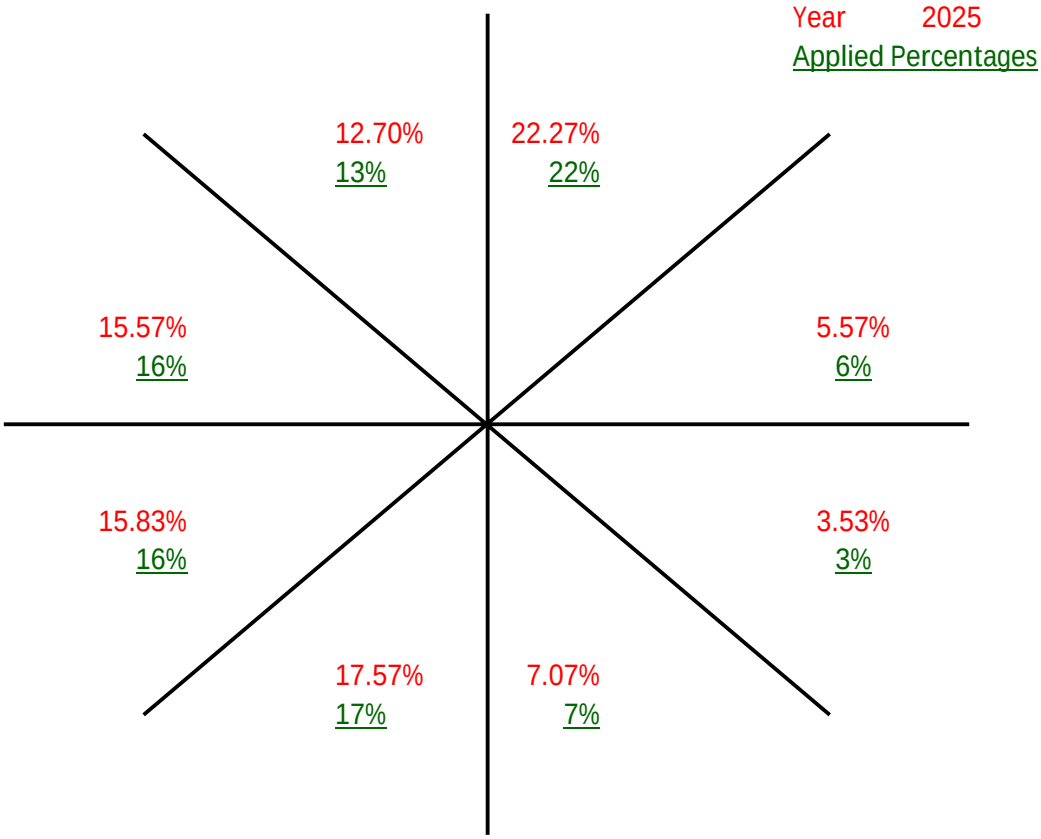
Replica Mode-Split Data

geo_id	tract	week_starting	population	total_count_avg_weekday	other_travel_mode_count_avg_weekday	public_transit_count_avg_weekday	private_auto_count_avg_weekday	auto_passenger_count_avg_weekday	Non-vehicular Mode-Split
12086000214	2.14 (Miami-Dade, FL)	1/20/2020	24064	1701	13	240	1216	232	14.87%
12086000214	2.14 (Miami-Dade, FL)	1/27/2020	24064	2088	15	293	1495	285	14.75%
12086000214	2.14 (Miami-Dade, FL)	2/3/2020	24064	2205	17	309	1579	300	14.78%
12086000214	2.14 (Miami-Dade, FL)	2/10/2020	24064	2182	15	305	1565	297	14.67%
12086000214	2.14 (Miami-Dade, FL)	2/17/2020	24064	1779	12	250	1274	243	14.73%
12086000214	2.14 (Miami-Dade, FL)	2/24/2020	24064	1969	15	275	1411	268	14.73%
								Average Non-vehicular Mode-Split	14.80%

Attachment C

Trip Distribution

Cardinal Distribution for TAZ 96



Cardinal Trip Distribution

Cardinal Direction	Percentage of Trips		2025 Interpolated	2025 Rounded
	2015	2045		
North-Northeast	23.1%	20.60%	22.27%	22.00%
East-Northeast	6.1%	4.50%	5.57%	6.00%
East-Southeast	4.0%	2.60%	3.53%	3.00%
South-Southeast	6.9%	7.40%	7.07%	7.00%
South-Southwest	15.4%	21.90%	17.57%	17.00%
West-Southwest	15.9%	15.70%	15.83%	16.00%
West-Northwest	15.6%	15.50%	15.57%	16.00%
North-Northwest	13.1%	11.90%	12.70%	13.00%
Total	100.1%	100.1%	100.10%	100.00%

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	

Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
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 C

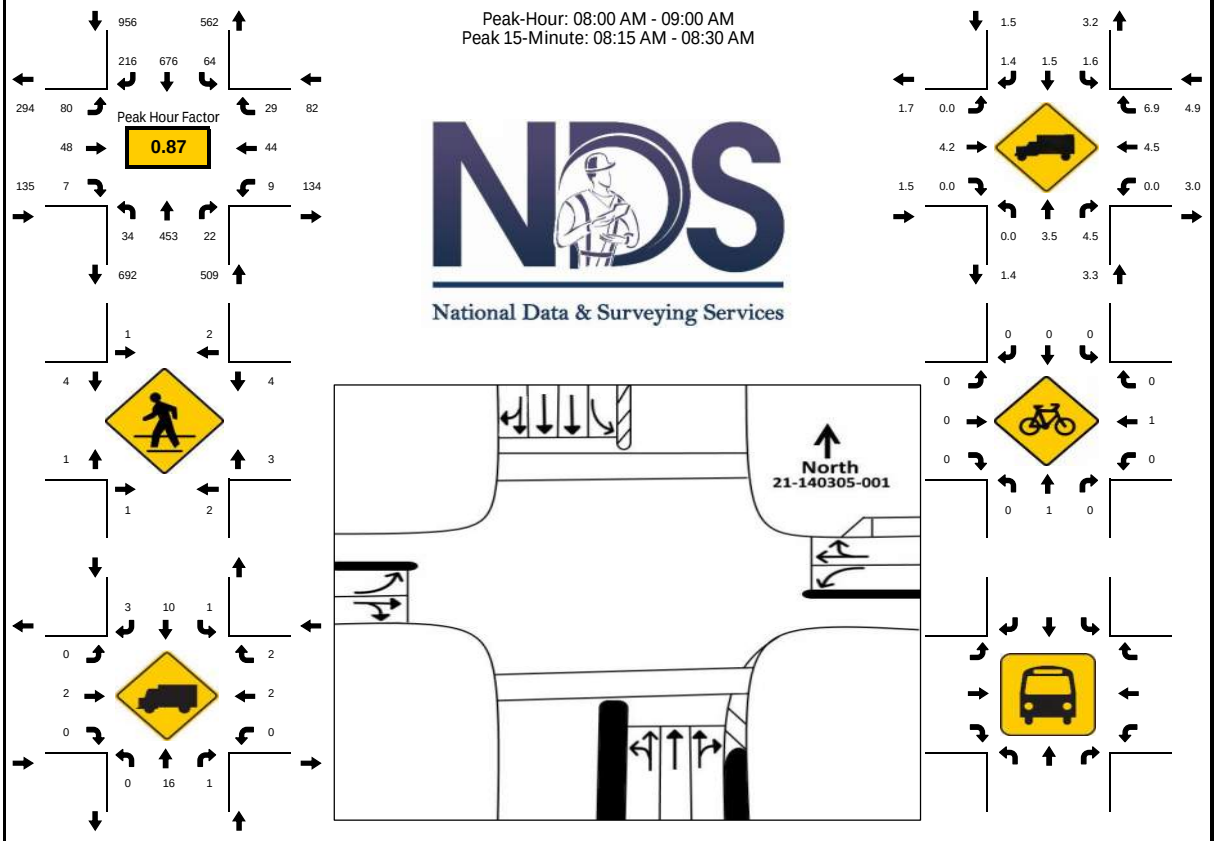
Traffic Data

Turning Movement Counts

LOCATION: NE 19th Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-001
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:15 AM - 08:30 AM

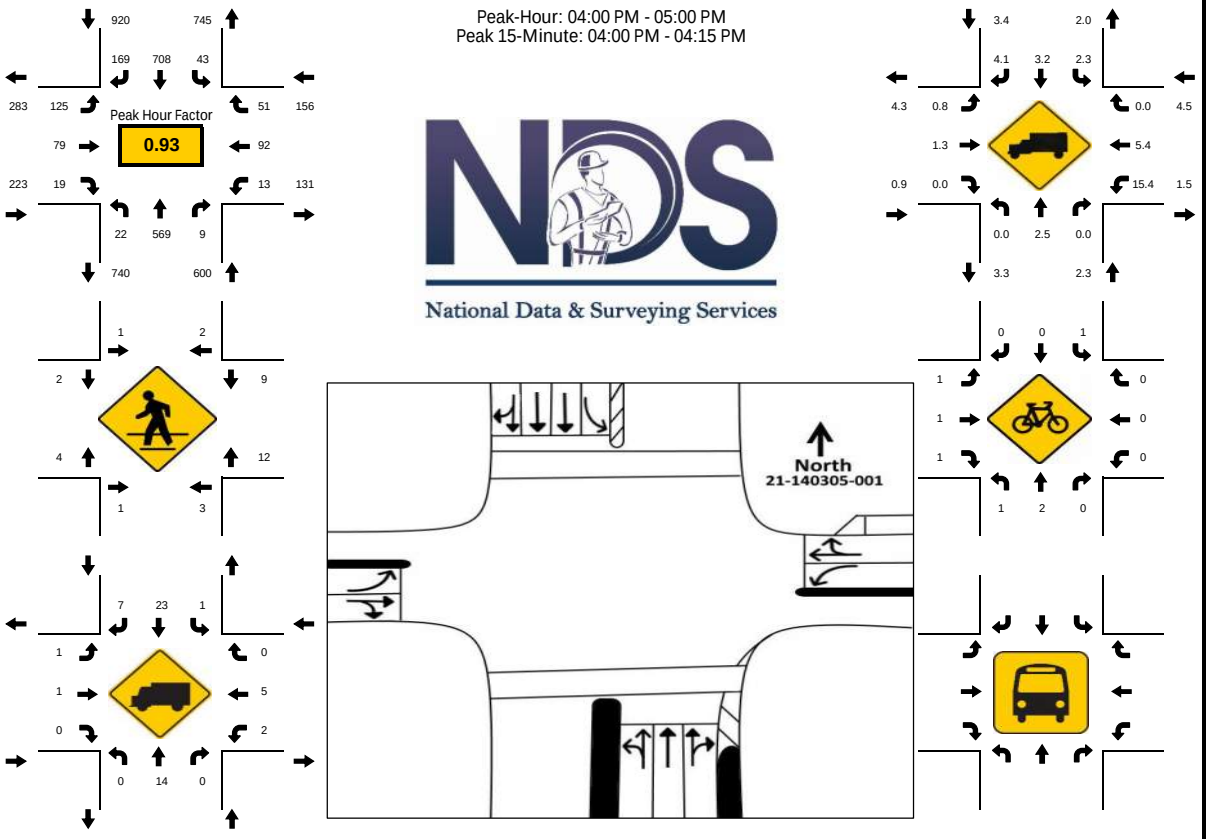


15-Min Count Period Beginning At	NE 19th Ave Northbound					NE 19th Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	1	61	1	0		4	102	24	1		5	6	2	0		0	7	5	0		219	1180
7:15 AM	1	102	4	0		7	149	25	1		15	7	0	0		0	2	7	0		320	1338
7:30 AM	0	102	2	0		10	122	36	1		15	7	1	0		4	6	6	0		312	1501
7:45 AM	2	88	1	0		8	163	29	0		18	8	1	0		1	4	6	0		329	1601
8:00 AM	0	106	5	0		13	158	46	0		18	8	2	0		3	15	3	0		377	1682
8:15 AM	8	138	5	0		12	211	57	0		19	13	0	0		1	10	9	0		483	1305
8:30 AM	17	109	5	0		20	161	47	0		20	13	3	0		1	10	6	0		412	822
8:45 AM	8	100	7	1		19	146	66	0		22	14	2	1		4	9	11	0		410	410
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	68	552	28	4		80	844	264	0		88	56	12	4		16	60	44	0		**2120**	
Heavy Trucks	0	28	4	0		4	12	4	0		0	4	0	0		0	8	8	0		**72**	
Pedestrians		8					8					16					16				**48**	
Bicycles	0	4	0	0		0	0	0	0		0	0	0	0		0	4	0	0		**8**	
Buses																						
Stopped Buses																						

LOCATION: NE 19th Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-001
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:00 PM - 04:15 PM



15-Min Count Period Beginning At	NE 19th Ave Northbound					NE 19th Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	2	152	0	2		9	182	45	0		42	19	6	1		4	34	14	0		512	1899
4:15 PM	5	155	3	1		17	199	42	0		29	16	7	0		2	15	14	0		505	1845
4:30 PM	0	130	2	2		11	173	39	0		27	28	3	1		4	19	15	0		454	1791
4:45 PM	7	132	4	3		6	154	43	0		25	16	3	0		3	24	8	0		428	1824
5:00 PM	4	120	3	0		11	182	59	1		28	15	0	0		4	22	9	0		458	1835
5:15 PM	2	120	4	1		8	177	50	0		27	22	3	0		4	18	15	0		451	1377
5:30 PM	6	132	3	0		14	183	50	1		43	17	5	1		4	18	10	0		487	926
5:45 PM	3	141	2	2		17	145	41	1		25	20	1	0		3	19	19	0		439	439
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	28	620	16	12		68	796	180	0		168	112	28	4		16	136	60	0		**2244**	
Heavy Trucks	0	20	0	0		4	32	12	0		4	4	0	0		4	8	0	0		**88**	
Pedestrians		12					8					8					28				**56**	
Bicycles	4	4	0	0		4	0	0	0		4	4	4	0		0	0	0	0		**24**	
Buses																						
Stopped Buses																						

National Data & Surveying Services Intersection Turning Movement Count

Location: NE 19th Ave & NE 164th St
City: North Miami Beach
Control: Signalized

Project ID: 21-140305-001
Date: 12/7/2021

Data - RTOR

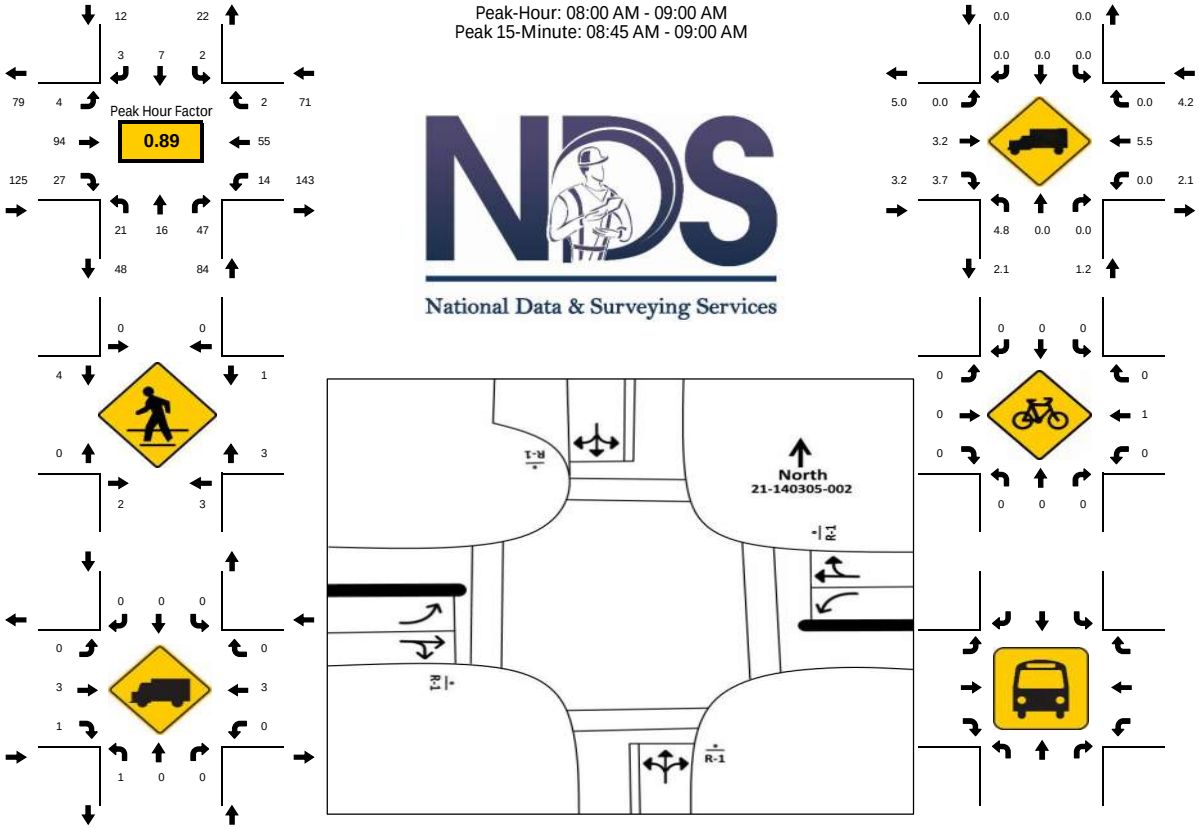
NS/EW Streets:	NE 19th Ave				NE 19th Ave				NE 164th St				NE 164th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
7:30 AM	0	0	1	0	0	0	2	0	0	0	1	0	0	0	4	0	8
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
8:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	4
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	4
8:30 AM	0	0	1	0	0	0	4	0	0	0	1	0	0	0	1	0	7
8:45 AM	0	0	1	0	0	0	3	0	0	0	1	0	0	0	3	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	3	0	0	0	12	0	0	0	4	0	0	0	25	0	44
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	2	0	0	0	10	0	0	0	2	0	0	0	9	0	23
PEAK HR FACTOR :	0.000	0.000	0.500	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.719
	0.500				0.625				0.500				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	8	0	12
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	6
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	5
5:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	3	0	6
5:15 PM	0	0	3	0	0	0	6	0	0	0	2	0	0	0	8	0	19
5:30 PM	0	0	0	0	0	0	11	0	0	0	1	0	0	0	3	0	15
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	4	0	0	0	34	0	0	0	3	0	0	0	34	0	75
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	13	0	0	0	0	0	0	0	15	0	28
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.469	0.000	0.583
					0.650								0.469				

LOCATION: NE 20th Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-002
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

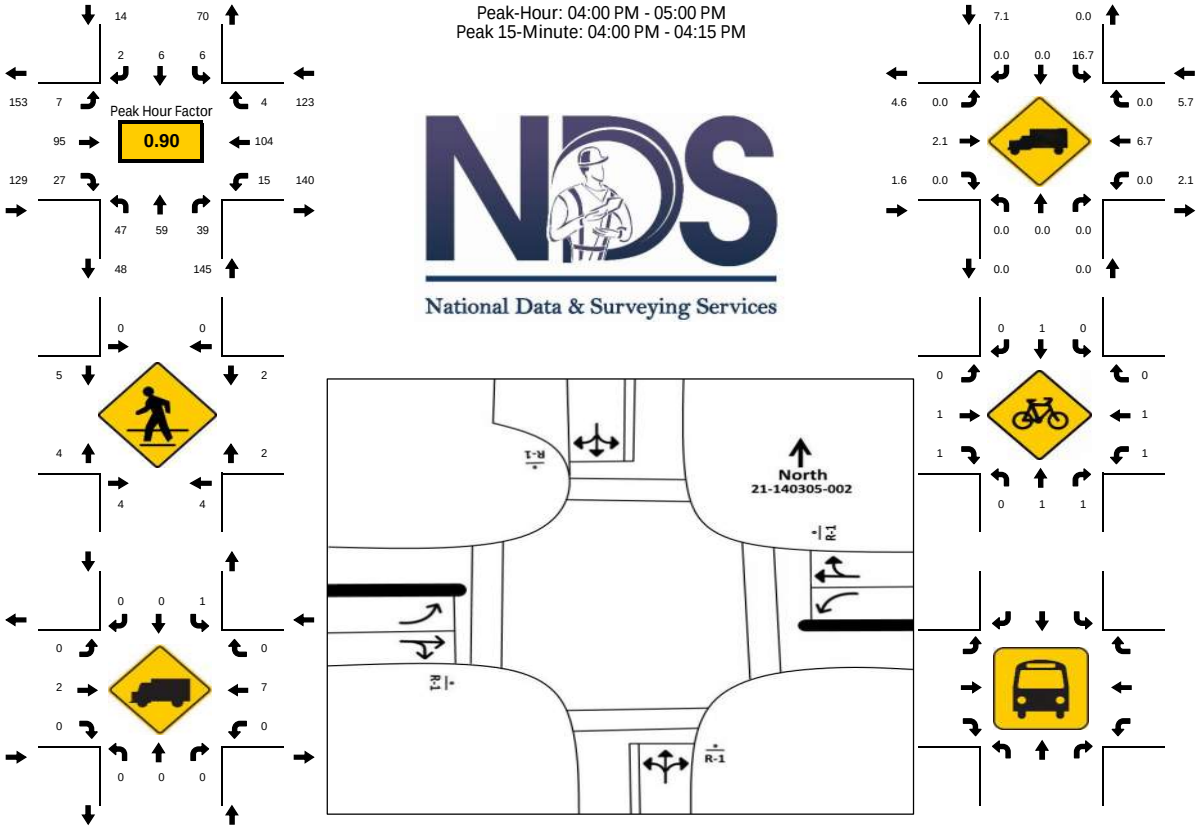


15-Min Count Period Beginning At	NE 20th Ave Northbound					NE 20th Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	2	6	3	0		1	1	0	0		0	8	2	0		6	9	2	1		41	187
7:15 AM	3	5	5	0		1	0	0	0		1	11	7	0		1	9	0	0		43	207
7:30 AM	3	7	12	0		0	3	0	0		1	15	2	0		2	9	1	1		56	232
7:45 AM	2	5	4	0		2	1	0	0		0	15	1	0		6	9	1	1		47	257
8:00 AM	3	3	6	0		0	1	2	0		2	17	4	0		4	18	1	0		61	292
8:15 AM	2	6	11	0		1	4	0	0		0	19	8	0		4	13	0	0		68	231
8:30 AM	8	4	16	0		0	1	0	0		0	28	10	0		4	10	0	0		81	163
8:45 AM	8	3	14	0		1	1	1	0		1	30	5	1		2	14	1	0		82	82
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	32	24	64	0		4	16	8	0		8	120	40	4		16	72	4	0		**412**	
Heavy Trucks	4	0	0	0		0	0	0	0		0	4	4	0		0	8	0	0		**20**	
Pedestrians		8					0					12					16				**36**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	4	0	0		**4**	
Buses																						
Stopped Buses																						

LOCATION: NE 20th Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-002
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:00 PM - 04:15 PM

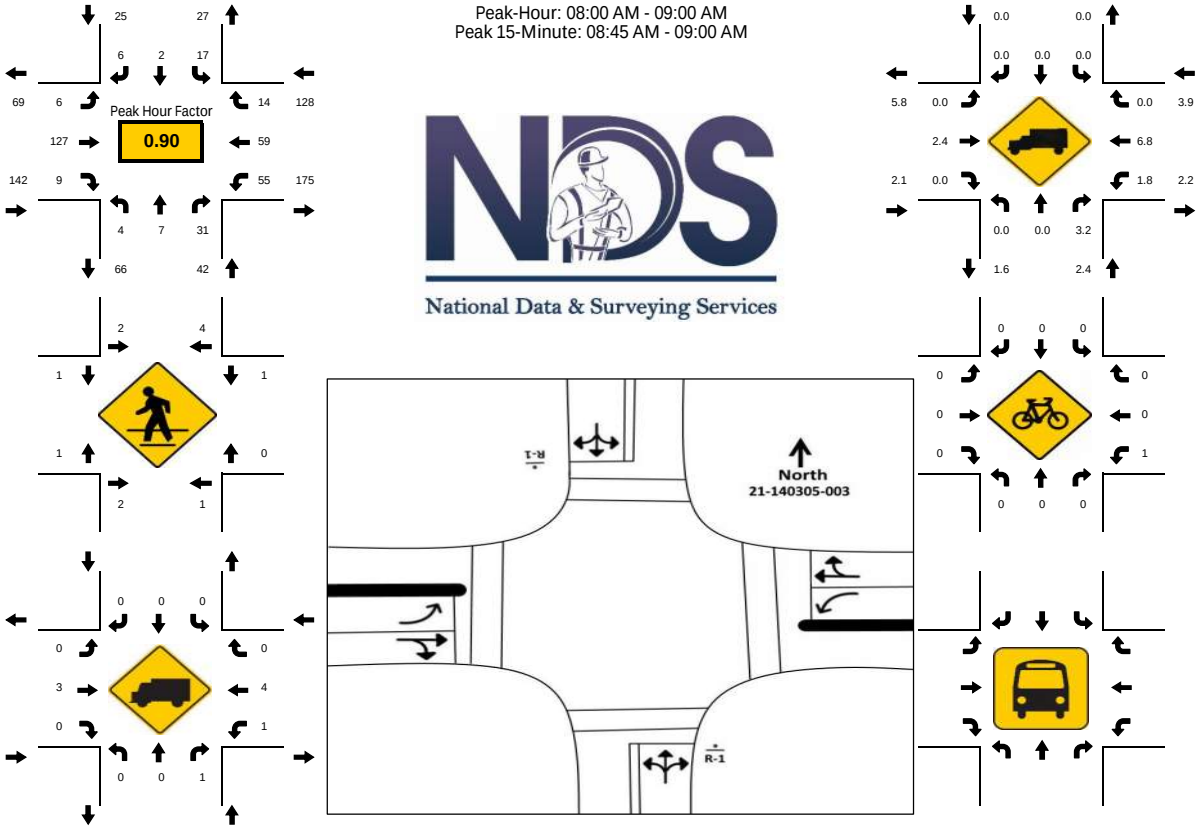


15-Min Count Period Beginning At	NE 20th Ave Northbound					NE 20th Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	13	25	8	0		1	0	0	0		1	21	6	0		2	36	0	1		114	411
4:15 PM	11	10	6	1		3	4	0	0		3	27	5	0		3	23	1	0		97	393
4:30 PM	12	11	10	0		1	1	2	0		1	29	9	0		2	21	2	1		102	388
4:45 PM	10	13	15	0		1	1	0	0		2	18	7	0		6	24	1	0		98	387
5:00 PM	10	13	9	0		0	3	2	0		2	22	4	0		4	24	3	0		96	393
5:15 PM	14	7	5	0		3	3	0	0		2	20	7	1		7	22	0	1		92	297
5:30 PM	14	13	11	1		3	3	0	0		0	24	5	0		6	18	3	0		101	205
5:45 PM	13	8	8	0		2	3	2	0		2	36	3	0		5	21	1	0		104	104
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	52	100	60	4		12	16	8	0		12	116	36	0		24	144	8	4		**596**	
Heavy Trucks	0	0	0	0		4	0	0	0		0	4	0	0		0	12	0	0		**20**	
Pedestrians		12					0					12					8				**32**	
Bicycles	0	4	4	0		0	4	0	0		0	4	4	0		4	4	0	0		**28**	
Buses																						
Stopped Buses																						

LOCATION: NE 21st Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-003
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

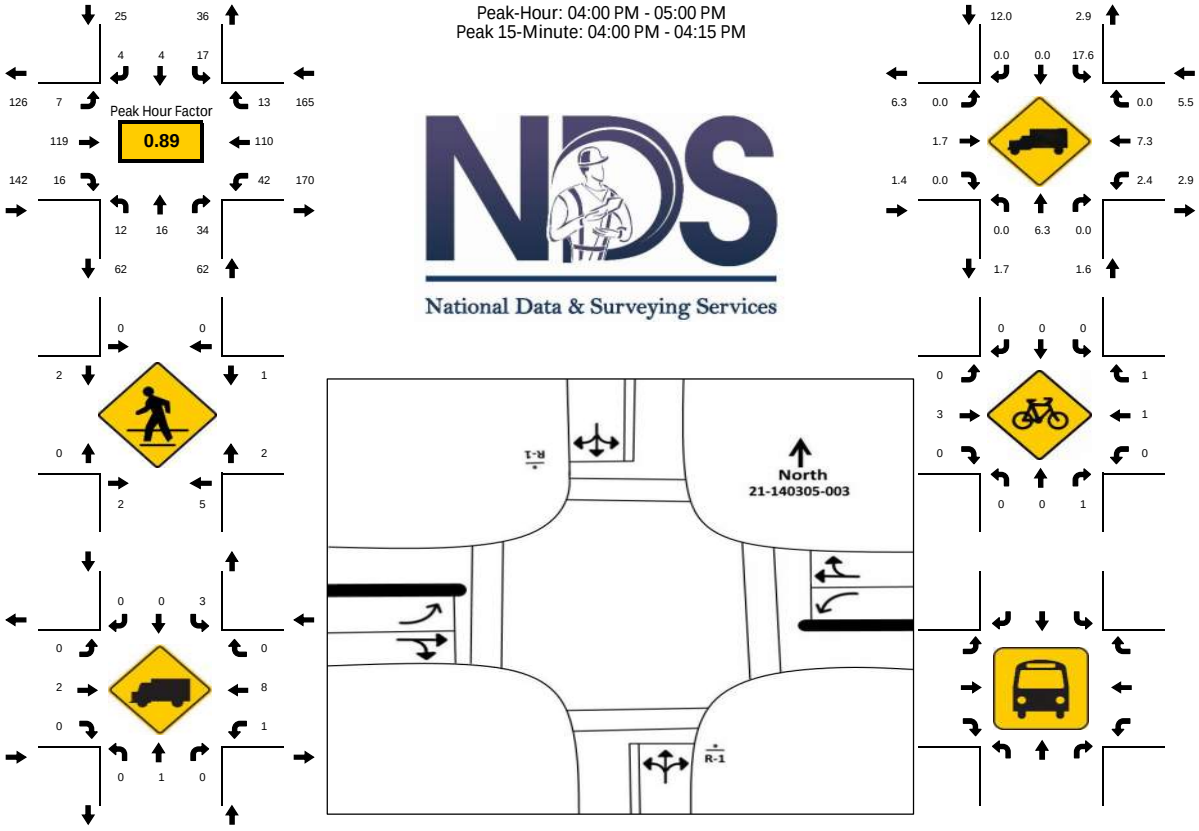


15-Min Count Period Beginning At	NE 21st Ave Northbound					NE 21st Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	2	1	7	0		3	0	1	0		1	9	2	0		9	12	2	0		49	241
7:15 AM	0	1	6	0		2	2	1	0		2	17	0	0		14	6	3	0		54	266
7:30 AM	0	2	7	0		2	0	0	0		2	26	0	1		12	10	8	0		70	293
7:45 AM	0	1	11	0		8	1	2	0		0	23	0	0		6	13	2	1		68	311
8:00 AM	2	1	6	0		7	0	2	0		0	20	2	0		12	20	2	0		74	337
8:15 AM	0	1	9	0		2	0	1	0		2	28	3	0		12	14	6	3		81	263
8:30 AM	2	5	9	0		3	1	2	0		1	31	2	0		20	8	4	0		88	182
8:45 AM	0	0	7	0		5	1	1	0		3	48	2	0		7	17	2	1		94	94
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	8	20	36	0		28	4	8	0		12	192	12	0		80	80	24	12		**516**	
Heavy Trucks	0	0	4	0		0	0	0	0		0	4	0	0		4	8	0	0		**20**	
Pedestrians		8					12					4					4				**28**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		4	0	0	0		**4**	
Buses																						
Stopped Buses																						

LOCATION: NE 21st Ave & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-003
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:00 PM - 04:15 PM

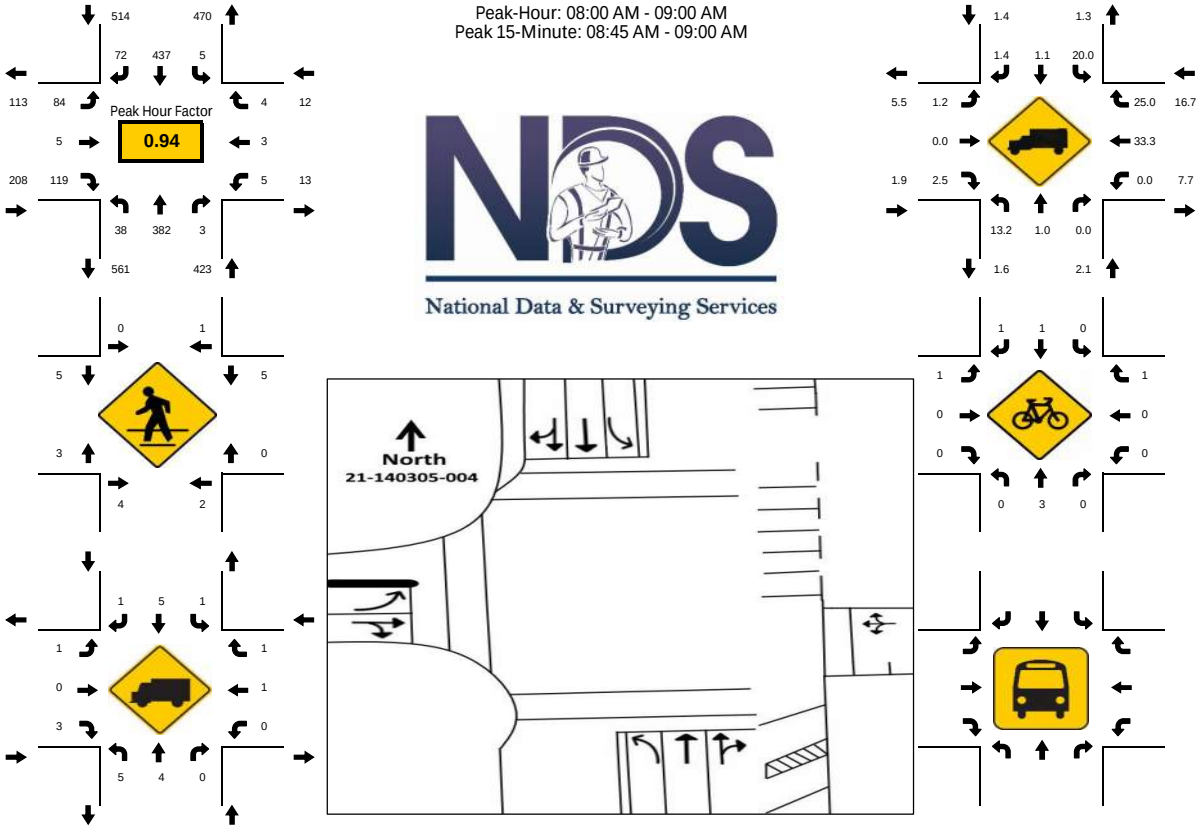


15-Min Count Period Beginning At	NE 21st Ave Northbound					NE 21st Ave Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	3	4	6	0		4	1	0	0		3	31	6	1		10	37	5	0		111	394
4:15 PM	3	6	9	0		7	0	0	0		0	23	6	0		9	24	2	2		91	391
4:30 PM	1	2	6	0		3	2	4	0		2	36	1	1		10	22	2	0		92	384
4:45 PM	5	4	13	0		3	1	0	0		0	29	3	0		10	27	4	1		100	382
5:00 PM	1	3	17	0		2	2	0	0		2	33	2	0		14	28	4	0		108	385
5:15 PM	1	4	9	0		3	1	2	0		2	26	2	0		7	25	2	0		84	277
5:30 PM	1	5	7	0		4	2	2	0		0	29	7	0		4	23	6	0		90	193
5:45 PM	0	2	13	0		5	1	3	0		1	39	2	0		8	24	5	0		103	103
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	20	24	52	0		28	8	16	0		12	144	24	4		40	148	20	8		**548**	
Heavy Trucks	0	4	0	0		4	0	0	0		0	4	0	0		4	16	0	0		**32**	
Pedestrians		16					0					8					8				**32**	
Bicycles	0	0	4	0		0	0	0	0		0	4	0	0		0	4	4	0		**16**	
Buses																						
Stopped Buses																						

LOCATION: NE 22nd Ave/Dixie Hwy & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-004
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

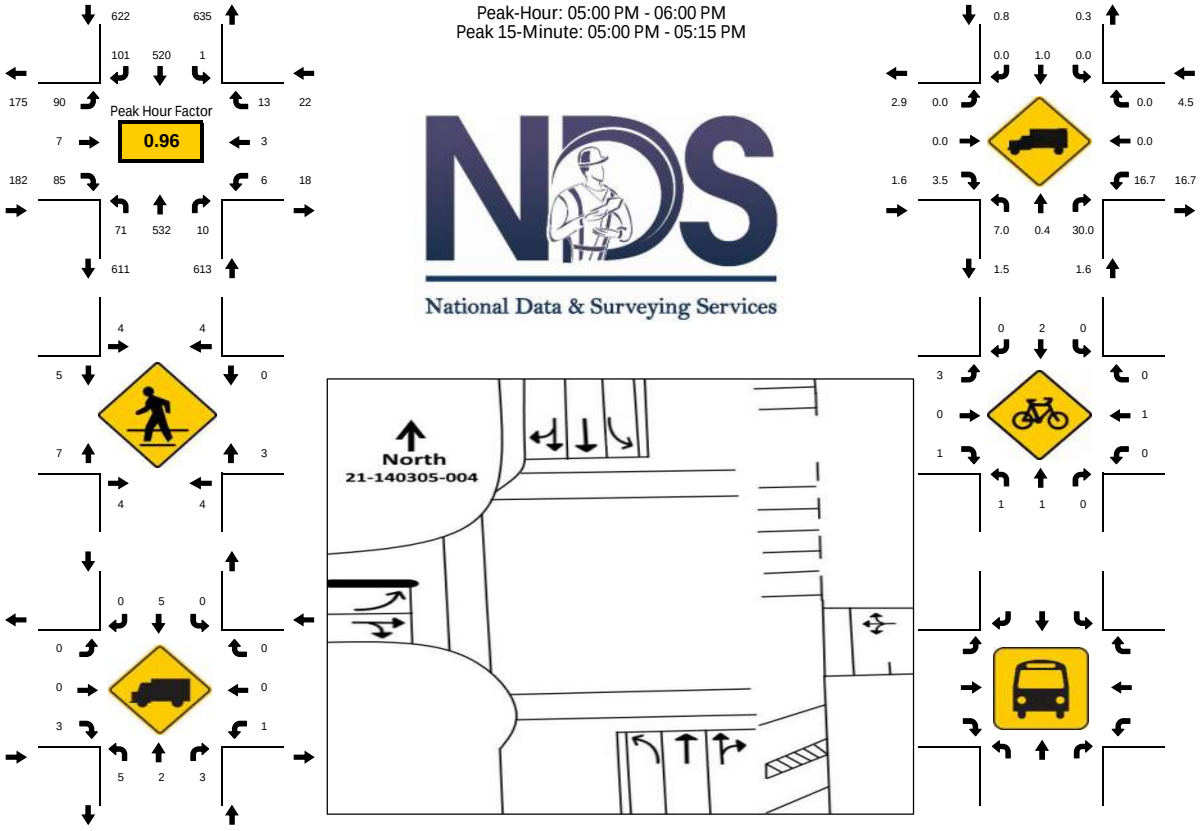


15-Min Count Period Beginning At	NE 22nd Ave/Dixie Hwy Northbound					NE 22nd Ave/Dixie Hwy Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	7	71	2	0		2	89	10	0		17	1	13	0		0	0	0	0		212	926
7:15 AM	10	86	2	0		0	79	9	0		11	0	18	0		0	0	0	0		215	977
7:30 AM	10	95	2	0		1	86	15	0		15	0	18	0		0	0	4	0		246	1044
7:45 AM	7	90	1	1		3	89	15	0		23	1	21	0		0	0	2	0		253	1103
8:00 AM	11	97	1	0		0	98	19	0		14	1	20	0		0	0	2	0		263	1157
8:15 AM	6	90	1	0		1	109	18	0		19	1	35	0		1	0	1	0		282	894
8:30 AM	5	104	0	1		2	125	23	0		20	3	21	0		0	0	1	0		305	612
8:45 AM	12	91	1	3		2	105	12	0		31	0	43	0		4	3	0	0		307	307
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	48	416	4	12		8	500	92	0		124	12	172	0		16	12	8	0		**1424**	
Heavy Trucks	8	8	0	4		4	8	4	0		4	0	4	0		0	4	4	0		**48**	
Pedestrians		16					4					12					8				**40**	
Bicycles	0	8	0	0		0	4	4	0		4	0	0	0		0	0	4	0		**24**	
Buses																						
Stopped Buses																						

LOCATION: NE 22nd Ave/Dixie Hwy & NE 164th St
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-004
DATE: Tue, Dec 07, 2021

Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:00 PM - 05:15 PM



15-Min Count Period Beginning At	NE 22nd Ave/Dixie Hwy Northbound					NE 22nd Ave/Dixie Hwy Southbound					NE 164th St Eastbound					NE 164th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	23	135	4	0		1	114	30	0		24	3	25	0		3	1	3	0		366	1386
4:15 PM	16	125	5	2		0	135	22	0		21	0	20	0		2	6	3	0		357	1395
4:30 PM	7	105	1	0		0	108	27	0		15	1	31	0		1	1	1	0		298	1370
4:45 PM	16	132	2	1		0	133	27	0		29	2	20	0		0	2	1	0		365	1439
5:00 PM	18	128	1	0		0	142	32	0		29	1	19	0		1	0	4	0		375	1439
5:15 PM	12	143	2	0		0	118	20	0		13	1	17	0		1	1	4	0		332	1064
5:30 PM	21	141	3	0		1	132	25	0		18	2	20	0		2	0	2	0		367	732
5:45 PM	20	120	4	0		0	128	24	0		30	3	29	0		2	2	3	0		365	365
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	84	572	16	0		4	568	128	0		120	12	116	0		8	8	16	0		**1652**	
Heavy Trucks	12	8	8	0		0	8	0	0		0	0	4	0		4	0	0	0		**44**	
Pedestrians		16					12					20					12				**60**	
Bicycles	4	4	0	0		0	8	0	0		12	0	4	0		0	4	0	0		**36**	
Buses																						
Stopped Buses																						

National Data & Surveying Services Intersection Turning Movement Count

Location: NE 22nd Ave/Dixie Hwy & NE 164th St
City: North Miami Beach
Control: Signalized

Project ID: 21-140305-004
Date: 12/7/2021

Data - RTOR

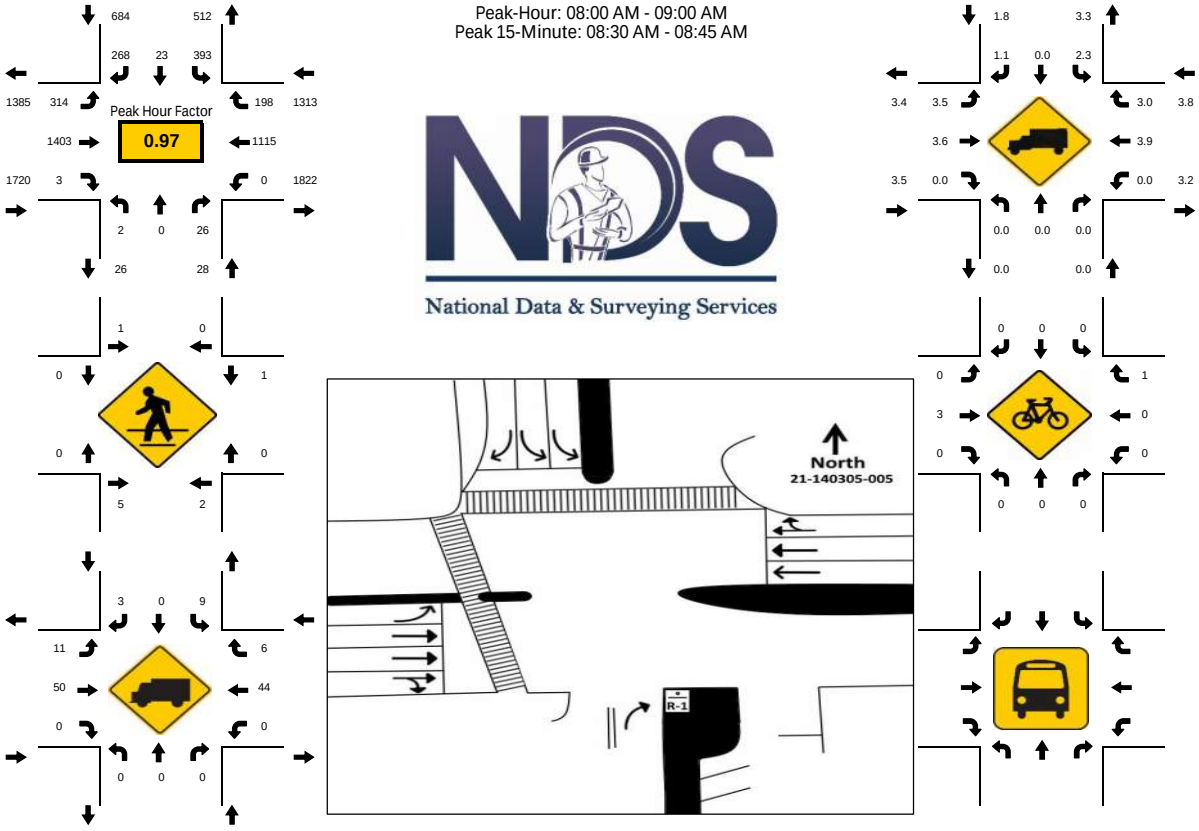
NS/EW Streets:	NE 22nd Ave/Dixie Hwy				NE 22nd Ave/Dixie Hwy				NE 164th St				NE 164th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	3	0	0	0	6	0	0	0	0	0	9
7:15 AM	0	0	0	0	0	0	2	0	0	0	12	0	0	0	0	0	14
7:30 AM	0	0	0	0	0	0	3	0	0	0	11	0	0	0	2	0	16
7:45 AM	0	0	0	0	0	0	7	0	0	0	16	0	0	0	2	0	25
8:00 AM	0	0	0	0	0	0	5	0	0	0	16	0	0	0	1	0	22
8:15 AM	0	0	0	0	0	0	7	0	0	0	20	0	0	0	1	0	28
8:30 AM	0	0	0	0	0	0	3	0	0	0	11	0	0	0	0	0	14
8:45 AM	0	0	0	0	0	0	2	0	0	0	25	0	0	0	0	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	32	0	0	0	117	0	0	0	6	0	155
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	17	0	0	0	72	0	0	0	2	0	91
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	0.000	0.000	0.720	0.000	0.000	0.000	0.500	0.000	0.813
					0.607				0.720				0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	6	0	0	0	13	0	0	0	2	0	21
4:15 PM	0	0	0	0	0	0	2	0	0	0	19	0	0	0	1	0	22
4:30 PM	0	0	0	0	0	0	7	0	0	0	21	0	0	0	1	0	29
4:45 PM	0	0	0	0	0	0	5	0	0	0	13	0	0	0	0	0	18
5:00 PM	0	0	0	0	0	0	4	0	0	0	13	0	0	0	3	0	20
5:15 PM	0	0	0	0	0	0	6	0	0	0	15	0	0	0	2	0	23
5:30 PM	0	0	1	0	0	0	0	0	0	0	14	0	0	0	2	0	17
5:45 PM	0	0	0	0	0	0	1	0	0	0	11	0	0	0	2	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	31	0	0	0	119	0	0	0	13	0	164
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	11	0	0	0	53	0	0	0	9	0	74
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.000	0.458	0.000	0.000	0.000	0.883	0.000	0.000	0.000	0.750	0.000	0.804
			0.250				0.458				0.883				0.750		

LOCATION: NE 19th Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-005
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:30 AM - 08:45 AM

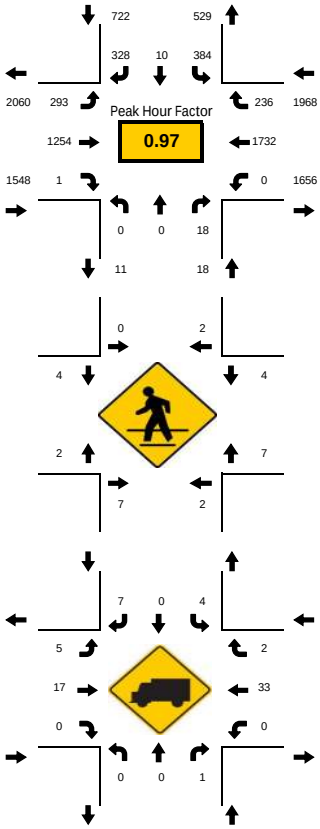


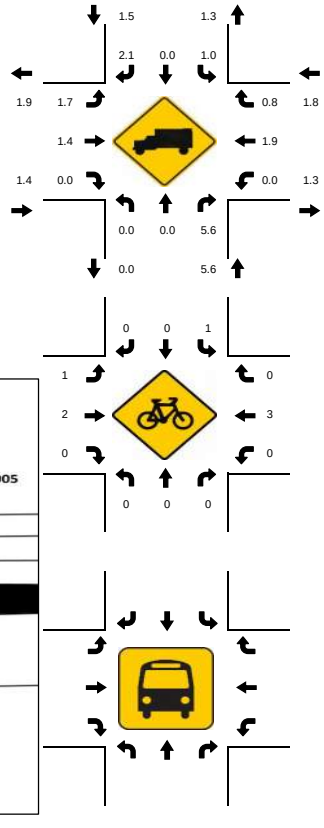
15-Min Count Period Beginning At	NE 19th Ave Northbound					NE 19th Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	1	7	0		64	2	44	0		35	293	1	1		0	199	21	0		668	3136
7:15 AM	1	0	5	0		80	3	59	0		60	308	0	2		0	235	42	0		795	3389
7:30 AM	0	0	5	0		79	2	54	0		66	337	0	0		0	230	45	0		818	3547
7:45 AM	0	1	2	0		78	4	73	1		62	332	2	0		0	275	25	0		855	3694
8:00 AM	0	0	6	0		103	4	63	0		83	370	1	0		0	255	36	0		921	3745
8:15 AM	0	0	6	2		117	6	83	0		86	326	1	0		0	268	58	0		953	2824
8:30 AM	0	0	3	0		100	8	60	0		71	382	0	1		0	277	63	0		965	1871
8:45 AM	0	0	11	0		73	5	62	0		73	325	1	0		0	315	41	0		906	906
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	44	8		468	32	332	0		344	1528	4	4		0	1260	252	0		**4276**	
Heavy Trucks	0	0	0	0		16	0	8	0		16	68	0	0		0	56	16	0		**180**	
Pedestrians		8					4					0					4				**16**	
Bicycles	0	0	0	0		0	0	0	0		0	8	0	0		0	0	4	0		**12**	
Buses																						
Stopped Buses																						

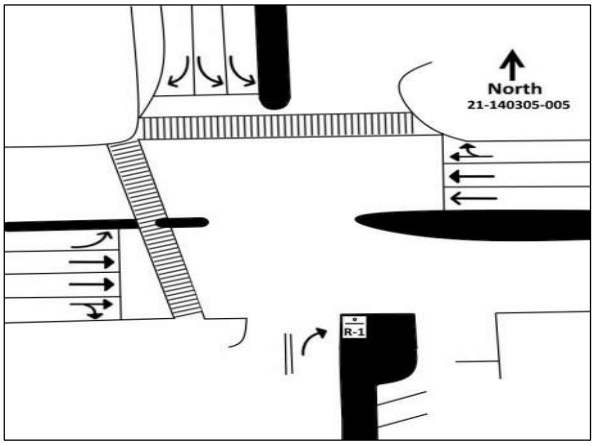
LOCATION: NE 19th Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-005
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 04:45 PM - 05:00 PM







15-Min Count Period Beginning At	NE 19th Ave Northbound					NE 19th Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	0	1	8	0		116	6	73	0		90	311	1	0		0	394	70	0		1070	4150
4:15 PM	0	0	5	0		106	5	90	0		78	341	1	1		0	404	81	0		1112	4108
4:30 PM	0	0	1	0		93	1	83	1		86	251	0	0		0	315	45	0		876	4070
4:45 PM	0	0	0	0		92	0	76	0		84	333	0	0		0	447	60	0		1092	4256
5:00 PM	0	0	3	0		97	2	81	0		68	323	1	1		0	394	58	0		1028	4202
5:15 PM	0	0	7	0		96	4	87	0		64	299	0	0		0	461	56	0		1074	3174
5:30 PM	0	0	8	0		99	4	84	0		76	299	0	0		0	430	62	0		1062	2100
5:45 PM	0	1	11	0		75	6	72	0		83	330	0	1		0	396	63	0		1038	1038
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	0	0	32	0		396	16	348	0		336	1332	4	4		0	1844	248	0		**4560**	
Heavy Trucks	0	0	4	0		4	0	12	0		8	32	0	0		0	52	4	0		**116**	
Pedestrians		20					4					12					20				**56**	
Bicycles	0	0	0	0		4	0	0	0		4	4	0	0		0	12	0	0		**24**	
Buses																						
Stopped Buses																						

National Data & Surveying Services Intersection Turning Movement Count

Location: NE 19th Ave & NE 163rd St/SR 826
City: North Miami Beach
Control: Signalized/1-Way Stop(NB)

Project ID: 21-140305-005
Date: 12/7/2021

Data - RTOR

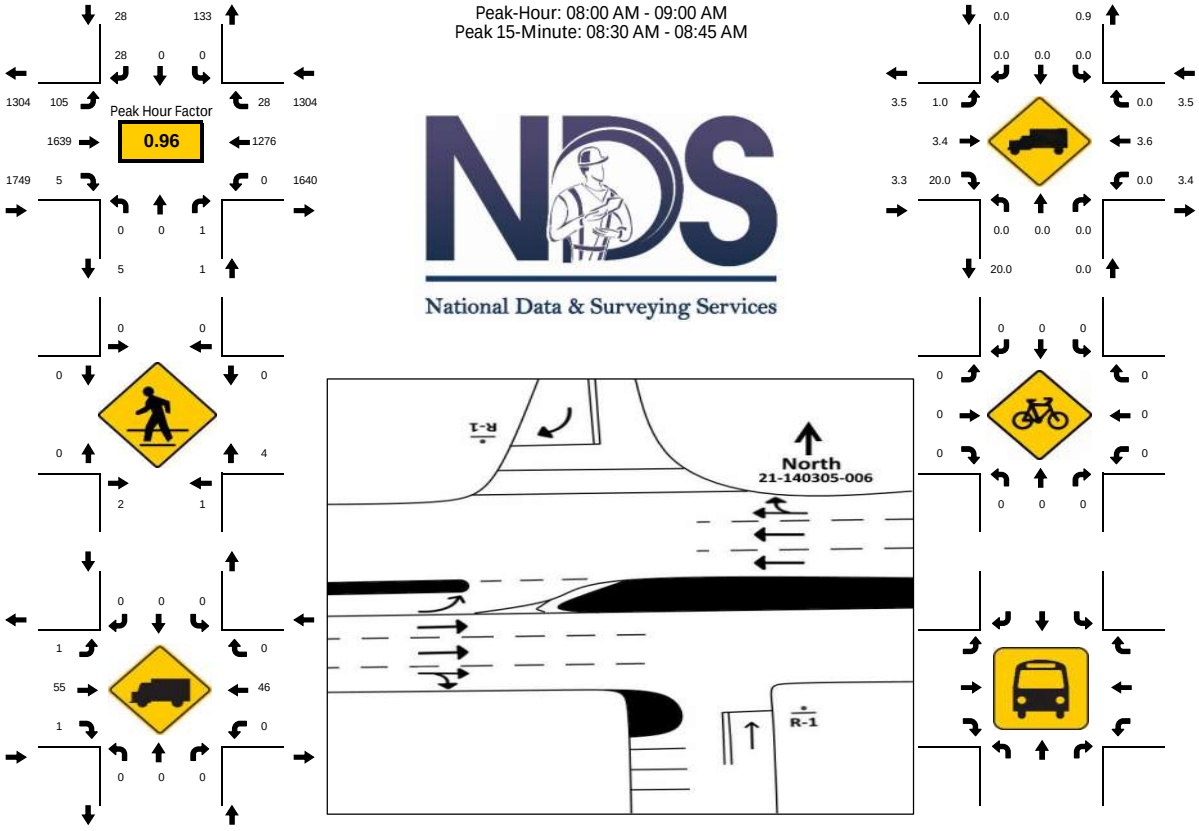
NS/EW Streets:	NE 19th Ave					NE 19th Ave					NE 163rd St/SR 826					NE 163rd St/SR 826					
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND				ORTHBOUND2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	N2R2	TOTAL
7:00 AM	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	3	0	0	34
7:15 AM	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	1	0	0	37
7:30 AM	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	7	0	0	35
7:45 AM	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	0	2	0	0	53
8:00 AM	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	1	0	0	32
8:15 AM	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	0	0	8	0	0	61
8:30 AM	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	6	0	0	53
8:45 AM	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	1	0	0	28
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	N2R2	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	304	0	0	0	0	0	0	0	0	0	29	0	0	333
APPROACH %'s :						0.00%	0.00%	100.00%	0.00%	0.00%						0.00%	0.00%	100.00%	0.00%		
PEAK HR :	08:00 AM - 09:00 AM																				TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	158	0	0	0	0	0	0	0	0	0	16	0	0	174
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.745	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.713
								0.745										0.500			

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	N2R2	TOTAL
4:00 PM	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	11	0	0	41
4:15 PM	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	6	0	0	36
4:30 PM	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	34
4:45 PM	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	4	0	0	32
5:00 PM	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	35
5:15 PM	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	4	0	0	36
5:30 PM	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	4	0	0	35
5:45 PM	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	7	0	0	45
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	N2R2	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	258	0	0	0	0	0	0	0	0	0	36	0	0	294
APPROACH %'s :						0.00%	0.00%	100.00%	0.00%	0.00%						0.00%	0.00%	100.00%	0.00%		
PEAK HR :	04:45 PM - 05:45 PM																				TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	126	0	0	0	0	0	0	0	0	0	12	0	0	138
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.958
								0.900										0.750			

LOCATION: NE 20th Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-006
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:30 AM - 08:45 AM

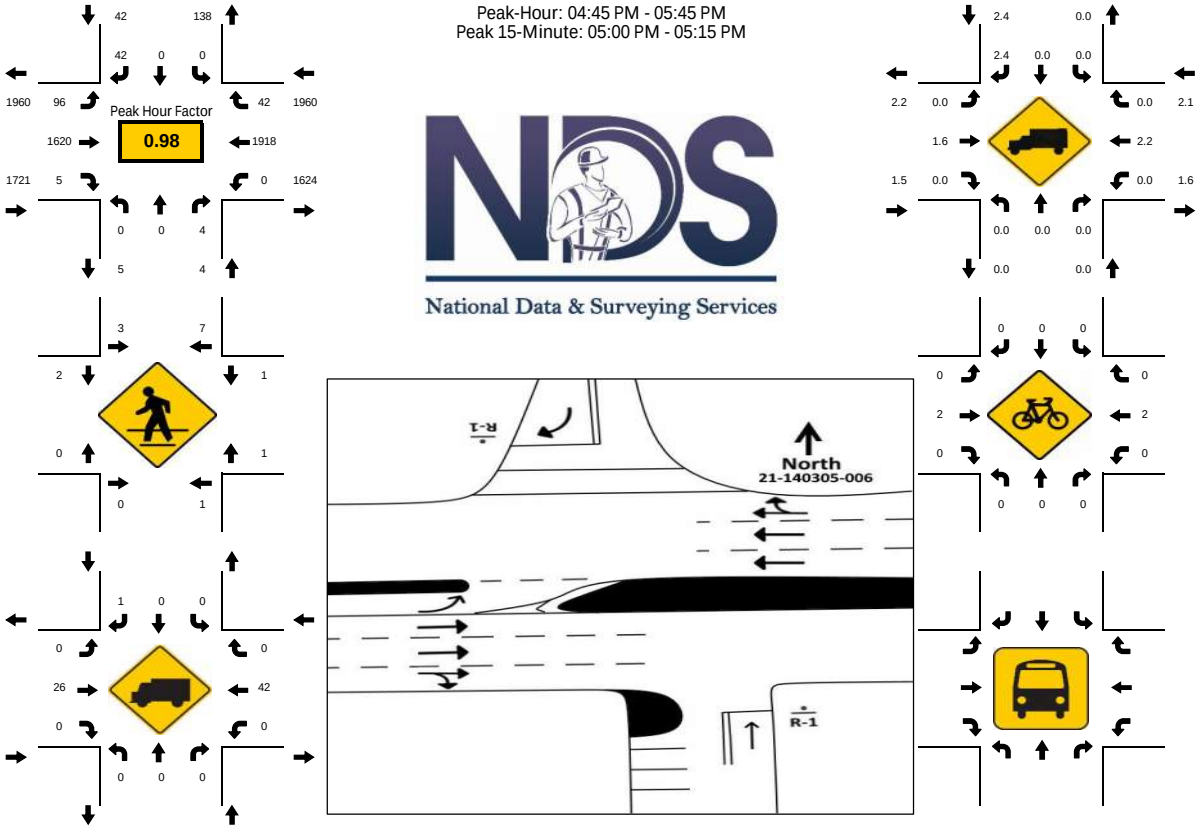


15-Min Count Period Beginning At	NE 20th Ave Northbound					NE 20th Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	0	0	0		0	0	7	0		7	316	0	9		0	246	0	0		585	2684
7:15 AM	0	0	0	0		0	0	3	0		10	407	0	12		0	275	3	0		710	2885
7:30 AM	0	0	0	0		0	0	6	0		20	380	0	6		0	250	3	0		665	2911
7:45 AM	0	0	0	0		0	0	6	0		31	372	1	3		0	307	4	0		724	3052
8:00 AM	0	0	1	0		0	0	6	0		34	419	2	6		0	312	6	0		786	3082
8:15 AM	0	0	0	0		0	0	10	0		20	402	2	8		0	289	5	0		736	2296
8:30 AM	0	0	0	0		0	0	7	0		16	449	1	3		0	324	6	0		806	1560
8:45 AM	0	0	0	0		0	0	5	0		14	369	0	4		0	351	11	0		754	754
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	0	0	4	0		0	0	40	0		136	1796	8	32		0	1404	44	0		**3464**	
Heavy Trucks	0	0	0	0		0	0	0	0		4	76	4	0		0	76	0	0		**160**	
Pedestrians		8					0					0					8				**16**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**0**	
Buses																						
Stopped Buses																						

LOCATION: NE 20th Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-006
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 05:00 PM - 05:15 PM

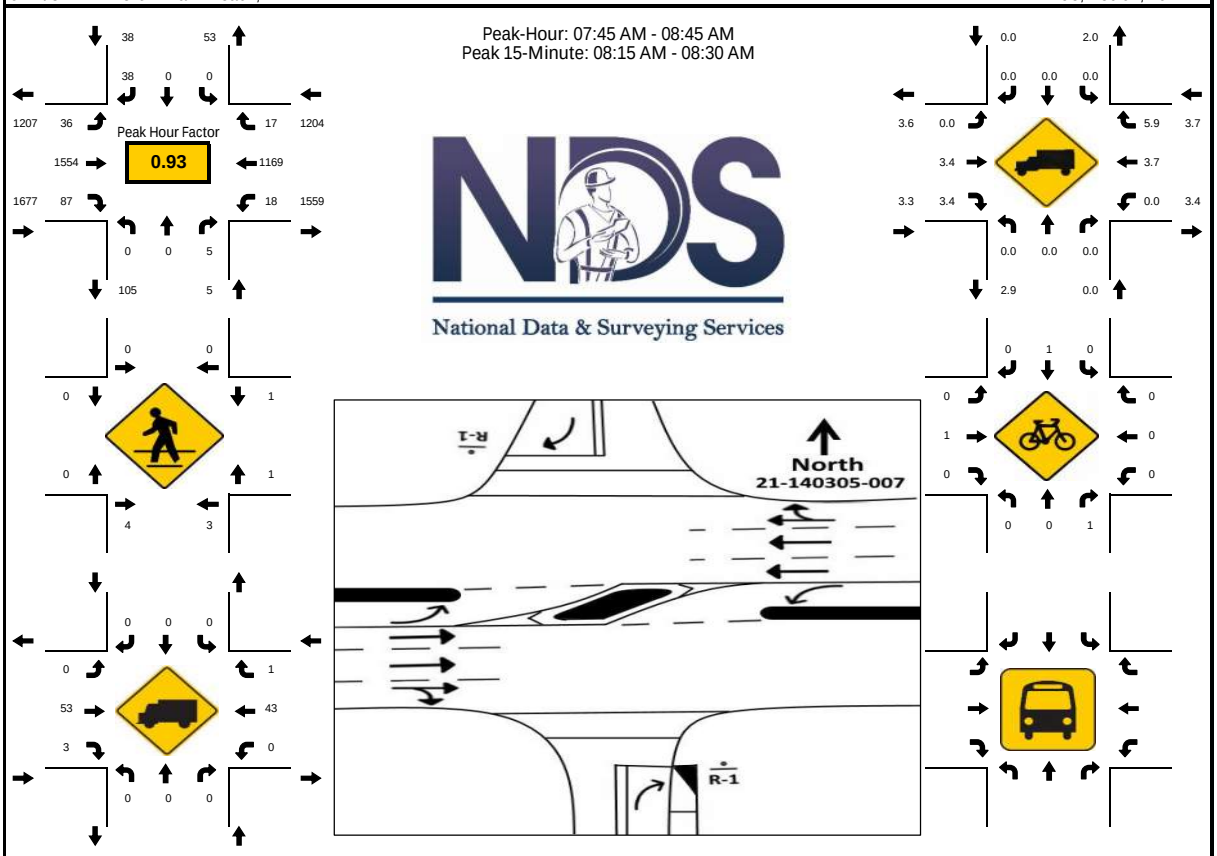


15-Min Count Period Beginning At	NE 20th Ave Northbound					NE 20th Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	0	0	0	0		0	0	9	0		20	407	1	0		0	472	13	0		922	3544
4:15 PM	0	0	2	0		0	0	15	1		12	444	0	6		0	448	10	0		938	3572
4:30 PM	0	0	3	0		0	0	11	0		17	327	3	5		0	361	10	0		737	3525
4:45 PM	0	0	1	0		0	0	11	0		21	421	2	4		0	474	13	0		947	3727
5:00 PM	0	0	2	0		0	0	12	0		19	435	1	4		0	470	7	0		950	3643
5:15 PM	0	0	1	0		0	0	13	0		18	365	0	6		0	472	16	0		891	2693
5:30 PM	0	0	0	0		0	0	6	0		13	399	2	11		0	502	6	0		939	1802
5:45 PM	0	0	0	0		0	0	10	0		26	379	0	8		0	428	12	0		863	863
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	0	0	8	0		0	0	52	0		84	1740	8	44		0	2008	64	0		**4008**	
Heavy Trucks	0	0	0	0		0	0	4	0		0	40	0	0		0	56	0	0		**100**	
Pedestrians		4					20					8					8				**40**	
Bicycles	0	0	0	0		0	0	0	0		0	4	0	0		0	4	0	0		**8**	
Buses																						
Stopped Buses																						

LOCATION: NE 21st Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-007
DATE: Tue, Dec 07, 2021

Peak-Hour: 07:45 AM - 08:45 AM
Peak 15-Minute: 08:15 AM - 08:30 AM

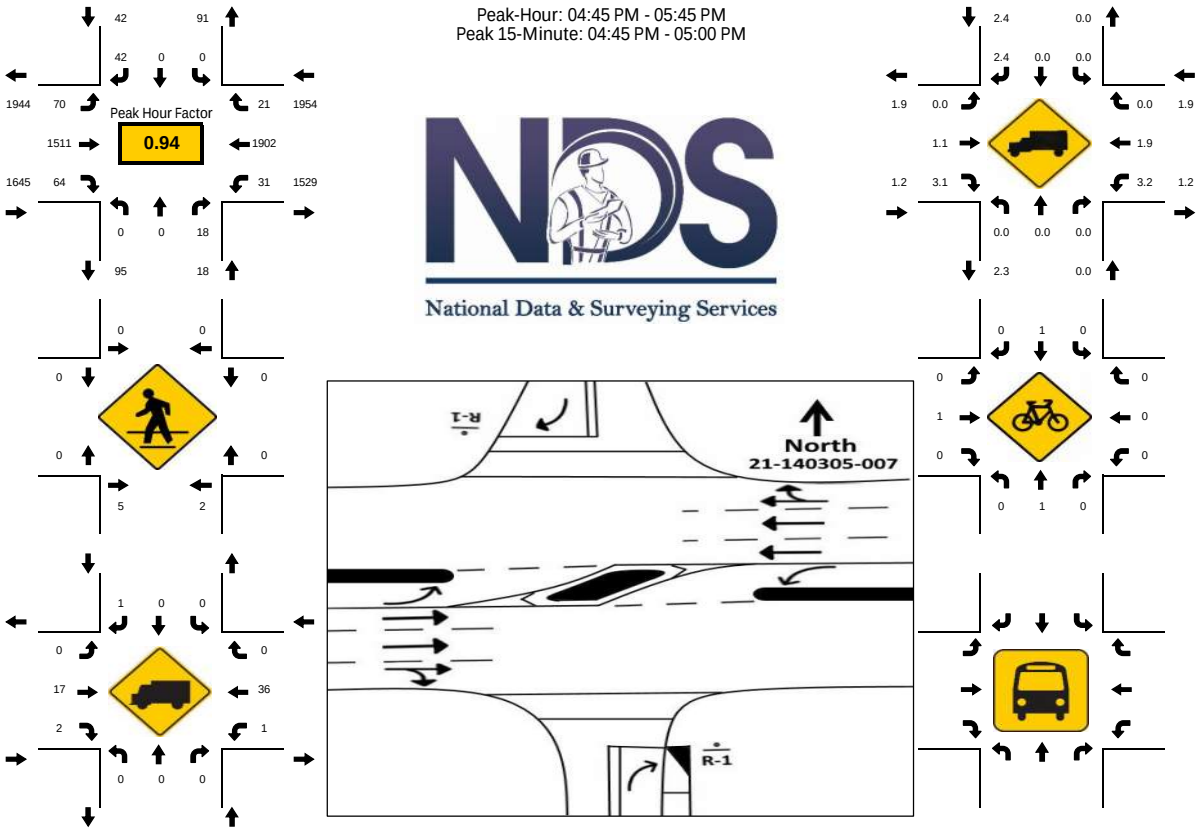


15-Min Count Period Beginning At	NE 21st Ave Northbound					NE 21st Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	0	3	0		0	0	11	0		4	325	27	0		5	219	3	0		597	2677
7:15 AM	0	0	1	0		0	0	13	0		3	358	19	0		3	286	3	0		686	2805
7:30 AM	0	0	1	0		0	0	8	0		7	377	20	0		2	273	1	1		690	2908
7:45 AM	0	0	1	0		0	0	4	0		9	382	27	1		4	271	4	1		704	2924
8:00 AM	0	0	1	0		0	0	9	0		6	403	25	1		2	274	4	0		725	2903
8:15 AM	0	0	2	0		0	0	11	0		13	399	25	0		4	332	2	1		789	2178
8:30 AM	0	0	1	0		0	0	14	0		6	370	10	0		6	292	7	0		706	1389
8:45 AM	0	0	4	0		0	0	10	0		3	317	4	1		3	338	3	0		683	683
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	8	0		0	0	56	0		52	1612	108	4		24	1328	28	4		**3224**	
Heavy Trucks	0	0	0	0		0	0	0	0		0	68	8	0		0	60	4	0		**140**	
Pedestrians		12					0					0					4				**16**	
Bicycles	0	0	4	0		0	4	0	0		0	4	0	0		0	0	0	0		**12**	
Buses																						
Stopped Buses																						

LOCATION: NE 21st Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-007
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 04:45 PM - 05:00 PM

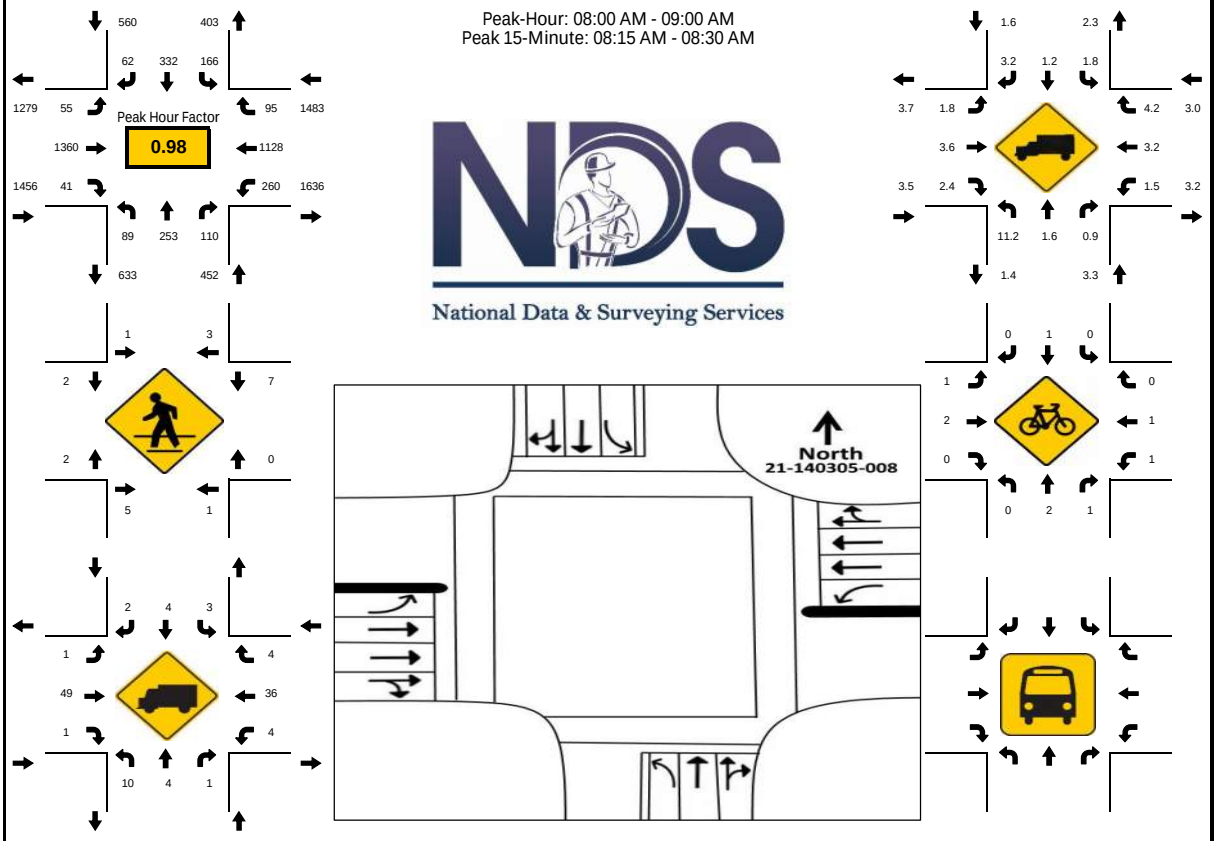


15-Min Count Period Beginning At	NE 21st Ave Northbound					NE 21st Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	0	0	3	0		0	0	14	0		8	400	15	1		6	479	6	1		933	3485
4:15 PM	0	0	4	0		0	0	10	0		12	406	10	4		7	429	3	3		888	3409
4:30 PM	0	0	7	0		0	0	11	0		5	300	6	5		6	348	2	1		691	3424
4:45 PM	0	0	2	0		0	0	9	0		20	410	22	0		4	499	6	1		973	3659
5:00 PM	0	0	4	0		0	0	15	0		18	360	11	3		5	436	4	1		857	3521
5:15 PM	0	0	1	0		0	0	6	0		8	360	12	3		10	493	7	3		903	2664
5:30 PM	0	0	11	0		0	0	12	0		14	381	19	4		4	474	4	3		926	1761
5:45 PM	0	0	2	0		0	0	8	0		14	362	15	1		8	418	3	4		835	835
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	44	0		0	0	60	0		80	1640	88	16		40	1996	28	12		**4004**	
Heavy Trucks	0	0	0	0		0	0	4	0		0	28	4	0		0	44	0	4		**80**	
Pedestrians		12					0					0					0				**12**	
Bicycles	0	4	0	0		0	4	0	0		0	4	0	0		0	0	0	0		**12**	
Buses																						
Stopped Buses																						

LOCATION: NE 22nd Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-008
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:15 AM - 08:30 AM



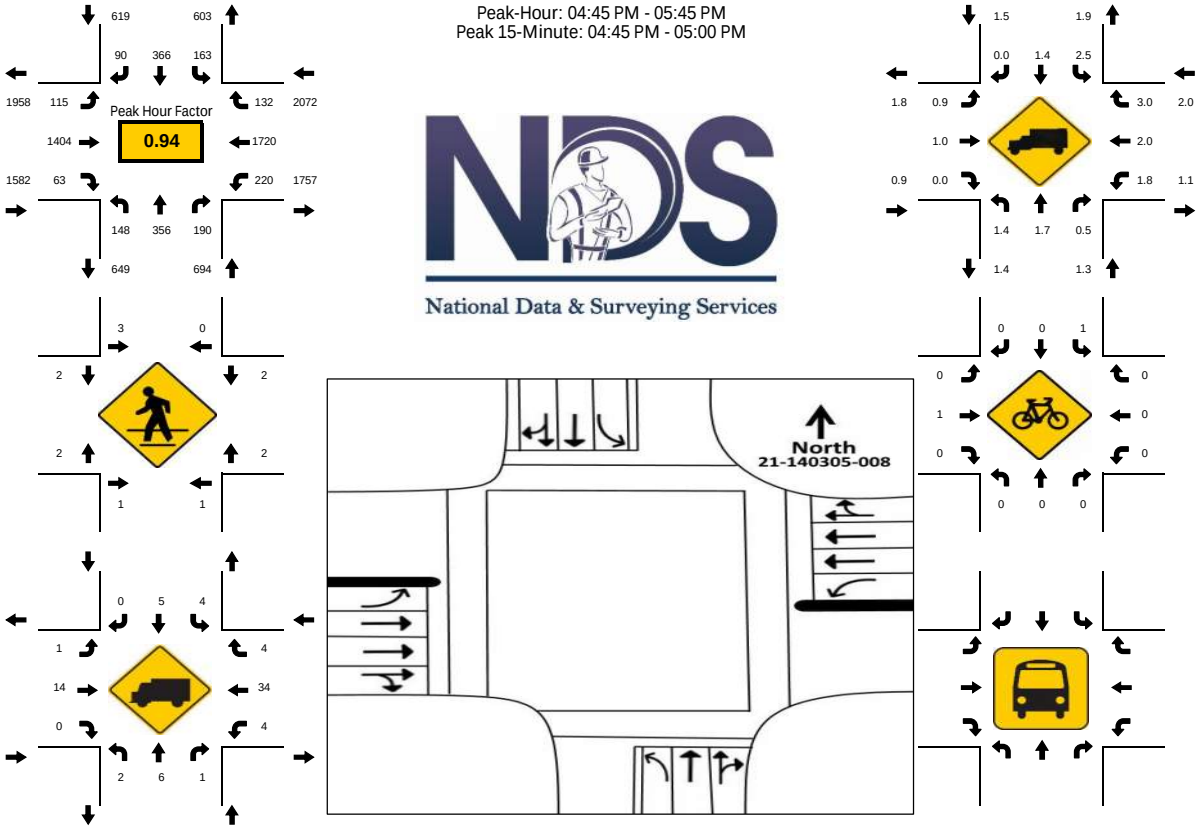
National Data & Surveying Services

15-Min Count Period Beginning At	NE 22nd Ave Northbound					NE 22nd Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	15	50	18	0		35	71	8	0		17	251	15	0		47	188	12	1		728	3459
7:15 AM	14	39	18	0		23	53	10	0		27	334	16	0		56	264	18	0		872	3665
7:30 AM	11	63	28	0		33	63	14	0		23	361	7	1		52	265	20	2		943	3804
7:45 AM	13	69	26	0		31	71	9	0		13	341	14	0		46	261	21	1		916	3858
8:00 AM	18	55	18	0		34	83	14	0		19	348	12	3		65	243	22	0		934	3951
8:15 AM	24	56	27	0		41	80	12	0		14	362	10	0		52	306	26	1		1011	3017
8:30 AM	22	64	28	0		40	73	15	0		11	356	13	0		68	281	25	1		997	2006
8:45 AM	25	78	37	0		51	96	21	0		8	294	6	0		68	298	22	5		1009	1009
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	100	312	148	0		204	384	84	0		76	1448	52	12		272	1224	104	20		**4440**	
Heavy Trucks	24	8	4	0		8	8	4	0		4	64	4	0		8	44	12	0		**192**	
Pedestrians		8					8					8					12				**36**	
Bicycles	0	4	4	0		0	4	0	0		4	4	0	0		4	4	0	0		**28**	
Buses																						
Stopped Buses																						

LOCATION: NE 22nd Ave & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-008
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 04:45 PM - 05:00 PM



15-Min Count Period Beginning At	NE 22nd Ave Northbound					NE 22nd Ave Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	38	73	40	0		38	80	20	0		33	364	27	3		49	439	39	2		1245	4719
4:15 PM	43	78	44	0		48	94	26	0		22	341	29	2		62	379	38	4		1210	4637
4:30 PM	32	75	33	0		35	88	21	0		24	249	20	2		50	295	17	5		946	4675
4:45 PM	33	91	51	0		43	96	20	0		26	399	16	0		47	465	27	4		1318	4967
5:00 PM	37	79	35	1		39	89	21	0		24	348	14	2		47	395	30	2		1163	4770
5:15 PM	49	110	48	0		46	87	28	0		25	324	14	0		49	429	36	3		1248	3607
5:30 PM	28	76	56	0		35	94	21	0		31	333	19	7		64	431	39	4		1238	2359
5:45 PM	30	72	36	0		42	80	14	0		27	327	26	3		52	382	30	0		1121	1121
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	196	440	224	4		184	384	112	0		124	1596	76	28		256	1860	156	16		**5656**	
Heavy Trucks	4	8	4	0		8	8	0	0		4	20	0	0		8	44	8	0		**116**	
Pedestrians		8					12					12					12				**44**	
Bicycles	0	0	0	0		4	0	0	0		0	4	0	0		0	0	0	0		**8**	
Buses																						
Stopped Buses																						

National Data & Surveying Services Intersection Turning Movement Count

Location: NE 22nd Ave & NE 163rd St/SR 826
City: North Miami Beach
Control: Signalized

Project ID: 21-140305-008
Date: 12/7/2021

Data - RTOR

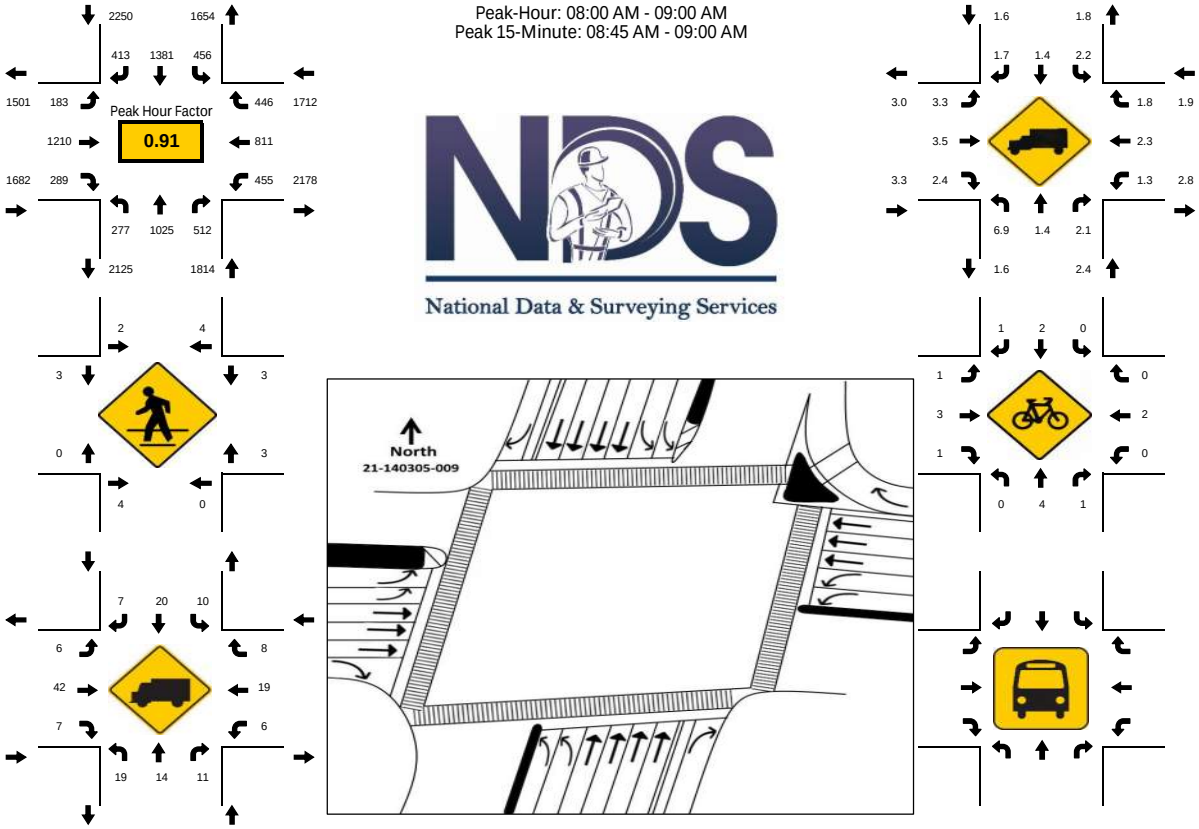
NS/EW Streets:	NE 22nd Ave				NE 22nd Ave				NE 163rd St/SR 826				NE 163rd St/SR 826				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	7	0	0	0	2	0	0	0	1	0	0	0	0	0	10
7:15 AM	0	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	0	8	0	0	0	4	0	0	0	0	0	0	0	2	0	14
7:45 AM	0	0	7	0	0	0	0	0	0	0	1	0	0	0	3	0	11
8:00 AM	0	0	9	0	0	0	1	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	0	19	0	0	0	3	0	0	0	0	0	0	0	2	0	24
8:45 AM	0	0	12	0	0	0	8	0	0	0	0	0	0	0	2	0	22
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	79	0	0	0	20	0	0	0	2	0	0	0	9	0	110
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	50	0	0	0	12	0	0	0	0	0	0	0	4	0	66
PEAK HR FACTOR :	0.000	0.000	0.658	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.688
	0.658				0.375								0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	5	0	9
4:15 PM	0	0	3	0	0	0	0	0	0	0	1	0	0	0	4	0	8
4:30 PM	0	0	6	0	0	0	5	0	0	0	1	0	0	0	0	0	12
4:45 PM	0	0	10	0	0	0	6	0	0	0	0	0	0	0	0	0	16
5:00 PM	0	0	7	0	0	0	10	0	0	0	0	0	0	0	2	0	19
5:15 PM	0	0	5	0	0	0	8	0	0	0	0	0	0	0	2	0	15
5:30 PM	0	0	10	0	0	0	3	0	0	0	0	0	0	0	0	0	13
5:45 PM	0	0	7	0	0	0	1	0	0	0	0	0	0	0	2	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	50	0	0	0	35	0	0	0	2	0	0	0	15	0	102
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	32	0	0	0	27	0	0	0	0	0	0	0	4	0	63
PEAK HR FACTOR :	0.000	0.000	0.800	0.000	0.000	0.000	0.675	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.829
	0.800				0.675								0.500				

LOCATION: Biscayne Blvd/US 1 & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-009
DATE: Tue, Dec 07, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

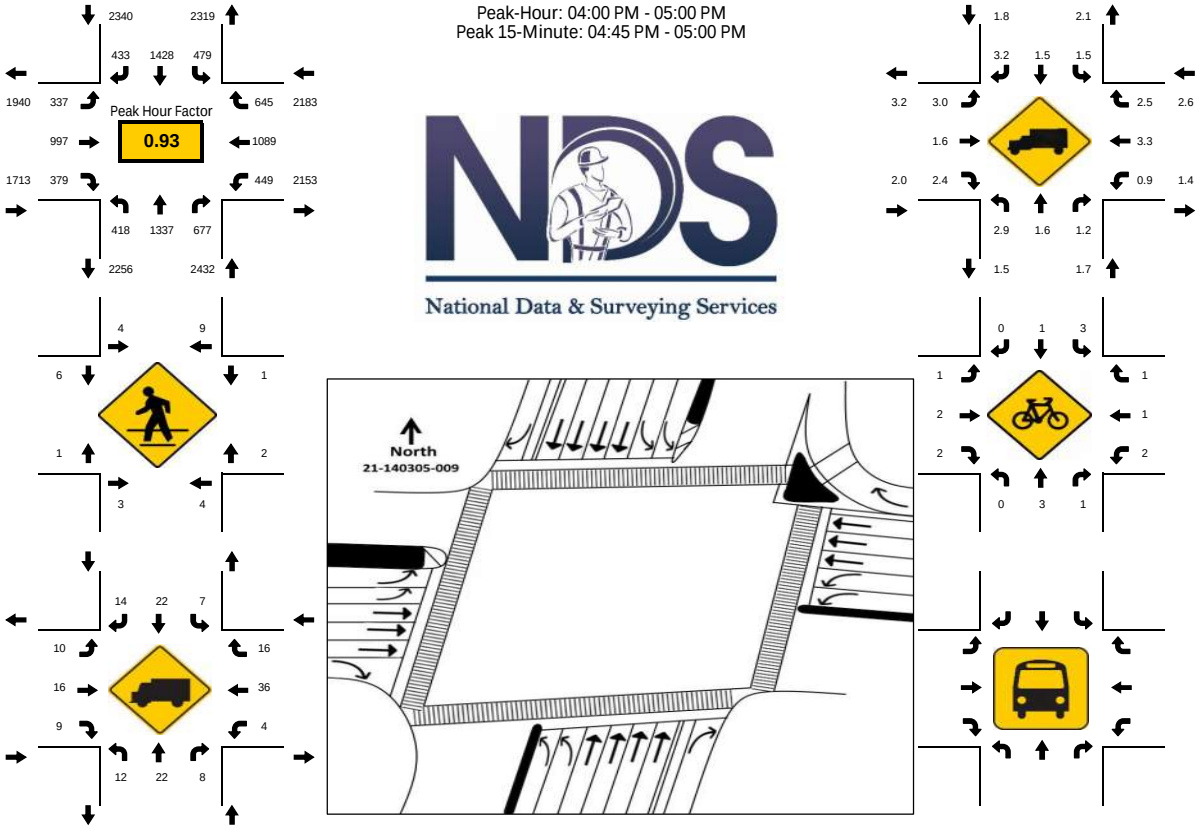


15-Min Count Period Beginning At	Biscayne Blvd/US 1 Northbound					Biscayne Blvd/US 1 Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	47	166	96	1		64	304	64	1		37	159	76	0		106	166	83	0		1370	6135
7:15 AM	64	195	107	0		78	228	64	0		33	283	94	0		104	190	73	1		1514	6384
7:30 AM	67	205	86	1		93	247	73	0		53	264	91	0		104	187	112	0		1583	6681
7:45 AM	61	270	109	0		78	314	87	0		44	254	87	0		96	200	68	0		1668	7080
8:00 AM	52	220	101	0		91	276	93	0		50	286	78	0		103	171	98	0		1619	7458
8:15 AM	72	175	83	1		107	359	77	1		46	322	88	0		112	249	119	0		1811	5839
8:30 AM	79	304	146	0		139	393	136	0		42	305	58	0		111	161	107	1		1982	4028
8:45 AM	73	326	182	0		117	353	107	1		45	297	65	0		127	230	122	1		2046	2046
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	316	1304	728	4		556	1572	544	4		200	1288	352	0		508	996	488	4		**8864**	
Heavy Trucks	24	36	20	0		16	36	16	4		16	56	16	0		8	32	16	0		**292**	
Pedestrians		8					12					8					8				**36**	
Bicycles	0	16	4	0		0	8	4	0		4	8	4	0		0	4	0	0		**52**	
Buses																						
Stopped Buses																						

LOCATION: Biscayne Blvd/US 1 & NE 163rd St/SR 826
CITY/STATE: North Miami Beach, FL

PROJECT ID: 21-140305-009
DATE: Tue, Dec 07, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:45 PM - 05:00 PM



15-Min Count Period Beginning At	Biscayne Blvd/US 1 Northbound					Biscayne Blvd/US 1 Southbound					NE 163rd St/SR 826 Eastbound					NE 163rd St/SR 826 Westbound						Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
4:00 PM	111	283	157	1		129	274	97	0		64	285	109	0		120	336	179	0		2145	8668
4:15 PM	100	343	171	1		112	378	117	0		88	233	87	0		111	256	152	0		2149	8441
4:30 PM	103	346	172	0		117	385	102	0		82	187	90	0		113	203	155	0		2055	8548
4:45 PM	101	365	177	1		121	391	117	0		103	292	93	0		105	294	159	0		2319	8597
5:00 PM	120	282	132	1		112	293	103	0		73	240	91	0		99	244	126	2		1918	8289
5:15 PM	116	352	181	0		102	298	120	1		87	244	118	0		149	311	177	0		2256	6371
5:30 PM	112	304	183	3		114	300	114	0		61	245	102	0		106	291	169	0		2104	4115
5:45 PM	114	274	174	2		112	293	102	0		79	208	134	0		118	262	139	0		2011	2011
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	444	1460	708	4		516	1564	468	0		412	1168	436	0		480	1344	716	0		**9720**	
Heavy Trucks	20	32	8	0		8	24	20	0		16	36	16	0		8	48	20	0		**256**	
Pedestrians		12					24					16					8				**60**	
Bicycles	0	8	4	0		8	4	0	0		4	4	8	0		8	4	4	0		**56**	
Buses																						
Stopped Buses																						

National Data & Surveying Services Intersection Turning Movement Count

Location: Biscayne Blvd/US 1 & NE 163rd St/SR 826
City: North Miami Beach
Control: Signalized

Project ID: 21-140305-009
Date: 12/7/2021

Data - RTOR

NS/EW Streets:	Biscayne Blvd/US 1				Biscayne Blvd/US 1				NE 163rd St/SR 826				NE 163rd St/SR 826				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	12	0	0	0	4	0	0	0	17	0	0	0	57	0	90
7:15 AM	0	0	30	0	0	0	14	0	0	0	20	0	0	0	42	0	106
7:30 AM	0	0	23	0	0	0	21	0	0	0	15	0	0	0	38	0	97
7:45 AM	0	0	18	0	0	0	7	0	0	0	8	0	0	0	33	0	66
8:00 AM	0	0	11	0	0	0	17	0	0	0	8	0	0	0	41	0	77
8:15 AM	0	0	16	0	0	0	21	0	0	0	9	0	0	0	45	0	91
8:30 AM	0	0	13	0	0	0	16	0	0	0	4	0	0	0	60	0	93
8:45 AM	0	0	16	0	0	0	2	0	0	0	7	0	0	0	66	0	91
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	139	0	0	0	102	0	0	0	88	0	0	0	382	0	711
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	56	0	0	0	56	0	0	0	28	0	0	0	212	0	352
PEAK HR FACTOR :	0.000	0.000	0.875	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.778	0.000	0.000	0.000	0.803	0.000	0.946
	0.875				0.667				0.778				0.803				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	12	0	0	0	11	0	0	0	8	0	0	0	77	0	108
4:15 PM	0	0	25	0	0	0	8	0	0	0	6	0	0	0	75	0	114
4:30 PM	0	0	18	0	0	0	10	0	0	0	3	0	0	0	55	0	86
4:45 PM	0	0	16	0	0	0	12	0	0	0	5	0	0	0	65	0	98
5:00 PM	0	0	8	0	0	0	5	0	0	0	9	0	0	0	75	0	97
5:15 PM	0	0	27	0	0	0	7	0	0	0	22	0	0	0	93	0	149
5:30 PM	0	0	32	0	0	0	5	0	0	0	9	0	0	0	82	0	128
5:45 PM	0	0	12	0	0	0	5	0	0	0	9	0	0	0	69	0	95
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	150	0	0	0	63	0	0	0	71	0	0	0	591	0	875
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	71	0	0	0	41	0	0	0	22	0	0	0	272	0	406
PEAK HR FACTOR :	0.000	0.000	0.710	0.000	0.000	0.000	0.854	0.000	0.000	0.000	0.688	0.000	0.000	0.000	0.883	0.000	0.890
	0.710				0.854				0.688				0.883				

FDOT Historic AADT Data

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5225 - SR 826/NE 163 ST, 100' E OF NE 20 AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	43500 C	E 23000	W 20500	9.00	54.20	3.10
2019	51000 C	E 27500	W 23500	9.00	54.60	3.90
2018	49500 C	E 26500	W 23000	9.00	54.30	4.20
2017	58000 C	E 29000	W 29000	9.00	55.00	9.40
2016	49000 C	E 26500	W 22500	9.00	54.50	5.30
2015	56000 C	E 29500	W 26500	9.00	54.70	4.50
2014	50000 C	E 27000	W 23000	9.00	54.50	3.70
2013	50000 C	E 27500	W 22500	9.00	52.40	3.30
2012	54000 C	E 29500	W 24500	9.00	55.70	2.80
2011	55000 C	E 27500	W 27500	9.00	55.10	2.80
2010	52500 C	E 26500	W 26000	8.98	54.08	2.80
2009	58000 C	E 29500	W 28500	8.99	53.24	4.10
2008	53500 C	E 27500	W 26000	9.09	55.75	4.20
2007	54000 C	E 27500	W 26500	8.01	54.34	3.20
2006	51000 C	E 25500	W 25500	7.97	54.22	5.10
2005	51000 C	E 26000	W 25000	8.80	53.80	5.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

72-Hour Continuous Counts

Prepared by National Data & Surveying Services

VOLUME

NE 163rd St/SR 826 Bet. NE 20th Ave & NE 21st Ave

Day: Tuesday
Date: 12/7/2021

City: North Miami Beach
Project #: FL21_140306_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,747	23,225	46,972

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			91		99		190		12:00			373		367		740	
00:15			67		109		176		12:15			403		340		743	
00:30			58		73		131		12:30			440		398		838	
00:45			63	279	62	343	125	622	12:45			399	1615	349	1454	748	3069
01:00			43		40		83		13:00			387		376		763	
01:15			25		36		61		13:15			464		379		843	
01:30			42		34		76		13:30			391		354		745	
01:45			29	139	37	147	66	286	13:45			375	1617	409	1518	784	3135
02:00			16		24		40		14:00			402		358		760	
02:15			22		27		49		14:15			409		455		864	
02:30			26		23		49		14:30			406		420		826	
02:45			31	95	21	95	52	190	14:45			326	1543	367	1600	693	3143
03:00			18		32		50		15:00			287		380		667	
03:15			18		20		38		15:15			353		414		767	
03:30			26		17		43		15:30			368		441		809	
03:45			29	91	24	93	53	184	15:45			394	1402	384	1619	778	3021
04:00			36		20		56		16:00			404		414		818	
04:15			25		14		39		16:15			399		413		812	
04:30			39		20		59		16:30			392		343		735	
04:45			44	144	22	76	66	220	16:45			260	1455	425	1595	685	3050
05:00			51		51		102		17:00			358		426		784	
05:15			104		47		151		17:15			373		480		853	
05:30			120		71		191		17:30			400		441		841	
05:45			139	414	90	259	229	673	17:45			348	1479	367	1714	715	3193
06:00			204		108		312		18:00			351		423		774	
06:15			237		100		337		18:15			384		457		841	
06:30			268		144		412		18:30			387		424		811	
06:45			335	1044	172	524	507	1568	18:45			426	1548	438	1742	864	3290
07:00			329		197		526		19:00			329		353		682	
07:15			377		267		644		19:15			327		337		664	
07:30			397		271		668		19:30			306		313		619	
07:45			399	1502	281	1016	680	2518	19:45			328	1290	288	1291	616	2581
08:00			438		268		706		20:00			311		262		573	
08:15			411		303		714		20:15			237		261		498	
08:30			307		348		655		20:30			266		264		530	
08:45			255	1411	334	1253	589	2664	20:45			232	1046	233	1020	465	2066
09:00			286		294		580		21:00			226		214		440	
09:15			327		288		615		21:15			190		197		387	
09:30			322		170		492		21:30			195		236		431	
09:45			182	1117	365	1117	547	2234	21:45			182	793	165	812	347	1605
10:00			323		341		664		22:00			185		180		365	
10:15			312		332		644		22:15			174		217		391	
10:30			344		310		654		22:30			170		166		336	
10:45			324	1303	317	1300	641	2603	22:45			213	742	137	700	350	1442
11:00			348		338		686		23:00			147		203		350	
11:15			239		314		553		23:15			151		170		321	
11:30			255		283		538		23:30			123		146		269	
11:45			323	1165	376	1311	699	2476	23:45			92	513	107	626	199	1139
TOTALS				8704		7534		16238	TOTALS				15043		15691		30734
SPLIT %				53.6%		46.4%		34.6%	SPLIT %				48.9%		51.1%		65.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,747	23,225	46,972

AM Peak Hour			07:30	11:45	11:45	PM Peak Hour			12:30	16:45	18:00
AM Pk Volume			1645	1481	3020	PM Pk Volume			1690	1772	3290
Pk Hr Factor			0.939	0.930	0.901	Pk Hr Factor			0.911	0.923	0.952
7 - 9 Volume	0	0	2913	2269	5182	4 - 6 Volume	0	0	2934	3309	6243
7 - 9 Peak Hour			07:30	08:00	07:30	4 - 6 Peak Hour			17:00	16:45	17:00
7 - 9 Pk Volume	0	0	1645	1253	2768	4 - 6 Pk Volume	0	0	1479	1772	3193
Pk Hr Factor	0.000	0.000	0.939	0.900	0.969	Pk Hr Factor	0.000	0.000	0.924	0.923	0.936

Prepared by National Data & Surveying Services

VOLUME

NE 163rd St/SR 826 Bet. NE 20th Ave & NE 21st Ave

Day: Wednesday
Date: 12/8/2021

City: North Miami Beach
Project #: FL21_140306_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,737	23,278	47,015

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			112		117		229		12:00			357		347		704	
00:15			77		79		156		12:15			286		387		673	
00:30			63		93		156		12:30			370		340		710	
00:45			43	295	68	357	111	652	12:45			338	1351	361	1435	699	2786
01:00			41		51		92		13:00			374		352		726	
01:15			44		31		75		13:15			367		350		717	
01:30			37		39		76		13:30			430		410		840	
01:45			36	158	44	165	80	323	13:45			413	1584	419	1531	832	3115
02:00			31		22		53		14:00			414		379		793	
02:15			31		36		67		14:15			379		350		729	
02:30			26		22		48		14:30			397		414		811	
02:45			28	116	27	107	55	223	14:45			405	1595	435	1578	840	3173
03:00			20		20		40		15:00			391		395		786	
03:15			19		23		42		15:15			379		418		797	
03:30			18		22		40		15:30			374		427		801	
03:45			26	83	29	94	55	177	15:45			426	1570	415	1655	841	3225
04:00			28		19		47		16:00			391		359		750	
04:15			34		15		49		16:15			371		427		798	
04:30			47		33		80		16:30			399		430		829	
04:45			47	156	28	95	75	251	16:45			353	1514	445	1661	798	3175
05:00			62		40		102		17:00			382		388		770	
05:15			105		49		154		17:15			370		455		825	
05:30			121		71		192		17:30			389		408		797	
05:45			166	454	80	240	246	694	17:45			390	1531	411	1662	801	3193
06:00			174		109		283		18:00			389		402		791	
06:15			248		142		390		18:15			408		437		845	
06:30			327		116		443		18:30			416		370		786	
06:45			375	1124	177	544	552	1668	18:45			384	1597	333	1542	717	3139
07:00			334		213		547		19:00			303		349		652	
07:15			393		274		667		19:15			296		298		594	
07:30			415		219		634		19:30			356		296		652	
07:45			313	1455	349	1055	662	2510	19:45			297	1252	286	1229	583	2481
08:00			288		305		593		20:00			319		265		584	
08:15			330		334		664		20:15			267		293		560	
08:30			222		257		479		20:30			207		244		451	
08:45			229	1069	414	1310	643	2379	20:45			218	1011	231	1033	449	2044
09:00			233		291		524		21:00			230		223		453	
09:15			206		303		509		21:15			176		226		402	
09:30			215		286		501		21:30			177		185		362	
09:45			273	927	322	1202	595	2129	21:45			194	777	187	821	381	1598
10:00			375		316		691		22:00			199		192		391	
10:15			355		308		663		22:15			129		174		303	
10:30			361		328		689		22:30			171		161		332	
10:45			328	1419	248	1200	576	2619	22:45			154	653	158	685	312	1338
11:00			363		353		716		23:00			149		192		341	
11:15			388		388		776		23:15			128		165		293	
11:30			389		342		731		23:30			99		134		233	
11:45			436	1576	376	1459	812	3035	23:45			94	470	127	618	221	1088
TOTALS				8832		7828		16660	TOTALS				14905		15450		30355
SPLIT %				53.0%		47.0%		35.4%	SPLIT %				49.1%		50.9%		64.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,737	23,278	47,015

AM Peak Hour			11:00	11:00	11:00	PM Peak Hour			13:30	16:30	14:30
AM Pk Volume			1576	1459	3035	PM Pk Volume			1636	1718	3234
Pk Hr Factor			0.904	0.940	0.934	Pk Hr Factor			0.951	0.944	0.963
7 - 9 Volume	0	0	2524	2365	4889	4 - 6 Volume	0	0	3045	3323	6368
7 - 9 Peak Hour			07:00	08:00	07:15	4 - 6 Peak Hour			17:00	16:30	16:30
7 - 9 Pk Volume	0	0	1455	1310	2556	4 - 6 Pk Volume	0	0	1531	1718	3222
Pk Hr Factor	0.000	0.000	0.877	0.791	0.958	Pk Hr Factor	0.000	0.000	0.981	0.944	0.972

Prepared by National Data & Surveying Services

VOLUME

NE 163rd St/SR 826 Bet. NE 20th Ave & NE 21st Ave

Day: Thursday
Date: 12/9/2021

City: North Miami Beach
Project #: FL21_140306_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,093	23,095	46,188

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			98		115		213		12:00			249		388		637	
00:15			68		82		150		12:15			324		391		715	
00:30			57		78		135		12:30			393		301		694	
00:45			51	274	62	337	113	611	12:45			323	1289	366	1446	689	2735
01:00			56		78		134		13:00			333		369		702	
01:15			38		57		95		13:15			359		323		682	
01:30			25		41		66		13:30			404		367		771	
01:45			40	159	38	214	78	373	13:45			377	1473	415	1474	792	2947
02:00			38		23		61		14:00			421		385		806	
02:15			14		34		48		14:15			398		367		765	
02:30			30		26		56		14:30			426		388		814	
02:45			33	115	14	97	47	212	14:45			378	1623	421	1561	799	3184
03:00			23		25		48		15:00			401		375		776	
03:15			23		25		48		15:15			419		428		847	
03:30			17		24		41		15:30			390		383		773	
03:45			27	90	22	96	49	186	15:45			437	1647	404	1590	841	3237
04:00			14		20		34		16:00			369		397		766	
04:15			26		38		64		16:15			389		433		822	
04:30			42		20		62		16:30			433		409		842	
04:45			52	134	34	112	86	246	16:45			353	1544	422	1661	775	3205
05:00			51		28		79		17:00			388		410		798	
05:15			91		52		143		17:15			361		450		811	
05:30			124		71		195		17:30			383		352		735	
05:45			135	401	66	217	201	618	17:45			370	1502	469	1681	839	3183
06:00			196		110		306		18:00			355		437		792	
06:15			265		125		390		18:15			376		390		766	
06:30			306		119		425		18:30			405		400		805	
06:45			346	1113	173	527	519	1640	18:45			361	1497	399	1626	760	3123
07:00			308		228		536		19:00			368		359		727	
07:15			377		261		638		19:15			331		313		644	
07:30			322		215		537		19:30			329		311		640	
07:45			258	1265	340	1044	598	2309	19:45			294	1322	283	1266	577	2588
08:00			315		289		604		20:00			295		276		571	
08:15			292		329		621		20:15			272		276		548	
08:30			198		278		476		20:30			233		245		478	
08:45			248	1053	360	1256	608	2309	20:45			206	1006	232	1029	438	2035
09:00			198		304		502		21:00			243		202		445	
09:15			305		269		574		21:15			226		213		439	
09:30			245		300		545		21:30			173		240		413	
09:45			298	1046	296	1169	594	2215	21:45			190	832	198	853	388	1685
10:00			319		291		610		22:00			183		192		375	
10:15			374		283		657		22:15			162		190		352	
10:30			270		341		611		22:30			150		164		314	
10:45			377	1340	297	1212	674	2552	22:45			167	662	156	702	323	1364
11:00			286		326		612		23:00			157		186		343	
11:15			313		361		674		23:15			115		194		309	
11:30			378		314		692		23:30			110		147		257	
11:45			241	1218	275	1276	516	2494	23:45			106	488	122	649	228	1137
TOTALS				8208		7557		15765	TOTALS				14885		15538		30423
SPLIT %				52.1%		47.9%		34.1%	SPLIT %				48.9%		51.1%		65.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	23,093	23,095	46,188

AM Peak Hour			10:45	11:30	10:45	PM Peak Hour			15:00	17:15	15:45
AM Pk Volume			1354	1368	2652	PM Pk Volume			1647	1708	3271
Pk Hr Factor			0.896	0.875	0.958	Pk Hr Factor			0.942	0.910	0.971
7 - 9 Volume	0	0	2318	2300	4618	4 - 6 Volume	0	0	3046	3342	6388
7 - 9 Peak Hour			07:15	08:00	07:15	4 - 6 Peak Hour			16:15	16:30	16:15
7 - 9 Pk Volume	0	0	1272	1256	2377	4 - 6 PK Volume	0	0	1563	1691	3237
Pk Hr Factor	0.000	0.000	0.844	0.872	0.931	Pk Hr Factor	0.000	0.000	0.902	0.939	0.961

Peak Season Category Report

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.03	1.06
2	01/06/2019 - 01/12/2019	1.02	1.05
3	01/13/2019 - 01/19/2019	1.01	1.04
4	01/20/2019 - 01/26/2019	1.00	1.03
* 5	01/27/2019 - 02/02/2019	0.98	1.01
* 6	02/03/2019 - 02/09/2019	0.97	1.00
* 7	02/10/2019 - 02/16/2019	0.96	0.99
* 8	02/17/2019 - 02/23/2019	0.96	0.99
* 9	02/24/2019 - 03/02/2019	0.96	0.99
*10	03/03/2019 - 03/09/2019	0.96	0.99
*11	03/10/2019 - 03/16/2019	0.97	1.00
*12	03/17/2019 - 03/23/2019	0.97	1.00
*13	03/24/2019 - 03/30/2019	0.97	1.00
*14	03/31/2019 - 04/06/2019	0.97	1.00
*15	04/07/2019 - 04/13/2019	0.98	1.01
*16	04/14/2019 - 04/20/2019	0.98	1.01
*17	04/21/2019 - 04/27/2019	0.98	1.01
18	04/28/2019 - 05/04/2019	0.99	1.02
19	05/05/2019 - 05/11/2019	0.99	1.02
20	05/12/2019 - 05/18/2019	1.00	1.03
21	05/19/2019 - 05/25/2019	1.00	1.03
22	05/26/2019 - 06/01/2019	1.01	1.04
23	06/02/2019 - 06/08/2019	1.01	1.04
24	06/09/2019 - 06/15/2019	1.02	1.05
25	06/16/2019 - 06/22/2019	1.02	1.05
26	06/23/2019 - 06/29/2019	1.02	1.05
27	06/30/2019 - 07/06/2019	1.02	1.05
28	07/07/2019 - 07/13/2019	1.03	1.06
29	07/14/2019 - 07/20/2019	1.03	1.06
30	07/21/2019 - 07/27/2019	1.03	1.06
31	07/28/2019 - 08/03/2019	1.02	1.05
32	08/04/2019 - 08/10/2019	1.02	1.05
33	08/11/2019 - 08/17/2019	1.02	1.05
34	08/18/2019 - 08/24/2019	1.02	1.05
35	08/25/2019 - 08/31/2019	1.02	1.05
36	09/01/2019 - 09/07/2019	1.03	1.06
37	09/08/2019 - 09/14/2019	1.03	1.06
38	09/15/2019 - 09/21/2019	1.03	1.06
39	09/22/2019 - 09/28/2019	1.02	1.05
40	09/29/2019 - 10/05/2019	1.01	1.04
41	10/06/2019 - 10/12/2019	1.00	1.03
42	10/13/2019 - 10/19/2019	0.99	1.02
43	10/20/2019 - 10/26/2019	1.00	1.03
44	10/27/2019 - 11/02/2019	1.00	1.03
45	11/03/2019 - 11/09/2019	1.01	1.04
46	11/10/2019 - 11/16/2019	1.01	1.04
47	11/17/2019 - 11/23/2019	1.02	1.05
48	11/24/2019 - 11/30/2019	1.02	1.05
49	12/01/2019 - 12/07/2019	1.02	1.05
50	12/08/2019 - 12/14/2019	1.03	1.06
51	12/15/2019 - 12/21/2019	1.03	1.06
52	12/22/2019 - 12/28/2019	1.02	1.05
53	12/29/2019 - 12/31/2019	1.01	1.04

* PEAK SEASON

COVID-19 Adjustment Factor

COVID Volume Adjustment Calculations

	2019 FDOT	2021 Collected
	SR 826/NE 163rd Street east of NE 20th Avenue (Count Station 875225)	
2019 AADT	51,000	-
Growth Rate	3.09%	-
2021 AADT	54,200	-
2021 ADT	-	46,725
SF	-	1.02
ACF	-	0.98
2021 AADT Volume	54,200	46,706
COVID Adjustment Factor	1.16	

Signal Timings

TOD Schedule Report

for 2016: NE 19 Av&NE 164 St

Print Date: 10/4/2021

Print Time: 1:49 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2016	NE 19 Av&NE 164 St	DOW-2	TOD	[04] HEAVY AM PEAK	120	31	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	SBT	EBL	WBT	-	NBT	WBL	EBT
0	33	38	32	0	33	38	32

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	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2	SBT	7 - 7 - 7	22 - 22 - 22	7 - 7 - 7	1 - 1 - 1	40 - 40 - 40	0 - 0 - 0	4	2
3	EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	17 - 17 - 17	3.4	2
4	WBT	5 - 5 - 5	27 - 27 - 27	7 - 7 - 7	3.5 - 2.5 - 2.5	20 - 20 - 20	32 - 32 - 32	4	2
5	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6	NBT	7 - 7 - 7	22 - 22 - 22	7 - 7 - 7	1 - 1 - 1	40 - 40 - 40	0 - 0 - 0	4	2
7	WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	17 - 17 - 17	3.4	2
8	EBT	5 - 5 - 5	27 - 27 - 27	7 - 7 - 7	3.5 - 2.5 - 2.5	20 - 20 - 20	32 - 32 - 32	4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	-234-678
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

Current TOD Schedule	Plan	Cycle	Green Time 1 -	2 SBT	3 EBL	4 WBT	5 -	6 NBT	7 WBL	8 EBT	Ring Offset	Offset
	1	90	0	11	30	32	0	11	30	32	0	1
	2	120	0	43	28	32	0	43	28	32	0	28
	3	110	0	28	33	32	0	28	33	32	0	26
	4	120	0	33	38	32	0	33	38	32	0	31

Local TOD Schedule

Time	Plan	DOW
0000	1	Su M T W Th F S
0630	2	Su M T W Th F S
1000	3	Su M T W Th F S
1330	4	Su M T W Th F S
2000	3	Su M T W Th F S

TOD Schedule Report

for 2016: NE 19 Av&NE 164 St

Print Date: 10/4/2021

Print Time: 1:49 PM

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

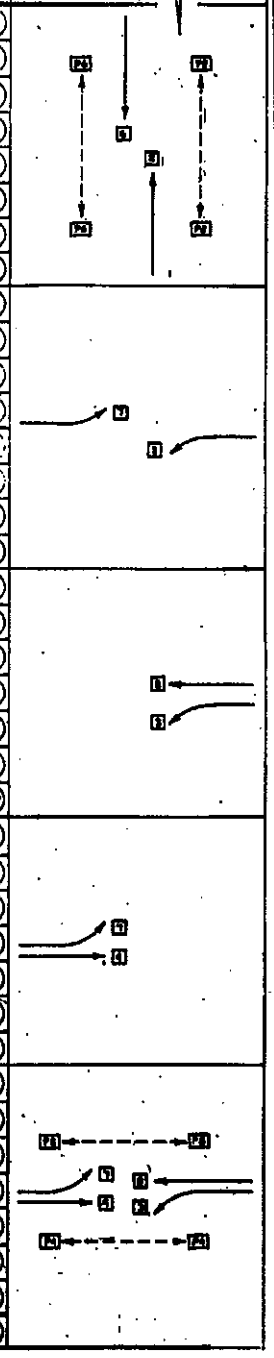
*** Settings**

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

SIGNAL OPERATING PLAN

PHASE	INT	1	2	3	4	5	6	7	8	9	10	11	12	P2	P4*	P6	P8*
		SIGNAL HEAD NUMBER												PEDESTRIAN HEAD NUMBER			
Ø2+6 NE 19 AVE	R/W		G	R	R		G	R	R					W	DW	W	DW
	PED CLEAR		G	R	R		G	R	R					FDW	DW	FDW	DW
	TO CLEAR Ø3+7		Y	R	R		Y	R	R					DW	DW	DW	DW
	Ø3+8		Y	R	R		Y	R	R					DW	DW	DW	DW
	Ø4+7		Y	R	R		Y	R	R					DW	DW	DW	DW
	Ø4+8		Y	R	R		Y	R	R					DW	DW	DW	DW
(RECALL)																	
Ø3+7 NE 164 ST	R/W		R	R	R		R	R	R					DW	DW	DW	DW
	TO CLEAR Ø3+8		R	R	R		R	R	R					DW	DW	DW	DW
	Ø4+7		R	R	R		R	R	R					DW	DW	DW	DW
	Ø4+8		R	R	R		R	R	R					DW	DW	DW	DW
	Ø2+6		R	R	R		R	R	R					DW	DW	DW	DW
(ACTUATED)																	
Ø3+8 NE 164 ST	R/W		R	G	R		R	R	G					DW	DW	DW	DW
	TO CLEAR Ø4+8		R	G	R		R	R	G					DW	DW	DW	DW
	Ø2+6		R	Y	R		R	R	Y					DW	DW	DW	DW
(ACTUATED)																	
Ø4+7 NE 164 ST	R/W		R	R	G		R	G	R					DW	DW	DW	DW
	TO CLEAR Ø4+8		R	R	G		R	G	R					DW	DW	DW	DW
	Ø2+6		R	R	Y		R	Y	R					DW	DW	DW	DW
(ACTUATED)																	
Ø4+8 NE 164 ST	R/W		R	G	G		R	G	G					DW	W	DW	W
	PED CLEAR		R	G	G		R	G	G					DW	FDW	DW	FDW
	TO CLEAR Ø2+6		R	Y	Y		R	Y	Y					DW	DW	DW	DW
(ACTUATED)																	
FLASHING OPERATION			FY	FR	FR		FY	FR	FR								



RECEIPT OF THE SKIP PULSE FROM THE TRAFFIC CONTROL SYSTEM WILL CAUSE PHASES 3&7 TO BE OMITTED.

*PEDESTRIAN SEQUENCE SHALL BE DISPLAYED UPON ACTUATION ONLY.

Drawn: F. PRATS	Date: 1/16/98	METROPOLITAN DADE COUNTY DEPARTMENT OF PUBLIC WORKS
Check: H. HERNANDEZ	Date: 1/20/98	ASSET NO: 32016 NE 19 AVENUE & NE 164 STREET
Division Engineer	Date	Placed in Service: Date: 2/25/98 By: CONTRACTOR
		Phasing Number: 5

TOD Schedule Report

for 3647: W Dixie Hwy&NE 164 St

Print Date: 10/4/2021

Print Time: 5:04 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3647	W Dixie Hwy&NE 164 St	DOW-2	TOD	[03] AM PEAK	170	106	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	-	WBT	-	NBT	-	EBT
9	118	0	25	0	133	0	25

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	2 - 2 - 2	6 - 8 - 6	21 - 10 - 21	3.7	2
2	SBT	5 - 5 - 5	19 - 19 - 19	5 - 5 - 5	1 - 1 - 1	30 - 34 - 30	0 - 40 - 0	4	2
3	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4	WBT	4 - 4 - 4	19 - 19 - 19	7 - 7 - 7	2.5 - 2.5 - 2.5	16 - 18 - 16	45 - 33 - 45	4	2
5	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6	NBT	5 - 5 - 5	19 - 19 - 19	5 - 5 - 5	1 - 1 - 1	30 - 34 - 30	0 - 40 - 0	4	2
7	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8	EBT	4 - 4 - 4	19 - 19 - 19	7 - 7 - 7	2.5 - 2.5 - 2.5	16 - 18 - 16	45 - 33 - 45	4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-4-6-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	12-4-6-8

TOD Schedule Report

for 3647: W Dixie Hwy&NE 164 St

Print Date: 10/4/2021

Print Time: 5:04 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 NBL	2 SBT	3 -	4 WBT	5 -	6 NBT	7 -	8 EBT	Ring Offset	Offset
	1	140	14	78	0	30	0	98	0	30	0	77
	2	125	13	59	0	35	0	78	0	35	0	16
	3	170	9	118	0	25	0	133	0	25	0	106
	5	130	17	60	0	35	0	83	0	35	0	43
	6	105	6	62	0	19	0	74	0	19	0	103
	10	125	13	59	0	35	0	78	0	35	0	16
	12	115	14	53	0	30	0	73	0	30	0	100
	13	130	17	60	0	35	0	83	0	35	0	82
	14	130	17	60	0	35	0	83	0	35	0	90
	15	150	19	70	0	43	0	95	0	43	0	123
	16	115	14	53	0	30	0	73	0	30	0	77
	25	120	14	64	0	24	0	84	0	24	0	64
	26	135	14	79	0	24	0	99	0	24	0	57
	27	80	9	39	0	14	0	54	0	14	0	44
	28	100	14	44	0	24	0	64	0	24	0	88

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S
0100	Flash	Su M T W Th F S
0500	Free	M T W Th F
0600	1	Su S
1000	3	M T W Th F
1000	3	Su S
2100	6	M T W Th F
2100	16	Su
2100	Free	S
2300	Free	Su M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S
0500	TOD OUTPUTS	--------	M T W ThF
0530	TOD OUTPUTS	-------1	M T W ThF
0700	TOD OUTPUTS	--------	M T W ThF
2300	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
0500	TOD OUTPUTS	--------	M T W ThF
0530	TOD OUTPUTS	-------1	M T W ThF
0600	TOD OUTPUTS	--------	Su S
0700	TOD OUTPUTS	--------	M T W ThF
2100	TOD OUTPUTS	------2-	S
2300	TOD OUTPUTS	--------	SuM T W ThF S

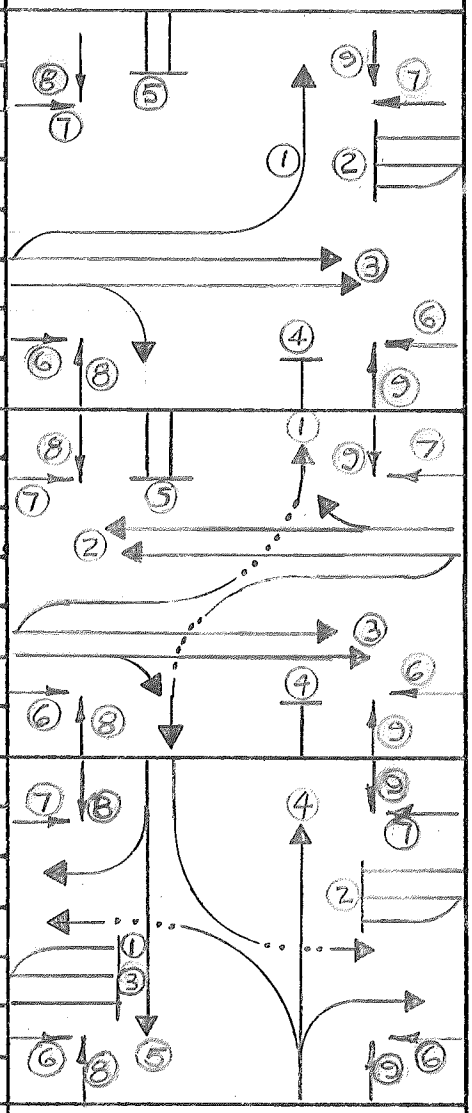
* Settings

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

SIGNAL OPERATING PLAN

PHASE	INT	SIGNAL HEAD NUMBER 1	2	3	4	5	6	7	8	9	10	11	12
Ø1 (1+6) NBWD. LEAD WEST DIXIE HWY.	R/W	←	R	G	R	R	DW	DW	DW	DW			
	PED. CL.												
	CLEAR TO 2+6	Y	R	G	R	R	DW	DW	DW	DW			
Ø2 (2+6) NORTH/SOUTH WESTDIXIE HWY.	R/W	G	G	G	R	R	FW	FW	DW	DW			
	PED. CL.	G	G	G	R	R	F DW	F DW	DW	DW			
	CLEAR TO 4+8	Y	Y	Y	R	R	DW	DW	DW	DW			
Ø4 (4+8) NE 164 ST EAST/WEST	R/W	R	R	R	G	G	DW	DW	FW	FW			
	PED. CL.	R	R	R	G	G	DW	DW	F DW	F DW			
	CLEAR TO 1+6	R	R	R	Y	Y	DW	DW	DW	DW			
	CLEAR TO 2+6	R	R	R	Y	Y	DW	DW	DW	DW			
	R/W												
	PED. CL.												
	CLEAR TO												



5-SECTION NBLT HEAD Added by Contractor BETWEEN 2/15/93 - 5/20/94 F. Prats

Drawn	Date
R. Cuza	9/15/80
Check	Date
C.L. Roque	9/18/80
Division Engineer	Date

METROPOLITAN DADE COUNTY
DEPARTMENT OF TRAFFIC AND TRANSPORTATION

ASSET NO. 33647

WEST DIXIE HWY & NE 164 ST.

Placed in Service		Timing Number	Phasing Number
Date: 9/23/80	By: Astor White	—	4

Miami-Dade, FL

TOD Schedule Report

2013 - NE 163rd St. & NE 19th Ave.

2070-1C-Econolite Type-Cobalt

2/15/2021, 10:56 AM

Phase Data

Phase	Direction	Split	Timing Plan	Walk	Ped Clear	Min Green	Max Green	Vehicle Ext	MAX 2	MAX 3	Yellow	Red Clear
1	E - L	35	1	0	0	5	15	2	35	0	4	2
			2	0	0	5	7	2	7	0	4	2
			3	0	0	5	15	2	0	0	4	2
			4	0	0	0	0	0	0	0	0	0
2	W - T	56	1	7	31	7	40	1	0	0	4	2.5
			2	7	31	7	37	1	40	0	4	2.5
			3	7	31	7	40	1	0	0	4	2.5
			4	0	0	0	0	0	0	0	0	0
6	E - T	91	1	7	31	7	40	1	0	0	4	2.5
			2	7	31	7	37	1	40	0	4	2.5
			3	7	31	7	40	1	0	0	4	2.5
			4	0	0	0	0	0	0	0	0	0
8	S - T	39	1	7	26	7	20	2.5	45	0	4	3
			2	7	26	7	25	2.5	30	0	4	3
			3	7	26	7	26	2.5	0	0	4	3
			4	0	0	0	0	0	0	0	0	0

Schedule - 1

Day of Week

SUN	MON	TUE	WED	THU	FRI	SAT
-	X	X	X	-	X	-

Day Plan - 1 -

Time of Day	Action Plan	Cycle Length	Offset	Phs Spl 1	Phs Spl 2	Phs Spl 6	Phs Spl 8
00:00:00	23	90	14	12	48	60	30
01:00:00	64	-	-	-	-	-	-
05:00:00	7	90	14	12	48	60	30
06:00:00	8	90	32	12	48	60	30
07:00:00	17	130	92	30	69	99	31
09:00:00	14	130	4	30	69	99	31
10:00:00	13	130	37	35	56	91	39
14:00:00	18	130	16	35	65	100	30
16:15:00	11	150	25	35	85	120	30
19:00:00	6	105	14	12	63	75	30
20:30:00	9	105	10	12	63	75	30
23:00:00	23	90	14	12	48	60	30

Schedule - 2

Day of Week

SUN	MON	TUE	WED	THU	FRI	SAT
-	-	-	-	X	-	-

Day Plan - 2 -

Time of Day	Action Plan	Cycle Length	Offset	Phs Spl 1	Phs Spl 2	Phs Spl 6	Phs Spl 8
00:00:00	23	90	14	12	48	60	30
01:00:00	64	-	-	-	-	-	-
05:00:00	7	90	14	12	48	60	30
06:00:00	8	90	32	12	48	60	30
07:00:00	17	130	92	30	69	99	31
09:00:00	14	130	4	30	69	99	31
10:00:00	13	130	37	35	56	91	39
14:00:00	18	130	16	35	65	100	30
16:15:00	11	150	25	35	85	120	30
19:00:00	10	125	9	17	77	94	31
20:30:00	9	105	10	12	63	75	30
23:00:00	23	90	14	12	48	60	30

Schedule - 3

Day of Week

SUN	MON	TUE	WED	THU	FRI	SAT
-	-	-	-	-	-	X

Day Plan - 3 -

Time of Day	Action Plan	Cycle Length	Offset	Phs Spl 1	Phs Spl 2	Phs Spl 6	Phs Spl 8
00:00:00	23	90	14	12	48	60	30
01:00:00	64	-	-	-	-	-	-
06:00:00	1	90	59	14	45	59	31
10:00:00	11	150	25	35	85	120	30
20:00:00	16	115	31	30	54	84	31
22:15:00	6	105	14	12	63	75	30
23:00:00	23	90	14	12	48	60	30

Schedule - 4

Day of Week

SUN	MON	TUE	WED	THU	FRI	SAT
X	-	-	-	-	-	-

Day Plan - 4 -

Time of Day	Action Plan	Cycle Length	Offset	Phs Spl 1	Phs Spl 2	Phs Spl 6	Phs Spl 8
00:00:00	23	90	14	12	48	60	30

01:00:00	64	-	-	-	-	-	-
06:00:00	1	90	59	14	45	59	31
10:00:00	11	150	25	35	85	120	30
20:00:00	16	115	31	30	54	84	31
23:00:00	23	90	14	12	48	60	30

Action Plan

Name	Pattern	Enabled Logic Processor Statements
23	23	N/A
64	Free	N/A
7	7	N/A
8	8	N/A
17	17	N/A
14	14	N/A
13	13	N/A
18	18	N/A
11	11	N/A
6	6	N/A
9	9	N/A
23	23	N/A

Miami-Dade, FL

2013 - NE 163rd St. & NE 19th Ave. - 2070-1C - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
		B	B														
Sequence 1																	
Ring 1	|	1	2 |	8	.	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	|	.	6 |	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X				X		X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	E	W	N	N	N	E	N	S	N	N	N	N	N	N	N	N
Movement	L	T				T		T								
Associated PED		X						X								
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	6B25
Enable Automatic Backup to Datakey	Yes

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	X	X	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	X	X	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	X	X	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	X	X	.	.	.	.	.	.	.	.
	5	X	X	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	X	X	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	X	X	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	X	X	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				+	Red	X		X
2	2	V				+	Yel		X	X
3	0	.				+	.			
4	0	.				+	.			
5	0	.				+	.			
6	6	V				+	Yel		X	X
7	0	.				+	.			
8	8	V				+	Red	X		
9	0	.				+	.			
10	0	.				+	.			
11	0	.				+	.			
12	0	.				+	.			
13	2	P				+	.			
14	0	.				+	.			
15	0	.				+	.			
16	8	P				+	.			

Miami-Dade, FL

2013 - NE 163rd St. & NE 19th Ave. - 2070-1C - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1
Plan 1 - "Phase Bank 1"

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**E-L**	**W-T**	**N**	**N**	**N**	**E-T**	**N**	**S-T**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	5	7	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	31	0	0	0	31	0	26	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.0	1.0	0.0	0.0	0.0	1.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	40	0	0	0	40	0	20	0	0	0	0	0	0	0	0
Max2	35	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	2.0	2.5	0.0	0.0	0.0	2.5	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	2.0	1.0	0.0	0.0	0.0	1.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	150	Std (COS)	137	Offsets In	Seconds
Offset Value	25s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N	N	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	35	85	0	0	0	120	0	30	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	150s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 12

Split Pattern	12	TS2 (Pat-Off)	3-3	Splits In	Seconds
Cycle	130	Std (COS)	145	Offsets In	Seconds
Offset Value	97s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N	N	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 12)	30	69	0	0	0	99	0	31	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	130s	99s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Coordinator Pattern # 17

Split Pattern	17	TS2 (Pat-Off)	5-2	Splits In	Seconds
Cycle	130	Std (COS)	209	Offsets In	Seconds
Offset Value	92s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N	N	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 17)	30	69	0	0	0	99	0	31	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	130s	99s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 18

Split Pattern	18	TS2 (Pat-Off)	5-3	Splits In	Seconds
Cycle	130	Std (COS)	217	Offsets In	Seconds
Offset Value	16s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N	N	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 18)	35	65	0	0	0	100	0	30	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	130s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Miami-Dade, FL

2013 - NE 163rd St. & NE 19th Ave. - 2070-1C - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	23	00:00
2	64	01:00
3	7	05:00
4	8	06:00
5	17	07:00
6	14	09:00
7	13	10:00
8	18	14:00
9	11	16:15
10	6	19:00
11	9	20:30
12	23	23:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	23	00:00
2	64	01:00
3	7	05:00
4	8	06:00
5	17	07:00
6	14	09:00
7	13	10:00
8	18	14:00
9	11	16:15
10	10	19:00
11	9	20:30
12	23	23:00

Day Plan #3 - "3"

Event	Action Plan	Start Time
1	23	00:00
2	64	01:00
3	1	06:00
4	11	10:00
5	16	20:00
6	6	22:15
7	23	23:00

Day Plan #4 - "4"

Event	Action Plan	Start Time
1	23	00:00
2	64	01:00
3	1	06:00
4	11	10:00
5	16	20:00
6	23	23:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X		X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
					X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 4

Day Plan No.: 4

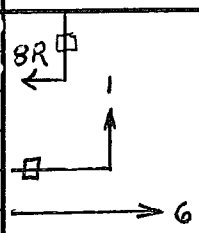
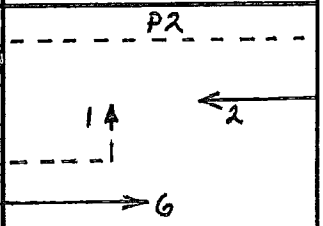
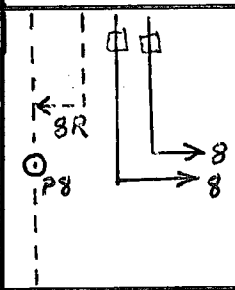
Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

SIGNAL OPERATING PLAN

N

Timing Phases	Direction	E		W		S				Ped Heads			Movements/Display/Actuation
	Head No.	1	6		2	8	8R				P2	P8	
	Dwell												
	Clear to												
(1+6)	Dwell	<G/G	G		R	R	R/G>				DW	DW	
	(2+6)	<Y/G	G		R	R	R/Y>				DW	DW	
EBLT	Clear to												
(Actuated)													
(2+6)	Dwell	G	G		G	R	R				W/F	DW	
	(8)	Y	Y		Y	R	R				DW	DW	
E-W	Clear to												
(Recall)													
	Dwell												
	Clear to												
	Dwell												
	Clear to												
(8)	Dwell	R	R		R	<G/G	G				DW	W/F	
	(1+6)	R	R		R	Y	Y				DW	DW	
	(2+6)	R	R		R	Y	Y				DW	DW	
S'bND	Clear to												
(Actuated)													
Flashing Operation		FY	FY		FY	FR	FR						Page 1 of 1

Miami-Dade County Public Works Department

Drawn	Date				
F. PRATS	1/22/13	SR 826 & NE 19 Av			
Checked	Date	Placed in Service		Phasing No.	Asset Number
H. HERNANDEZ	1/24/13	Date 3/5/13	By CONTRACTOR	6	2013

TOD Schedule Report

for 2019: SR- 826&W Dixie Hwy

Print Date: 10/4/2021

Print Time: 1:49 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2019	SR- 826&W Dixie Hwy	DOW-2	TOD	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)	Walk (2)	Walk (3)	Don't Walk (1)	Don't Walk (2)	Don't Walk (3)	Min Initial (1)	Min Initial (2)	Min Initial (3)	Veh Ext (1)	Veh Ext (2)	Veh Ext (3)	Max Limit (1)	Max Limit (2)	Max Limit (3)	Max 2 (1)	Max 2 (2)	Max 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: 10/4/2021

Print Time: 1:49 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
	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
	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

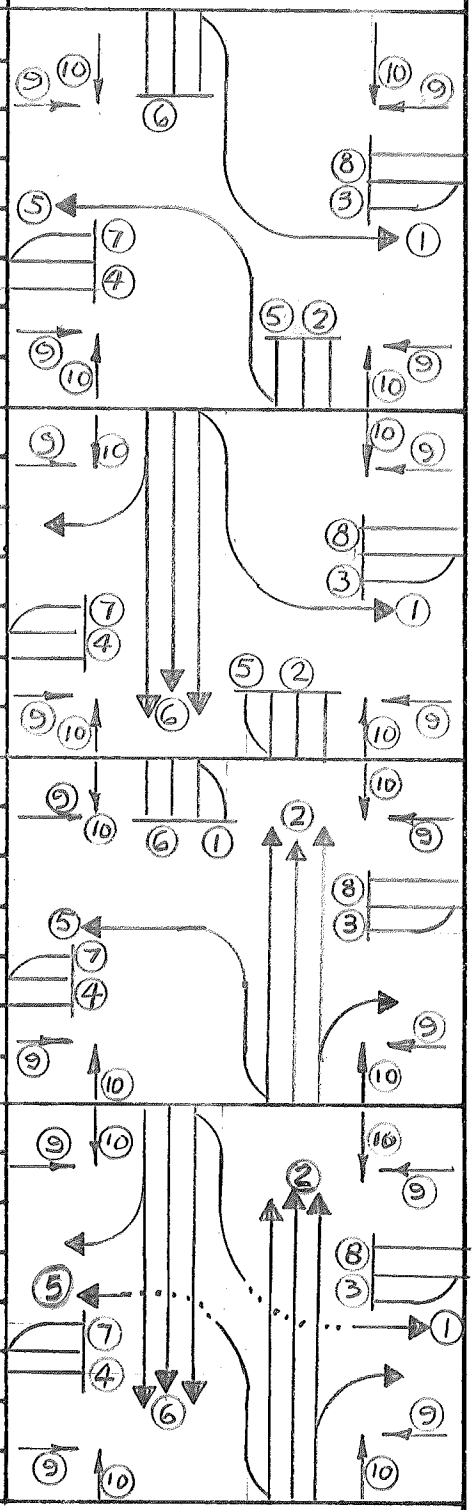
Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** 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

SIGNAL OPERATING PLAN

PHASE	INT	1	2	3	4	5	6	7	8	9	10	11	12
		SIGNAL HEAD NUMBER											
φ(1+5) SR 826 EBLT/WBLT	R/W	←	R	R	R	←	R	R	R	DW	DW		
	PED. CL.												
	TO CLEAR 1+6	←	R	R	R	Y	R	R	R	DW	DW		
	TO CLEAR 2+5	Y	R	R	R	←	R	R	R	DW	DW		
	TO CLEAR 2+6	Y	R	R	R	Y	R	R	R	DW	DW		
φ(1+6) SR 826 EBND. LEAD	R/W	←	R	R	R	R	G	R	R	DW	DW		
	PED. CL.												
	TO CLEAR 2+6	Y	R	R	R	R	G	R	R	DW	DW		
φ(2+5) SR 826 WBND. LEAD	R/W	R	G	R	R	←	R	R	R	DW	DW		
	PED. CL.												
	TO CLEAR 2+6	R	G	R	G	Y	R	R	R	DW	DW		
φ(2+6) SR 826 EAST/WEST	R/W	G	G	R	R	G	G	R	R	DW	FW		
	PED. CL.	G	G	R	R	R	R	R	R	DW	DW		
	TO CLEAR 3+7	Y	Y	R	R	Y	Y	R	R	DW	DW		
	TO CLEAR 4+7	Y	Y	R	R	Y	Y	R	R	DW	DW		
	TO CLEAR 3+8	Y	Y	R	R	Y	Y	R	R	DW	DW		
	TO CLEAR 4+8	Y	Y	R	R	Y	Y	R	R	DW	DW		



Drawn	Date
R. CUZA	9/16/80
Check	**Date**
C.L. ROQUE	9/18/80
Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF TRAFFIC AND TRANSPORTATION

ASSET NO. 32019

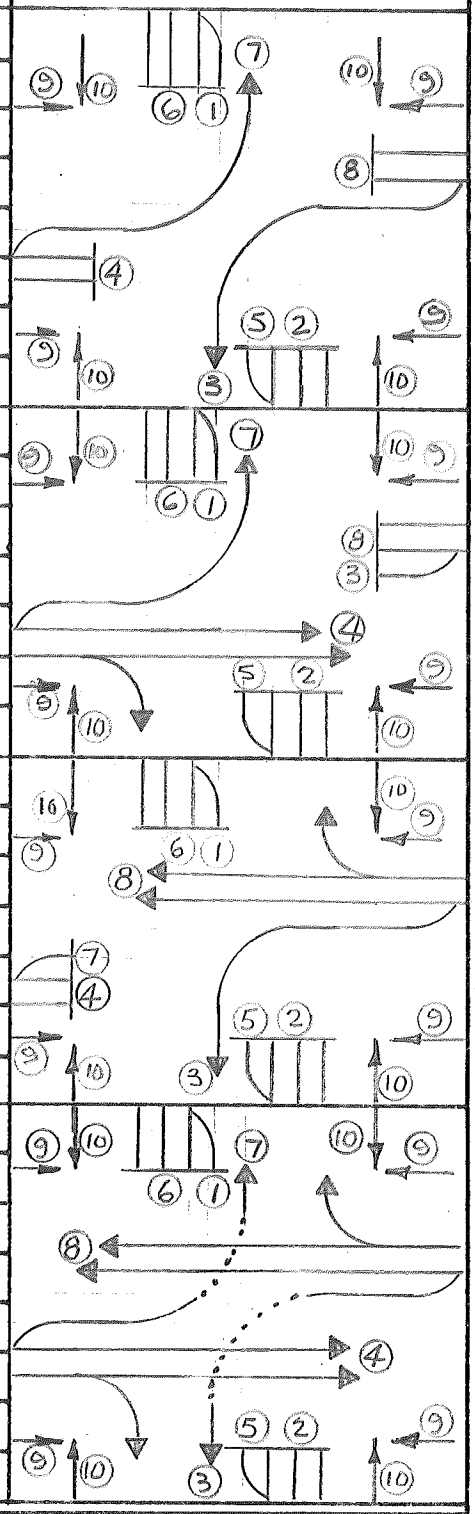
SR 826 & WEST DIXIE HWY

SHEET 1 OF 2

Placed in Service		Timing Number	Phasing Number
Date: 9/24/80	By: ASTOR WHITE	—	4

SIGNAL OPERATING PLAN

PHASE	INT	1	2	3	4	5	6	7	8	9	10	11	12
		SIGNAL HEAD NUMBER											
Φ (3+7) WEST DIXIE HWY NBLT/SBLT	R/W	R	R	←	R	R	R	←	R	DW	DW		
	4+7	R	R	Y	R	R	R	←	R	DW	DW		
	TO CLEAR 3+8	R	R	←	R	R	R	Y	R	DW	DW		
	4+8	R	R	Y	R	R	R	Y	R	DW	DW		
	1+5	R	R	Y	R	R	R	Y	R	DW	DW		
	1+6	R	R	Y	R	R	R	Y	R	DW	DW		
	2+5	R	R	Y	R	R	R	Y	R	DW	DW		
	2+6	R	R	Y	R	R	R	Y	R	DW	DW		
Φ (4+7) WEST DIXIE HWY NBND. LEAD	R/W	R	R	R	G	R	R	←	R	DW	DW		
	PED. CL.												
	TO CLEAR 4+8	R	R	R	G	R	R	Y	R	DW	DW		
	1+5	R	R	R	Y	R	R	Y	R	DW	DW		
	1+6	R	R	R	Y	R	R	Y	R	DW	DW		
	2+5	R	R	R	Y	R	R	Y	R	DW	DW		
	2+6	R	R	R	Y	R	R	Y	R	DW	DW		
Φ (3+8) WEST DIXIE HWY SBND. LEAD	R/W	R	R	←	R	R	R	R	G	DW	DW		
	PED. CL.												
	TO CLEAR 4+8	R	R	Y	R	R	R	R	G	DW	DW		
	1+5	R	R	Y	R	R	R	R	Y	DW	DW		
	1+6	R	R	Y	R	R	R	R	Y	DW	DW		
	2+5	R	R	Y	R	R	R	R	Y	DW	DW		
	2+6	R	R	Y	R	R	R	R	Y	DW	DW		
Φ (4+8) WEST DIXIE HWY NBLT/SBLT	R/W	R	R	G	G	R	R	G	G	FW	DW		
	PED. CL	R	R	G	G	R	R	G	G	F DW	DW		
	TO CLEAR 1+5	R	R	Y	Y	R	R	Y	Y	DW	DW		
	1+6	R	R	Y	Y	R	R	Y	Y	DW	DW		
	2+5	R	R	Y	Y	R	R	Y	Y	DW	DW		
	2+6	R	R	Y	Y	R	R	Y	Y	DW	DW		
	5-SEC HEADS FOR LT'S INSTALLED BETWEEN 8/27/92 & 7/25/94 F.P.												



Drawn	Date
R. CUZA	9/16/80
Check	**Date**
C.L. ROQUE	9/18/80
Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF TRAFFIC AND TRANSPORTATION

ASSET NO. 32019

SR 826 & WEST DIXIE HWY

SHEET 2 OF 2

Placed in Service		Timing Number	Phasing Number
Date: 9/24/80	By: ASTOR WHITE	—	4

TOD Schedule Report

for 2010: SR- 826&US 1

Print Date: 10/4/2021

Print Time: 1:49 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2010	SR- 826&US 1	DOW-2	TOD	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)	Walk (2)	Walk (3)	Don't Walk (1)	Don't Walk (2)	Don't Walk (3)	Min Initial (1)	Min Initial (2)	Min Initial (3)	Veh Ext (1)	Veh Ext (2)	Veh Ext (3)	Max Limit (1)	Max Limit (2)	Max Limit (3)	Max 2 (1)	Max 2 (2)	Max 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: 10/4/2021

Print Time: 1:49 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
	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
	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

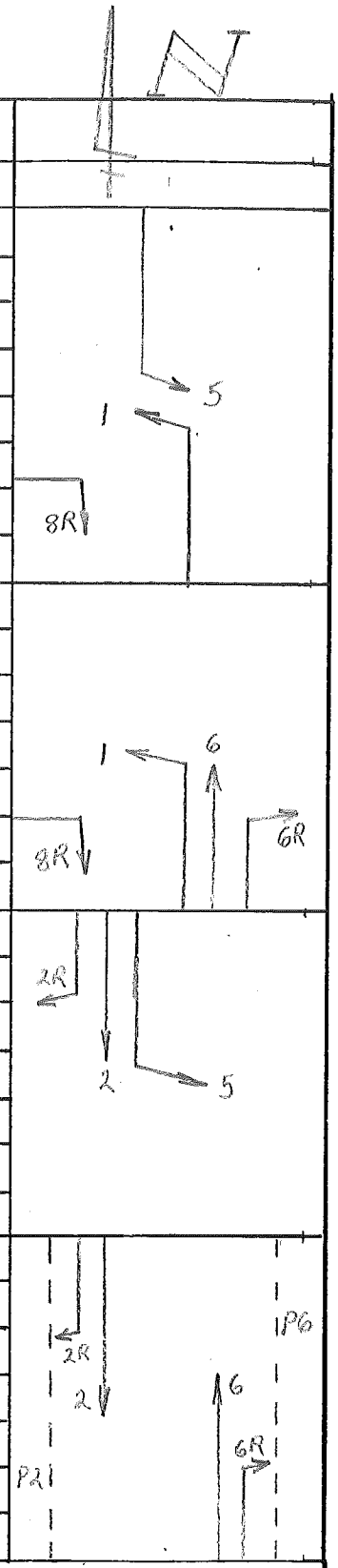
*** Settings**

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

SIGNAL OPERATING PLAN

PHASE	INT	1	2	2R	3	4	5	6	6R	7	8	8R	P2	P4	P6	P8
		SIGNAL HEAD NUMBER														
Φ 1+5	R/W	←/R	R	R	R	R	←/R	R	R	R	R	→/R	DW	DW	DW	DW
NBLT-SBLT	TO 1+6	←/R	R	R	R	R	←/R	R	R	R	R	→/R	DW	DW	DW	DW
	TO 2+5	Y/R	R	R	R	R	←/R	R	R	R	R	Y/R	DW	DW	DW	DW
	TO 2+6	Y/R	R	R	R	R	Y/R	R	R	R	R	Y/R	DW	DW	DW	DW
	TO Track CL	Y/R	R	R	R	R	Y/R	R	R	R	R	Y/R	DW	DW	DW	DW
Actuated	CLEAR															
Φ 1+6	R/W	←/G	R	R	R	R	R	G	G	R	R	→/R	DW	DW	DW	DW
NBLT	TO 2+6	Y/G	R	R	R	R	R	G	G	R	R	Y/R	DW	DW	DW	DW
	TO Track CL	Y/Y	R	R	R	R	R	Y	Y	R	R	Y/R	DW	DW	DW	DW
Actuated	CLEAR															
Φ 2+5	R/W	R	G	G	R	R	←/G	R	R	R	R	R	DW	DW	DW	DW
SBLT	TO 2+6	R	G	G	R	R	Y/G	R	R	R	R	R	DW	DW	DW	DW
	TO Track CL	R	Y	Y	R	R	Y/Y	R	R	R	R	R	DW	DW	DW	DW
Actuated	CLEAR															
Φ 2+6	R/W	R	G	G	R	R	R	G	G	R	R	R	W	DW	W	DW
	Ped CL	R	G	G	R	R	R	G	G	R	R	R	F DW	DW	F DW	DW
N-S	TO 3+7	R	Y	Y	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
	TO 3+8	R	Y	Y	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
	TO 4+7	R	Y	Y	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
Recall	TO 4+8	R	Y	Y	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
	TO Track CL	R	Y	Y	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW



Drawn	Date
F. Prats	5/8/97
Check	**Date**
E Fu	5/8/97
Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF PUBLIC WORKS

ASSET NO: 32010

SR 826 & US 1

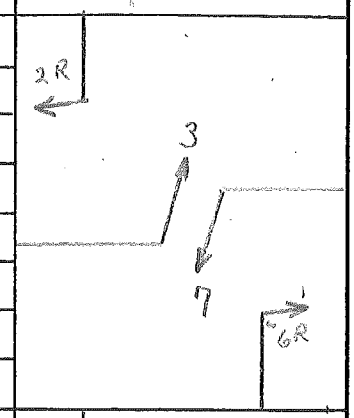
sheet 1 of 3

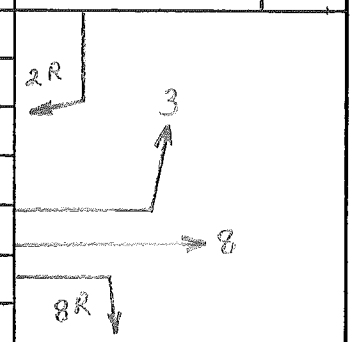
Placed in Service		Phasing Number
Date: 10/20/98	By: Contractor	10

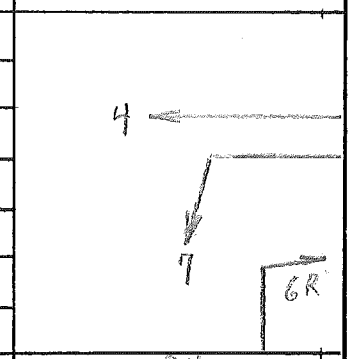
SIGNAL OPERATING PLAN

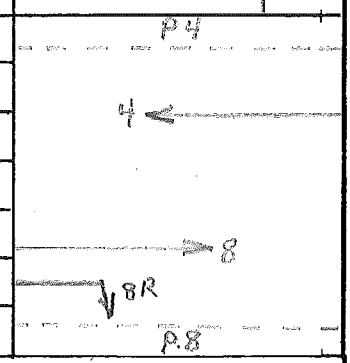
N

PHASE	INT	1	2	2R	3	4	5	6	6R	7	8	8R	P2	P4	P6	P8
		SIGNAL HEAD NUMBER														
φ 3+7	R/W	R	R	→R	←R	R	R	R	→R	←R	R	R	DW	DW	DW	DW
EBLT-WBLT	TO 3+8	R	R	→R	←R	R	R	R	↘R	↙R	R	R	DW	DW	DW	DW
	TO 4+7	R	R	↘R	↙R	R	R	R	→R	←R	R	R	DW	DW	DW	DW
	TO 4+8	R	R	↘R	↙R	R	R	R	↘R	↙R	R	R	DW	DW	DW	DW
	TO TRACK CL	R	R	↘R	←R	R	R	R	↘R	↙R	R	R	DW	DW	DW	DW
	CLEAR															
	CLEAR															
Actuated	CLEAR															
φ 3+8	R/W	R	R	→R	←G	R	R	R	R	R	G	G	DW	DW	DW	DW
EBLT	TO 4+8	R	R	↘R	↙G	R	R	R	R	R	G	G	DW	DW	DW	DW
	TO TRACK CL	R	R	↘R	↙G	R	R	R	R	R	G	G	DW	DW	DW	DW
	CLEAR															
	CLEAR															
Actuated	CLEAR															
φ 4+7	R/W	R	R	R	R	G	R	R	→R	←G	R	R	DW	DW	DW	DW
WBLT	TO 4+8	R	R	R	R	G	R	R	↘R	↙G	R	R	DW	DW	DW	DW
	TO TRACK CL	R	R	R	R	Y	R	R	↘R	↙Y	R	R	DW	DW	DW	DW
	CLEAR															
	CLEAR															
Actuated	CLEAR															
φ 4+8	R/W	R	R	R	R	G	R	R	R	R	G	G	DW	W	DW	W
E-W	PED CL	R	R	R	R	G	R	R	R	R	G	G	DW	F DW	DW	F DW
	TO 1+5	R	R	R	R	Y	R	R	R	R	Y	Y	DW	DW	DW	DW
	TO 1+6	R	R	R	R	Y	R	R	R	R	Y	Y	DW	DW	DW	DW
	TO 2+5	R	R	R	R	Y	R	R	R	R	Y	Y	DW	DW	DW	DW
Actuated	TO 2+6	R	R	R	R	Y	R	R	R	R	Y	Y	DW	DW	DW	DW
	TO TRACK CL	R	R	R	R	Y	R	R	R	R	G	G	DW	DW	DW	DW









Drawn	Date
F. PRATS	5/8/97
Check	**Date**
E Lu	5/8/97
Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF PUBLIC WORKS

ASSET NO: 32010

SR 826 & US 1

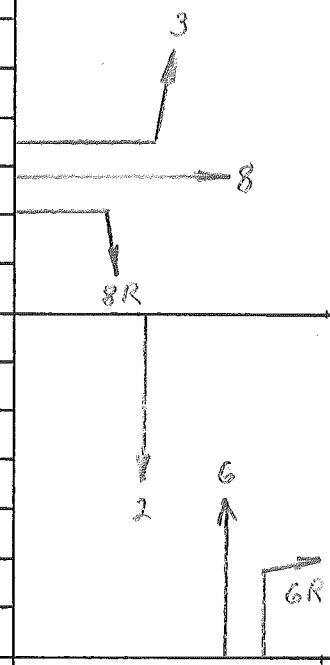
sheet 2 of 3

Placed in Service		Phasing Number
Date: 10/20/98	By: CONTRACTOR	10

SIGNAL OPERATING PLAN

PHASE	INT	1	2	2R	3	4	5	6	6R	7	8	8R	P2	P4	P6	P8
		SIGNAL HEAD NUMBER														
TRACK CLEARANCE R.R.	R/W	R	R	R	~~G~~	R	R	R	R	R	G	G	DW	DW	DW	DW
	TRAIN PASSAGE	R	R	R	~~Y~~	R	R	R	R	R	Y	Y	DW	DW	DW	DW
	TO CLEAR															
TRAIN PASSAGE R.R.	R/W	R	G	R	R	R	R	G	G	R	R	R	DW	DW	DW	DW
	3+8	R	Y	R	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW
	TO CLEAR															
	R/W															
	TO CLEAR															
	R/W															
	TO CLEAR															
FLASHING OP		R	Y	R	R	R	R	Y	R	R	R					

MAY CYCLE TO Φ 2+5 OR Φ7 DURING TRAIN PASSAGE



Drawn	Date
F. PRATS	5/8/97
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Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF PUBLIC WORKS

ASSET NO: 32010

SR 826 & US 1

sheet 3 of 3

Placed in Service		Phasing Number
Date: 10/20/98	By: CONTRACTOR	10

Appendix D

Growth Rate Calculations and Committed Developments

FDOT Historic Growth Trends

FDOT Growth Rate Summary

Station Number	Location	Historic Growth - Linear				Historic Growth - Exponential				Historic Growth - Decaying Exponential			
		5-year	R-squared	10-year	R-squared	5-year	R-squared	10-year	R-squared	5-year	R-squared	10-year	R-squared
870183	SR 5/US-1 -- 800' N of NE 172nd Street	7.61%	88.41%	0.79%	7.58%	7.06%	85.61%	0.73%	6.37%	7.47%	98.12%	0.41%	1.99%
875219	SR 5/US-1 -- 300' S of NE 163rd St/Sunny Isles Causeway	-0.32%	2.76%	0.26%	1.96%	-0.32%	2.68%	0.28%	2.04%	0.00%	0.00%	0.11%	0.36%
875225	SR 826/NE 163rd Street -- 100' E of NE 20th Avenue	-1.74%	13.72%	-0.33%	2.93%	-1.79%	13.52%	-0.36%	3.40%	-1.82%	14.41%	-0.32%	2.52%
878273	NE 19th Avenue -- 200' N of NE 175th Street	7.97%	87.13%	-	-	7.29%	85.49%	-	-	7.50%	90.87%	-	-
878455	NE 171st Street -- 200' W of NE 20th Avenue	7.08%	66.39%	-	-	6.43%	66.42%	-	-	5.64%	52.52%	-	-
878505	NE 159th Street - 200' West of NE 14th Avenue	-2.07%	37.41%	-	-	-2.14%	35.93%	-	-	-2.12%	40.28%	-	-
Total		**3.09%**	**49.30%**	**0.24%**	**4.16%**	**2.76%**	**48.28%**	**0.22%**	**3.94%**	**2.78%**	**49.37%**	**0.07%**	**1.62%**

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0183 - SR 5/US-1, 800' N OF NE 172 ST

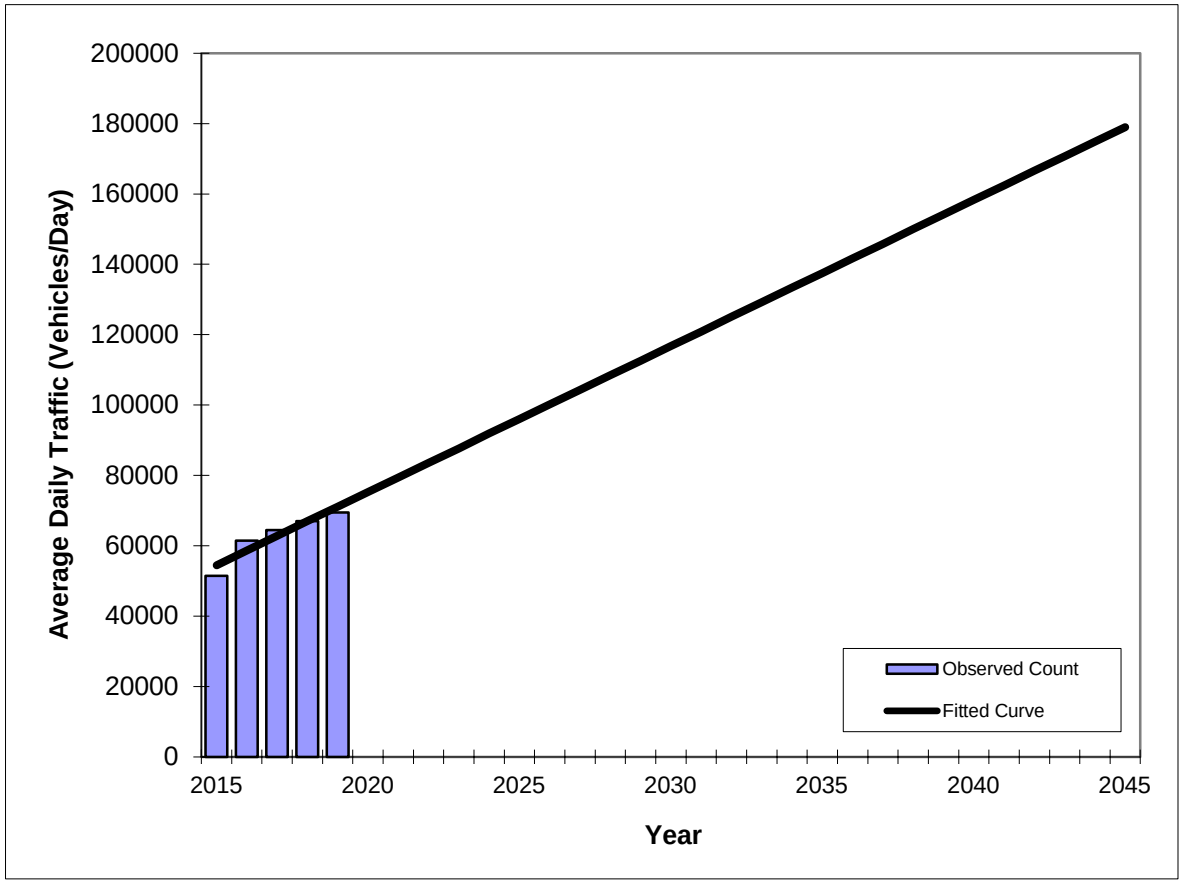
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	53000 C	N 26500	S 26500	9.00	54.20	2.20
2019	69500 C	N 35500	S 34000	9.00	54.60	2.30
2018	67000 C	N 33500	S 33500	9.00	54.30	2.00
2017	64500 C	N 31500	S 33000	9.00	55.00	4.50
2016	61500 C	N 31500	S 30000	9.00	54.50	5.10
2015	51500 C	N 24000	S 27500	9.00	54.70	4.20
2014	60000 C	N 29000	S 31000	9.00	54.50	5.10
2013	58500 C	N 25500	S 33000	9.00	52.40	5.20
2012	67000 C	N 35000	S 32000	9.00	55.70	5.80
2011	65000 C	N 33000	S 32000	9.00	55.10	4.50
2010	61000 C	N 30500	S 30500	8.98	54.08	4.40
2009	55000 C	N 27500	S 27500	8.99	53.24	3.40
2008	54000 C	N 27000	S 27000	9.09	55.75	3.70
2007	63500 C	N 31500	S 32000	8.01	54.34	3.10
2006	61000 C	N 30000	S 31000	7.97	54.22	4.90
2005	65500 C	N 33000	S 32500	8.80	53.80	1.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2015	51500	54500
2016	61500	58700
2017	64500	62800
2018	67000	67000
2019	69500	71100

*Axle-Adjusted

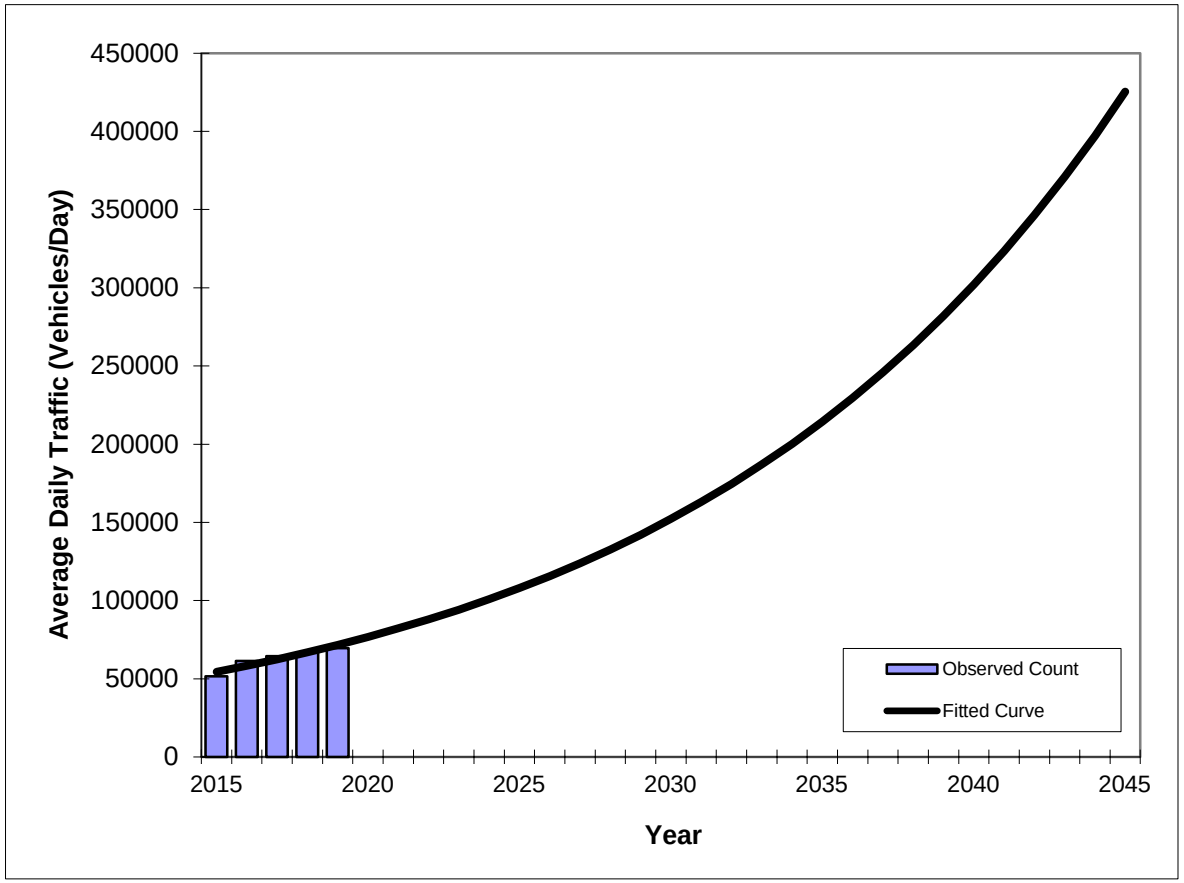
Trend R-squared:	88.41%
Trend Annual Historic Growth Rate:	7.61%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2015	51500	54500
2016	61500	58300
2017	64500	62500
2018	67000	66900
2019	69500	71600

*Axle-Adjusted

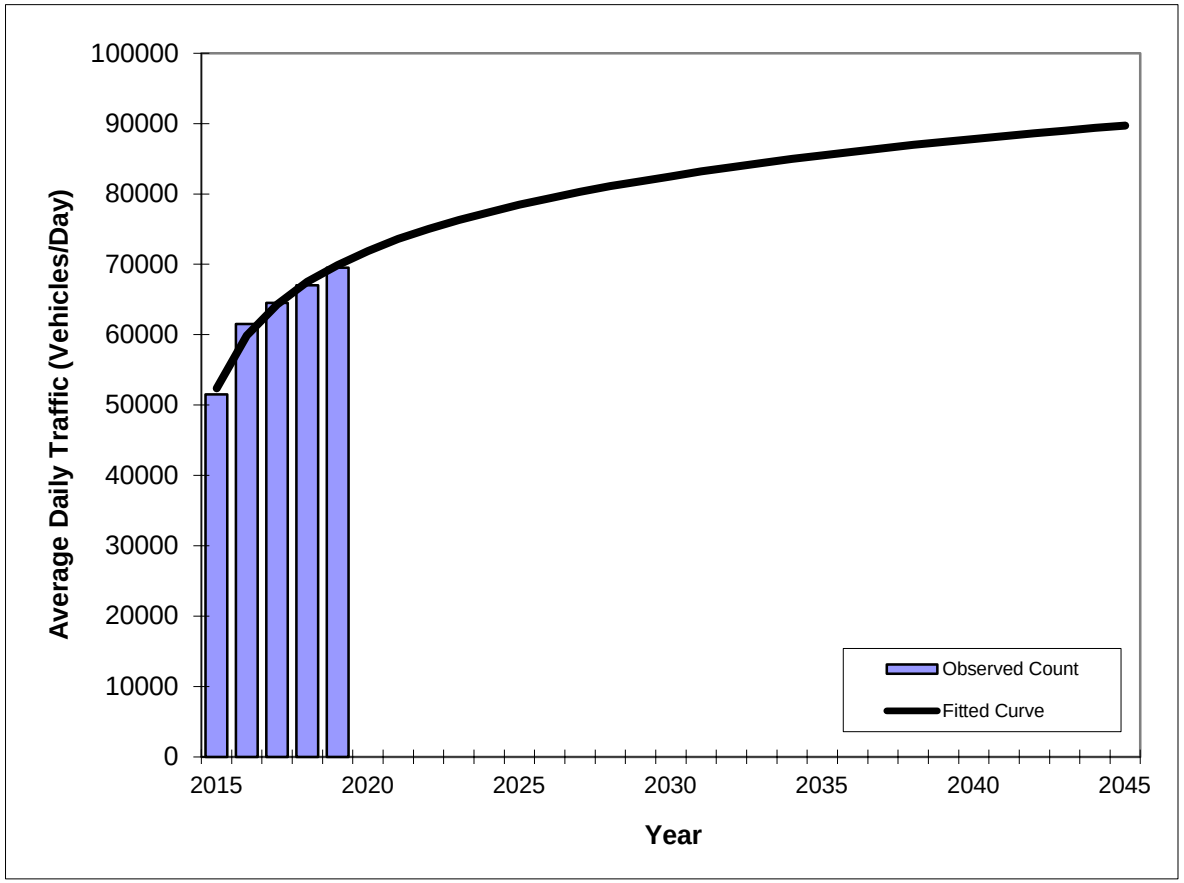
Trend R-squared:	85.61%
Compounded Annual Historic Growth Rate:	7.06%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2015	51500	52400
2016	61500	59900
2017	64500	64300
2018	67000	67500
2019	69500	69900

*Axle-Adjusted

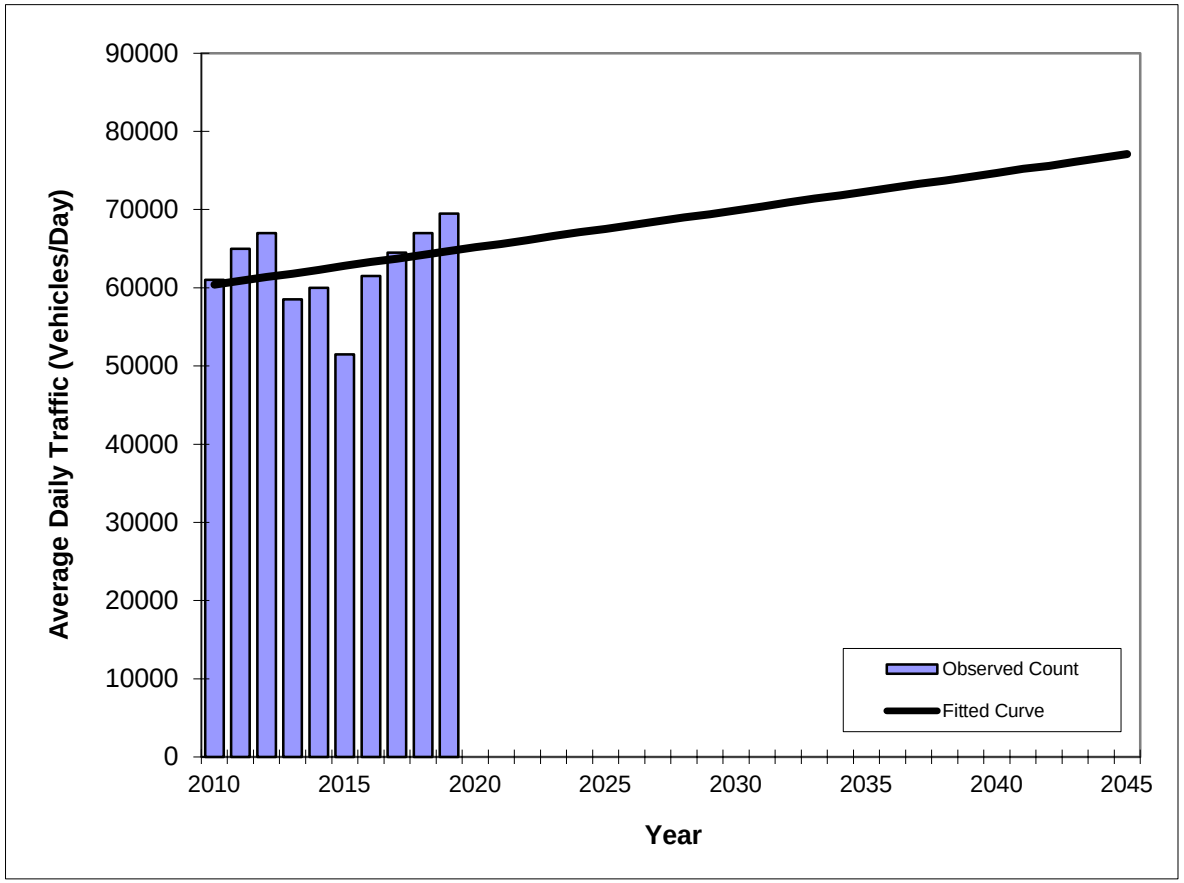
Trend R-squared:	98.12%
Compounded Annual Historic Growth Rate:	7.47%
Printed:	22-Nov-21

Decaying Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2010	61000	60400
2011	65000	60900
2012	67000	61400
2013	58500	61800
2014	60000	62300
2015	51500	62800
2016	61500	63300
2017	64500	63700
2018	67000	64200
2019	69500	64700

*Axle-Adjusted

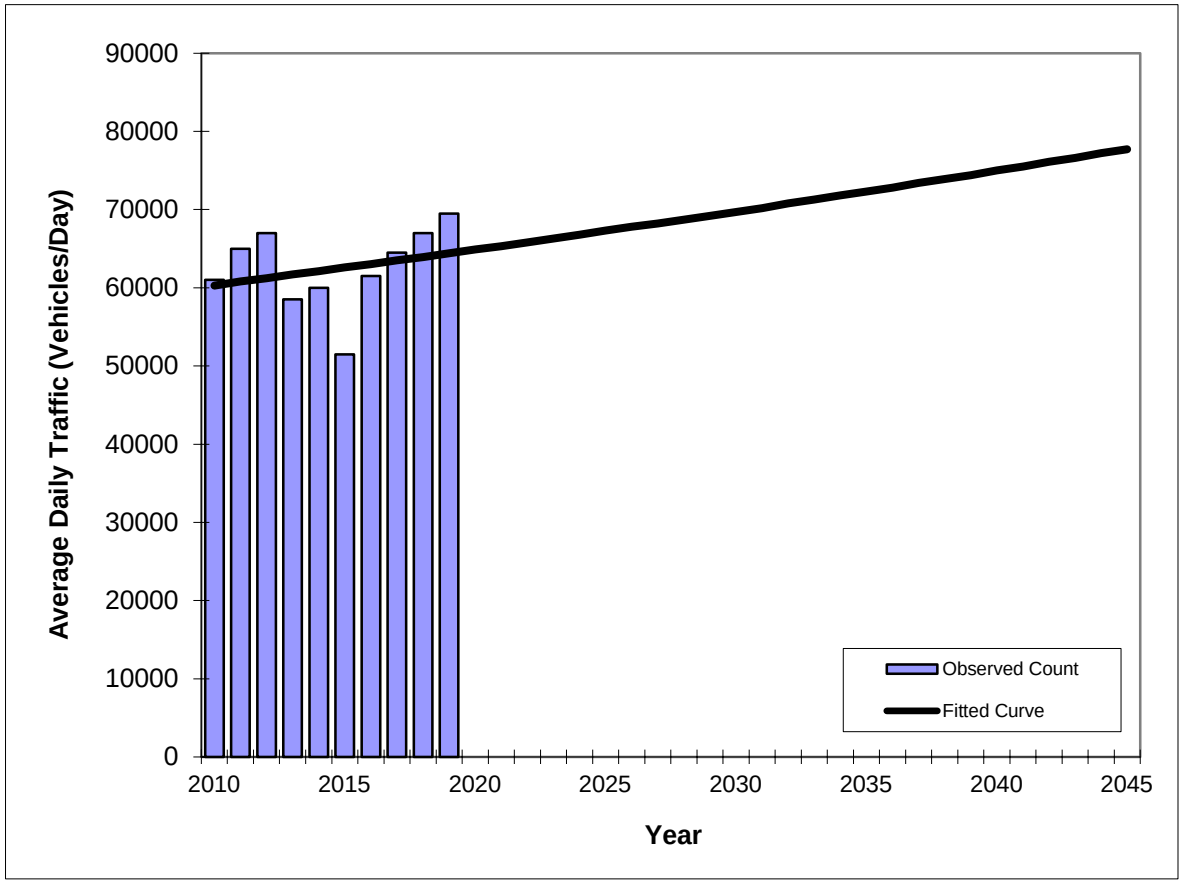
Trend R-squared:	7.58%
Trend Annual Historic Growth Rate:	0.79%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2010	61000	60300
2011	65000	60800
2012	67000	61200
2013	58500	61700
2014	60000	62100
2015	51500	62600
2016	61500	63000
2017	64500	63500
2018	67000	63900
2019	69500	64400

*Axle-Adjusted

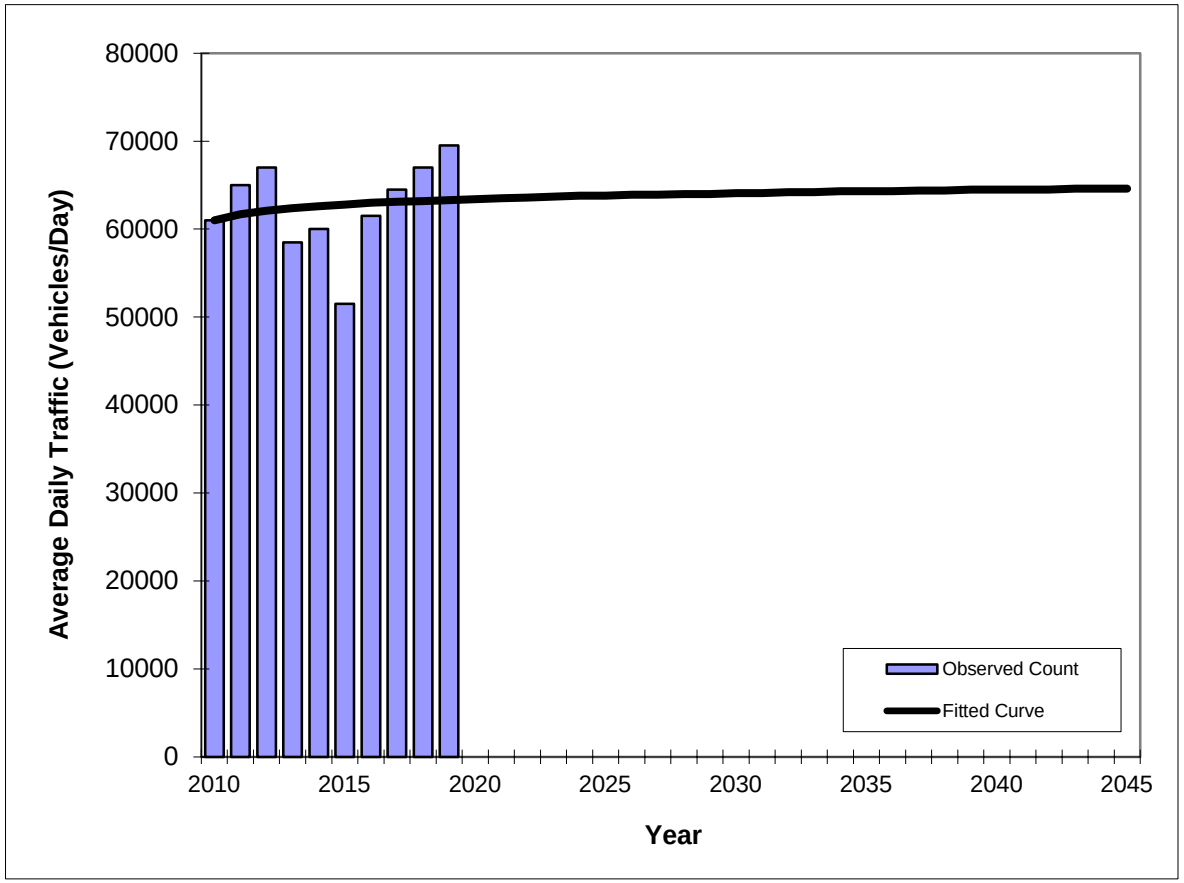
Trend R-squared:	6.37%
Compounded Annual Historic Growth Rate:	0.73%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 800' N of NE 172 St

County:	Miami (87)
Station #:	0183
Highway:	SR 5/US-1



Year	Traffic (ADT/AADT) Count*	Trend**
2010	61000	61000
2011	65000	61700
2012	67000	62100
2013	58500	62400
2014	60000	62600
2015	51500	62800
2016	61500	63000
2017	64500	63100
2018	67000	63200
2019	69500	63300

*Axle-Adjusted

Trend R-squared:	1.99%
Compounded Annual Historic Growth Rate:	0.41%
Printed:	22-Nov-21

Decaying Exponential Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5219 - SR 5/US-1, 300' S NE 163 ST/SUNNY ISLES CSWY

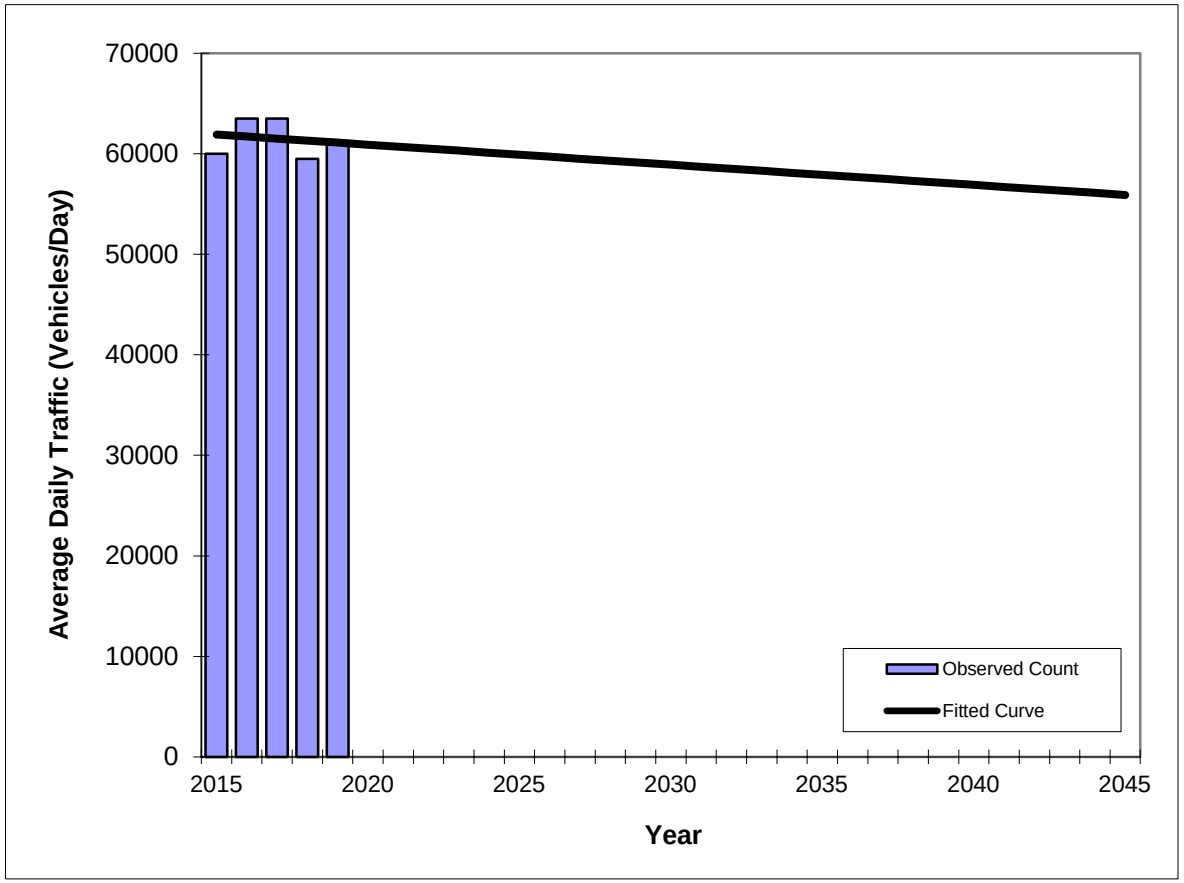
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	49500 C	N 24500	S 25000	9.00	54.20	2.50
2019	61000 C	N 30000	S 31000	9.00	54.60	2.20
2018	59500 C	N 29500	S 30000	9.00	54.30	2.40
2017	63500 C	N 31500	S 32000	9.00	55.00	2.30
2016	63500 C	N 31000	S 32500	9.00	54.50	2.00
2015	60000 C	N 29500	S 30500	9.00	54.70	2.00
2014	55000 C	N 25500	S 29500	9.00	54.50	4.90
2013	54000 C	N 25000	S 29000	9.00	52.40	3.50
2012	64000 C	N 31000	S 33000	9.00	55.70	4.80
2011	61500 C	N 30500	S 31000	9.00	55.10	3.90
2010	60000 C	N 30000	S 30000	8.98	54.08	3.90
2009	60500 C	N 29500	S 31000	8.99	53.24	3.40
2008	55000 C	N 27000	S 28000	9.09	55.75	4.70
2007	60500 C	N 29000	S 31500	8.01	54.34	5.90
2006	58000 C	N 29000	S 29000	7.97	54.22	4.20
2005	57500 C	N 28500	S 29000	8.80	53.80	7.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

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



Year	Traffic (ADT/AADT) Count*	Trend**
2015	60000	61900
2016	63500	61700
2017	63500	61500
2018	59500	61300
2019	61000	61100

*Axle-Adjusted

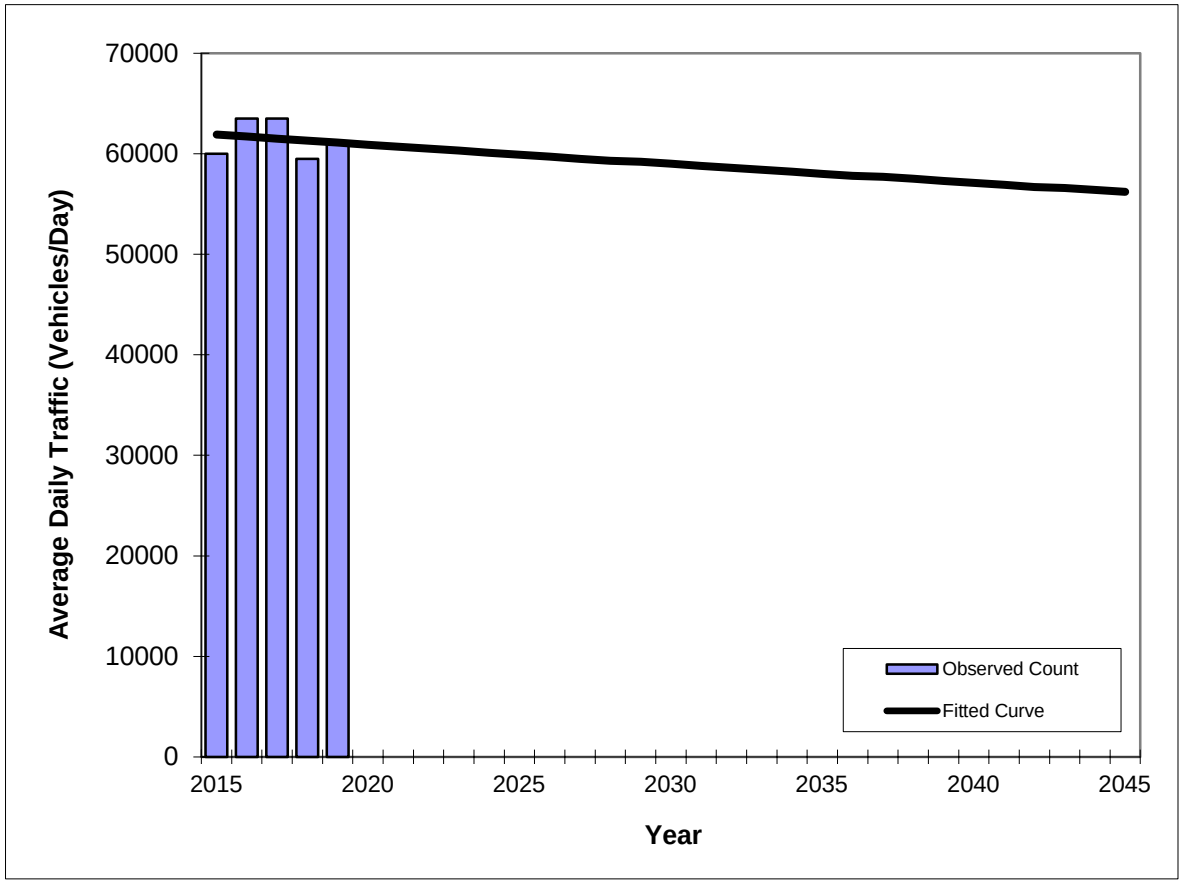
Trend R-squared:	2.76%
Trend Annual Historic Growth Rate:	-0.32%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

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



Year	Traffic (ADT/AADT) Count*	Trend**
2015	60000	61900
2016	63500	61700
2017	63500	61500
2018	59500	61300
2019	61000	61100

*Axle-Adjusted

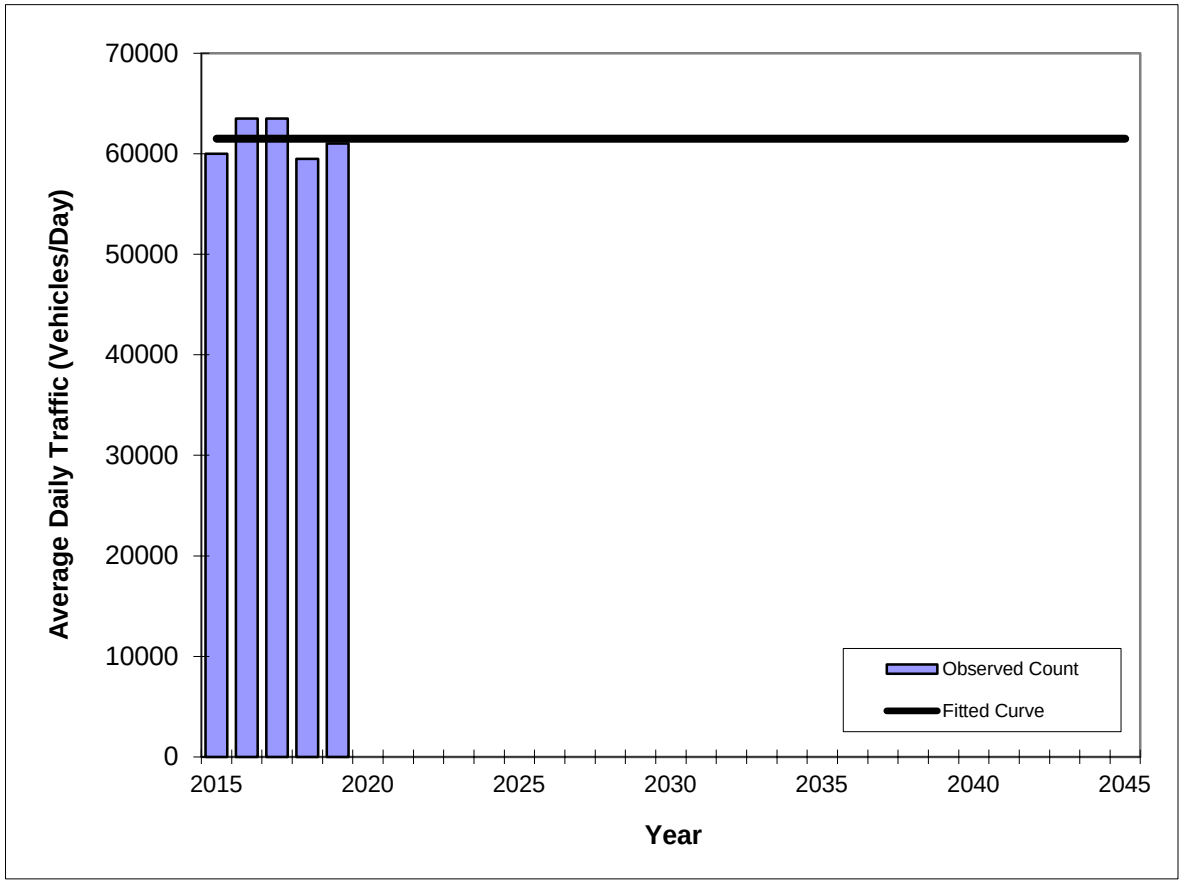
Trend R-squared:	2.68%
Compounded Annual Historic Growth Rate:	-0.32%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

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



Year	Traffic (ADT/AADT) Count*	Trend**
2015	60000	61500
2016	63500	61500
2017	63500	61500
2018	59500	61500
2019	61000	61500

*Axle-Adjusted

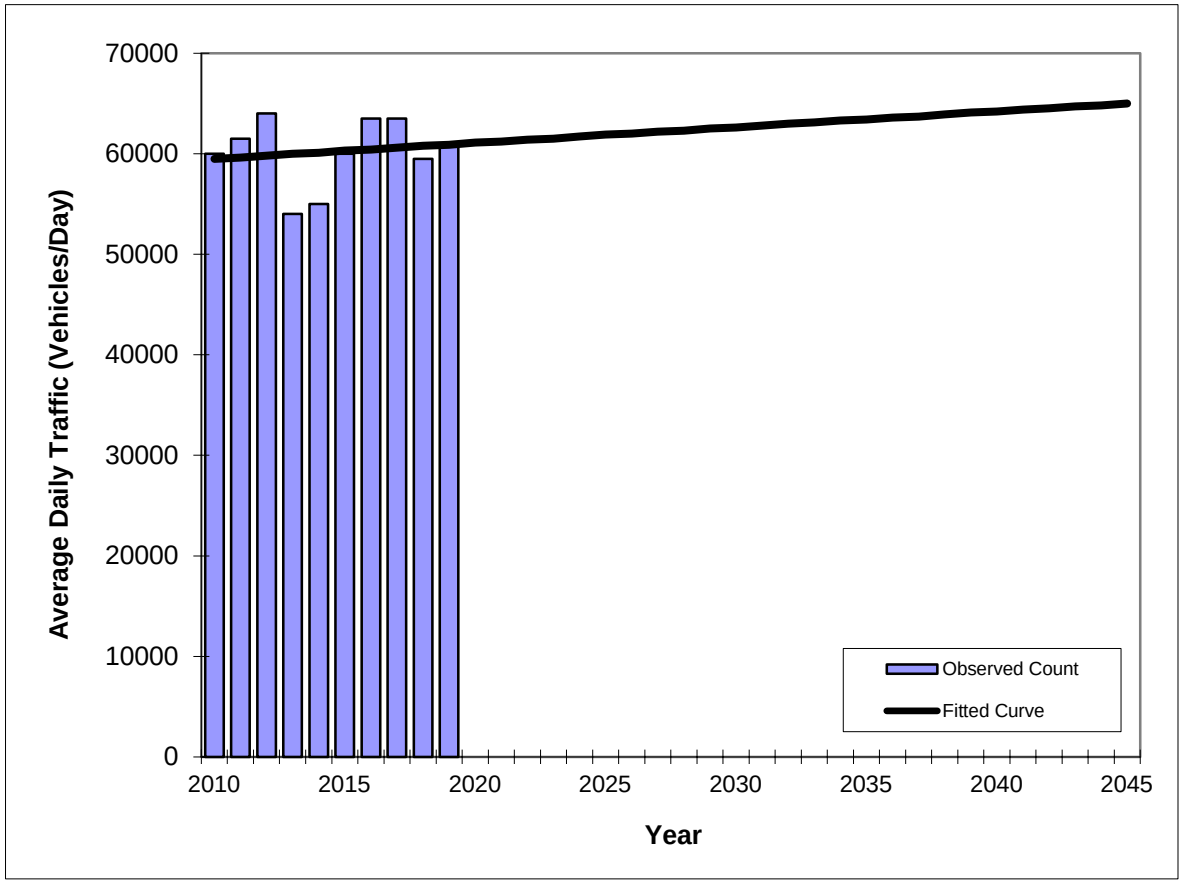
Trend R-squared:	0.00%
Compounded Annual Historic Growth Rate:	0.00%
Printed:	22-Nov-21

Decaying Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

County:	Miami (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

*Axle-Adjusted

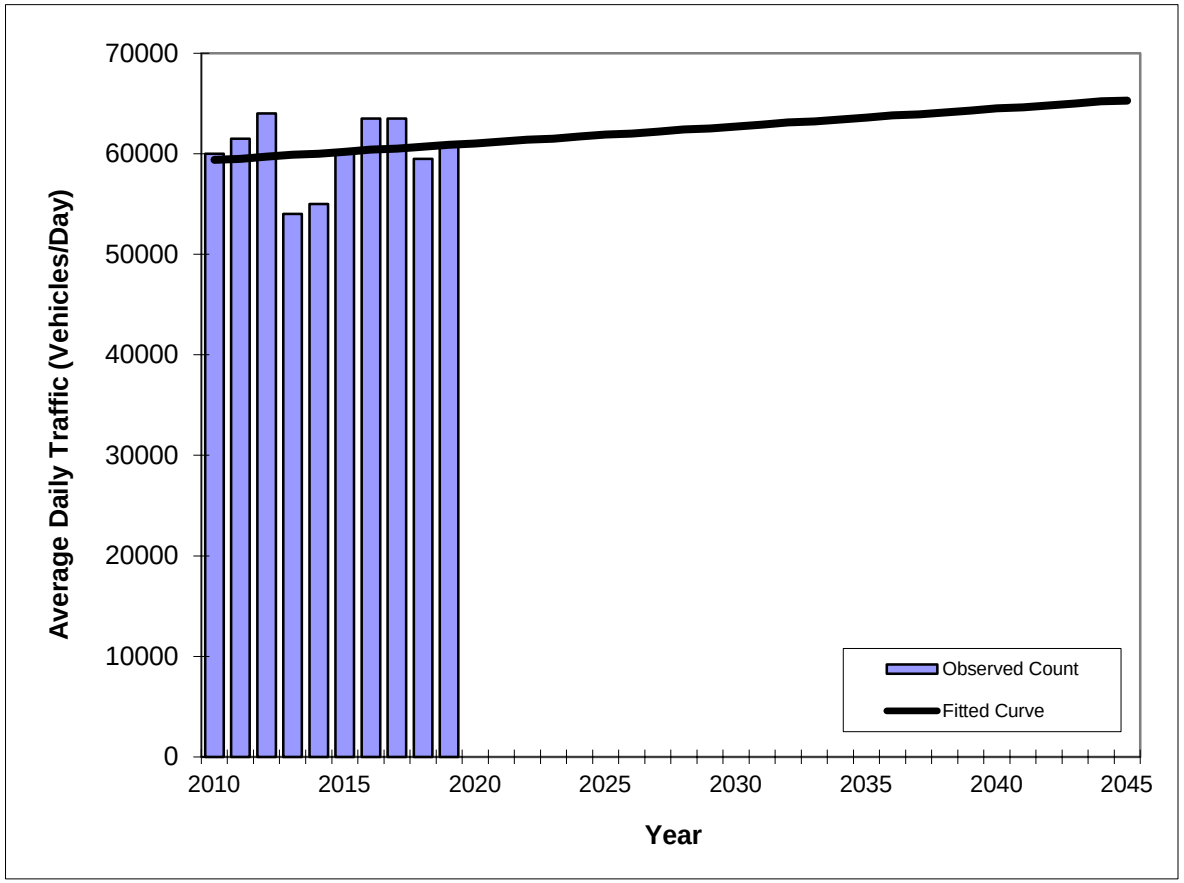
Trend R-squared:	1.96%
Trend Annual Historic Growth Rate:	0.26%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

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



Year	Traffic (ADT/AADT) Count*	Trend**
2010	60000	59400
2011	61500	59500
2012	64000	59700
2013	54000	59900
2014	55000	60000
2015	60000	60200
2016	63500	60400
2017	63500	60500
2018	59500	60700
2019	61000	60900

*Axle-Adjusted

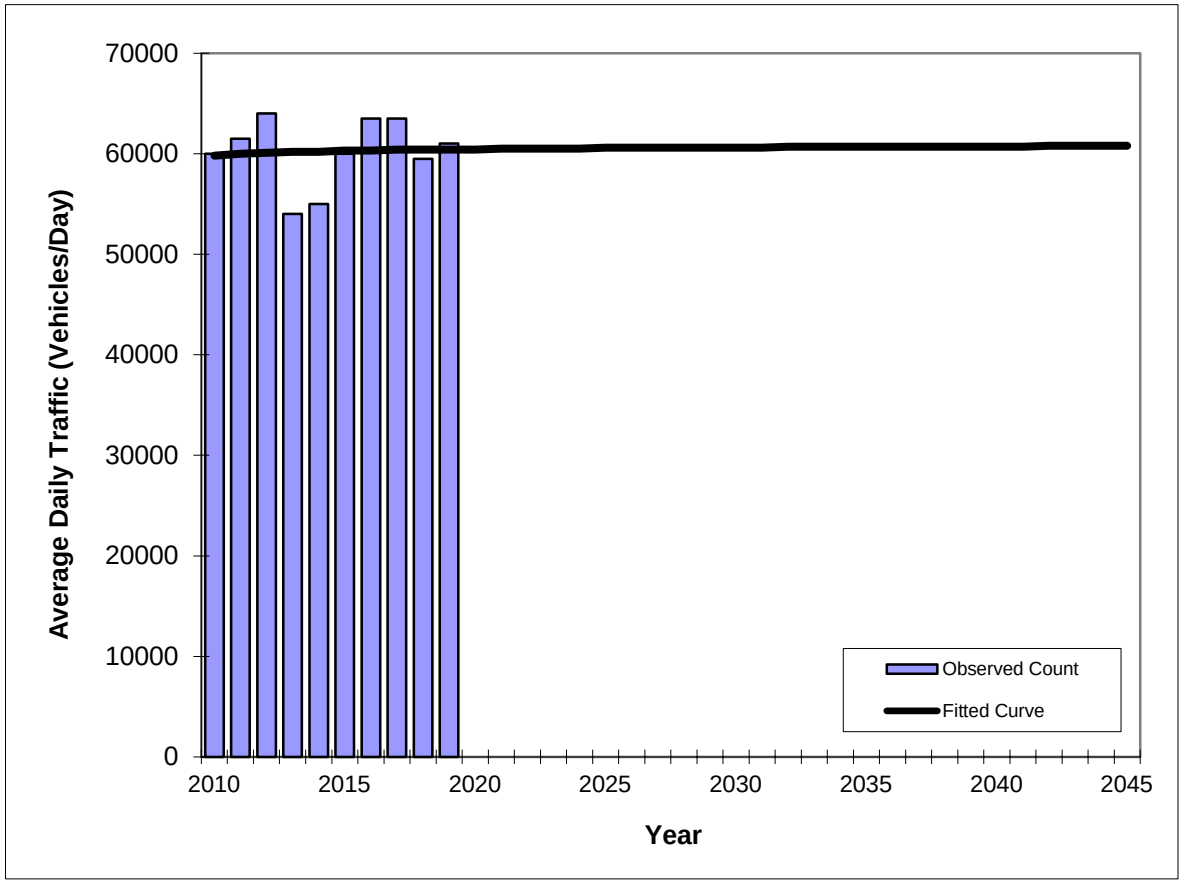
Trend R-squared:	2.04%
Compounded Annual Historic Growth Rate:	0.28%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

SR 5/US-1 -- 300' S of NE 163 St/Sunny Isles Cswy

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



Year	Traffic (ADT/AADT) Count*	Trend**
2010	60000	59800
2011	61500	60000
2012	64000	60100
2013	54000	60200
2014	55000	60200
2015	60000	60300
2016	63500	60300
2017	63500	60400
2018	59500	60400
2019	61000	60400

*Axle-Adjusted

Trend R-squared:	0.36%
Compounded Annual Historic Growth Rate:	0.11%
Printed:	22-Nov-21

Decaying Exponential Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5225 - SR 826/NE 163 ST, 100' E OF NE 20 AVE

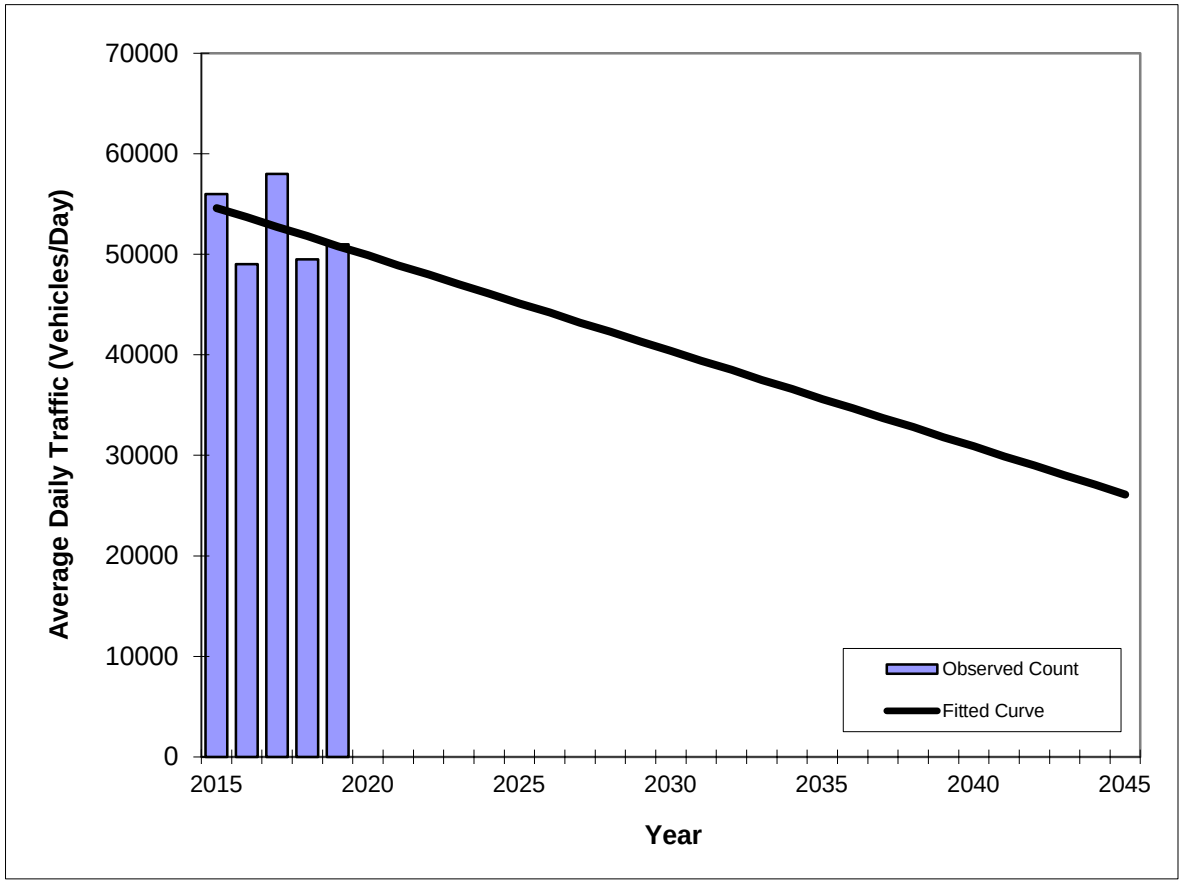
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	43500 C	E 23000	W 20500	9.00	54.20	3.10
2019	51000 C	E 27500	W 23500	9.00	54.60	3.90
2018	49500 C	E 26500	W 23000	9.00	54.30	4.20
2017	58000 C	E 29000	W 29000	9.00	55.00	9.40
2016	49000 C	E 26500	W 22500	9.00	54.50	5.30
2015	56000 C	E 29500	W 26500	9.00	54.70	4.50
2014	50000 C	E 27000	W 23000	9.00	54.50	3.70
2013	50000 C	E 27500	W 22500	9.00	52.40	3.30
2012	54000 C	E 29500	W 24500	9.00	55.70	2.80
2011	55000 C	E 27500	W 27500	9.00	55.10	2.80
2010	52500 C	E 26500	W 26000	8.98	54.08	2.80
2009	58000 C	E 29500	W 28500	8.99	53.24	4.10
2008	53500 C	E 27500	W 26000	9.09	55.75	4.20
2007	54000 C	E 27500	W 26500	8.01	54.34	3.20
2006	51000 C	E 25500	W 25500	7.97	54.22	5.10
2005	51000 C	E 26000	W 25000	8.80	53.80	5.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	56000	54600
2016	49000	53700
2017	58000	52700
2018	49500	51800
2019	51000	50800

*Axle-Adjusted

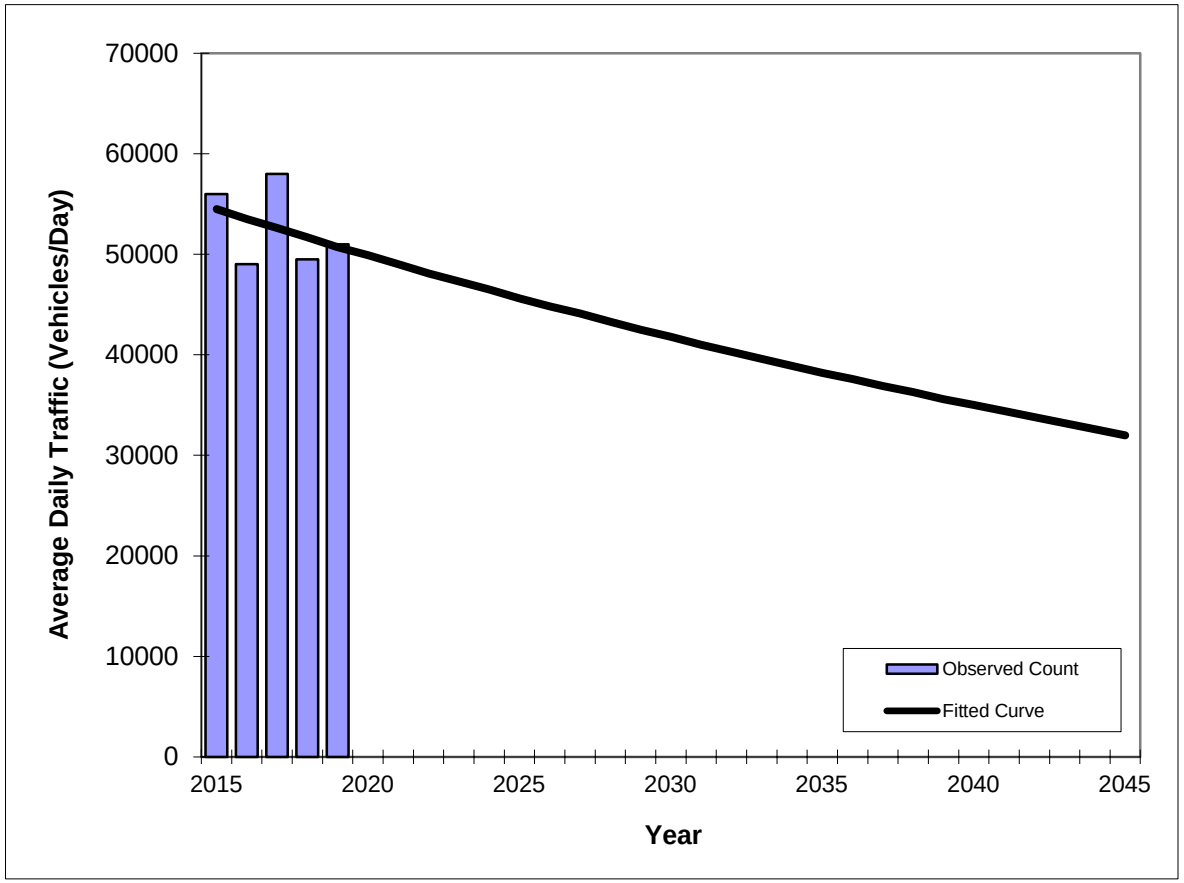
Trend R-squared:	13.72%
Trend Annual Historic Growth Rate:	-1.74%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	56000	54500
2016	49000	53500
2017	58000	52600
2018	49500	51700
2019	51000	50700

Trend R-squared:	13.52%
Compounded Annual Historic Growth Rate:	-1.79%
Printed:	22-Nov-21

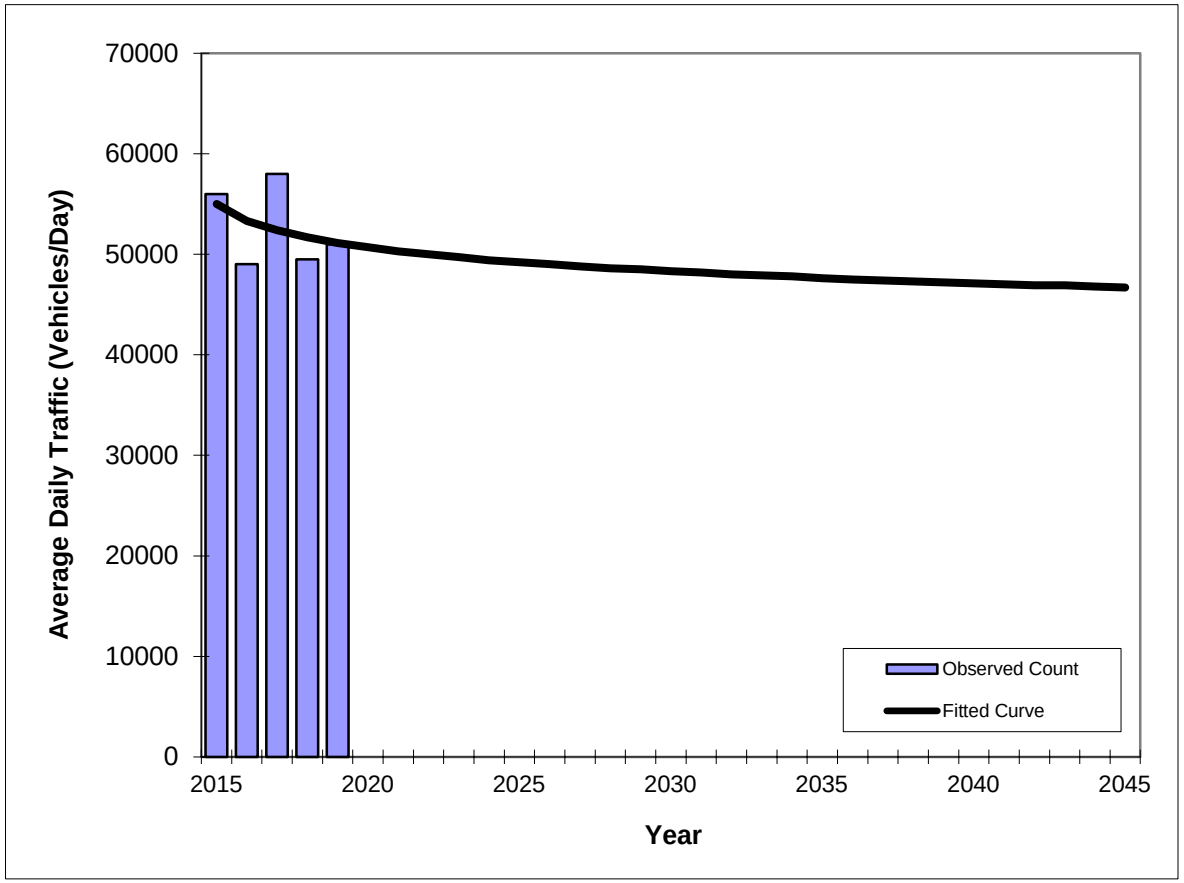
Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	56000	55000
2016	49000	53300
2017	58000	52400
2018	49500	51700
2019	51000	51100

*Axle-Adjusted

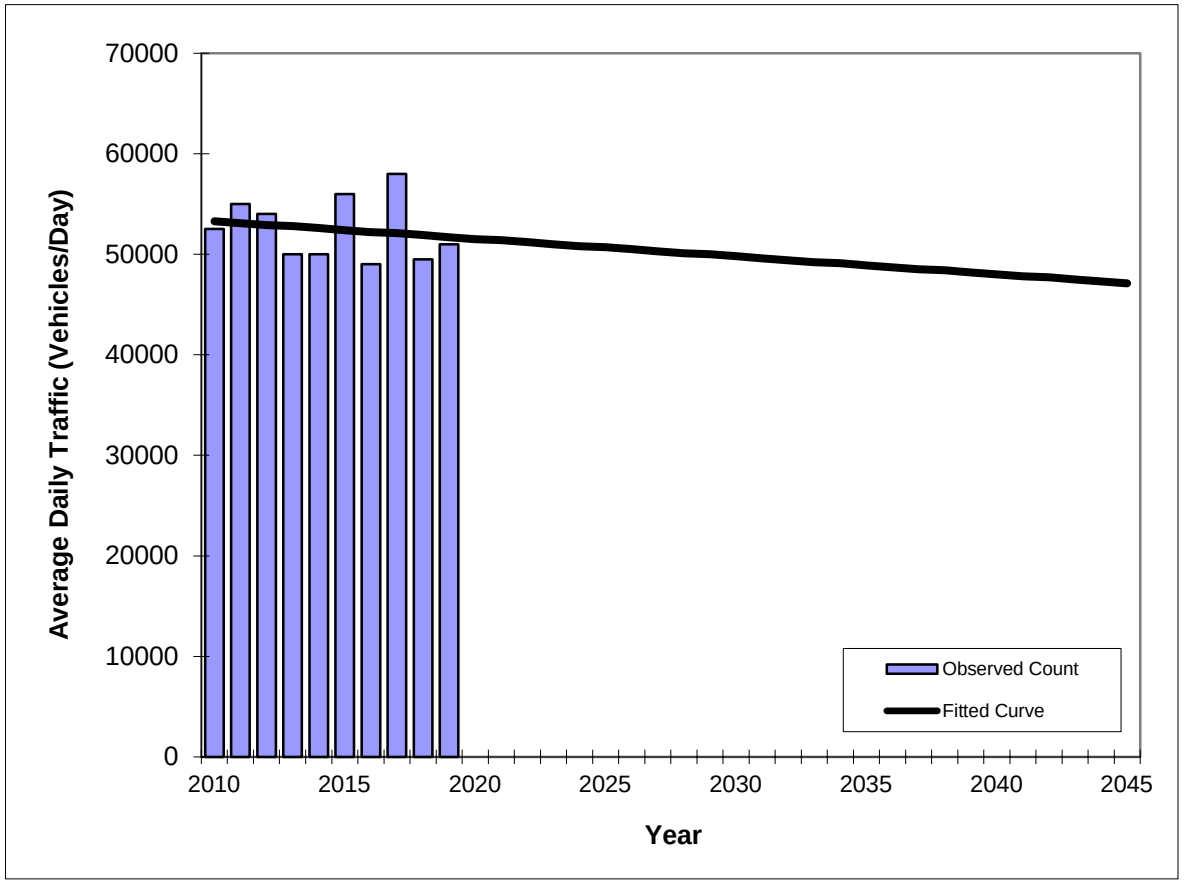
Trend R-squared:	14.41%
Compounded Annual Historic Growth Rate:	-1.82%
Printed:	22-Nov-21

Decaying Exponential Growth Option

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2010	52500	53300
2011	55000	53100
2012	54000	52900
2013	50000	52800
2014	50000	52600
2015	56000	52400
2016	49000	52200
2017	58000	52100
2018	49500	51900
2019	51000	51700

*Axle-Adjusted

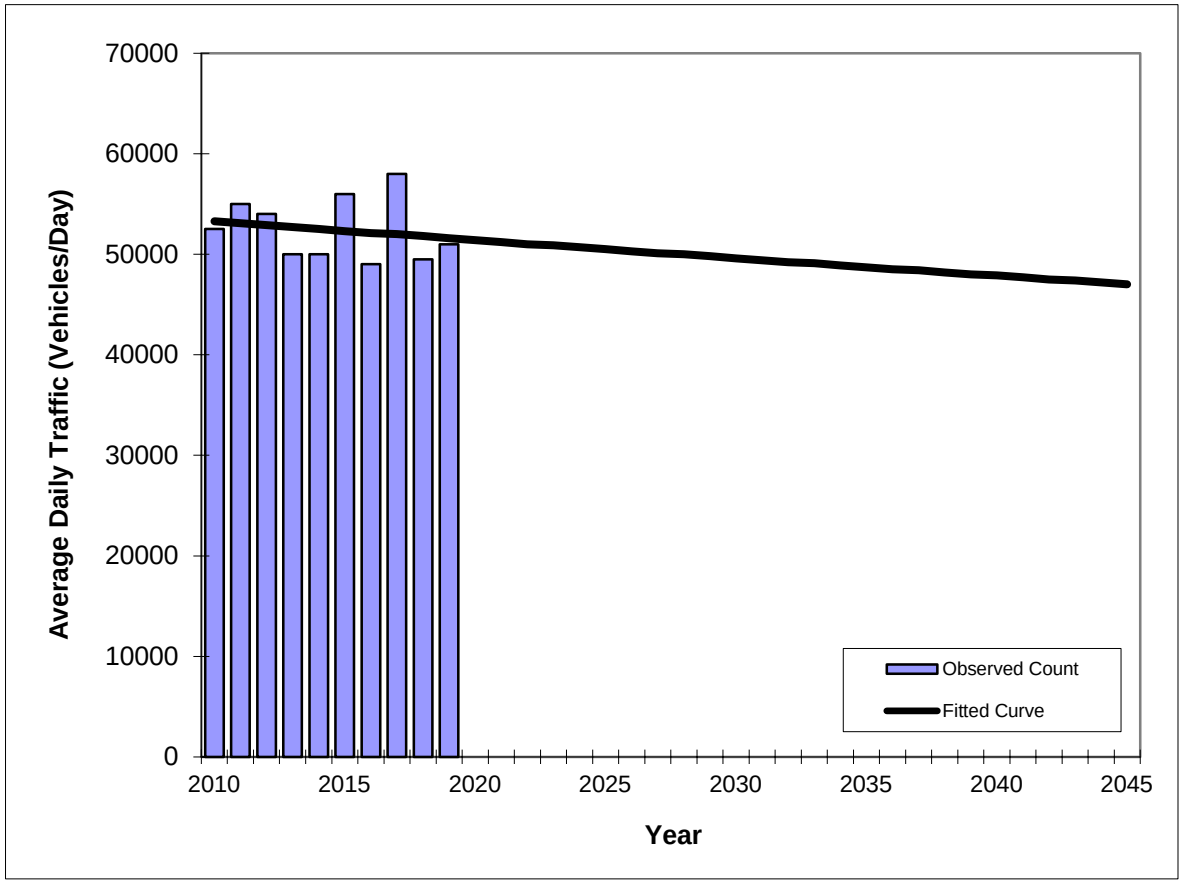
Trend R-squared:	2.93%
Trend Annual Historic Growth Rate:	-0.33%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2010	52500	53300
2011	55000	53100
2012	54000	52900
2013	50000	52700
2014	50000	52500
2015	56000	52300
2016	49000	52100
2017	58000	52000
2018	49500	51800
2019	51000	51600

*Axle-Adjusted

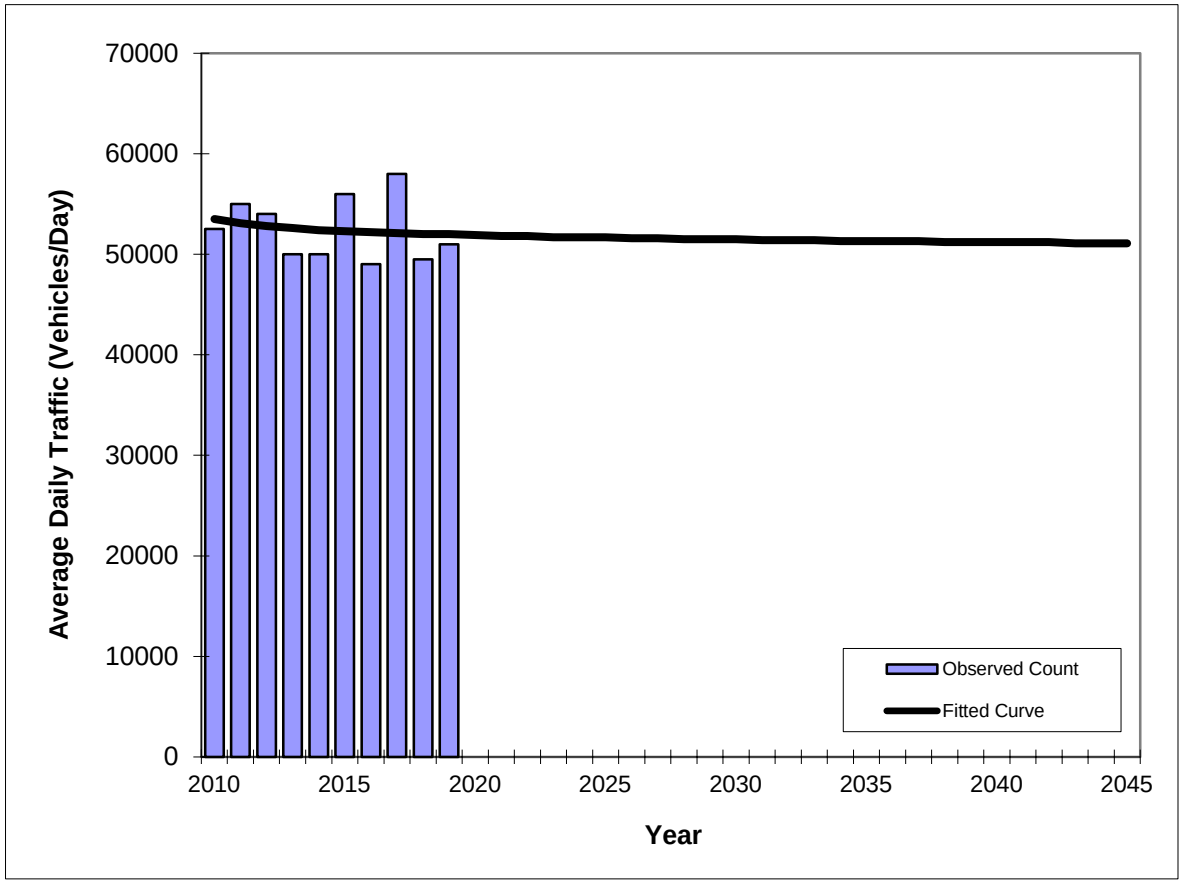
Trend R-squared:	3.40%
Compounded Annual Historic Growth Rate:	-0.36%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

SR 826/NE 163 St -- 100' E of NE 20 Ave

County:	Miami (87)
Station #:	5225
Highway:	SR 826/NE 163 St



Year	Traffic (ADT/AADT) Count*	Trend**
2010	52500	53500
2011	55000	53100
2012	54000	52800
2013	50000	52600
2014	50000	52400
2015	56000	52300
2016	49000	52200
2017	58000	52100
2018	49500	52000
2019	51000	52000

*Axle-Adjusted

Trend R-squared:	2.52%
Compounded Annual Historic Growth Rate:	-0.32%
Printed:	22-Nov-21

Decaying Exponential Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8273 - NE 19TH AVE, 200' NORTH OF 175TH STREET

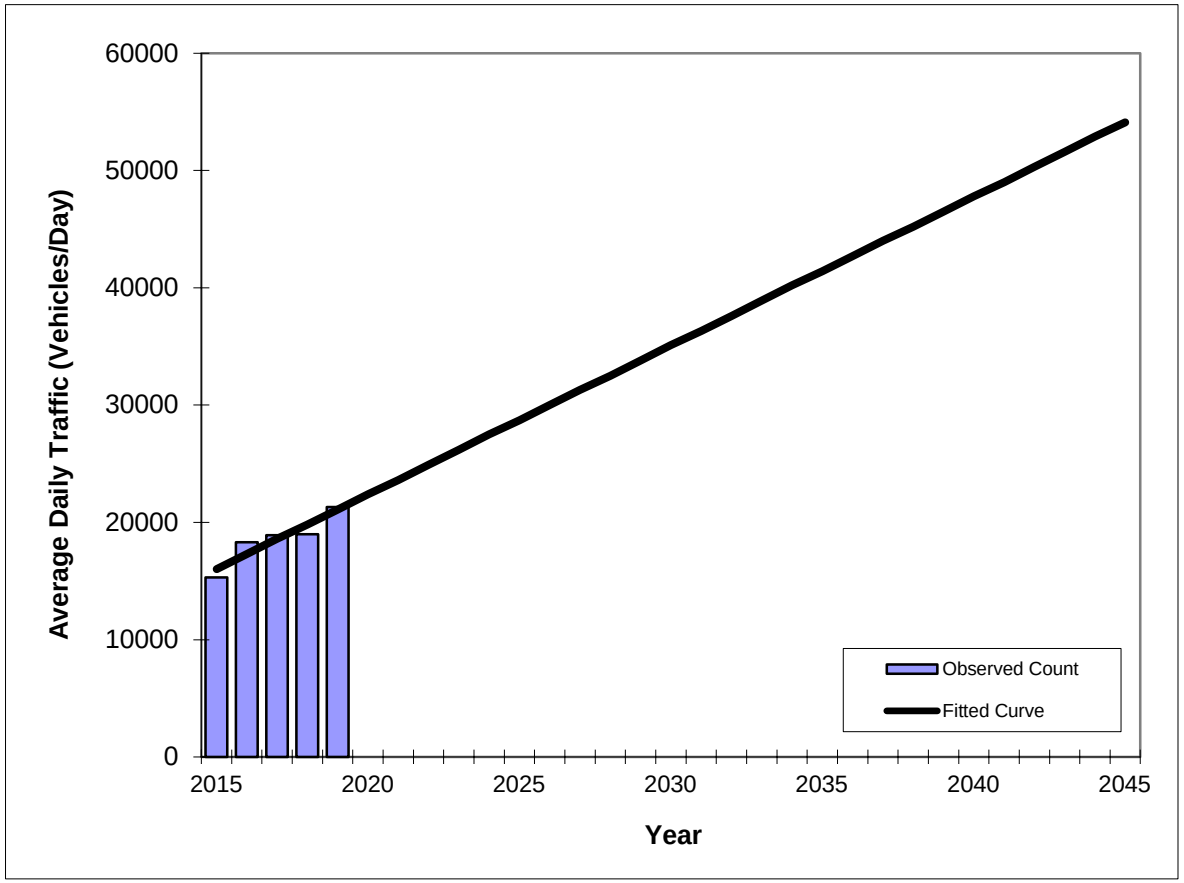
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	20400 F	N 9400	S 11000	9.00	54.20	10.40
2019	21300 C	N 9800	S 11500	9.00	54.60	11.00
2018	19000 S	N 9000	S 10000	9.00	54.30	12.10
2017	18900 F	N 8900	S 10000	9.00	55.00	12.60
2016	18300 C	N 8600	S 9700	9.00	54.50	13.50
2015	15300 T	N 6200	S 9100	9.00	54.70	13.70
2014	14800 S	N 6000	S 8800	9.00	54.50	17.40
2013	14600 F	N 5900	S 8700	9.00	52.40	16.20
2012	14900 C	N 6000	S 8900	9.00	55.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

NE 19 Ave -- 200' N of NE 175 St

County:	Miami (87)
Station #:	8273
Highway:	NE 19 Ave



Year	Traffic (ADT/AADT) Count*	Trend**
2015	15300	16000
2016	18300	17300
2017	18900	18600
2018	19000	19800
2019	21300	21100

*Axle-Adjusted

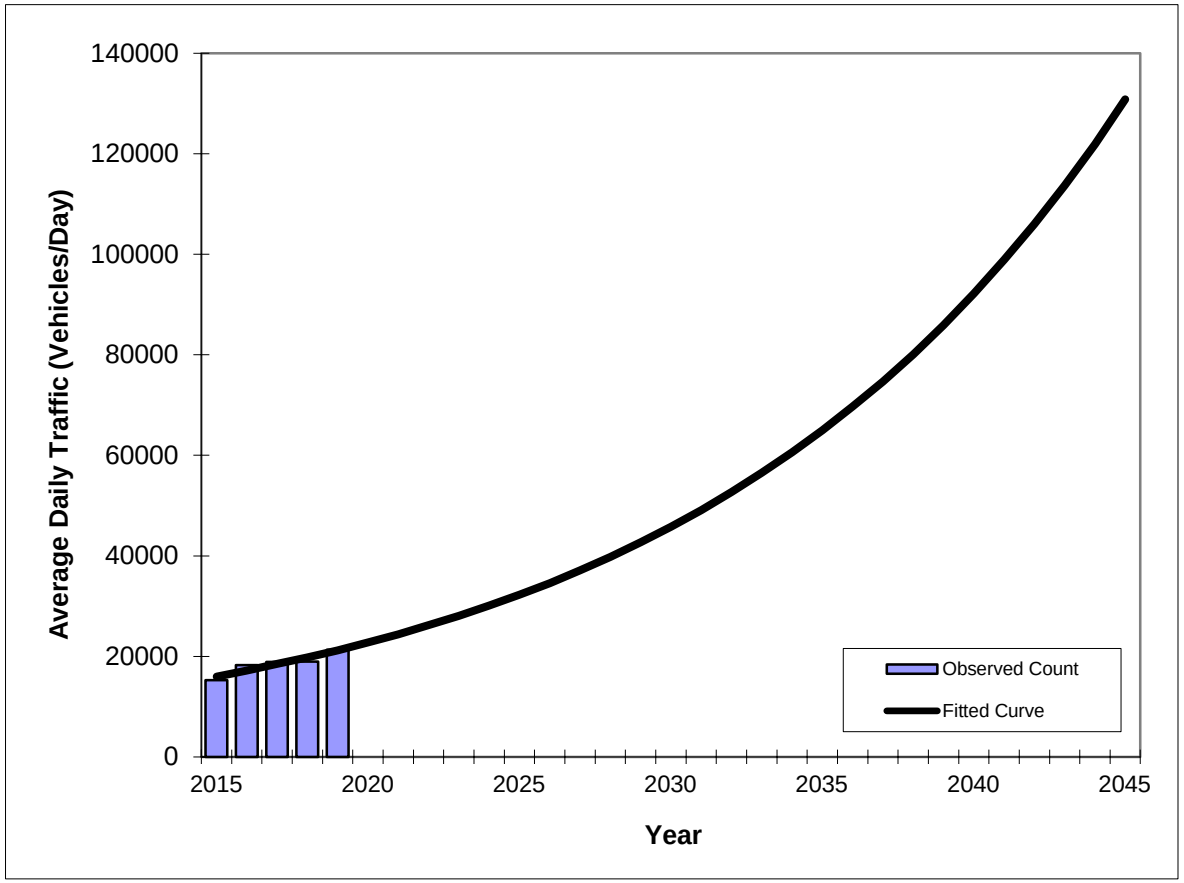
Trend R-squared:	87.13%
Trend Annual Historic Growth Rate:	7.97%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

NE 19 Ave -- 200' N of NE 175 St

County:	Miami (87)
Station #:	8273
Highway:	NE 19 Ave



Year	Traffic (ADT/AADT) Count*	Trend**
2015	15300	16000
2016	18300	17200
2017	18900	18500
2018	19000	19800
2019	21300	21200

*Axle-Adjusted

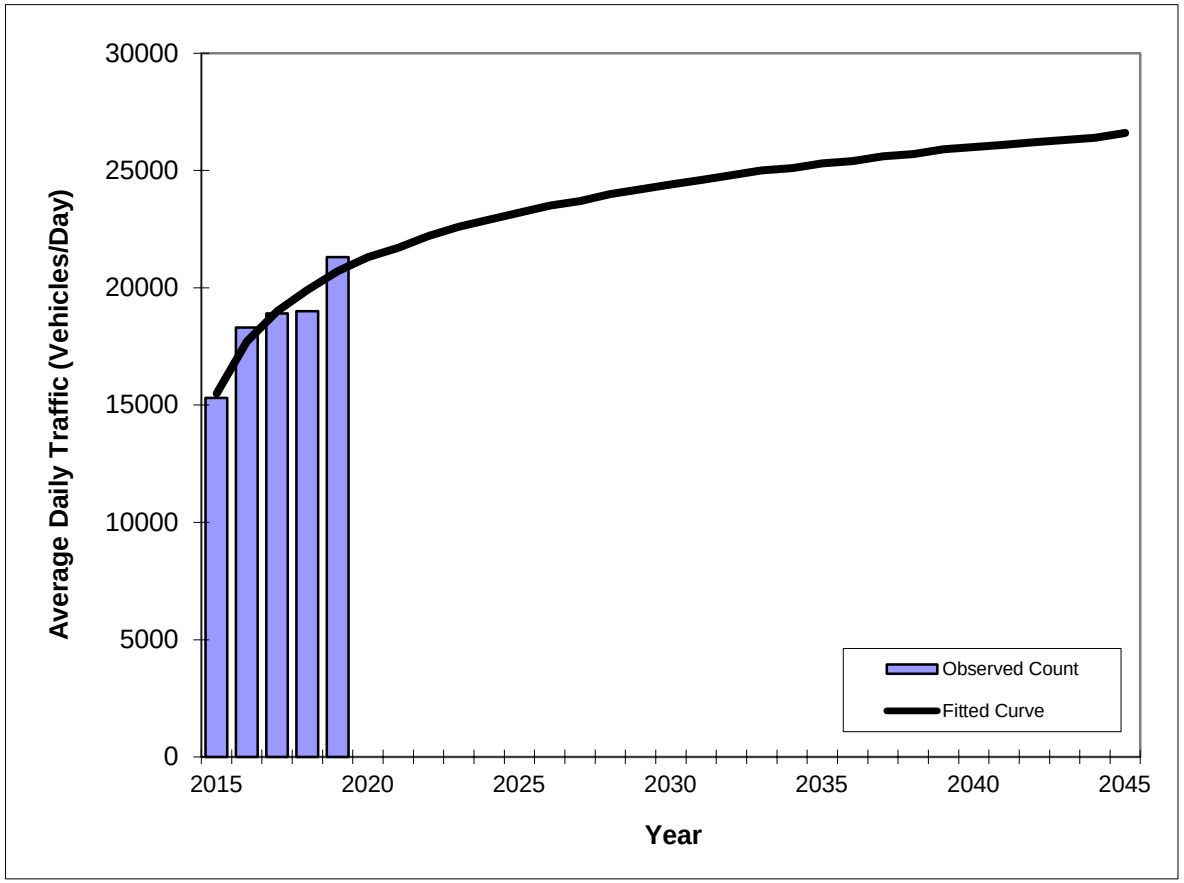
Trend R-squared:	85.49%
Compounded Annual Historic Growth Rate:	7.29%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

NE 19 Ave -- 200' N of NE 175 St

County:	Miami (87)
Station #:	8273
Highway:	NE 19 Ave



Year	Traffic (ADT/AADT) Count*	Trend**
2015	15300	15500
2016	18300	17700
2017	18900	19000
2018	19000	19900
2019	21300	20700

*Axle-Adjusted

Trend R-squared:	90.87%
Compounded Annual Historic Growth Rate:	7.50%
Printed:	22-Nov-21

Decaying Exponential Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8455 - NE 171 ST, 200 W OFNE 20 AVE (2011 OFF SYSTEM CYCLE)

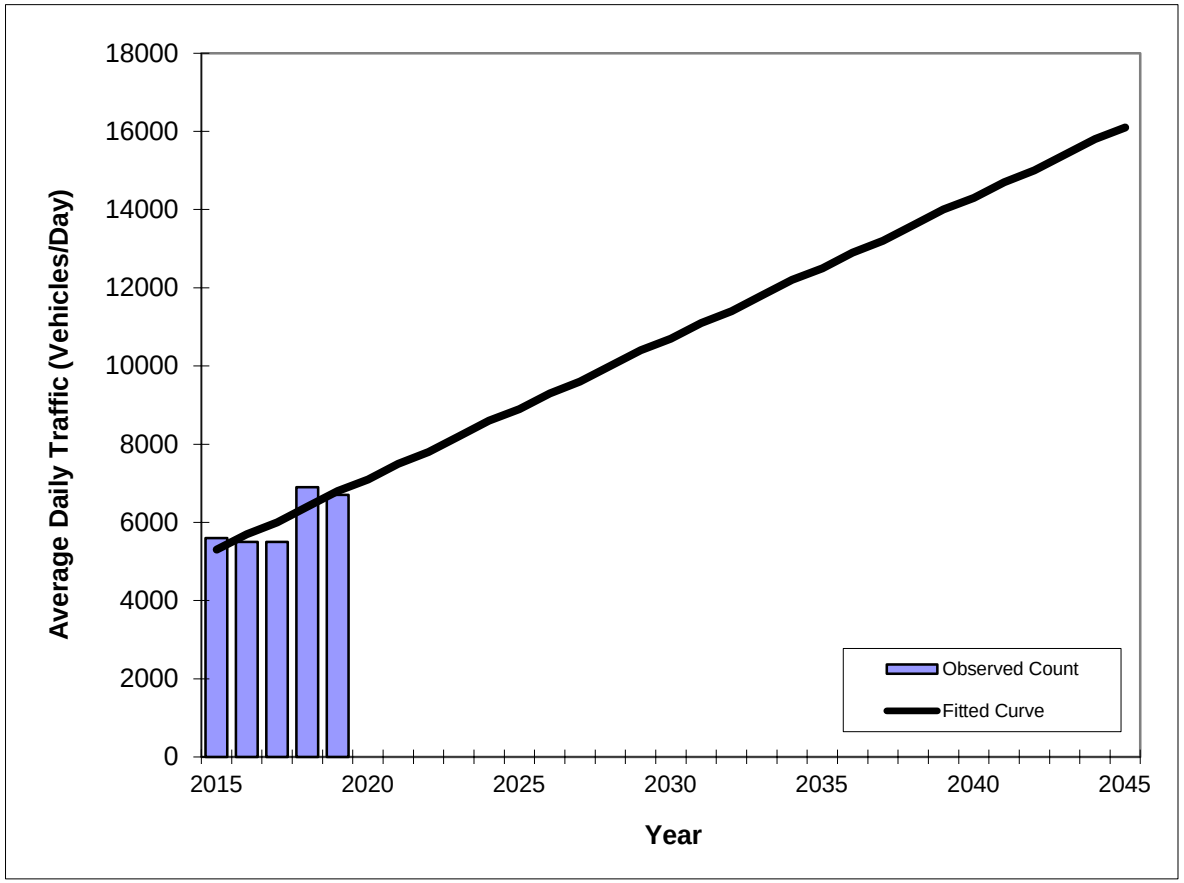
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	5900 S	E 2900	W 3000	9.00	56.00	3.80
2019	6700 F	E 3300	W 3400	9.00	56.00	3.70
2018	6900 C	E 3400	W 3500	9.00	54.30	2.30
2017	5500 T	E 3000	W 2500	9.00	59.30	5.10
2016	5500 S	E 3000	W 2500	9.00	56.10	3.80
2015	5600 F	E 3100	W 2500	9.00	57.40	4.10
2014	5600 C	E 3100	W 2500	9.00	59.30	6.70
2013	850 F	0	0	9.00	58.90	16.20
2012	850 C	E 0	W 0	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

NE 171 St -- 200' W of NE 20 Ave

County:	Miami (87)
Station #:	8455
Highway:	NE 171 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	5600	5300
2016	5500	5700
2017	5500	6000
2018	6900	6400
2019	6700	6800

*Axle-Adjusted

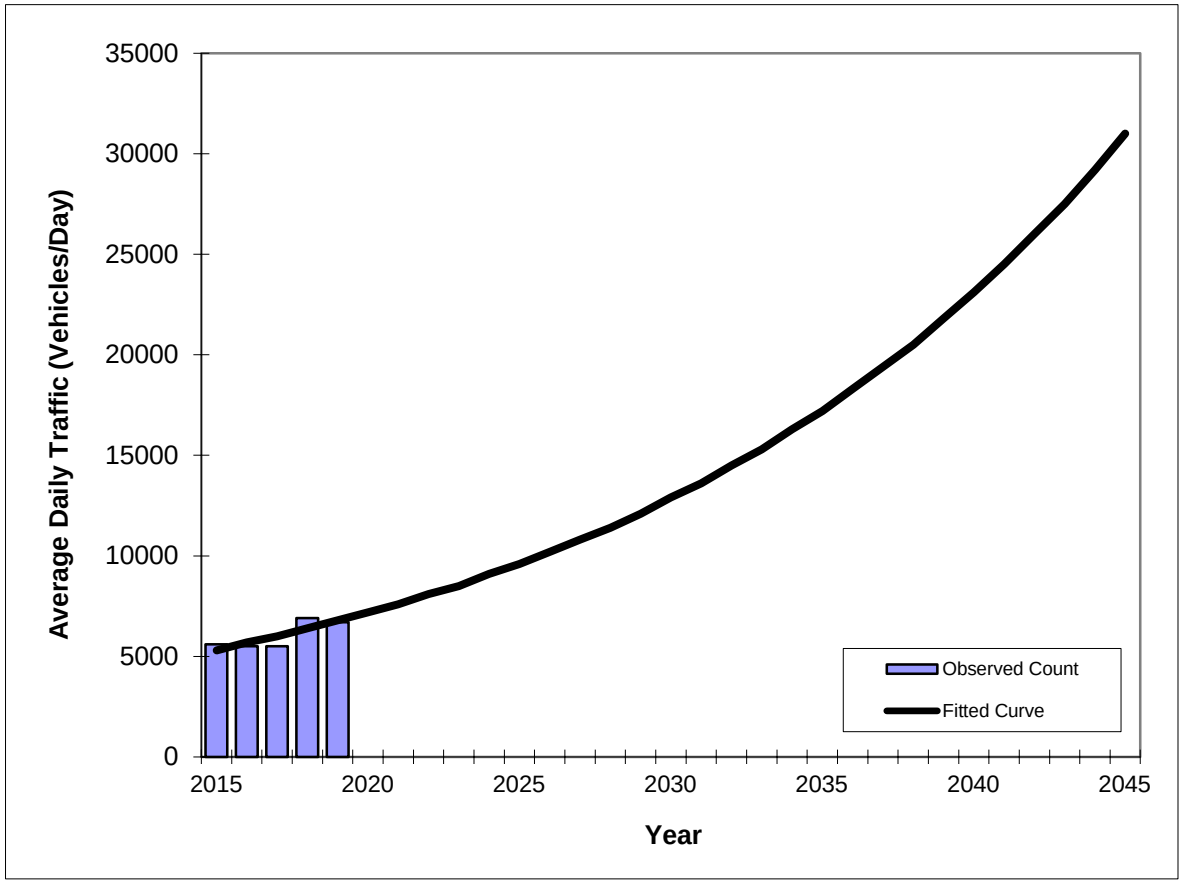
Trend R-squared:	66.39%
Trend Annual Historic Growth Rate:	7.08%
Printed:	22-Nov-21

Straight Line Growth Option

Traffic Trends

NE 171 St -- 200' W of NE 20 Ave

County:	Miami (87)
Station #:	8455
Highway:	NE 171 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	5600	5300
2016	5500	5700
2017	5500	6000
2018	6900	6400
2019	6700	6800

*Axle-Adjusted

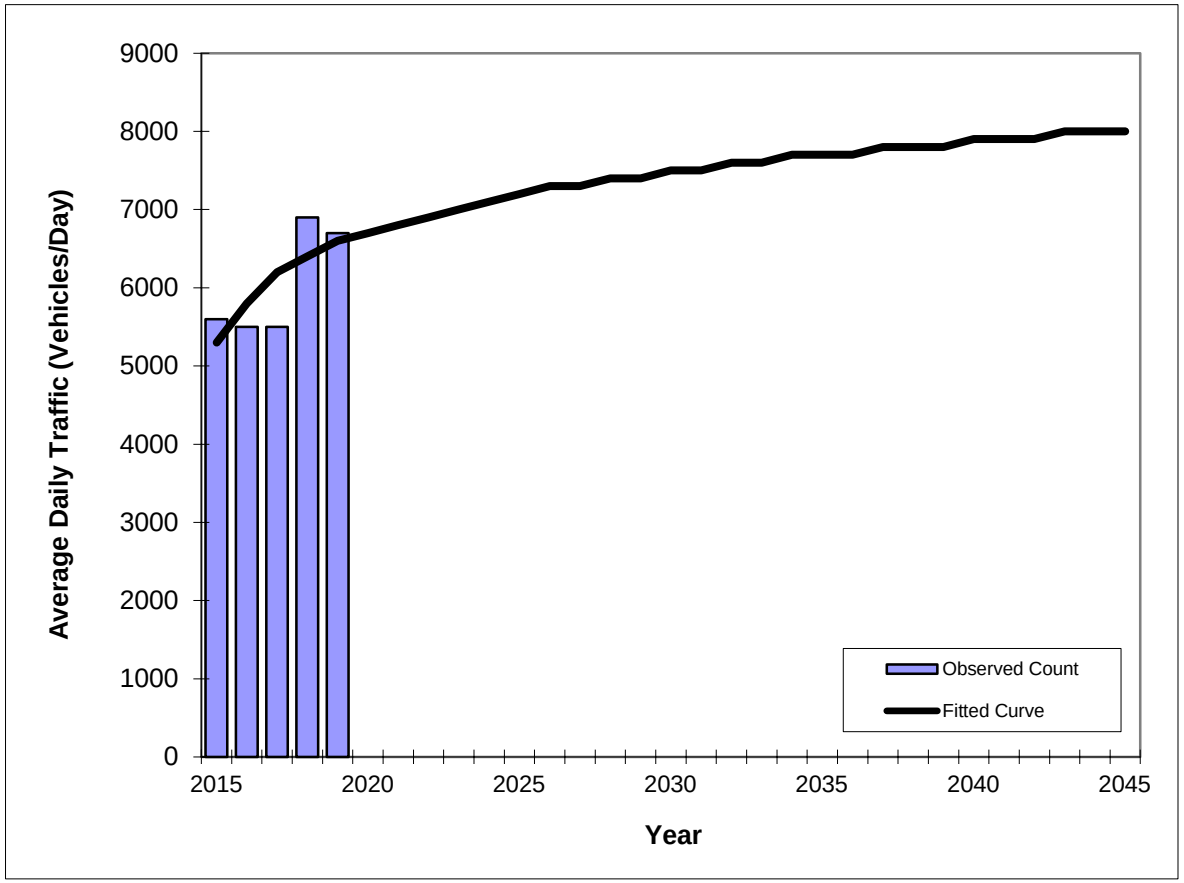
Trend R-squared:	66.42%
Compounded Annual Historic Growth Rate:	6.43%
Printed:	22-Nov-21

Exponential Growth Option

Traffic Trends

NE 171 St -- 200' W of NE 20 Ave

County:	Miami (87)
Station #:	8455
Highway:	NE 171 St



Year	Traffic (ADT/AADT) Count*	Trend**
2015	5600	5300
2016	5500	5800
2017	5500	6200
2018	6900	6400
2019	6700	6600

*Axle-Adjusted

Trend R-squared:	52.52%
Compounded Annual Historic Growth Rate:	5.64%
Printed:	22-Nov-21

Decaying Exponential Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8505 - NE 159 ST, 200' WEST OFNE 14 AVE (2011 OFF SYSTEM CYCLE)

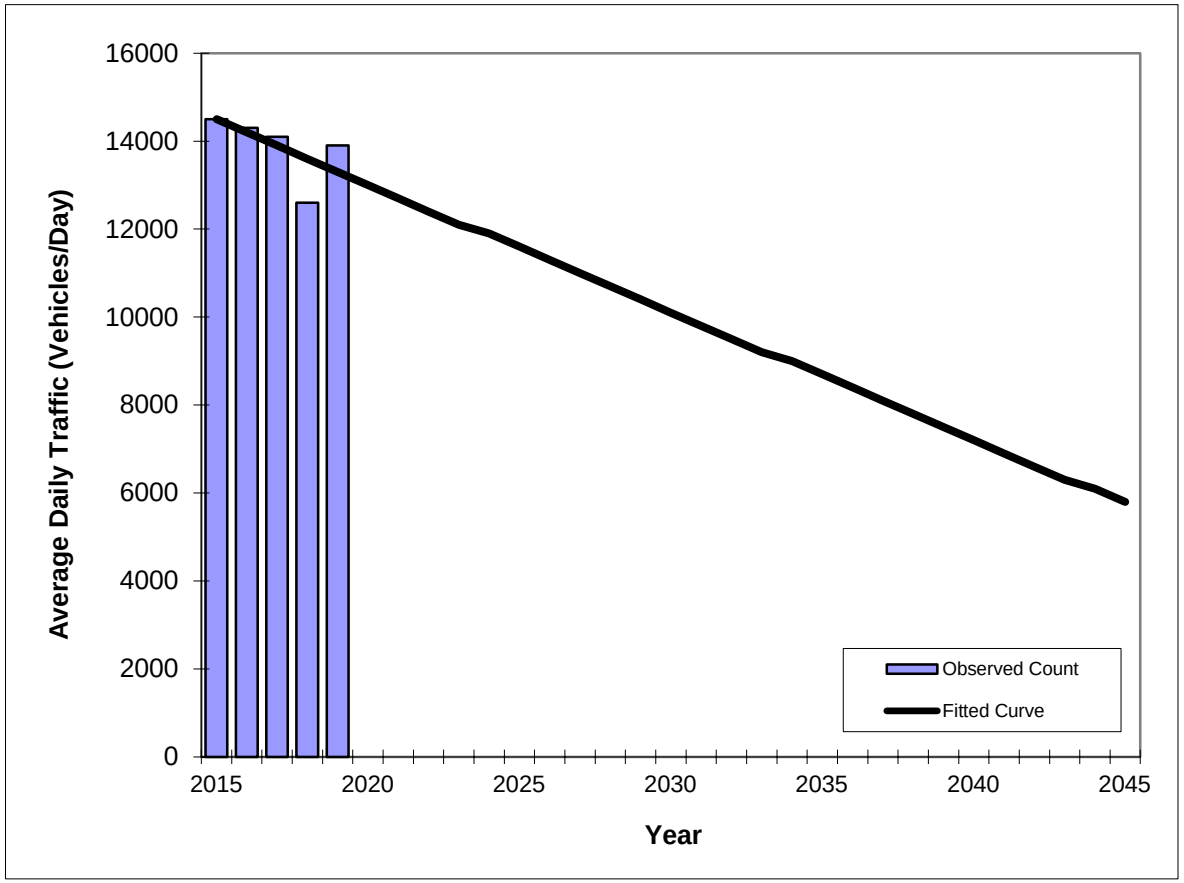
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	12400 F	E 6100	W 6300	9.00	56.00	3.80
2019	13900 C	E 6800	W 7100	9.00	56.00	3.70
2018	12600 T	E 6300	W 6300	9.00	54.30	2.30
2017	14100 S	E 7000	W 7100	9.00	59.30	5.10
2016	14300 F	E 7100	W 7200	9.00	56.10	3.80
2015	14500 C	E 7200	W 7300	9.00	57.40	4.10
2014	12500 S			9.00	59.30	6.70
2013	12500 F	0	0	9.00	58.90	16.20
2012	12500 C	E 0	W 0	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends

NE 159th Street -- 200' W of NE 14th Avenue

County:	Miami (87)
Station #:	8505
Highway:	NE 159th Street



Year	Traffic (ADT/AADT) Count*	Trend**
2015	14500	14500
2016	14300	14200
2017	14100	13900
2018	12600	13600
2019	13900	13300

*Axle-Adjusted

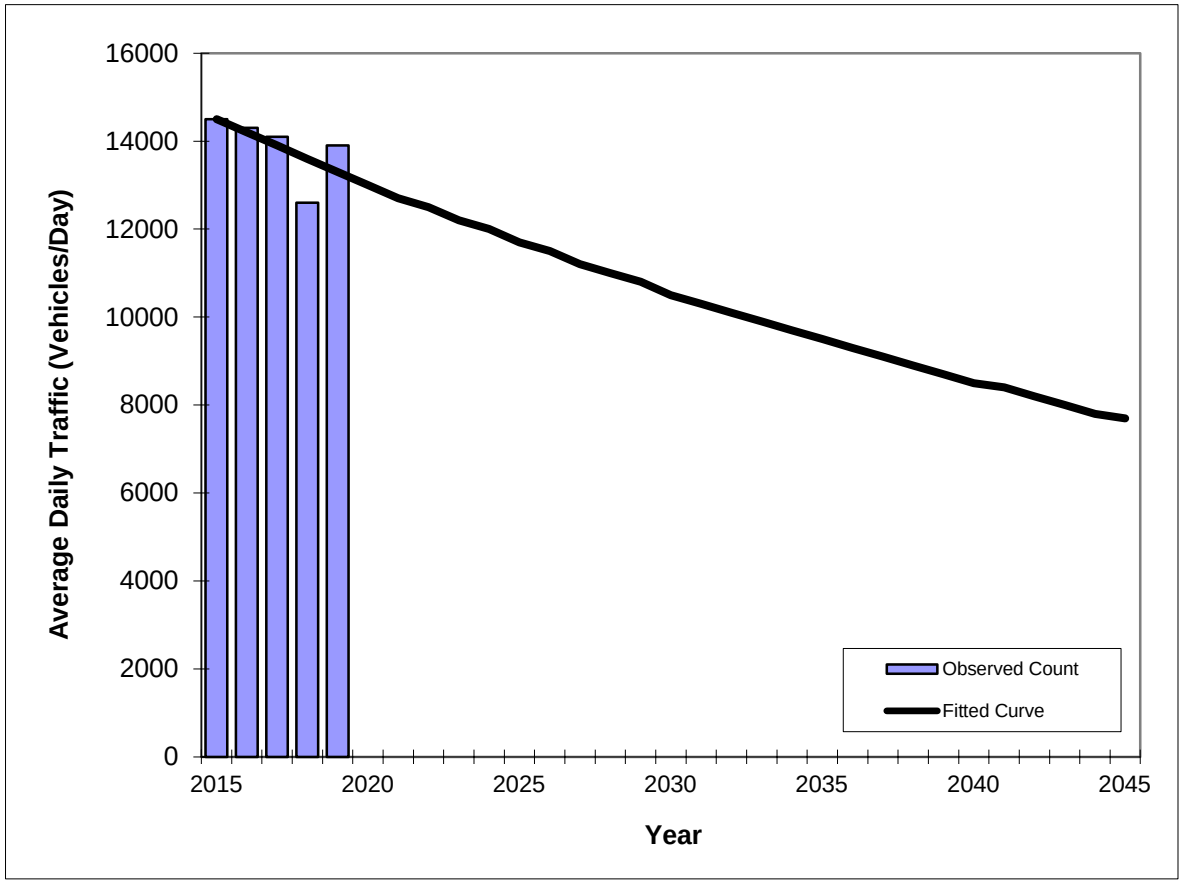
Trend R-squared:	37.41%
Trend Annual Historic Growth Rate:	-2.07%
Printed:	16-Dec-21

Straight Line Growth Option

Traffic Trends

NE 159th Street -- 200' W of NE 14th Avenue

County:	Miami (87)
Station #:	8505
Highway:	NE 159th Street



Year	Traffic (ADT/AADT) Count*	Trend**
2015	14500	14500
2016	14300	14200
2017	14100	13900
2018	12600	13600
2019	13900	13300

*Axle-Adjusted

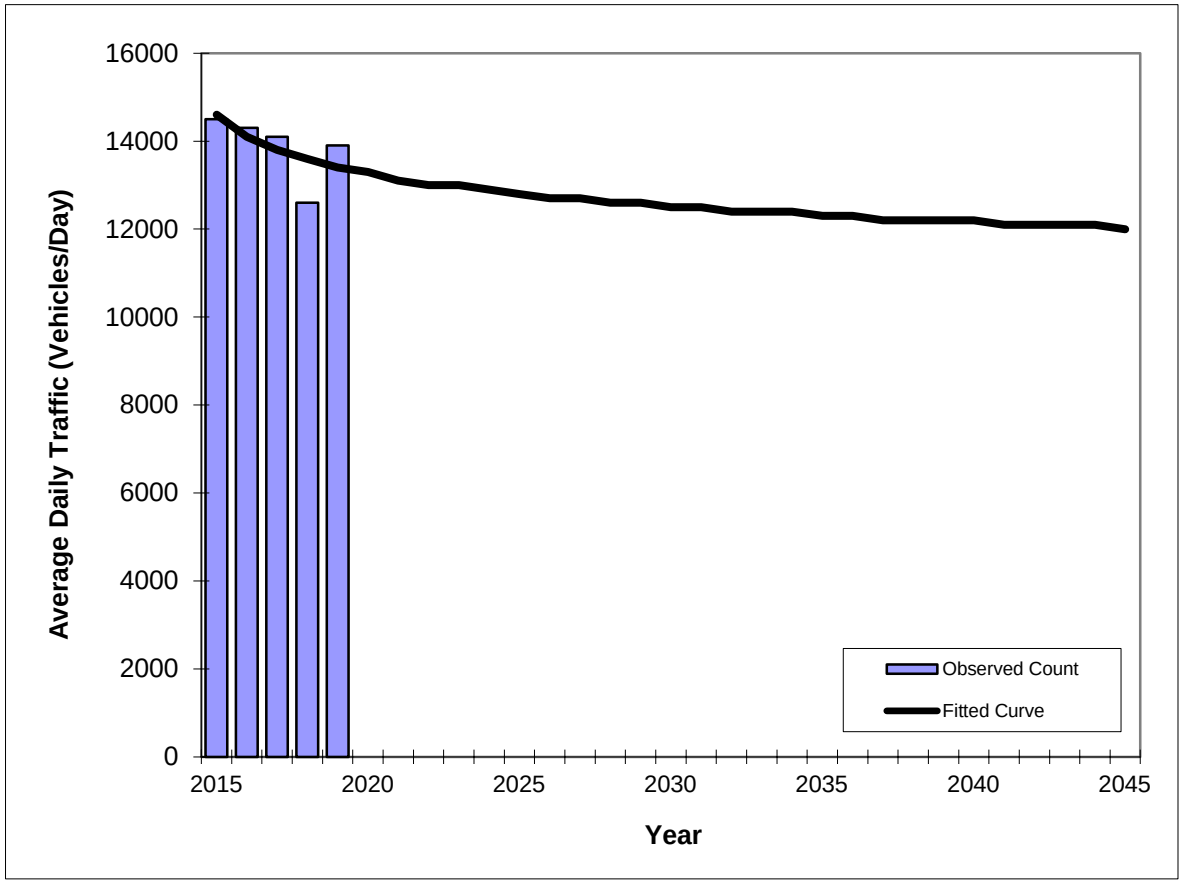
Trend R-squared:	35.93%
Compounded Annual Historic Growth Rate:	-2.14%
Printed:	16-Dec-21

Exponential Growth Option

Traffic Trends

NE 159th Street -- 200' W of NE 14th Avenue

County:	Miami (87)
Station #:	8505
Highway:	NE 159th Street



Year	Traffic (ADT/AADT) Count*	Trend**
2015	14500	14600
2016	14300	14100
2017	14100	13800
2018	12600	13600
2019	13900	13400

*Axle-Adjusted

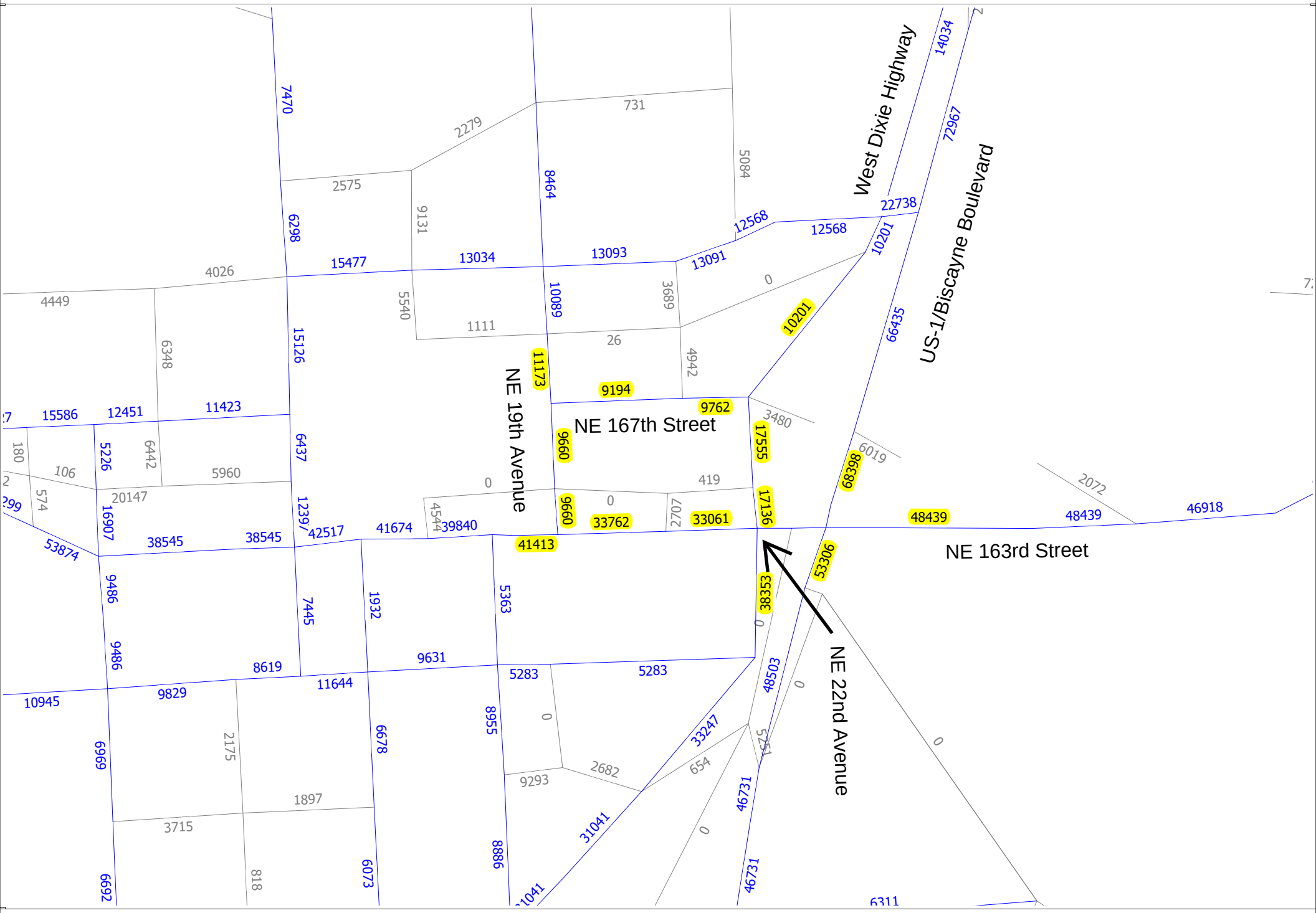
Trend R-squared:	40.28%
Compounded Annual Historic Growth Rate:	-2.12%
Printed:	16-Dec-21

Decaying Exponential Growth Option

SERPM Analysis

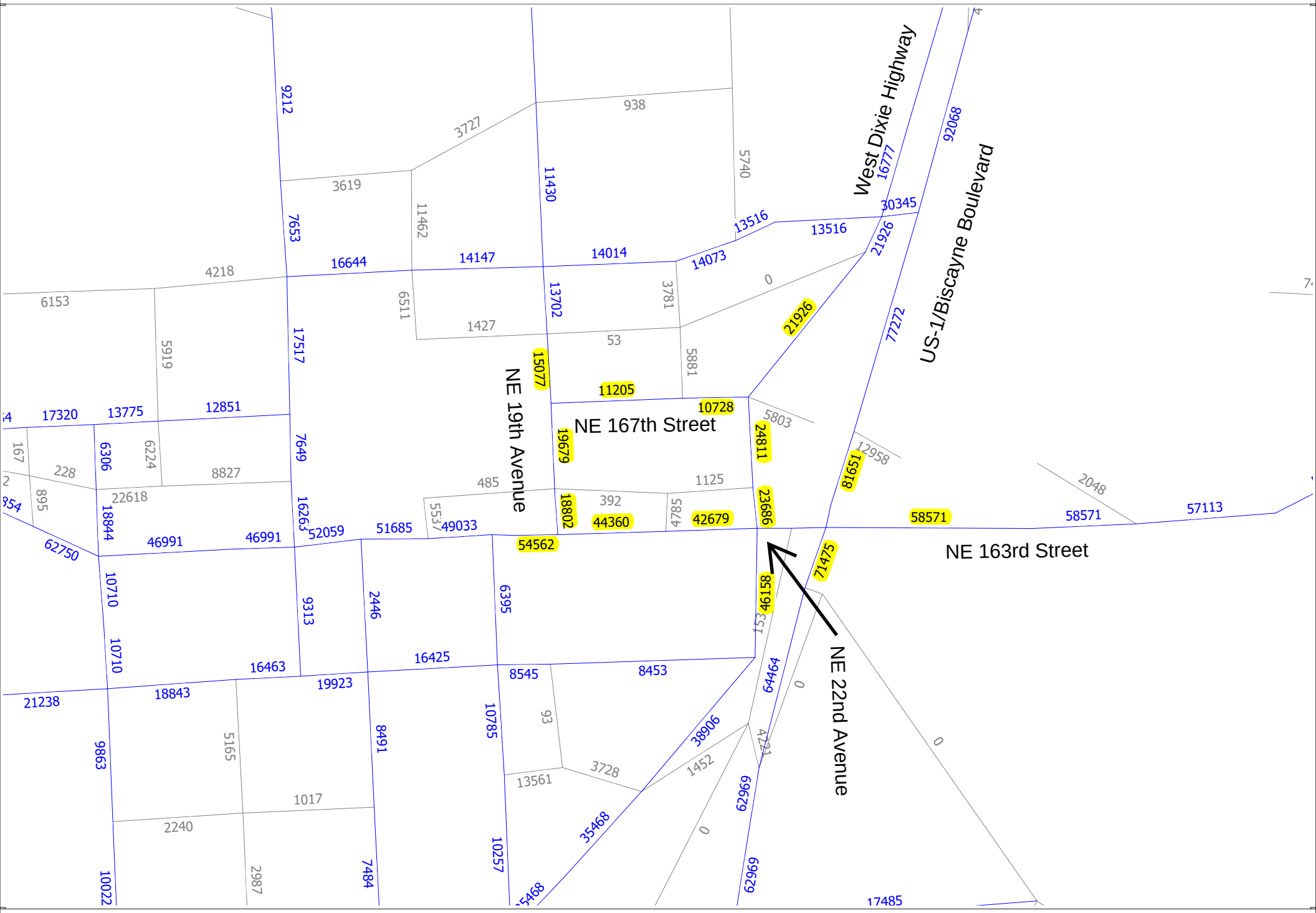
SERPM Growth Rate Summary					
Street Name	**2015**	**2045**	**Difference**	**Growth Rate**	**Annual Growth Rate**
N/S					
NE 19th Avenue	11,173	15,077	3,904	34.94%	1.16%
	9,660	19,679	10,019	103.72%	3.46%
	9,660	18,802	9,142	94.64%	3.15%
West Dixie Highway	10,201	21,926	11,725	114.94%	3.83%
NE 22nd Avenue	17,555	24,811	7,256	41.33%	1.38%
	17,136	23,686	6,550	38.22%	1.27%
	38,353	46,158	7,805	20.35%	0.68%
US-1/Biscayne Boulevard	68,398	81,651	13,253	19.38%	0.65%
	53,306	71,475	18,169	34.08%	1.14%
E/W					
NE 167th Street	9,194	11,205	2,011	21.87%	0.73%
	9,762	10,728	966	9.90%	0.33%
NE 163rd Street	41,413	54,562	13,149	31.75%	1.06%
	33,762	44,360	10,598	31.39%	1.05%
	33,061	42,679	9,618	29.09%	0.97%
	48,439	58,571	10,132	20.92%	0.70%
Total	**411,073**	**545,370**	**134,297**	**32.67%**	**1.09%**

NMB Venus
2015 Volumes
SERPM 8.512



cube
(Licensed to Kimley Horn and Associates Inc)

NMB Venus
2045 Volumes
SERPM 8.512



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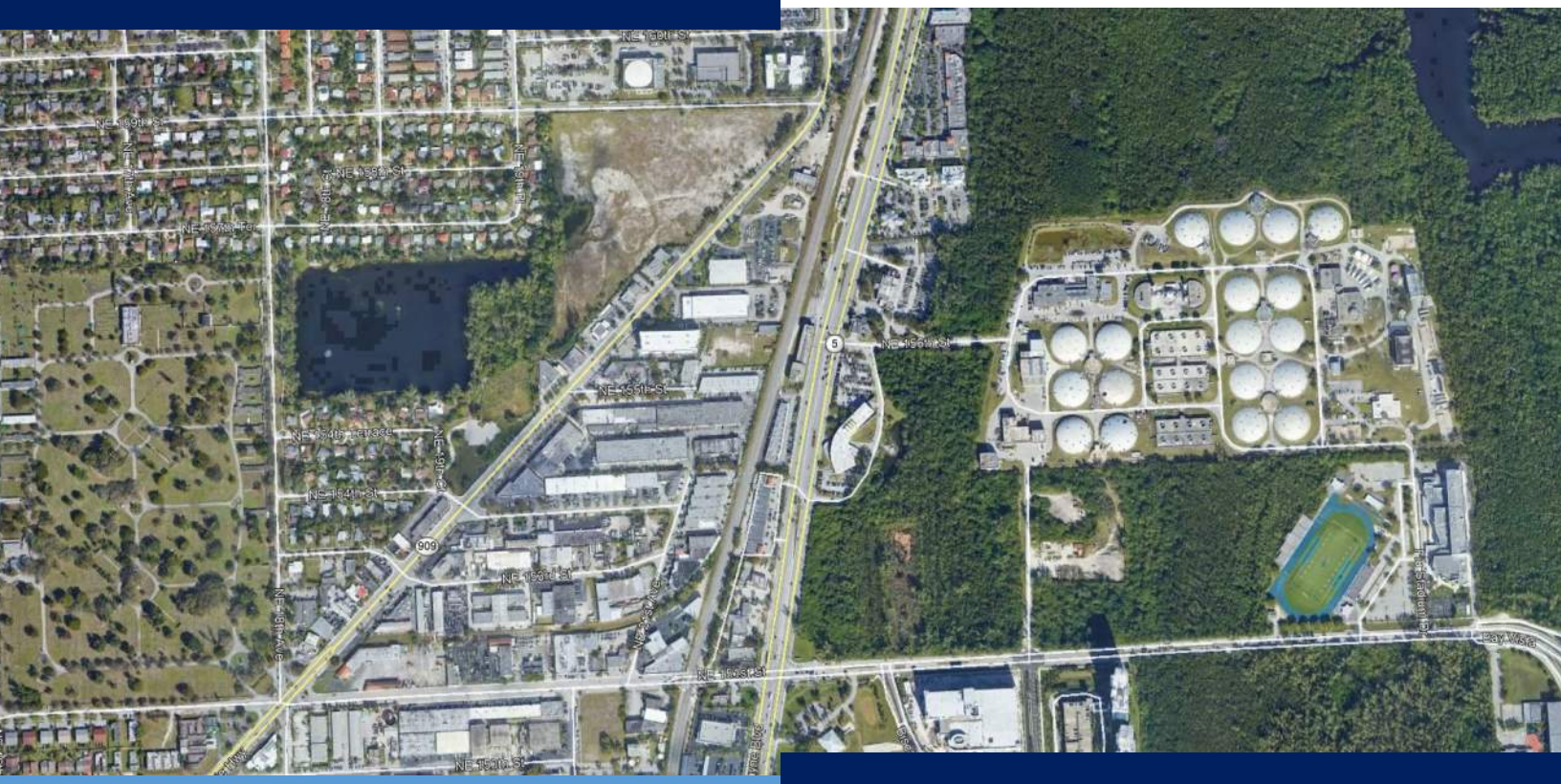
Committed Developments

September 2019



Traffic Impact Statement

15699 West Dixie Highway

PREPARED FOR A PROJECT WITHIN

PREPARED BY

MARLIN Engineering, Inc.

1700 NW 66th Avenue, Suite 106

Plantation, FL 33313

954.870.5070 | www.marlinengineering.com

Figure 3 - Distribution Percentages and AM Trip Assignments

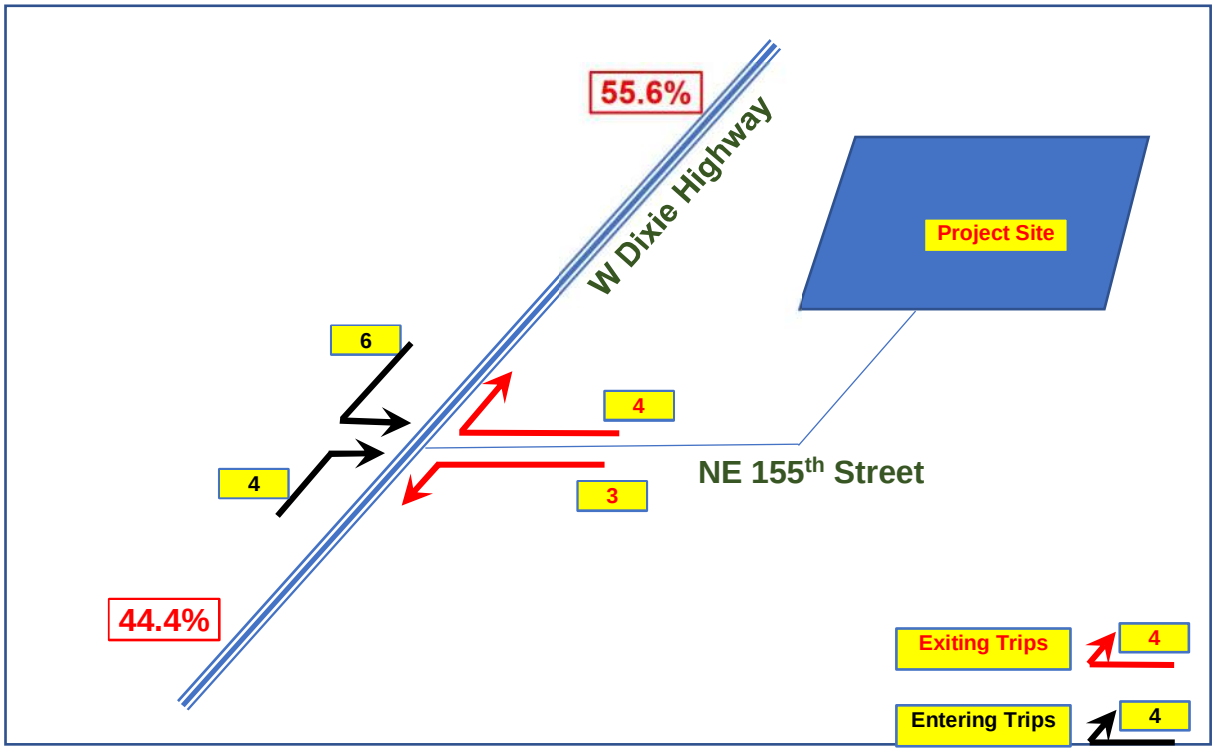
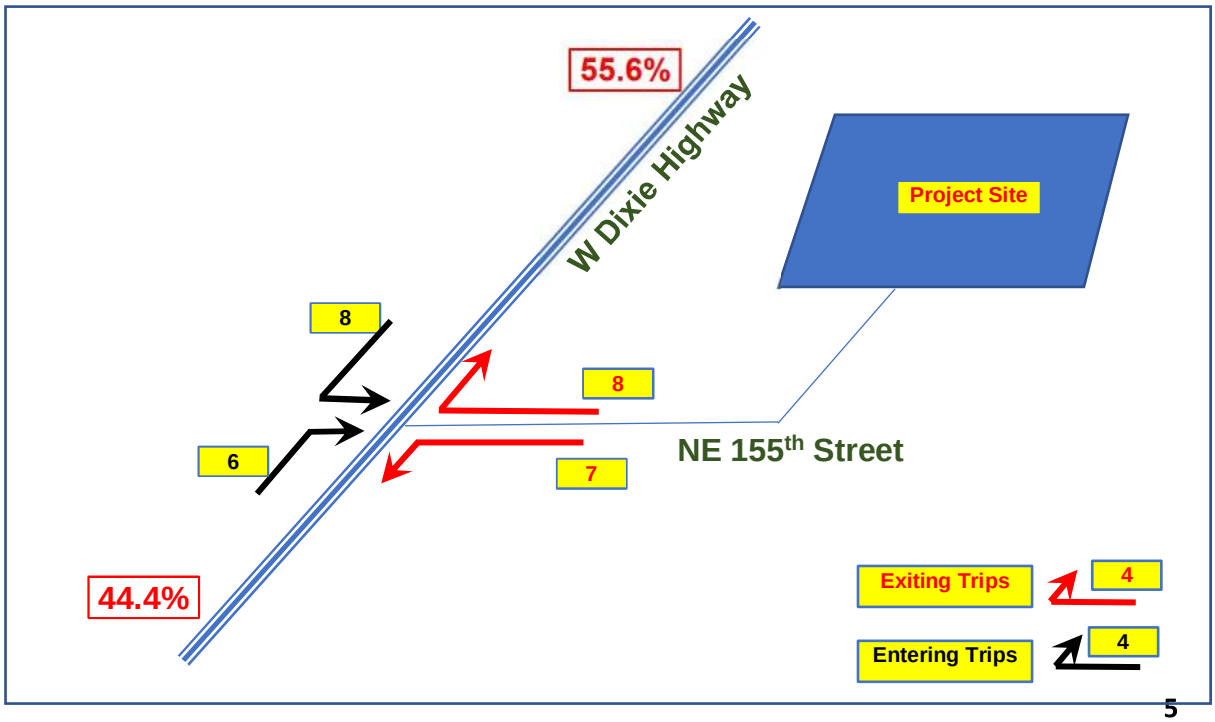


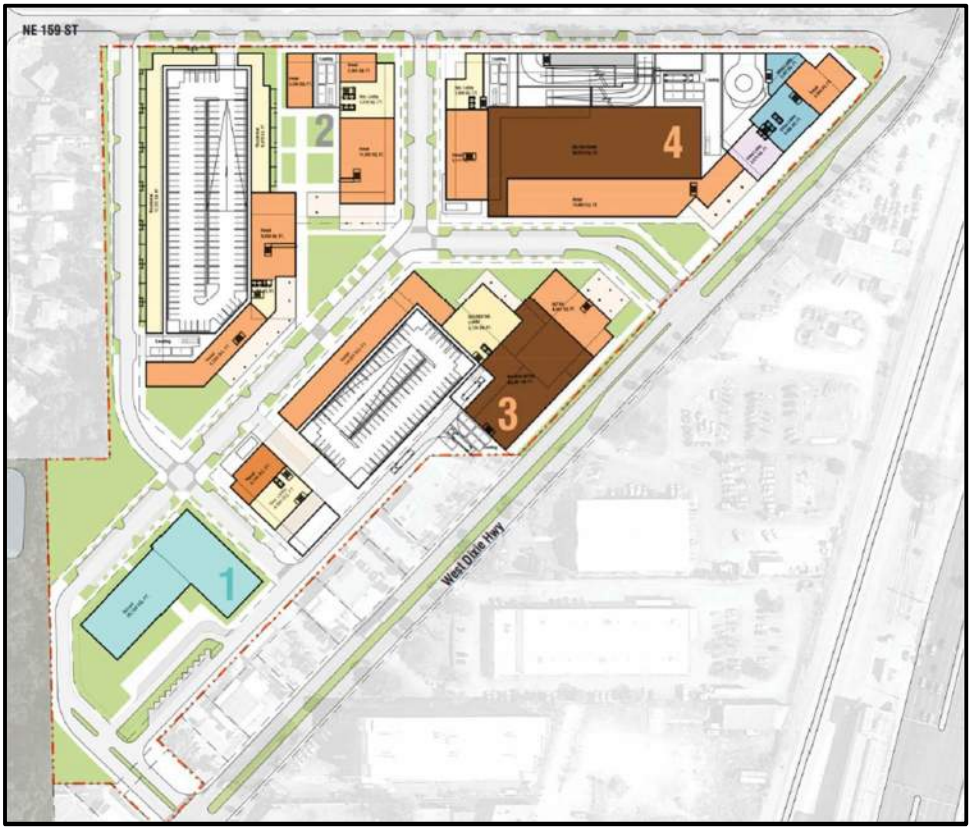
Figure 4 - Distribution Percentages and PM Trip Assignments



Traffic Impact Analysis for Submittal to the City of North Miami Beach

15780 West Dixie Highway

North Miami Beach, Florida



Kimley»Horn

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March 2018
043932000

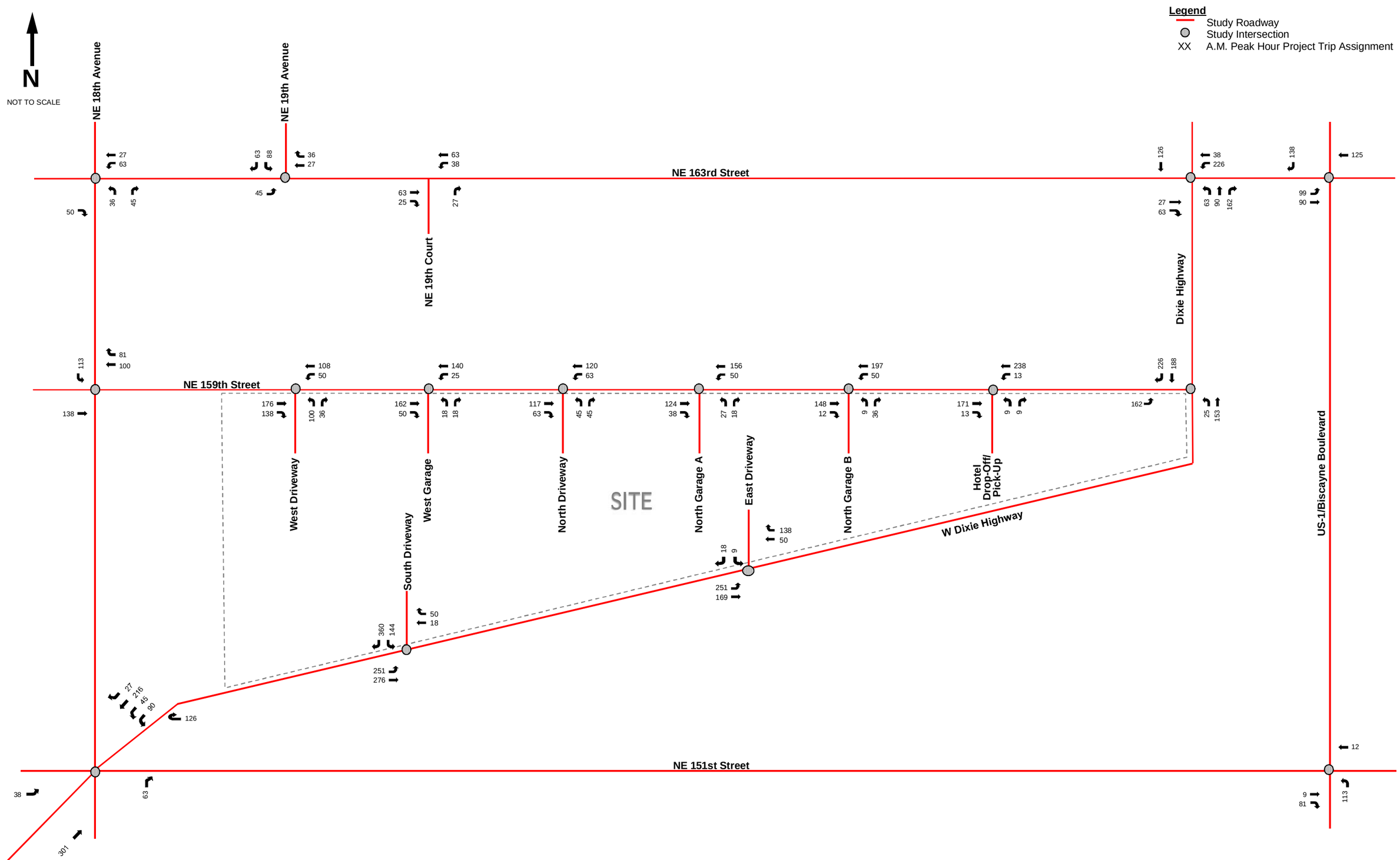

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Figure 9
A.M. Peak Hour Net New Trip Assignment
15780 West Dixie Highway
North Miami Beach, Florida

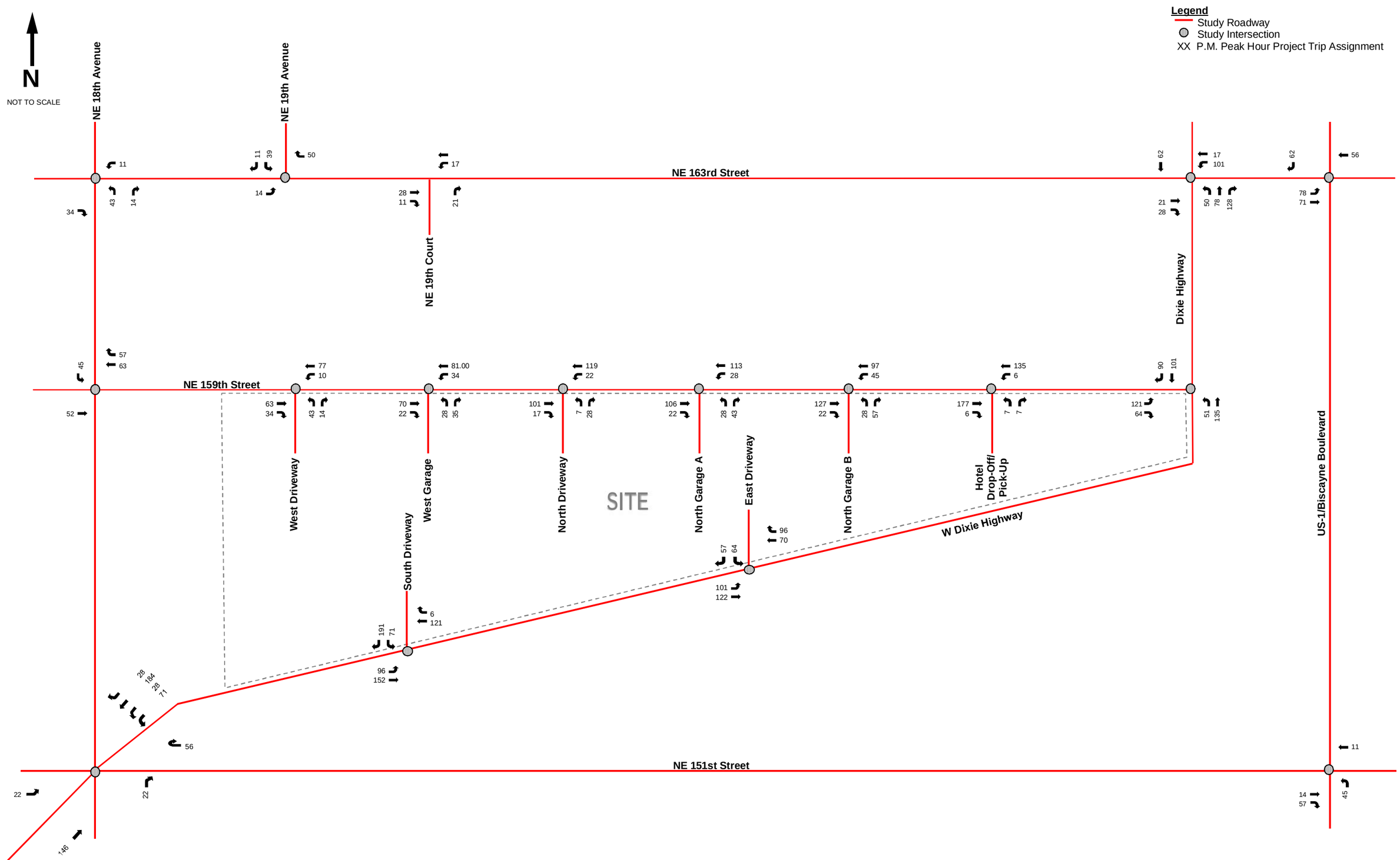

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Figure 11
P.M. Peak Hour Net New Trip Assignment
15780 West Dixie Highway
North Miami Beach, Florida

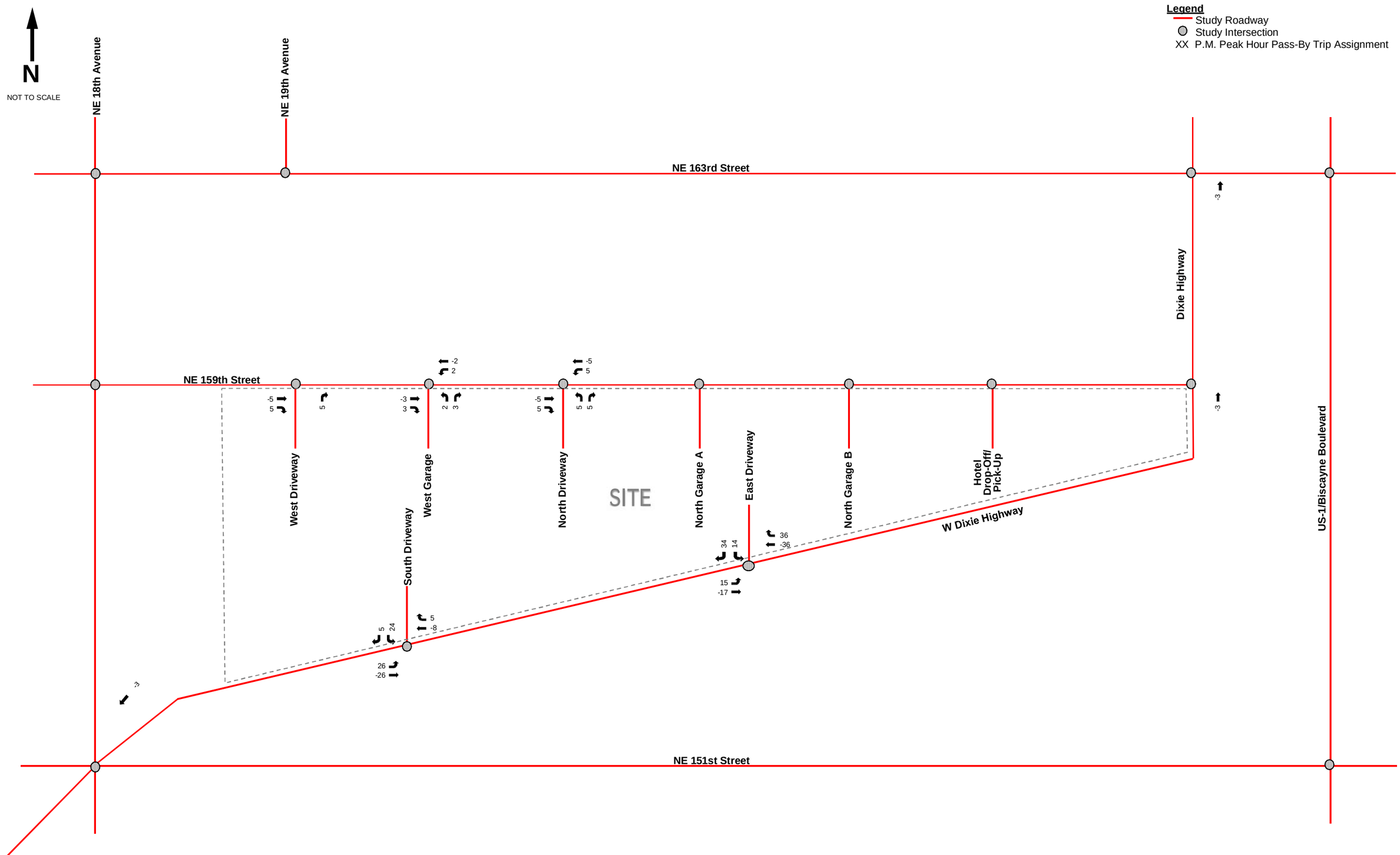

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Figure 14
P.M. Peak Hour Pass-By Trip Assignment
15780 West Dixie Highway
North Miami Beach, Florida

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Traffic Study

dpa

Since 1978

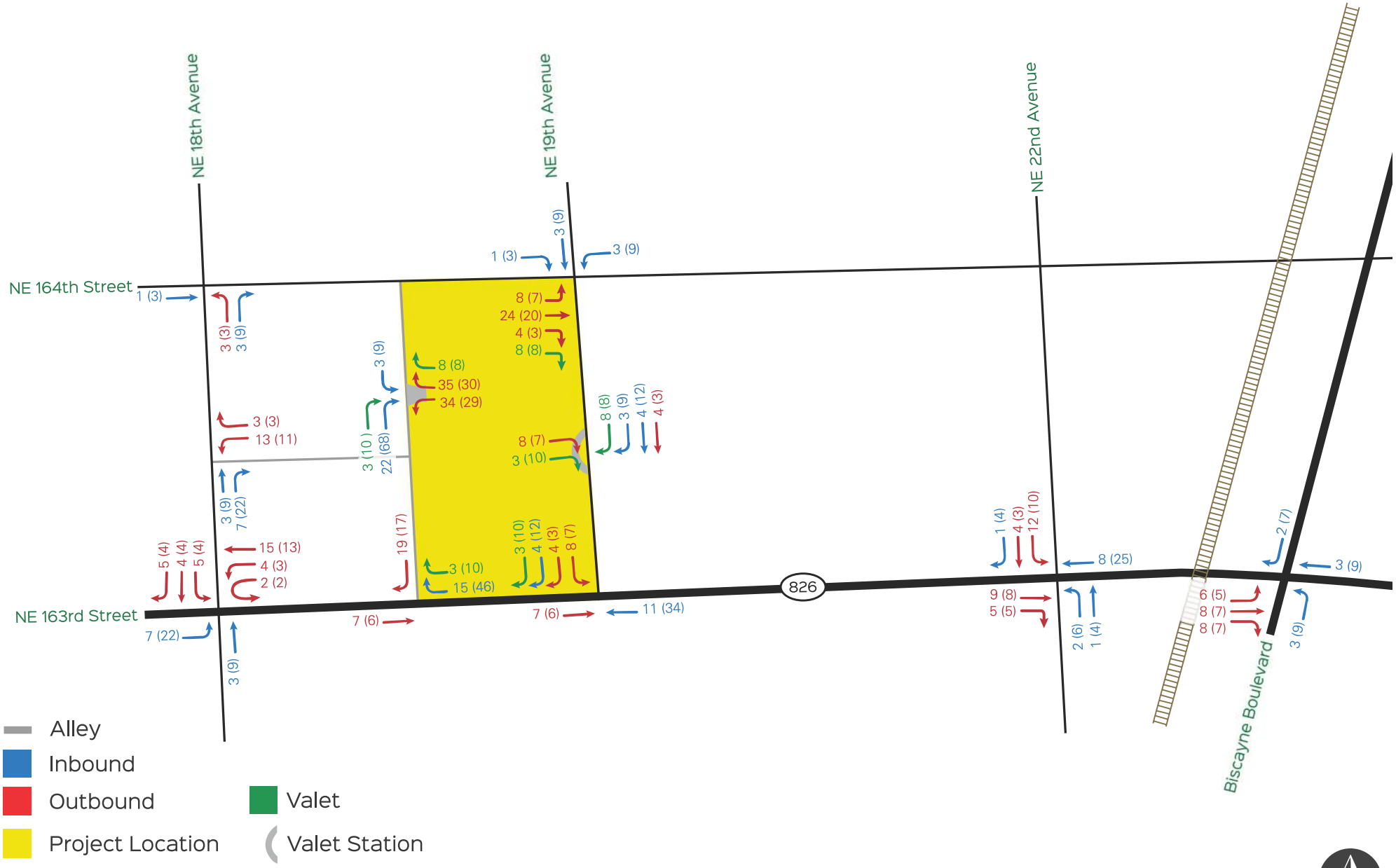
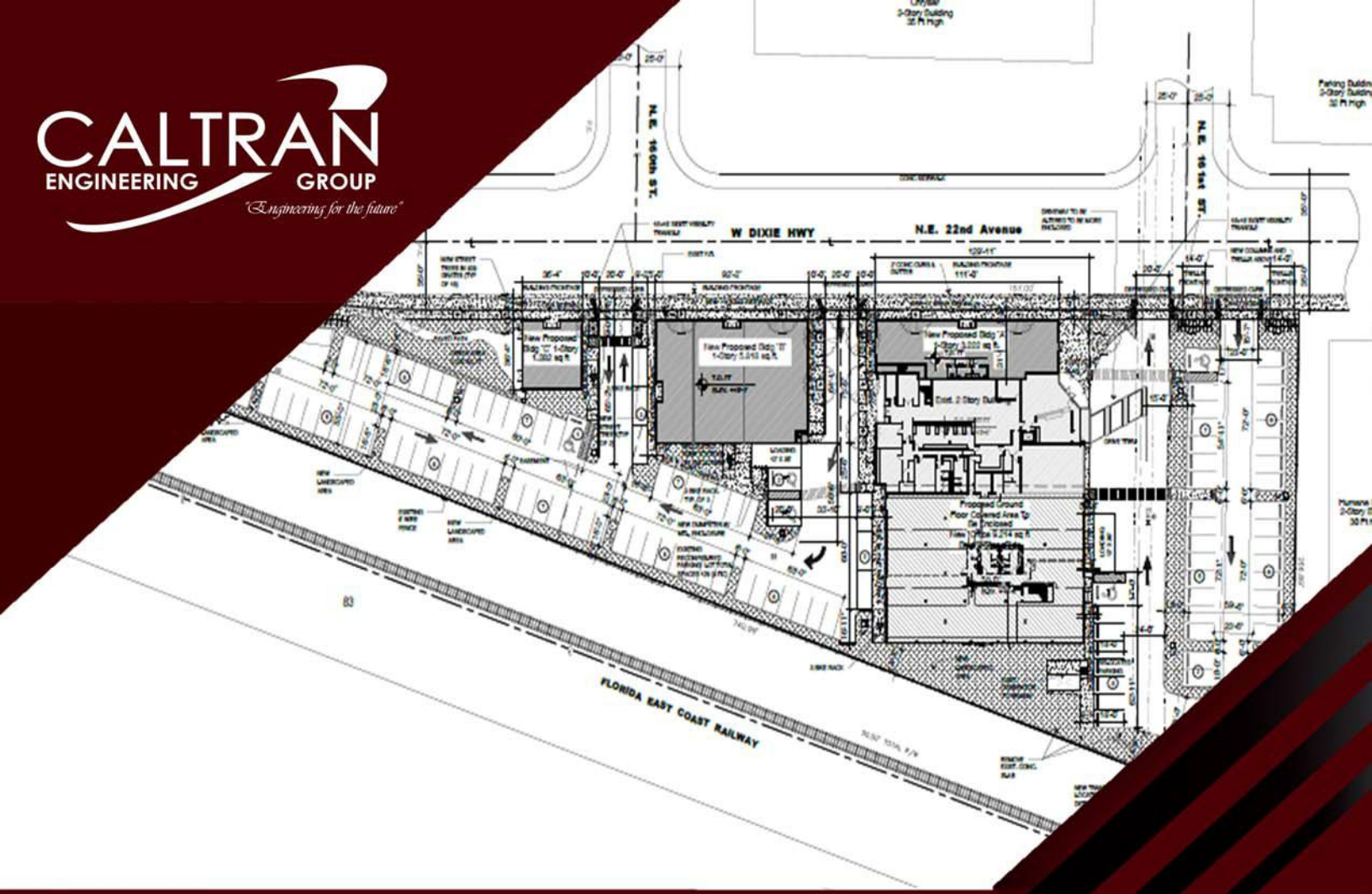


Exhibit 10

Project Trip Assignment

NORTH
MAP NOT TO SCALE



16051 West Dixie Highway

Trip Generation Memorandum

March 2020

Caltran Enginering Group, Inc.
790 NW 107 Avenue, Suite 200
Miami, FL 33172
Phone: 786-456-7700
Fax: 786-513-0711

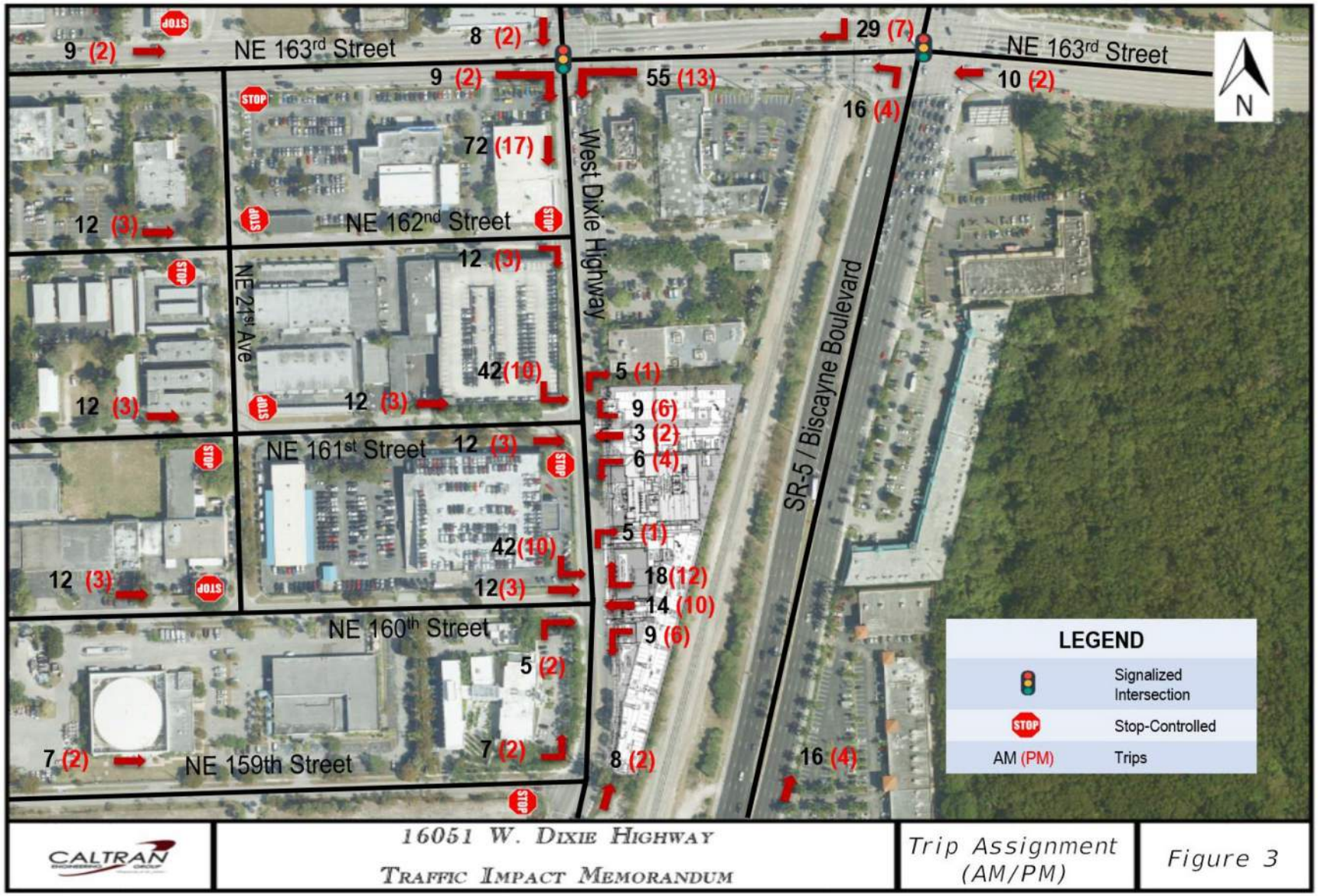


Figure 3: AM and PM Peak Hour Future Trips Demand from proposed Re-development.

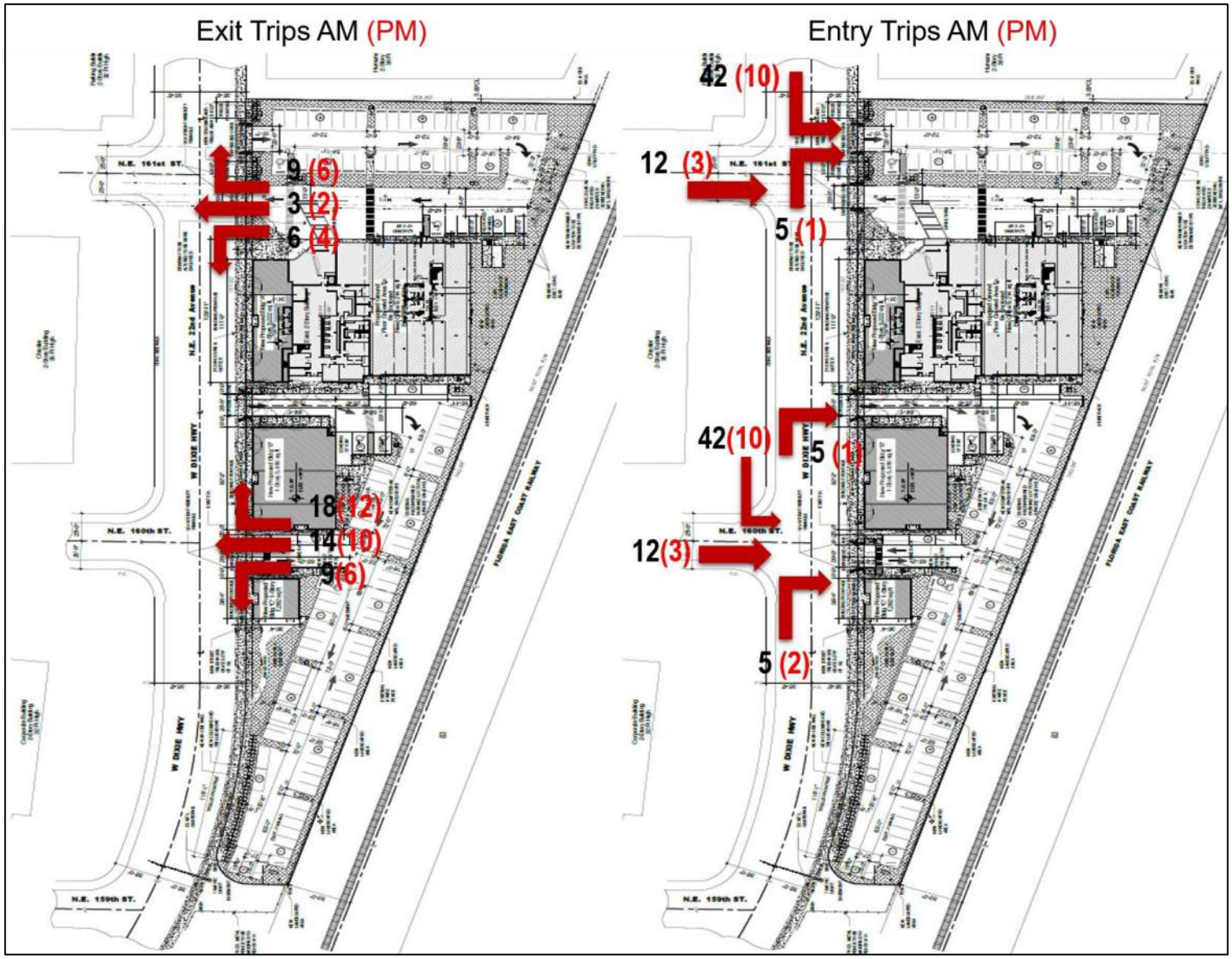


Figure 4: AM and PM Peak Hour Future Driveways Trips.

Traffic Impact Analysis

Uptown Biscayne
North Miami Beach, Florida

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Updated October 2017
043745000

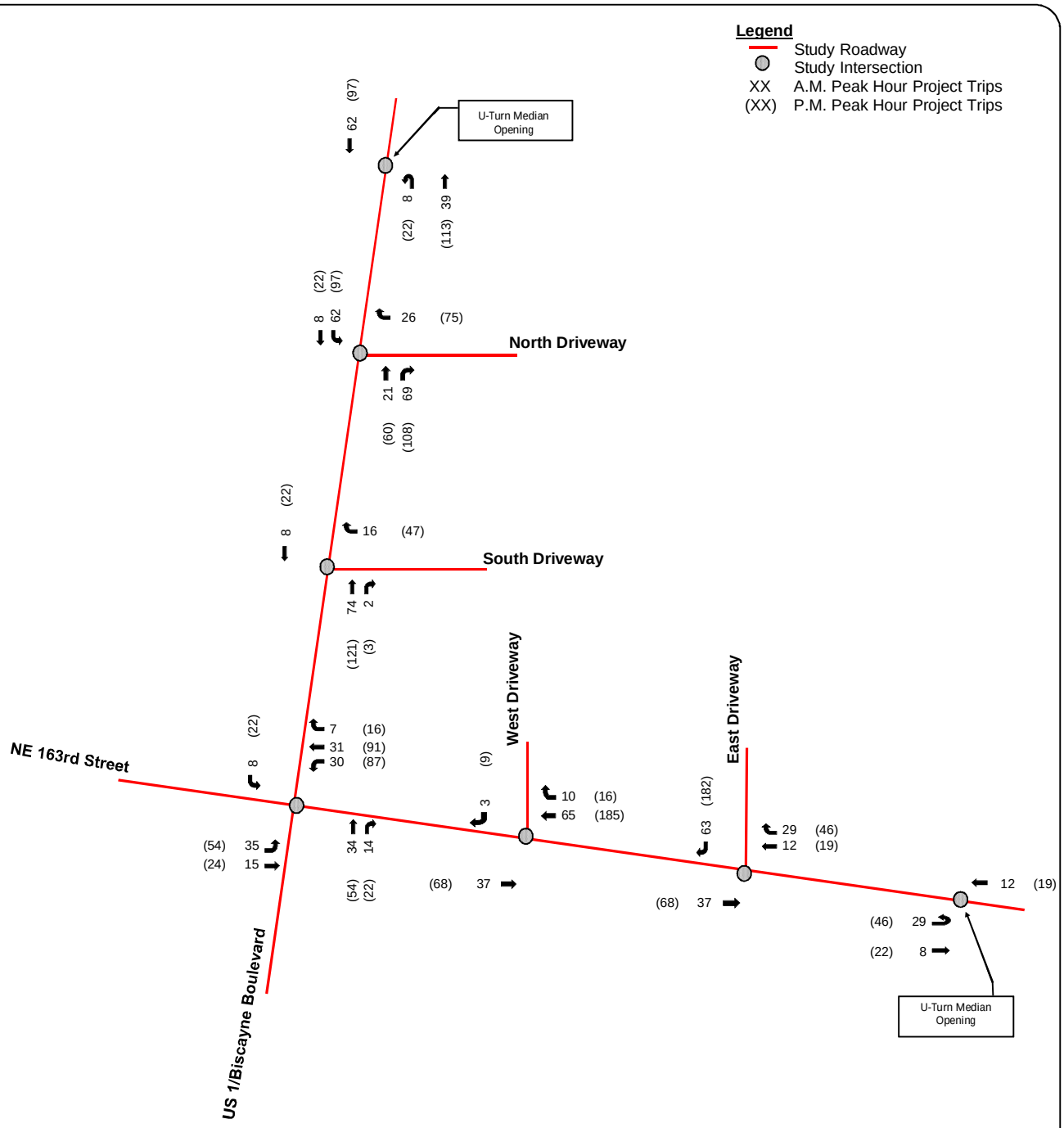

Figure 13
Project Trip Assignment - Scenario 3
A.M. and P.M. Peak Hours
Uptown Biscayne
North Miami Beach, Florida

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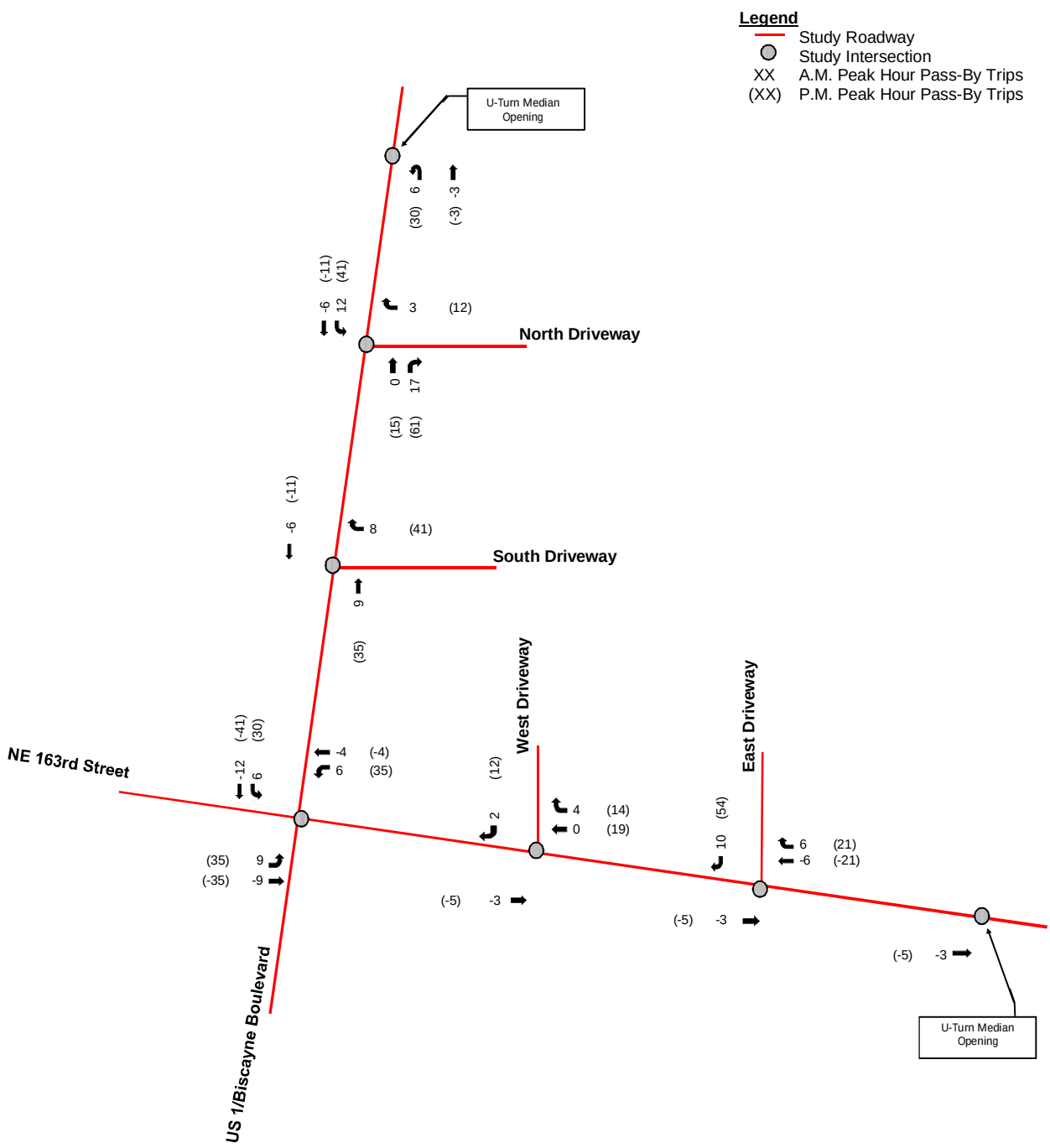

Figure 15
Pass-By Trip Assignment - Scenario 3
A.M. and P.M. Peak Hours
Uptown Biscayne
North Miami Beach, Florida

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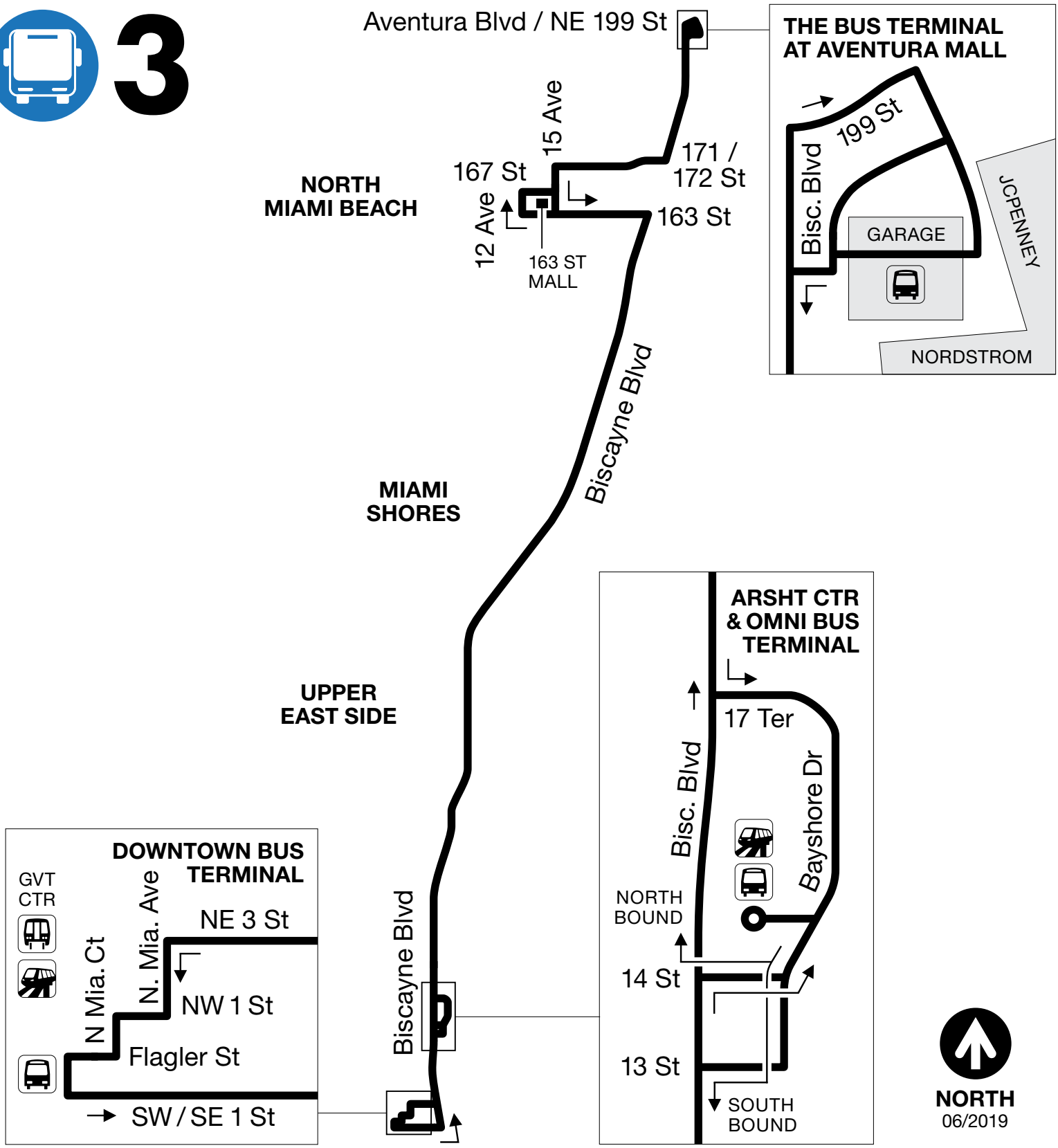
Appendix E

Transit Route Information

Department of Transportation and Public Works (DTPW) Routes

3



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MIAMI-DADE COUNTY

WEEKDAYS / DIAS LABORABLES / LACÈMEN

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	EVERY/CADA/CHAK 20 min FROM DESDE/DE	TO HASTA/A	EVERY/CADA/CHAK 10 min FROM DESDE/DE	TO HASTA/A	EVERY/CADA/CHAK 20 min FROM DESDE/DE AM	PM TO HASTA/A	EVERY/CADA/CHAK 10 min FROM DESDE/DE	TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ								
Downtown Metrobus Terminal	5:15	7:55	8:10	9:10	9:30	3:10	3:20	7:30	7:50	8:10	8:40	9:10	9:40	10:10	10:40	11:10	11:40
Omni Terminal / Arsht Metromover	5:24	8:08	8:23	9:23	9:43	3:24	3:34	7:43	8:03	8:23	8:53	9:23	9:53	10:23	10:53	11:21	11:51
Biscayne Blvd & NE 36 St	5:30	8:17	8:32	9:31	9:51	3:36	3:46	7:51	8:11	8:31	9:01	9:31	10:01	10:31	11:01	11:28	11:58
Biscayne Blvd & NE 79 St	5:39	8:29	8:44	9:43	10:03	3:49	3:59	8:03	8:21	8:41	9:11	9:41	10:11	10:41	11:11	11:38	12:08
Biscayne Blvd & NE 123 St	5:49	8:43	8:58	9:57	10:17	4:04	4:14	8:15	8:33	8:53	9:23	9:53	10:23	10:53	11:21	11:48	12:18
NE 163 St & NE 23 Ave	5:58	8:55	9:11	10:10	10:30	4:18	4:28	8:25	8:43	9:03	9:33	10:03	10:33	11:03	11:30	11:57	12:27
NE 167 St & 15 Ave	6:08	9:07	9:23	10:22	10:42	4:31	4:41	8:35	8:53	9:13	9:43	10:13	10:43	11:10	11:37	12:04	12:34
Bus Terminal at Aventura Mall	6:25	9:28	9:44	10:43	11:03	4:55	5:05	8:53	9:11	9:31	10:01	10:31	11:01	11:26	11:53	12:20	12:50

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATEN		EVERY/CADA/CHAK 20 min FROM DESDE/DE	TO HASTA/A	EVERY/CADA/CHAK 10 min FROM DESDE/DE	TO HASTA/A	EVERY/CADA/CHAK 20 min FROM DESDE/DE AM	PM TO HASTA/A	EVERY/CADA/CHAK 10 min FROM DESDE/DE	TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ											
Bus Terminal at Aventura Mall	4:26	4:56	5:17	6:23	6:35	7:29	7:47	1:27	1:37	5:49	6:14	6:36	7:05	7:38	8:10	8:40	9:10	9:40	10:14	10:49	11:23	11:53
NE 15 Ave & 165 St	4:40	5:10	5:31	6:39	6:51	7:48	8:07	1:47	1:57	6:13	6:35	6:57	7:26	7:59	8:29	8:59	9:29	9:59	10:33	11:08	11:38	12:08
Biscayne Blvd & NE 163 St	4:46	5:16	5:37	6:46	7:00	7:57	8:17	1:57	2:07	6:23	6:45	7:07	7:34	8:07	8:37	9:07	9:37	10:07	10:41	11:14	11:44	12:14
Biscayne Blvd & NE 123 St	4:53	5:23	5:44	6:55	7:10	8:08	8:28	2:10	2:20	6:34	6:56	7:17	7:44	8:16	8:46	9:16	9:46	10:16	10:50	11:22	11:52	12:22
Biscayne Blvd & NE 79 St	5:04	5:34	5:55	7:11	7:26	8:24	8:44	2:26	2:36	6:49	7:11	7:31	7:58	8:29	8:59	9:29	9:59	10:29	11:03	11:33	12:03	12:33
Biscayne Blvd & NE 36 St	5:12	5:42	6:07	7:24	7:39	8:39	8:59	2:39	2:49	7:01	7:21	7:41	8:08	8:38	9:08	9:38	10:08	10:38	11:11	11:41	12:11	12:41
Omni Terminal / Arsht Metromover	5:17	5:47	6:14	7:33	7:48	8:48	9:08	2:48	2:58	7:09	7:29	7:49	8:15	8:45	9:15	9:45	10:15	10:45	11:17	11:47	12:17	12:47
Downtown Metrobus Terminal	5:25	5:55	6:25	7:45	8:00	9:00	9:20	3:00	3:10	7:20	7:40	8:00	8:25	8:55	9:25	9:55	10:25	10:55	11:25	11:55	12:25	12:55

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions. / Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. / Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

3

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MIAMI-DADE COUNTY

06.2021

SATURDAY / SÁBADO / SAMDI

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATEN					EVERY/CADA/CHAK 20 min FROM DESDE/DE AM	PM TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ					
Downtown Metrobus Terminal	5:15	5:50	6:20	6:50	7:20	**7:50**	**9:10**	9:40	10:10	10:40	11:10	11:40	11:59
Omni Terminal / Arsht Metromover	5:24	5:59	6:29	6:59	7:31	**8:01**	**9:22**	9:52	10:22	10:52	11:22	11:52	12:11
Biscayne Blvd & NE 36 St	5:30	6:05	6:35	7:06	7:38	**8:08**	**9:29**	9:59	10:29	10:59	11:29	11:59	12:18
Biscayne Blvd & NE 79 St	5:38	6:13	6:43	7:17	7:49	**8:19**	**9:38**	10:08	10:38	11:08	11:38	12:08	12:27
Biscayne Blvd & NE 123 St	5:49	6:24	6:54	7:30	8:02	**8:32**	**9:49**	10:19	10:49	11:18	11:48	12:18	12:37
NE 163 St & NE 23 Ave	5:57	6:32	7:05	7:41	8:13	**8:43**	**9:58**	10:28	10:58	11:26	11:56	12:26	12:45
NE 167 St & 15 Ave	6:04	6:39	7:15	7:51	8:23	**8:53**	**10:06**	10:36	11:06	11:33	12:03	12:33	12:52
Bus Terminal at Aventura Mall	6:19	6:54	7:33	8:09	8:41	**9:15**	**10:23**	10:53	11:19	11:46	12:16	12:46	1:05

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATEN					EVERY/CADA/CHAK 20 min FROM DESDE/DE AM	PM TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ					
Bus Terminal at Aventura Mall	4:43	5:13	5:43	6:10	6:33	**6:47**	**8:45**	9:13	9:43	10:18	10:55	11:28	11:58
NE 15 Ave & 165 St	4:56	5:26	5:56	6:23	6:46	**7:04**	**9:05**	9:30	10:00	10:35	11:12	11:42	12:12
Biscayne Blvd & NE 163 St	5:01	5:31	6:01	6:28	6:51	**7:11**	**9:12**	9:37	10:07	10:42	11:17	11:47	12:17
Biscayne Blvd & NE 123 St	5:08	5:38	6:08	6:35	7:00	**7:20**	**9:21**	9:46	10:16	10:51	11:24	11:54	12:24
Biscayne Blvd & NE 79 St	5:18	5:48	6:18	6:45	7:13	**7:33**	**9:33**	9:58	10:28	11:03	11:33	12:03	12:33
Biscayne Blvd & NE 36 St	5:26	5:56	6:26	6:53	7:23	**7:43**	**9:43**	10:08	10:38	11:11	11:41	12:11	12:41
Omni Terminal / Arsht Metromover	5:31	6:01	6:31	7:00	7:30	**7:50**	**9:50**	10:15	10:45	11:16	11:46	12:16	12:46
Downtown Metrobus Terminal	5:40	6:10	6:40	7:10	7:40	**8:00**	**10:00**	10:25	10:55	11:25	11:55	12:25	12:55

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions. / Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. / Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

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MIAMI-DADE COUNTY
06.2021

SUNDAY / DOMINGO / DIMANCH

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING MAÑANA / MATEN					EVERY/CADA/CHAK 20 min FROM AM DESDE/DE	PM TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ											
Downtown Metrobus Terminal	5:15	5:40	6:05	6:30	6:55	**7:20**	**6:00**	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:10	10:40	11:10	11:40	11:59
Omni Terminal / Arsht Metromover	5:24	5:49	6:15	6:40	7:05	**7:30**	**6:13**	6:43	7:13	7:43	8:13	8:43	9:11	9:41	10:21	10:51	11:21	11:51	12:10
Biscayne Blvd & NE 36 St	5:29	5:54	6:21	6:46	7:11	**7:36**	**6:20**	6:50	7:20	7:50	8:20	8:50	9:17	9:47	10:27	10:57	11:27	11:57	12:16
Biscayne Blvd & NE 79 St	5:37	6:03	6:30	6:55	7:20	**7:45**	**6:30**	7:00	7:30	8:00	8:30	9:00	9:26	9:56	10:36	11:06	11:36	12:06	12:25
Biscayne Blvd & NE 123 St	5:47	6:14	6:41	7:06	7:31	**7:56**	**6:42**	7:12	7:42	8:12	8:42	9:11	9:37	10:07	10:47	11:15	11:45	12:15	12:34
NE 163 St & NE 23 Ave	5:55	6:23	6:50	7:15	7:40	**8:05**	**6:52**	7:22	7:52	8:22	8:52	9:20	9:46	10:16	10:56	11:23	11:53	12:23	12:42
NE 167 St & 15 Ave	6:03	6:31	6:58	7:23	7:48	**8:13**	**7:00**	7:30	8:00	8:30	9:00	9:27	9:53	10:23	11:03	11:30	12:00	12:30	12:49
Bus Terminal at Aventura Mall	6:20	6:48	7:15	7:40	8:05	**8:30**	**7:18**	7:48	8:18	8:48	9:15	9:42	10:08	10:38	11:16	11:43	12:13	12:43	1:02

SOUTHBOUND RUMBO SUR / DIREKSYON SID	EVERY/CADA/CHAK 20 min FROM AM DESDE/DE	PM TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ													
Bus Terminal at Aventura Mall	**4:59**	**4:25**	4:56	5:29	6:01	6:31	7:01	7:31	8:02	8:41	9:13	9:43	10:18	10:54	11:29	11:59
NE 15 Ave & 165 St	**5:12**	**4:45**	5:16	5:49	6:21	6:51	7:21	7:51	8:22	9:01	9:31	10:01	10:36	11:12	11:42	12:12
Biscayne Blvd & NE 163 St	**5:17**	**4:54**	5:25	5:58	6:29	6:59	7:29	7:59	8:30	9:08	9:38	10:08	10:43	11:17	11:47	12:17
Biscayne Blvd & NE 123 St	**5:24**	**5:05**	5:36	6:09	6:39	7:09	7:39	8:09	8:40	9:17	9:47	10:17	10:52	11:24	11:54	12:24
Biscayne Blvd & NE 79 St	**5:34**	**5:20**	5:51	6:22	6:52	7:22	7:52	8:22	8:53	9:29	9:59	10:29	11:04	11:34	12:04	12:34
Biscayne Blvd & NE 36 St	**5:42**	**5:31**	6:02	6:32	7:02	7:32	8:02	8:32	9:03	9:38	10:08	10:38	11:12	11:42	12:12	12:42
Omni Terminal / Arsht Metromover	**5:47**	**5:39**	6:10	6:40	7:10	7:40	8:10	8:40	9:10	9:45	10:15	10:45	11:17	11:47	12:17	12:47
Downtown Metrobus Terminal	**5:56**	**5:50**	6:20	6:50	7:20	7:50	8:20	8:50	9:20	9:55	10:25	10:55	11:25	11:55	12:25	12:55

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions. / Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. / Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

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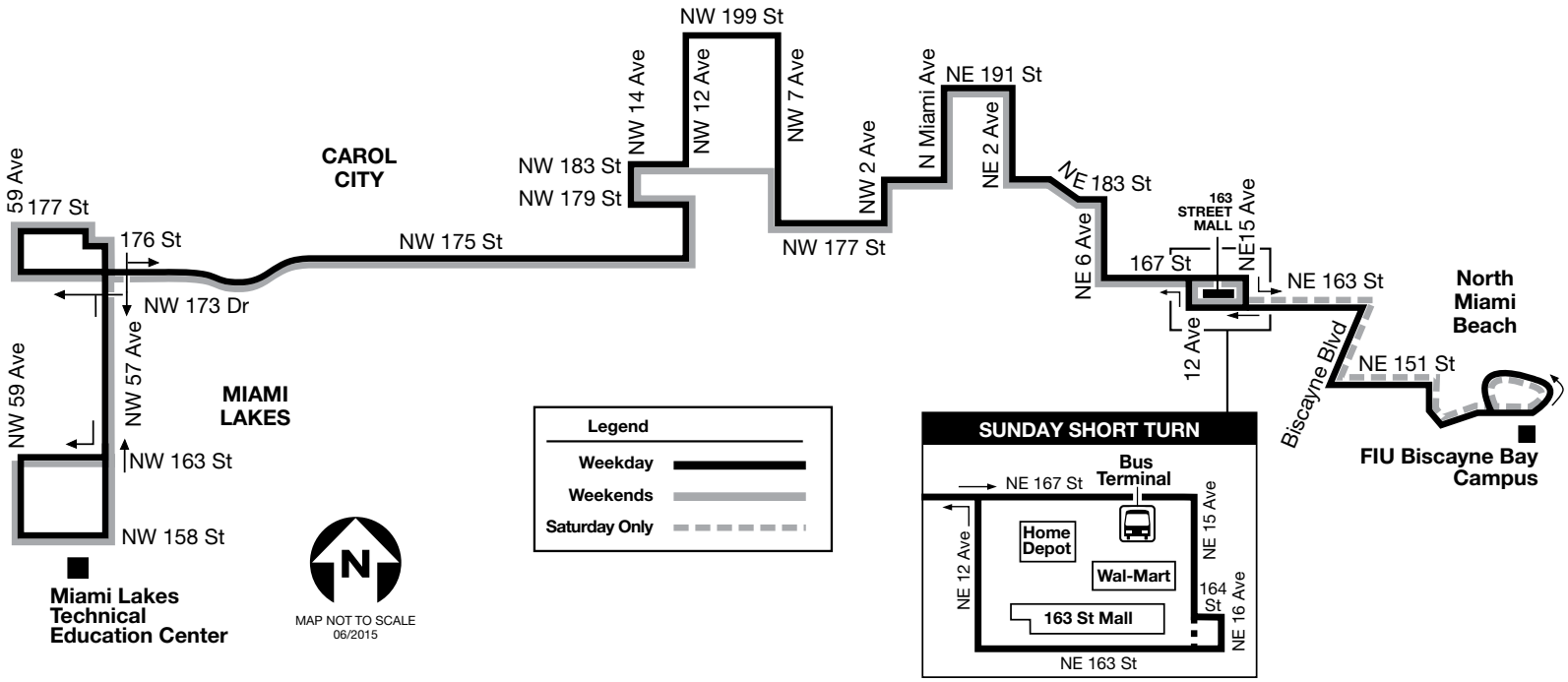

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07.2021

WEEKDAYS / DIAS LABORABLES / JOU LASÈMEN

EASTBOUND RUMBO ESTE / DIREKSYON IS	**MORNING** / MAÑANA / MATEN												AM	PM																
															AFTERNOON AND EVENING TARDE Y NOCHE / APREMIDI AK ASWÈ														
NW 163 St & 57 Ave	5:27	5:53	6:20	6:47	7:16	7:52	8:22	8:55	9:26	9:57	10:27	10:56	11:26	11:54	12:24	12:54	1:21	1:58	2:21	-	2:48	3:16	3:46	4:16	4:46	5:20	5:51	7:00	8:00	9:05
NW 176 St & 57 Ave	5:36	6:02	6:29	6:56	7:26	8:02	8:32	9:05	9:36	10:07	10:37	11:06	11:36	12:04	12:34	1:04	1:31	2:08	2:31	-	2:58	3:28	3:58	4:29	5:00	5:34	6:05	7:10	8:10	9:14
NW 175 St & 27 Ave	5:48	6:15	6:42	7:10	7:40	8:16	8:46	9:18	9:49	10:20	10:50	11:20	11:50	12:18	12:48	1:18	1:45	2:22	2:45	-	3:12	3:42	4:12	4:43	5:14	5:48	6:18	7:22	8:22	9:25
NW 12 Ave & 183 St	5:55	6:25	6:52	7:22	7:52	8:27	8:57	9:27	9:58	10:29	10:59	11:29	11:59	12:27	12:57	1:27	1:54	2:33	2:56	2:23	3:23	3:53	4:23	4:54	5:24	5:58	6:28	7:31	8:31	9:33
NW 7 Ave & 183 St	6:03	6:33	7:00	7:30	8:00	8:35	9:05	9:35	10:06	10:36	11:06	11:36	12:06	12:34	1:04	1:34	2:02	2:41	3:04	2:31	3:31	4:01	4:31	5:02	5:32	6:06	6:36	7:37	8:37	9:39
NW 183 St & 2 Ave	6:09	6:39	7:07	7:37	8:07	8:42	9:12	9:42	10:12	10:42	11:12	11:42	12:12	12:40	1:10	1:40	2:10	2:49	3:12	2:39	3:39	4:09	4:39	5:10	5:40	6:12	6:42	7:43	8:43	9:44
NE 183 St & 2 Ct	6:15	6:45	7:14	7:44	8:14	8:49	9:20	9:50	10:20	10:50	11:20	11:50	12:20	12:48	1:18	1:48	2:18	2:57	3:20	2:47	3:47	4:17	4:47	5:18	5:48	6:19	6:49	7:50	8:50	9:50
NE 167 St & 15 Ave	6:25	6:55	7:25	7:55	8:25	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:10	3:33	2:59	4:00	4:30	5:00	5:30	6:00	6:30	7:00	8:00	9:00	10:00
FIU Biscayne Bay Campus	6:37	7:08	7:38	8:09	8:39	9:14	9:44	10:14	10:44	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	3:25	3:48	-	4:14	4:44	5:14	5:44	6:13	6:43	7:12	8:12	9:11	10:11

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	**MORNING** / MAÑANA / MATEN												AM	PM																
															AFTERNOON AND EVENING TARDE Y NOCHE / APREMIDI AK ASWÈ														
FIU Biscayne Bay Campus	5:20	5:49	6:19	6:47	7:22	7:52	8:22	8:51	9:26	9:55	10:35	11:05	11:35	12:05	12:35	1:04	1:44	2:04	-	2:34	3:04	3:34	4:04	4:34	5:05	5:35	6:06	6:36	7:26	8:26	9:29	10:29
NE 163 St & 15 Ave	5:30	6:00	6:30	7:00	7:35	8:05	8:35	9:05	9:40	10:10	10:50	11:20	11:50	12:20	12:50	1:20	2:00	2:20	-	2:50	3:20	3:50	4:20	4:50	5:20	5:50	6:20	6:50	7:40	8:40	9:40	10:40
NE 2 Ave & 183 St	5:39	6:11	6:41	7:14	7:49	8:19	8:49	9:18	9:53	10:23	11:03	11:33	12:03	12:33	1:05	1:35	2:16	2:36	-	3:06	3:36	4:06	4:36	5:06	5:36	6:06	6:34	7:04	7:53	8:53	9:51	10:51
NW 2 Ave & 183 St	5:45	6:17	6:47	7:22	7:57	8:28	8:58	9:26	10:01	10:31	11:12	11:42	12:12	12:42	1:14	1:44	2:25	2:45	-	3:15	3:45	4:15	4:45	5:15	5:45	6:14	6:42	7:12	8:01	9:01	9:58	10:58
NW 7 Ave & 183 St	5:51	6:23	6:53	7:29	8:04	8:35	9:05	9:32	10:07	10:37	11:18	11:48	12:18	12:48	1:20	1:50	2:31	2:51	2:21	3:21	3:51	4:22	4:52	5:22	5:52	6:19	6:47	7:17	8:06	9:06	10:03	11:03
NW 12 Ave & 183 St	5:58	6:31	7:03	7:39	8:14	8:45	9:13	9:40	10:15	10:45	11:26	11:56	12:26	12:56	1:29	1:59	2:40	3:00	2:30	3:30	4:00	4:31	5:01	5:31	6:01	6:27	6:55	7:25	8:14	9:13	10:10	11:10
NW 175 St & 27 Ave	6:07	6:40	7:13	7:49	8:24	8:55	9:22	9:49	10:24	10:54	11:35	12:05	12:35	1:05	1:38	2:08	2:49	3:09	2:39	3:39	4:09	4:40	5:10	5:40	6:09	6:35	7:03	7:33	8:22	9:20	10:17	11:17
NW 176 St & 57 Ave	6:20	6:53	7:27	8:03	8:38	9:09	9:35	10:02	10:37	11:07	11:48	12:18	12:48	1:18	1:51	2:21	3:02	3:22	2:52	3:52	4:23	4:54	5:24	5:54	6:22	6:48	7:16	7:46	8:35	9:32	10:29	11:29
NW 163 St & 57 Ave	6:26	6:59	7:34	8:10	8:45	9:16	9:42	10:09	10:44	11:14	11:55	12:25	12:55	1:25	1:58	2:28	3:10	3:30	2:59	4:00	4:31	5:02	5:31	6:01	6:29	6:55	7:22	7:52	8:41	9:37	10:34	11:34

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

SATURDAY / SÁBADO / SAMDI

EASTBOUND RUMBO ESTE / DIREKSYON IS	**MORNING** / MAÑANA / MATEN					**AM**	**PM**	**AFTERNOON AND EVENING** TARDE Y NOCHE / APREMIDI AK ASWÈ							
NW 163 St & 57 Ave	6:24	7:26	8:26	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:25	7:27	8:37
NW 176 St & 57 Ave	6:33	7:35	8:35	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:36	7:37	8:47
NW 175 St & 27 Ave	6:46	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48	6:50	7:50	9:00
NW 7 Ave & 183 St	6:55	7:57	8:57	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	7:00	8:00	9:10
NW 183 St & 2 Ave	7:01	8:03	9:03	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04	7:06	8:06	9:16
NE 183 St & 2 Ct	7:06	8:08	9:09	10:10	11:10	12:10	1:10	2:10	3:11	4:11	5:11	6:11	7:12	8:12	9:22
NE 167 St & 15 Ave	7:14	8:16	9:19	10:20	11:20	12:20	1:20	2:20	3:21	4:21	5:21	6:21	7:21	8:21	9:31
Fiu Biscayne Bay Campus	7:25	8:27	9:34	10:35	11:35	12:35	1:35	2:35	3:34	4:34	5:34	6:34	7:33	8:33	–

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	**MORNING** / MAÑANA / MATEN					**AM**	**PM**	**AFTERNOON AND EVENING** TARDE Y NOCHE / APREMIDI AK ASWÈ							
FIU Biscayne Bay Campus	7:05	7:54	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:52	4:52	5:52	6:52	7:54	8:42
NE 163 St & 15 Ave	7:17	8:06	9:06	10:06	11:06	12:06	1:06	2:06	3:06	4:06	5:06	6:06	7:06	8:06	8:54
NE 2 Ave & 183 St	7:29	8:18	9:20	10:20	11:20	12:20	1:20	2:20	3:21	4:21	5:21	6:21	7:18	8:18	9:06
NW 2 Ave & 183 St	7:36	8:25	9:28	10:28	11:28	12:28	1:28	2:28	3:29	4:29	5:29	6:29	7:25	8:25	9:13
NW 7 Ave & 183 St	7:41	8:30	9:34	10:34	11:34	12:34	1:34	2:34	3:35	4:35	5:35	6:35	7:30	8:30	9:18
NW 175 St & 27 Ave	7:50	8:39	9:43	10:43	11:43	12:43	1:43	2:43	3:45	4:45	5:45	6:45	7:42	8:42	9:29
NW 176 St & 57 Ave	8:03	8:52	9:56	10:56	11:56	12:56	1:56	2:56	3:57	4:57	5:57	6:57	7:55	8:55	9:41
NW 163 St & 57 Ave	8:10	8:59	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:07	8:05	9:05	9:46

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

SUNDAY / DOMINGO / DIMANCH

EASTBOUND RUMBO ESTE / DIREKSYON IS	**MORNING** / MAÑANA / MATEN					**AM**	**PM**			**AFTERNOON AND EVENING** TARDE Y NOCHE / APREMIDI AK ASWÈ					
NW 163 St & 57 Ave	6:25	7:25	8:25	9:25	10:26	11:30	12:35	1:38	2:38	3:41	4:40	5:43	6:41	7:42	8:36
NW 176 St & 57 Ave	6:34	7:34	8:34	9:35	10:36	11:40	12:45	1:48	2:48	3:51	4:50	5:53	6:51	7:51	8:45
NW 175 St & 27 Ave	6:45	7:45	8:45	9:46	10:47	11:51	12:56	1:59	2:59	4:02	5:01	6:04	7:02	8:02	8:56
NW 7 Ave & 183 St	6:56	7:56	8:56	9:58	10:59	12:03	1:08	2:11	3:11	4:14	5:13	6:16	7:14	8:14	9:08
NW 183 St & 2 Ave	7:00	8:00	9:01	10:03	11:04	12:08	1:13	2:16	3:15	4:18	5:17	6:20	7:18	8:18	9:11
NE 183 St & 2 Ct	7:05	8:05	9:07	10:09	11:10	12:14	1:19	2:22	3:21	4:24	5:23	6:26	7:23	8:23	9:16
NE 167 St & 15 Ave	7:15	8:15	9:17	10:19	11:20	12:24	1:29	2:32	3:31	4:34	5:33	6:36	7:32	8:32	9:25

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	**MORNING** / MAÑANA / MATEN				**AM**	**PM**			**AFTERNOON AND EVENING** TARDE Y NOCHE / APREMIDI AK ASWÈ					
NE 167 St & 15 Ave	07:18	8:18	9:20	10:22	11:23	12:27	1:32	2:35	3:34	4:37	5:36	6:39	7:35	8:35
NE 163 St & 15 Ave	07:20	8:20	9:22	10:24	11:25	12:29	1:34	2:37	3:36	4:39	5:38	6:41	7:37	8:37
NE 2 Ave & 183 St	07:30	8:30	9:33	10:35	11:36	12:40	1:45	2:48	3:47	4:50	5:49	6:52	7:47	8:47
NW 2 Ave & 183 St	07:35	8:35	9:39	10:41	11:42	12:46	1:51	2:54	3:53	4:56	5:55	6:58	7:52	8:52
NW 7 Ave & 183 St	07:40	8:40	9:44	10:46	11:47	12:51	1:56	2:59	3:58	5:01	6:00	7:03	7:57	8:57
NW 175 St & 27 Ave	07:51	8:51	9:56	10:58	11:59	1:03	2:08	3:11	4:10	5:13	6:12	7:14	8:08	9:08
NW 176 St & 57 Ave	08:03	9:05	10:10	11:12	12:13	1:17	2:22	3:25	4:24	5:27	6:26	7:26	8:20	9:19
NW 163 St & 57 Ave	08:09	9:11	10:16	11:18	12:19	1:23	2:28	3:31	4:30	5:33	6:32	7:32	8:26	9:24

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

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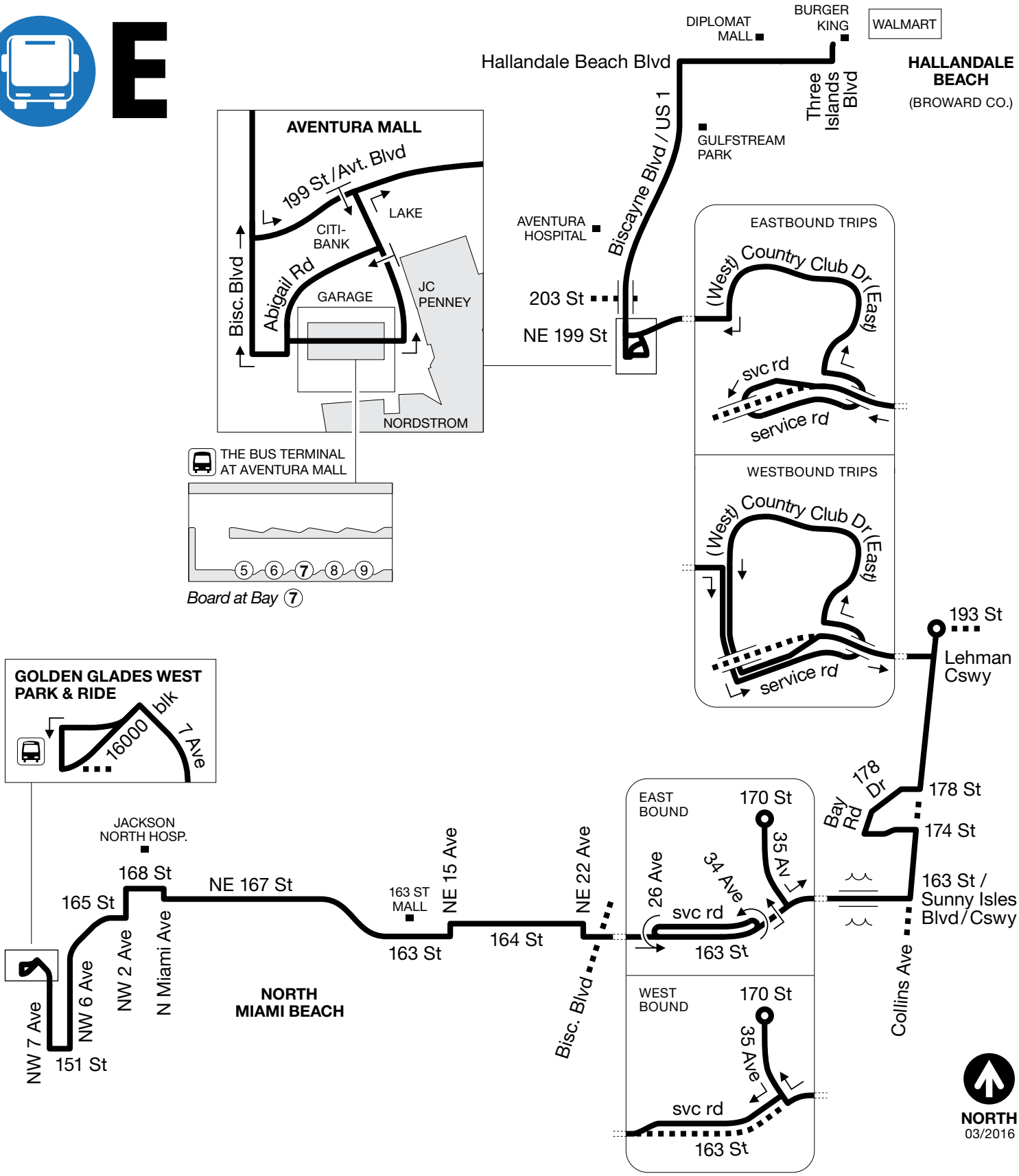

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07.2021

MIAMI-DADE COUNTY

WEEKDAYS / DIAS LABORABLES / JOU LASEMÈN

EASTBOUND RUMBO ESTE / DIREKSYON IS	MORNING / MAÑANA / MATEN									AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ											
Golden Glades (East Lot)	5:55	6:33	7:10	7:40	8:10	8:45	9:25	10:10	11:00	11:50	12:35	1:20	2:10	2:50	3:25	3:55	4:25	4:55	5:30	6:00	6:30	7:30	8:30
NW 168 St & 1 Ave	6:06	6:44	7:21	7:51	8:21	8:56	9:36	10:21	11:11	12:01	12:46	1:31	2:21	3:03	3:38	4:08	4:38	5:08	5:43	6:13	6:43	7:41	8:41
NE 164 St & 15 Ave	6:16	6:54	7:31	8:01	8:31	9:07	9:47	10:32	11:22	12:12	12:57	1:42	2:32	3:15	3:50	4:20	4:50	5:20	5:55	6:25	6:55	7:51	8:51
NE 163 St & Biscayne Blvd	6:24	7:02	7:39	8:09	8:39	9:15	9:55	10:40	11:30	12:20	1:05	1:50	2:40	3:23	3:58	4:28	4:58	5:28	6:03	6:33	7:03	7:58	8:58
Collins Ave at 16900 Blk	6:45	7:23	8:00	8:30	9:00	9:36	10:16	11:01	11:51	12:41	1:26	2:11	3:01	3:44	4:19	4:49	5:19	5:49	6:24	6:54	7:22	8:17	9:17
N Bay Rd & 174 St	6:49	7:27	8:04	8:34	9:05	9:41	10:21	11:06	11:56	12:46	1:31	2:16	3:06	3:49	4:24	4:54	5:24	5:54	6:29	6:59	7:27	8:22	9:22
Collins Ave & 185 St	6:54	7:32	8:09	8:39	9:10	9:46	10:26	11:11	12:01	12:51	1:36	2:21	3:11	3:54	4:29	4:59	5:29	5:59	6:34	7:04	7:31	8:26	9:26
Bus Terminal at Aventura Mall	7:09	7:47	8:24	8:54	9:25	10:01	10:41	11:26	12:16	1:06	1:51	2:36	3:26	4:09	4:44	5:14	5:44	6:14	6:49	7:19	7:46	8:41	9:41
Three Is Blvd & Hallandale Bch Blvd	7:30	8:08	8:45	9:18	9:49	10:25	11:05	11:50	12:40	1:30	2:15	3:03	3:53	4:36	5:11	5:41	6:11	6:41	7:16	7:40	8:07	9:02	10:02

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	MORNING / MAÑANA / MATEN									AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ											
Three Is Blvd & Hallandale Bch Blvd	–	6:01	6:31	7:03	7:41	8:19	9:09	9:54	10:44	11:29	12:19	1:14	1:49	2:28	2:54	3:24	3:54	4:24	4:54	5:26	6:06	6:38	7:30	8:20	9:20	10:06
Bus Terminal at Aventura Mall	5:47	6:17	6:47	7:19	7:57	8:42	9:32	10:17	11:07	11:52	12:42	1:37	2:12	2:51	3:21	3:51	4:21	4:51	5:21	5:53	6:33	7:05	7:50	8:40	9:40	10:23
Collins Ave & 185 St	6:08	6:38	7:08	7:40	8:20	9:05	9:55	10:40	11:30	12:15	1:05	2:00	2:35	3:15	3:45	4:15	4:45	5:15	5:45	6:17	6:57	7:27	8:12	9:02	10:02	–
N Bay Rd & 174 St	6:12	6:42	7:12	7:44	8:24	9:09	9:59	10:44	11:34	12:19	1:09	2:04	2:39	3:19	3:49	4:19	4:49	5:19	5:49	6:21	7:01	7:31	8:16	9:06	10:05	–
NE 163 St & Collins Ave	6:17	6:47	7:17	7:49	8:29	9:14	10:04	10:49	11:39	12:24	1:14	2:09	2:44	3:24	3:54	4:24	4:54	5:24	5:54	6:26	7:05	7:35	8:20	9:10	10:08	–
NE 163 St & Biscayne Blvd	6:32	7:02	7:32	8:05	8:45	9:30	10:20	11:05	11:55	12:40	1:30	2:25	3:01	3:41	4:11	4:41	5:11	5:41	6:11	6:43	7:19	7:49	8:34	9:24	10:20	–
NE 164 St & 15 Ave	6:39	7:09	7:39	8:12	8:52	9:37	10:27	11:12	12:02	12:47	1:37	2:32	3:08	3:48	4:18	4:48	5:18	5:48	6:18	6:50	7:25	7:55	8:40	9:30	10:25	–
NW 168 St & 1 Ave	6:50	7:20	7:50	8:25	9:05	9:50	10:40	11:25	12:15	1:00	1:50	2:45	3:24	4:04	4:34	5:04	5:34	6:04	6:34	7:06	7:36	8:06	8:51	9:41	10:34	–
Golden Glades (East Lot)	7:00	7:30	8:00	8:35	9:15	10:00	10:50	11:35	12:25	1:10	2:00	2:55	3:35	4:15	4:45	5:15	5:45	6:15	6:45	7:15	7:45	8:15	9:00	9:50	10:40	–

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

E

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MIAMI-DADE COUNTY

SATURDAY / SÁBADO / SAMDI

EASTBOUND RUMBO ESTE / DIREKSYON IS	MORNING / MAÑANA / MATEN					AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ							
Golden Glades (East Lot)	–	7:40	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:25
NW 168 St & 1 Ave	–	7:49	8:29	9:29	10:29	11:29	12:29	1:29	2:29	3:29	4:29	5:29	6:29	7:28	8:33
NE 164 St & 15 Ave	–	7:58	8:38	9:40	10:40	11:40	12:40	1:40	2:40	3:40	4:39	5:39	6:39	7:38	8:43
NE 163 St & Biscayne Blvd	–	8:05	8:45	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:46	5:46	6:46	7:45	8:50
Collins Ave at 16900 Blk	7:24	8:21	9:04	10:06	11:06	12:06	1:06	2:06	3:06	4:07	5:06	6:06	7:06	8:01	9:06
N Bay Rd & 174 St	7:28	8:25	9:08	10:10	11:10	12:10	1:10	2:10	3:10	4:12	5:11	6:11	7:10	8:05	9:10
Collins Ave & 185 St	7:33	8:30	9:13	10:15	11:15	12:15	1:15	2:15	3:15	4:17	5:16	6:16	7:14	8:09	9:14
Bus Terminal at Aventura Mall	7:48	8:45	9:28	10:30	11:30	12:30	1:30	2:30	3:30	4:32	5:31	6:31	7:29	8:24	9:29
Three Is Blvd & Hallandale Bch Blvd	8:08	9:08	9:51	10:53	11:53	12:53	1:53	2:53	3:53	4:57	5:56	6:56	7:51	8:46	9:51

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	MORNING / MAÑANA / MATEN					AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ							
Three Is Blvd & Hallandale Bch Blvd	6:33	7:33	8:28	9:24	10:24	11:24	12:24	1:24	2:24	3:21	4:18	5:18	6:25	7:30	8:40	9:54
Bus Terminal at Aventura Mall	6:48	7:48	8:43	9:43	10:43	11:43	12:43	1:43	2:43	3:40	4:40	5:40	6:47	7:48	8:58	10:12
Collins Ave & 185 St	7:06	8:06	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:01	5:01	6:01	7:08	8:08	9:18	–
N Bay Rd & 174 St	7:10	8:10	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:05	5:05	6:05	7:12	8:12	9:22	–
NE 163 St & Collins Ave	7:14	8:14	9:11	10:11	11:11	12:11	1:11	2:11	3:11	4:10	5:10	6:10	7:15	8:15	9:25	–
NE 163 St & Biscayne Blvd	7:27	8:27	9:25	10:25	11:25	12:25	1:25	2:25	3:25	4:25	5:25	6:25	7:27	8:27	9:37	–
NE 164 St & 15 Ave	7:33	8:33	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	6:31	7:32	8:32	9:42	–
NW 168 St & 1 Ave	7:42	8:42	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:42	7:42	8:42	9:52	–
Golden Glades (East Lot)	7:50	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50	6:50	7:50	8:50	10:00	–

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. | Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

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MIAMI-DADE COUNTY

SUNDAY / DOMINGO / DIMANCH

EASTBOUND RUMBO ESTE / DIREKSYON IS	MORNING / MAÑANA / MATEN							AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ							
Golden Glades (East Lot)	–	–	–	7:40	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:25
NW 168 St & 1 Ave	–	–	–	7:48	8:28	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:33
NE 164 St & 15 Ave	–	–	–	7:57	8:37	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:38	5:38	6:38	7:36	8:41
NE 163 St & Biscayne Blvd	–	–	–	8:04	8:44	9:44	10:44	11:44	12:44	1:44	2:44	3:44	4:44	5:44	6:44	7:42	8:47
Collins Ave at 16900 Blk	–	–	7:30	8:21	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:04	5:04	6:04	7:04	7:58	9:03
N Bay Rd & 174 St	–	–	7:34	8:25	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:09	5:09	6:09	7:08	8:02	9:07
Collins Ave & 185 St	–	–	7:38	8:29	9:12	10:12	11:12	12:12	1:12	2:12	3:12	4:14	5:14	6:14	7:12	8:06	9:11
Bus Terminal at Aventura Mall	6:15	7:09	7:53	8:44	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:29	5:29	6:29	7:27	8:21	9:26
Three Is Blvd & Hallandale Bch Blvd	6:30	7:24	8:08	8:59	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:51	5:51	6:51	7:47	8:41	9:46

WESTBOUND RUMBO OESTE / DIREKSYON IWÈS	MORNING / MAÑANA / MATEN					AM	PM	AFTERNOON AND EVENING / TARDE Y NOCHE / APREMIDI AK ASWÈ								
Three Is Blvd & Hallandale Bch Blvd	6:32	7:32	8:28	9:25	10:25	11:25	12:25	1:25	2:25	3:23	4:21	5:21	6:24	7:30	8:40	9:54
Bus Terminal at Aventura Mall	6:47	7:47	8:43	9:43	10:43	11:43	12:43	1:43	2:43	3:41	4:42	5:42	6:45	7:46	8:56	10:10
Collins Ave & 185 St	7:04	8:04	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:01	5:01	6:01	7:04	8:04	9:14	–
N Bay Rd & 174 St	7:08	8:08	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:05	5:05	6:05	7:08	8:08	9:18	–
NE 163 St & Collins Ave	7:13	8:13	9:12	10:12	11:12	12:12	1:12	2:12	3:12	4:10	5:10	6:10	7:13	8:13	9:23	–
NE 163 St & Biscayne Blvd	7:26	8:26	9:26	10:26	11:26	12:26	1:26	2:26	3:26	4:25	5:25	6:25	7:26	8:26	9:36	–
NE 164 St & 15 Ave	7:32	8:32	9:32	10:32	11:32	12:32	1:32	2:32	3:32	4:31	5:31	6:31	7:32	8:32	9:42	–
NW 168 St & 1 Ave	7:41	8:41	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:42	7:42	8:42	9:52	–
Golden Glades (East Lot)	7:50	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50	6:50	7:50	8:50	10:00	–

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

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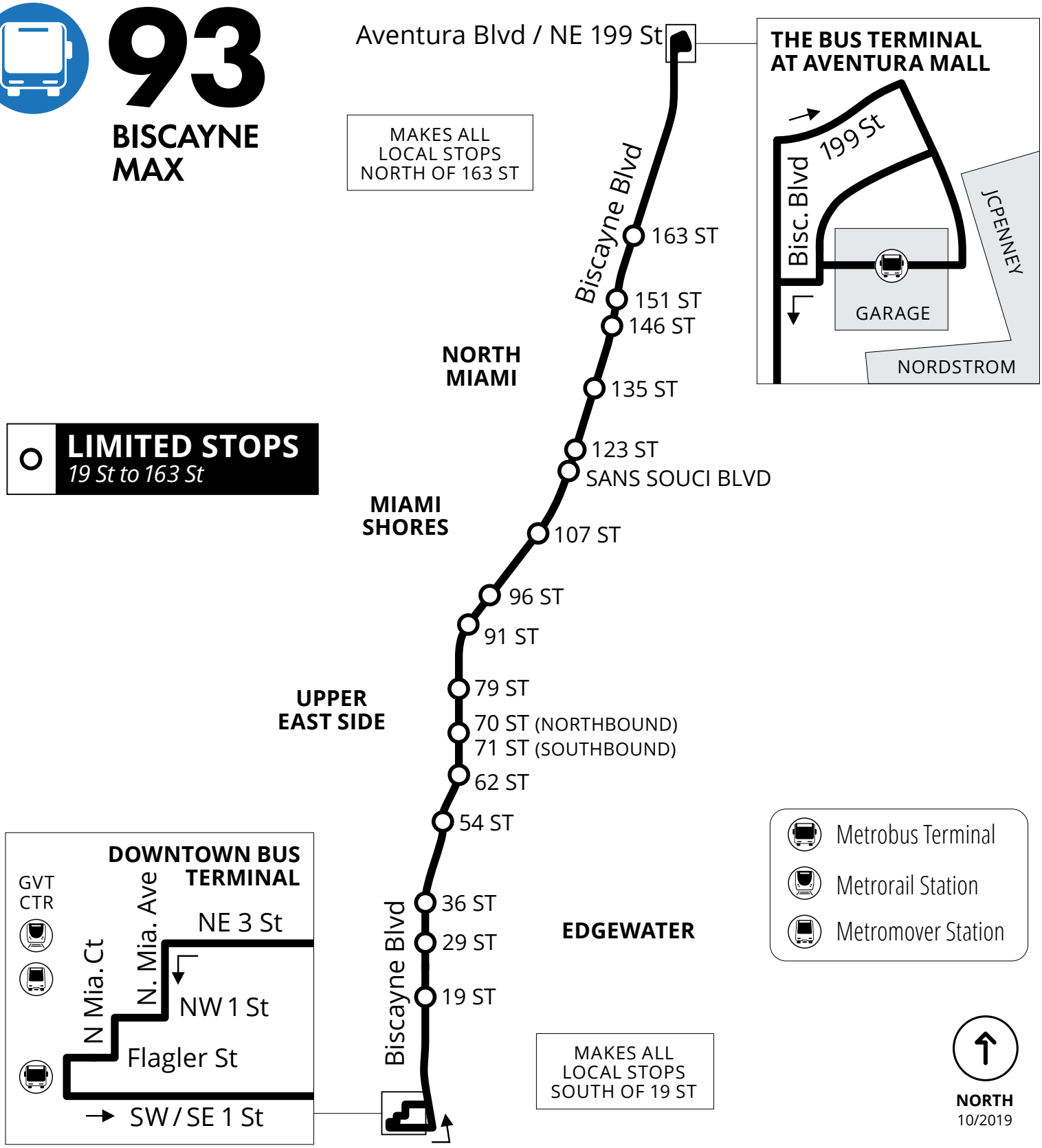
MIAMI-DADE COUNTY

93

BISCAYNE MAX



LIMITED STOPS
19 St to 163 St

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miamidade.gov/transit 311 or 305.468.5900 TTY/Fla Relay: 711

06.2020

WEEKDAYS / DIAS LABORABLES / LASEMÈN

NORTHBOUND RUMBO NORTE / DIREKSYON Nò	MORNING / MAÑANA / MATEN	EVERY CADA/CHAK 15 min FROM DESDE/DE	TO HASTA/A	MORNING / MAÑANA / MATEN AM			AFTERNOON / TARDE / APRÈ MIDI PM				EVERY CADA/CHAK 15 min FROM DESDE/DE	TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ	
DOWNTOWN TERMINAL	5:24	**5:44**	**10:06**	10:30	11:00	11:30	12:00	12:30	1:00	1:30	**2:00**	**6:45**	7:05	7:25
BISCAYNE BLVD & NE 15 ST	5:32	**5:52**	**10:19**	10:43	11:13	11:43	12:13	12:43	1:13	1:43	**2:14**	**6:59**	7:17	7:37
BISCAYNE BLVD & NE 36 ST	5:37	**5:57**	**10:26**	10:50	11:20	11:50	12:20	12:50	1:21	1:51	**2:22**	**7:07**	7:24	7:44
BISCAYNE BLVD & NE 79 ST	5:45	**6:05**	**10:34**	10:58	11:28	11:58	12:29	12:59	1:30	2:00	**2:31**	**7:16**	7:33	7:53
BISCAYNE BLVD & NE 123 ST	5:53	**6:14**	**10:44**	11:09	11:39	12:09	12:40	1:10	1:41	2:12	**2:43**	**7:26**	7:43	8:03
BISCAYNE BLVD & NE 163 ST	6:02	**6:23**	**10:53**	11:19	11:49	12:20	12:51	1:21	1:52	2:23	**2:54**	**7:34**	7:51	8:11
TERMINAL AVENTURA MALL	6:14	**6:35**	**11:07**	11:33	12:04	12:35	1:07	1:37	2:08	2:39	**3:11**	**7:46**	8:03	8:22

SOUTHBOUND RUMBO SUR / DIREKSYON SID	EVERY CADA/CHAK 15 min FROM DESDE/DE	TO HASTA/A	MORNING / MAÑANA / MATEN AM						AFTER-NOON / TARDE / APRÈ MIDI PM	EVERY CADA/CHAK 15 min FROM DESDE/DE	TO HASTA/A	EVENING / NOCHE / CHAK ASWÈ	
TERMINAL AVENTURA MALL	**5:45**	**8:56**	9:20	9:49	10:20	10:49	11:18	11:47	12:16	**12:46**	**5:32**	5:53	6:15
BISCAYNE BLVD & NE 163 ST	**5:55**	**9:10**	9:34	10:03	10:34	11:04	11:33	12:02	12:31	**1:01**	**5:49**	6:10	6:30
BISCAYNE BLVD & NE 123 ST	**6:02**	**9:18**	9:42	10:12	10:43	11:13	11:42	12:12	12:41	**1:11**	**6:00**	6:20	6:40
BISCAYNE BLVD & NE 79 ST	**6:12**	**9:29**	9:53	10:24	10:55	11:25	11:54	12:24	12:53	**1:23**	**6:11**	6:31	6:51
BISCAYNE BLVD & NE 36 ST	**6:21**	**9:39**	10:03	10:33	11:04	11:34	12:03	12:33	1:03	**1:33**	**6:20**	6:40	7:00
BISCAYNE BLVD & NE 15 ST	**6:26**	**9:44**	10:08	10:38	11:09	11:39	12:09	12:39	1:09	**1:39**	**6:25**	6:45	7:05
DOWNTOWN TERMINAL	**6:37**	**9:56**	10:20	10:50	11:20	11:50	12:20	12:50	1:20	**1:50**	**6:35**	6:55	7:15

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions.

Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

93 BISCAYNE MAX

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MIAMI-DADE COUNTY

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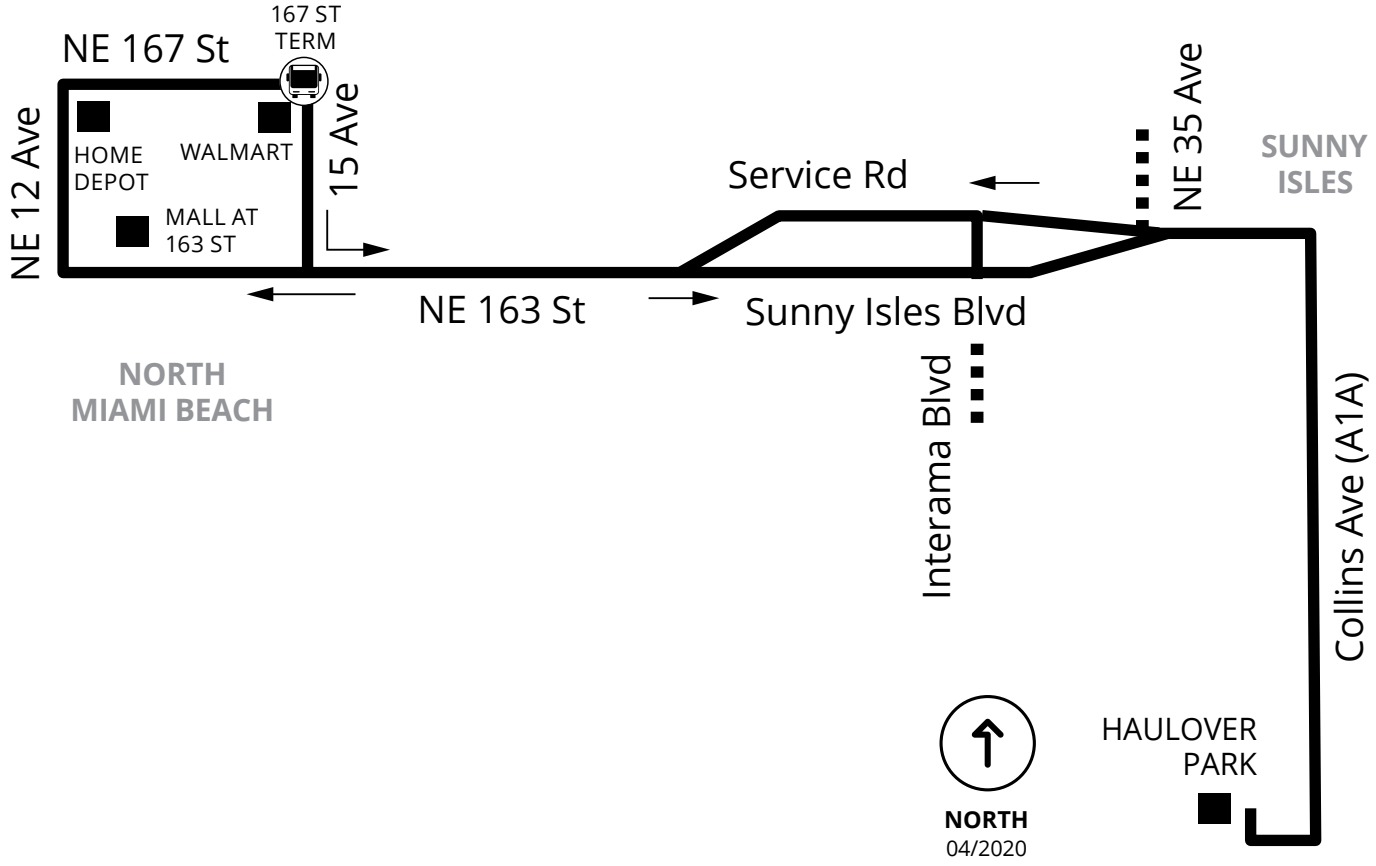

NE 167 St
167 ST TERM
NE 12 Ave
HOME DEPOT
WALMART
MALL AT 163 ST
15 Ave
Service Rd
NE 35 Ave
SUNNY ISLES
NE 163 St
Sunny Isles Blvd
NORTH MIAMI BEACH
Interama Blvd
Collins Ave (A1A)
HAULOVER PARK
NORTH
04/2020

WEEKDAYS / DIAS LABORABLES / LASEMÈN

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
Haulover Club Parking Lot	5:40	6:10	6:45	7:15	7:45	8:15	8:45	9:15	9:45	10:15	10:45	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	3:15	3:45	4:15	4:45	5:15	5:45	6:15	6:45	7:15	7:45	8:15	8:45	9:15	9:50	10:20	10:50	11:20	12:00	12:30
Collins Ave & Atlantic Ave	5:45	6:15	6:50	7:20	7:50	8:20	8:50	9:20	9:50	10:20	10:50	11:20	11:50	12:20	12:50	1:20	1:50	2:20	2:50	3:20	3:50	4:20	4:50	5:20	5:50	6:20	6:50	7:20	7:50	8:20	8:50	9:20	9:55	10:25	10:55	11:25	12:05	12:35
NE 167 St & 15 Ave	5:59	6:33	7:11	7:41	8:11	8:41	9:12	9:42	10:12	10:42	11:12	11:42	12:13	12:43	1:13	1:43	2:13	2:43	3:13	3:43	4:13	4:43	5:13	5:43	6:13	6:43	7:13	7:39	8:09	8:36	9:06	9:36	10:11	10:41	11:11	11:41	12:19	12:49

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
NE 167 St & 15 Ave	5:13	5:42	6:12	6:39	7:06	7:36	8:04	8:34	9:04	9:34	10:04	10:34	11:04	11:34	12:04	12:34	1:04	1:34	2:04	2:34	3:04	3:34	4:04	4:34	5:04	5:34	6:04	6:34	7:08	7:38	8:15	8:45	9:20	9:50	10:20	10:50	11:30	12:02
Collins Ave & 163 St	5:28	5:57	6:27	6:57	7:27	7:57	8:27	8:57	9:27	9:57	10:27	10:57	11:27	11:57	12:27	12:57	1:27	1:57	2:27	2:57	3:27	3:57	4:27	4:57	5:27	5:57	6:27	6:57	7:27	7:57	8:32	9:02	9:37	10:07	10:37	11:07	11:47	12:17
Haulover Club Parking Lot	5:33	6:02	6:32	7:02	7:32	8:02	8:32	9:02	9:32	10:02	10:32	11:02	11:32	12:02	12:32	1:02	1:32	2:02	2:32	3:02	3:32	4:02	4:32	5:02	5:32	6:02	6:32	7:02	7:32	8:02	8:37	9:07	9:42	10:12	10:42	11:12	11:52	12:22

SATURDAY / SABADO / SAMDI

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
Haulover Club Parking Lot	5:40	6:10	6:45	7:15	7:45	8:15	8:45	9:15	9:45	10:15	10:45	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	3:15	3:45	4:15	4:45	5:15	5:45	6:15	6:40	7:10	7:40	8:10	8:40	9:10	9:50	10:20	10:50	11:20	12:00	12:30
Collins Ave & Atlantic Ave	5:45	6:15	6:50	7:20	7:50	8:20	8:50	9:20	9:50	10:20	10:50	11:20	11:50	12:20	12:50	1:20	1:50	2:20	2:50	3:20	3:50	4:20	4:50	5:20	5:50	6:20	6:45	7:15	7:45	8:15	8:45	9:15	9:55	10:25	10:55	11:25	12:05	12:35
NE 167 St & 15 Ave	5:59	6:32	7:10	7:40	8:10	8:40	9:12	9:42	10:12	10:42	11:12	11:42	12:12	12:42	1:12	1:42	2:12	2:42	3:12	3:42	4:13	4:43	5:13	5:43	6:13	6:43	7:08	7:34	8:04	8:31	9:01	9:31	10:11	10:41	11:11	11:41	12:19	12:49

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
NE 167 St & 15 Ave	5:13	5:42	6:10	6:40	7:08	7:38	8:08	8:38	9:05	9:35	10:05	10:35	11:05	11:35	12:04	12:34	1:04	1:34	2:04	2:34	3:04	3:34	4:04	4:34	5:04	5:34	6:04	6:34	7:08	7:38	8:10	8:40	9:20	9:50	10:20	10:50	11:30	12:02
Collins Ave & 163 St	5:28	5:57	6:27	6:57	7:27	7:57	8:27	8:57	9:27	9:57	10:27	10:57	11:27	11:57	12:27	12:57	1:27	1:57	2:27	2:57	3:27	3:57	4:27	4:57	5:27	5:57	6:27	6:57	7:27	7:57	8:27	8:57	9:37	10:07	10:37	11:07	11:47	12:17
Haulover Club Parking Lot	5:33	6:02	6:32	7:02	7:32	8:02	8:32	9:02	9:32	10:02	10:32	11:02	11:32	12:02	12:32	1:02	1:32	2:02	2:32	3:02	3:32	4:02	4:32	5:02	5:32	6:02	6:32	7:02	7:32	8:02	8:32	9:02	9:42	10:12	10:42	11:12	11:52	12:22

SUNDAY / DOMINGO / DIMANCH

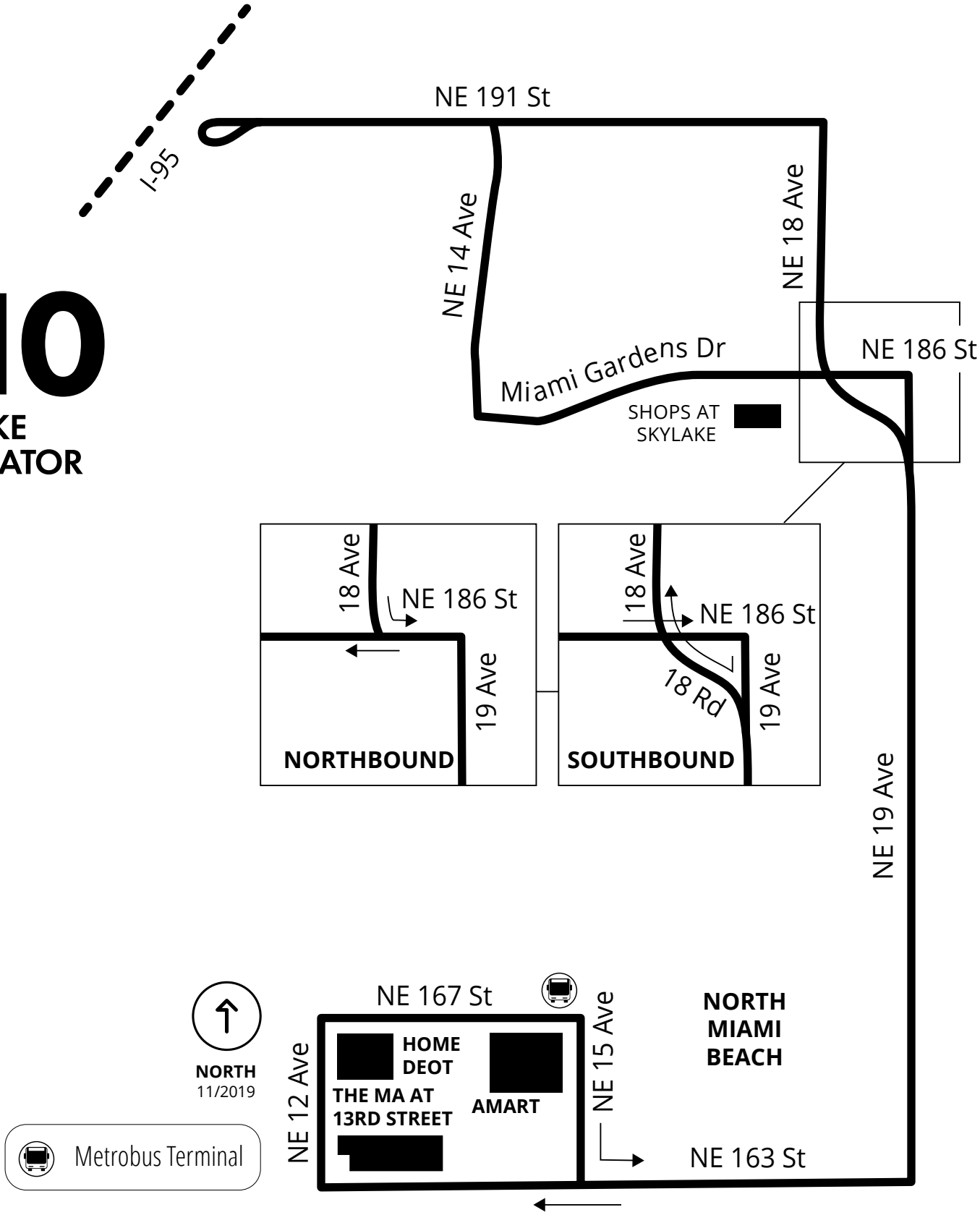
NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
Haulover Club Parking Lot	5:40	6:10	6:45	7:15	7:45	8:15	8:45	9:15	9:45	10:15	10:45	11:15	11:45	12:15	12:45	1:15	1:45	2:15	2:45	3:15	3:45	4:15	4:45	5:15	5:45	6:15	6:40	7:10	7:40	8:10	8:40	9:10	9:50	10:20	10:50	11:20	12:00	12:30
Collins Ave & Atlantic Ave	5:45	6:15	6:50	7:20	7:50	8:20	8:50	9:20	9:50	10:20	10:50	11:20	11:50	12:20	12:50	1:20	1:50	2:20	2:50	3:20	3:50	4:20	4:50	5:20	5:50	6:20	6:45	7:15	7:45	8:15	8:45	9:15	9:55	10:25	10:55	11:25	12:05	12:35
NE 167 St & 15 Ave	5:59	6:31	7:08	7:38	8:08	8:38	9:10	9:40	10:10	10:40	11:10	11:40	12:12	12:42	1:12	1:42	2:12	2:42	3:12	3:42	4:12	4:42	5:12	5:42	6:12	6:42	7:07	7:34	8:04	8:31	9:01	9:31	10:11	10:41	11:11	11:41	12:19	12:49

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATEN												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																							
NE 167 St & 15 Ave	5:15	5:44	6:10	6:40	7:10	7:40	8:10	8:40	9:09	9:39	10:09	10:39	11:09	11:39	12:09	12:39	1:09	1:39	2:09	2:39	3:09	3:39	4:06	4:36	5:06	5:36	6:10	6:40	7:10	7:40	8:11	8:41	9:21	9:51	10:21	10:51	11:31	12:04
Collins Ave & 163 St	5:28	5:57	6:27	6:57	7:27	7:57	8:27	8:57	9:27	9:57	10:27	10:57	11:27	11:57	12:27	12:57	1:27	1:57	2:27	2:57	3:27	3:57	4:27	4:57	5:27	5:57	6:27	6:57	7:27	7:57	8:27	8:57	9:37	10:07	10:37	11:07	11:47	12:17
Haulover Club Parking Lot	5:33	6:02	6:32	7:02	7:32	8:02	8:32	9:02	9:32	10:02	10:32	11:02	11:32	12:02	12:32	1:02	1:32	2:02	2:32	3:02	3:32	4:02	4:32	5:02	5:32	6:02	6:32	7:02	7:32	8:02	8:32	9:02	9:42	10:12	10:42	11:12	11:52	12:22

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions. Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

210

SKYLAKE CIRCULATOR



@GoMiamiDade GO Miami-Dade Transit

miamidade.gov/transit 311 or 305.468.5900 TTY/Fla Relay: 711

03.2021

WEEKDAYS / DIAS LABORABLES/ LACÈMEN

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATIN										AM PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI CHAK ASWE																
NE 185 St & 18 Ave	5:42	6:35	7:35	8:34	9:04	9:34	10:04	10:34	11:04	11:34		12:04	12:34	1:04	1:34	2:04	2:34	3:04	3:34	4:04	4:34	5:34	6:34	7:39	8:40	9:40	10:40	11:40
NE 191 St Circle	5:47	6:41	7:41	8:40	9:10	9:40	10:10	10:40	11:10	11:40		12:10	12:40	1:10	1:40	2:10	2:40	3:10	3:40	4:10	4:40	5:40	6:40	7:44	8:45	9:45	10:45	11:45
NE 167 St Terminal	5:59	6:59	7:59	8:59	9:29	9:59	10:29	10:59	11:29	11:59		12:29	12:59	1:29	1:59	2:29	2:59	3:29	3:59	4:29	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATIN											AM PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI CHAK ASWE																
NE 167 St Terminal	5:00	6:00	7:00	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30		12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	6:00	7:00	8:00	9:00	10:00	11:00	11:59
NE 191 St Circle	5:10	6:12	7:13	8:13	8:43	9:15	9:45	10:15	10:45	11:15	11:45		12:15	12:45	1:15	1:45	2:15	2:45	3:15	3:45	4:16	4:46	5:16	6:16	7:13	8:12	9:12	10:12	11:12	12:09
NE 185 St & 18 Ave	5:15	6:18	7:19	8:19	8:49	9:21	9:51	10:21	10:51	11:21	11:51		12:21	12:51	1:21	1:51	2:21	2:51	3:21	3:51	4:22	4:52	5:22	6:22	7:19	8:18	9:18	10:18	11:18	12:14

WEEKENDS / FINES DE SEMANA / WIKENN

SOUTHBOUND RUMBO SUR / DIREKSYON SID	MORNING / MAÑANA / MATIN							AM PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI CHAK ASWE										
NE 185 St & 18 Ave	5:42	6:39	7:37	8:35	9:35	10:35	11:35		12:35	1:35	2:35	3:35	4:34	5:34	6:34	7:39	8:40	9:40	10:40	11:40
NE 191 St Circle	5:47	6:45	7:43	8:41	9:41	10:41	11:41		12:41	1:41	2:41	3:41	4:40	5:40	6:40	7:44	8:45	9:45	10:45	11:45
NE 167 St Terminal	5:59	6:59	7:59	8:59	9:59	10:59	11:59		12:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59

NORTHBOUND RUMBO NORTE / DIREKSYON NÒ	MORNING / MAÑANA / MATIN							AM PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI CHAK ASWE												
NE 167 St Terminal	5:00	6:00	7:00	8:00	9:00	10:00	11:00		12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	11:59
NE 191 St Circle	5:10	6:12	7:12	8:13	9:13	10:13	11:13		12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:13	8:12	9:12	10:12	11:12	12:09
NE 185 St & 18 Ave	5:15	6:18	7:18	8:19	9:19	10:19	11:19		12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:19	8:18	9:18	10:18	11:18	12:14

Scheduled times are approximate. Actual arrival and departure times may vary depending on traffic and road conditions. / Las horas publicadas son aproximadas, pues dependen del trafico y otras condiciones de las vias. / Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.

06.2021

210 SKYLAKE CIRCULATOR

@GoMiamiDade GO Miami-Dade Transit
miamidade.gov/transit **311** or 305.468.5900 TTY/Fla Relay: 711

MIAMI-DADE COUNTY

North Bay Village Shuttle Route

ROUTE A — EAST

1	Intracoastal Mall / Arrive	7:30 AM	8:59 AM	10:28 AM	11:57 AM	1:27 PM	2:56 PM	4:25 PM	5:55 PM
1	Intracoastal Mall / Leave	7:40 AM	9:09 AM	10:38 AM	12:07 PM	1:37 PM	3:06 PM	4:35 PM	6:05 PM
2	NE 35th Ave 166th ST	7:43 AM	9:12 AM	10:42 AM	12:11 PM	1:40 PM	3:10 PM	4:39 PM	6:08 PM
3	NE 35th Ave 169th ST	7:49 AM	9:19 AM	10:48 AM	12:17 PM	1:46 PM	3:16 PM	4:45 PM	6:14 PM
4	NE 35th Ave 170th ST	7:53 AM	9:22 AM	10:51 AM	12:21 PM	1:50 PM	3:19 PM	4:49 PM	6:18 PM
5	NE 35th Ave 171st ST	7:56 AM	9:25 AM	10:55 AM	12:24 PM	1:53 PM	3:23 PM	4:52 PM	6:21 PM
1	Intracoastal Mall	7:59 AM	9:28 AM	10:57 AM	12:27 PM	1:56 PM	3:25 PM	4:55 PM	6:24 PM
6	Stratford	8:03 AM	9:33 AM	11:02 AM	12:31PM	2:01 PM	3:30 PM	4:59 PM	6:28 PM
7	Post Office/ Laurenzo's	8:11 AM	9:41 AM	11:10 AM	12:39 PM	2:08 PM	3:38 PM	5:07 PM	6:36 PM
8	Inland Towers	8:13 AM	9:42 AM	11:12 AM	12:41 PM	2:10 PM	3:40 PM	5:09 PM	6:38 PM
9	NMB Library	8:20 AM	9:49 AM	11:18 AM	12:47 PM	2:17 PM	3:46 PM	5:15 PM	6:45 PM
10	Walmart	8:24 AM	9:53 AM	11:23 AM	12:52 PM	2:21 PM	3:51 PM	5:20 PM	6:49 PM
11	NE 171st ST 16th Ave	8:27 AM	9:56 AM	11:26 AM	12:55 PM	2:24 PM	3:54 PM	5:23 PM	6:52 PM
12	Victory Pool/ City Hall	8:34 AM	10:03 AM	11:32 AM	1:02 PM	2:31 PM	4:00 PM	5:30 PM	6:59 PM
13	NE 20th Ave 168th ST	8:36 AM	10:05 AM	11:34 AM	1:04 PM	2:33 PM	4:02 PM	5:32 PM	7:01 PM
14	NE 19th Ave 167th ST	8:38 AM	10:07 AM	11:36 AM	1:06 PM	2:35 PM	4:04 PM	5:34 PM	7:03 PM
15	Inland Towers	8:41 AM	10:11 AM	11:40 AM	1:09 PM	2:38 PM	4:08 PM	5:37 PM	7:06 PM
16	Post Office/ Laurenzo's	8:43 AM	10:13 AM	11:42 AM	1:11 PM	2:40 PM	4:10 PM	5:39 PM	7:08 PM
6	Stratford	8:53 AM	10:22 AM	11:51 AM	1:21 PM	2:50 PM	4:19 PM	5:49 PM	7:18 PM

NMB-Line will not be providing service on the following holidays:

- New Year's Day
- MLK- Birthday
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

Special Rules to Remember:

- Shop for only as much as you can carry yourself.
- No more than four(4) plastic or two(2) bags allowed per person
- The driver cannot carry your packages or leave vehicle unattended
- Please no tipping

NMB LINE is operated by:

The City of North Miami Beach Public Works Department

For more Information call :

(786) 785-4875

(305) RIDENMB

743 3662

or visit us online at:

www.citynmb.com

ROUTE B — NORTH

1	Walmart / Arrive		8:10 AM	8:56 AM	9:45 AM	10:30 AM	11:16 AM	12:02 PM	12:47 PM	1:33 PM	2:19 PM	3:05 PM	3:52 PM	4:37 PM	5:23 PM	6:08 PM	6:54 PM
1	Walmart / Leave	7:30 AM	8:16 AM	9:02 AM	9:51 AM	10:36 AM	11:22 AM	12:08 PM	12:53 PM	1:39 PM	2:25 PM	3:11 PM	3:58 PM	4:43 PM	5:29 PM	6:14 PM	7:00 PM
2	NE 170th ST 15th Ave	7:31 AM	8:17 AM	9:04 AM	9:52 AM	10:38 AM	11:23 AM	12:09 PM	12:55 PM	1:40 PM	2:26 PM	3:13 PM	3:59 PM	4:45 PM	5:30 PM	6:16 PM	7:01 PM
3	NE 175th ST 15th Ave	7:34 AM	8:20 AM	9:06 AM	9:55 AM	10:40 AM	11:26 AM	12:12 PM	12:57 PM	1:43 PM	2:29 PM	3:15 PM	4:02 PM	4:47 PM	5:33 PM	6:18 PM	7:04 PM
4	Greynolds P. Elem	7:35 AM	8:21 AM	9:07 AM	9:56 AM	10:41 AM	11:27 AM	12:13 PM	12:58 PM	1:44 PM	2:30 PM	3:16 PM	4:03 PM	4:48 PM	5:34 PM	6:19 PM	7:05 PM
5	NE 181st ST 12th Ave	7:37 AM	8:23 AM	9:09 AM	9:58 AM	10:43 AM	11:29 AM	12:14 PM	1:00 PM	1:46 PM	2:32 PM	3:18 PM	4:04 PM	4:50 PM	5:35 PM	6:21 PM	7:07 PM
6	Shops at Skylake	7:42 AM	8:28 AM	9:16 AM	10:03 AM	10:48 AM	11:34 AM	12:19 PM	1:05 PM	1:50 PM	2:37 PM	3:23 PM	4:09 PM	4:55 PM	5:40 PM	6:26 PM	7:12 PM
7	NE 183rd ST 19th Ave	7:45 AM	8:31 AM	9:20 AM	10:06 AM	10:51 AM	11:37 AM	12:23 PM	1:08 PM	1:54 PM	2:40 PM	3:27 PM	4:12 PM	4:58 PM	5:44 PM	6:29 PM	7:15 PM
8	NE 177st ST 19th Ave	7:46 AM	8:33 AM	9:21 AM	10:07 AM	10:53 AM	11:38 AM	12:24 PM	1:09 PM	1:55 PM	2:41 PM	3:28 PM	4:16 PM	4:59 PM	5:45 PM	6:30 PM	7:16 PM
9	Vitory Pool/City Hall	7:48 AM	8:35 AM	9:24 AM	10:09 AM	10:55 AM	11:40 AM	12:26 PM	1:11 PM	1:57 PM	2:43 PM	3:30 PM	4:16 PM	5:01 PM	5:47 PM	6:33 PM	7:18 PM
10	NE 171st ST 23rd Ave	7:50 AM	8:36 AM	9:25 AM	10:11 AM	10:56 AM	11:42 AM	12:28 PM	1:13 PM	1:59 PM	2:45 PM	3:32 PM	4:18 PM	5:03 PM	5:49 PM	6:34 PM	7:20 PM
11	W. Dixie Hwy NE 22nd Ave	7:51 AM	8:38 AM	9:27 AM	10:12 AM	10:58 AM	11:43 AM	12:29 PM	1:14 PM	2:00 PM	2:47 PM	3:33 PM	4:19 PM	5:04 PM	5:50 PM	6:36 PM	7:21 PM
12	NE 167th ST 22nd Ave	7:52 AM	8:39 AM	9:28 AM	10:13 AM	10:59 AM	11:44 AM	12:30 PM	1:16 PM	2:01 PM	2:48 PM	3:34 PM	4:20 PM	5:06 PM	5:51 PM	6:37 PM	7:22 PM
13	Nova South Univ.	7:55 AM	8:41 AM	9:30 AM	10:16 AM	11:01 AM	11:47 AM	12:32 PM	1:18 PM	2:04 PM	2:50 PM	3:37 PM	4:22 PM	5:08 PM	5:54 PM	6:39 PM	7:25 PM
14	NE 167th ST 19th Ave	7:57 AM	8:44 AM	9:32 AM	10:18 AM	11:04 AM	11:49 AM	12:35 PM	1:20 PM	2:06 PM	2:52 PM	3:39 PM	4:25 PM	5:10 PM	5:56 PM	6:41 PM	7:27 PM
15	NE 164th ST 19th Ave	7:59 AM	8:46 AM	9:34 AM	10:20 AM	11:06 AM	11:51 AM	12:37 PM	1:22 PM	2:08 PM	2:54 PM	3:41 PM	4:27 PM	5:12 PM	5:58 PM	6:43 PM	7:29 PM
16	NMB Library	8:01 AM	8:47 AM	9:36 AM	10:21 AM	11:07 AM	11:53 AM	12:38 PM	1:24 PM	2:09 PM	2:56 PM	3:42 PM	4:28 PM	5:14 PM	5:59 PM	6:45 PM	7:30 PM
17	NE 164th ST 15th Ave	8:02 AM	8:48 AM	9:37 AM	10:23 AM	11:08 AM	11:54 AM	12:40 PM	1:25 PM	2:11 PM	2:57 PM	3:44 PM	4:30 PM	5:15 PM	6:01 PM	6:46 PM	7:32 PM
18	163rd Mall Main Ent	8:04 AM	8:51 AM	9:40 AM	10:25 AM	11:11 AM	11:56 AM	12:42 PM	1:28 PM	2:13 PM	3:00 PM	3:46 PM	4:32 PM	5:18 PM	6:03 PM	6:49 PM	7:34 PM
19	NMB High, JFK Middle	8:08 AM	8:54 AM	9:43 AM	10:28 AM	11:14 AM	12:00 PM	12:45 PM	1:31 PM	2:17 PM	3:03 PM	3:49 PM	4:35 PM	5:21 PM	6:06 PM	6:52 PM	7:37 PM

Look for our stops!

ROUTE C — SOUTH

1	Walmart / Arrive		7:56 AM	8:59 AM	10:03 AM	11:06 AM	12:09 PM	1:12 PM	2:17 PM	3:21 PM	4:25 PM	5:28 PM	6:34 PM
1	Walmart / Leave		8:04 AM	9:07 AM	10:11 AM	11:14 AM	12:17 PM	1:20 PM	2:25 PM	3:29 PM	4:33 PM	5:36 PM	6:39 PM
2	NMB Library		8:06 AM	9:10 AM	10:13 AM	11:16 AM	12:19 PM	1:22 PM	2:27 PM	3:32 PM	4:35 PM	5:38 PM	6:41 PM
3	Fulford Elem.		8:09 AM	9:13 AM	10:16 AM	11:19 AM	12:22 PM	1:25 PM	2:30 PM	3:35 PM	4:38 PM	5:41 PM	6:44 PM
4	NE 18th Ave 157th Ter		8:11 AM	9:14 AM	10:17 AM	11:21 AM	12:24 PM	1:27 PM	2:32 PM	3:37 PM	4:40 PM	5:43 PM	6:46 PM
5	NE 16th Ave 153rd Ter		8:13 AM	9:17 AM	10:20 AM	11:23 AM	12:26 PM	1:30 PM	2:35 PM	3:39 PM	4:42 PM	5:46 PM	6:49 PM
6	NE 151st ST W. Dixie Hwy		8:15 AM	9:19 AM	10:22 AM	11:25 AM	12:28 PM	1:32 PM	2:37 PM	3:41 PM	4:44 PM	5:47 PM	6:50 PM
7	NE 151st ST & US1		8:17 AM	9:21 AM	10:24 AM	11:27 AM	12:30 PM	1:34 PM	2:38 PM	3:43 PM	4:46 PM	5:49 PM	6:52 PM
8	David Lawrence Jr.		8:20 AM	9:24 AM	10:27 AM	11:30 AM	12:33 PM	1:37 PM	2:42 PM	3:46 PM	4:49 PM	5:52 PM	6:55 PM
9	FIU North Campus		8:23 AM	9:26 AM	10:29 AM	11:32 AM	12:35 PM	1:39 PM	2:44 PM	3:48 PM	4:51 PM	5:54 PM	6:57 PM
10	ATM High School		8:26 AM	9:29 AM	10:32 AM	11:35 AM	12:28 PM	1:43 PM	2:47 PM	3:51 PM	4:54 PM	5:58 PM	7:01 PM
11	US1 & 151st ST		8:28 AM	9:32 AM	10:35 AM	11:38 AM	12:41 PM	1:45 PM	2:50 PM	3:54 PM	4:57 PM	6:00 PM	7:03 PM
12	US1 & 146th ST		8:30 AM	9:33 AM	10:36 AM	11:40 AM	12:43 PM	1:47 PM	2:52 PM	3:56 PM	4:59 PM	6:02 PM	7:05 PM
13	Highland Park	7:30 AM	8:34 AM	9:37 AM	10:40 AM	11:43 AM	12:46 PM	1:51 PM	2:55 PM	3:59 PM	5:02 PM	6:05 PM	7:09 PM
14	US1 & 141st ST	7:32 AM	8:36 AM	9:39 AM	10:42 AM	11:45 AM	12:48 PM	1:53 PM	2:57 PM	4:01 PM	5:04 PM	6:07 PM	7:11 PM
15	US1 & 146th ST	7:33 AM	8:37 AM	9:41 AM	10:44 AM	11:47 AM	12:50 PM	1:54 PM	2:59 PM	4:03 PM	5:06 PM	6:09 PM	7:12 PM
16	NE 151st ST /W. Dixie Hwy	7:39 AM	8:43 AM	9:46 AM	10:49 AM	11:52 AM	12:55 PM	2:00 PM	3:04 PM	4:08 PM	5:11 PM	6:15 PM	7:18 PM
17	NE 152nd Ter. & 14th CT	7:44 AM	8:47 AM	9:51 AM	10:54 AM	11:57 AM	1:00 PM	2:05 PM	3:09 PM	4:13 PM	5:16 PM	6:19 PM	7:22 PM
18	NE 154th ST & 13th Ave	7:46 AM	8:50 AM	9:53 AM	10:56 AM	12:00 PM	1:03 PM	2:07 PM	3:12 PM	4:16 PM	5:19 PM	6:22 PM	7:25 PM
19	NE 12th Ave & 158th ST	7:49 AM	8:53 AM	9:56 AM	10:59 AM	12:03 PM	1:06 PM	2:10 PM	3:15 PM	4:19 PM	5:22 PM	6:25 PM	7:18 PM
20	NMB High & JFK Middle	7:53 AM	8:56 AM	10:00 AM	11:03 AM	12:06 PM	1:09 PM	2:14 PM	3:18 PM	4:22 PM	5:25 PM	6:28 PM	7:30 PM

ROUTE D — WEST

		D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
1	Walmart / Arrive	7:30 AM	8:06 AM	8:45 AM	9:21 AM	10:00 AM	10:36 AM	11:16 AM	11:52 AM	12:31 PM	1:07 PM	1:47 PM	2:23 PM	3:02 PM	3:38 PM	4:18 PM	4:54 PM	5:33 PM	6:09 PM
1	Walmart / Leave	7:38 AM	8:14 AM	8:53 AM	9:29 AM	10:08 AM	10:44 AM	11:24 AM	12:00 PM	12:39 PM	1:15 PM	1:55 PM	2:31 PM	3:10 PM	3:46 PM	4:26 PM	5:02 PM	5:41 PM	6:17 PM
2	Allen Park	7:46 AM	8:22 AM	9:02 AM	9:38 AM	10:17 AM	10:53 AM	11:32 AM	12:08 PM	12:48 PM	1:24 PM	2:03 PM	2:39 PM	3:19 PM	3:55 PM	4:34 PM	5:10 PM	5:50 PM	6:26 PM
3	Hazel Fazzino Park	7:51 AM	8:27 AM	9:06 AM	9:42 AM	10:22 AM	10:58 AM	11:37 AM	12:13 PM	12:53 PM	1:29 PM	2:08 PM	2:44 PM	3:24 PM	4:00 PM	4:39 PM	5:15 PM	5:55 PM	6:31 PM
4	Sauls Park	7:55 AM	8:31 AM	9:11 AM	9:47 AM	10:26 AM	11:02 AM	11:42 AM	12:18 PM	12:57 PM	1:33 PM	2:13 PM	2:49 PM	3:28 PM	4:04 PM	4:44 PM	5:20 PM	5:59 PM	6:35 PM
5	Oak Grove Park	8:01 AM	8:37 AM	9:16 AM	9:52 AM	10:32 AM	11:08 AM	11:47 AM	12:23 PM	1:03 PM	1:39 PM	2:18 PM	2:54 PM	3:34 PM	4:10 PM	4:49 PM	5:25 PM	6:05 PM	6:41 PM
6	Jefferson Plaza	8:03 AM	8:39 AM	9:19 AM	9:55 AM	10:34 AM	11:10 AM	11:50 AM	12:26 PM	1:05 PM	1:41 PM	2:21 PM	2:57 PM	3:36 PM	4:12 PM	4:52 PM	5:28 PM	6:07 PM	6:43 PM
7	NE 167th ST 7th Ave	8:08 AM	8:44 AM	9:23 AM	9:59 AM	10:39 AM	11:15 AM	11:54 AM	12:30 PM	1:10 PM	1:46 PM	2:25 PM	3:01 PM	3:41 PM	4:17 PM	4:56 PM	5:32 PM	6:12 PM	6:48 PM
8	Uleta Park Community Ctr	8:10 AM	8:46 AM	9:26 AM	10:02 AM	10:41 AM	11:17 AM	11:57 AM	12:33 PM	1:12 PM	1:48 PM	2:28 PM	3:04 PM	3:43 PM	4:19 PM	4:59 PM	5:35 PM	6:14 PM	6:50 PM
9	NE 2nd Ave 172nd ST	8:14 AM	8:50 AM	9:30 AM	10:06 AM	10:45 AM	11:21 AM	12:00 PM	12:36 PM	1:16 PM	1:52 PM	2:31 PM	3:07 PM	3:47 PM	4:23 PM	5:02 PM	5:38 PM	6:18 PM	6:54 PM
10	Jackson North Medical Ctr	8:17 AM	8:53 AM	9:32 AM	10:08 AM	10:48 AM	11:24 AM	12:03 PM	12:39 PM	1:19 PM	1:55 PM	2:34 PM	3:10 PM	3:50 PM	4:26 PM	5:05 PM	5:41 PM	6:21 PM	6:57 PM
11	US 441 NW 177th ST	8:18 AM	8:54 AM	9:34 AM	10:10 AM	10:49 AM	11:25 AM	12:05 PM	12:41 PM	1:20 PM	1:56 PM	2:36 PM	3:12 PM	3:51 PM	4:27 PM	5:07 PM	5:43 PM	6:22 PM	6:58 PM
12	US 441 NW 183rd ST	8:20 AM	8:56 AM	9:35 AM	10:11 AM	10:51 AM	11:27 AM	12:06 PM	12:42 PM	1:22 PM	1:58 PM	2:37 PM	3:13 PM	3:53 PM	4:29 PM	5:08 PM	5:44 PM	6:24 PM	7:00 PM
13	NE 6th Ave & NE 179th Dr.	8:26 AM	9:02 AM	9:41 AM	10:17 AM	10:57 AM	11:33 AM	12:12 PM	12:48 PM	1:28 PM	2:04 PM	2:43 PM	3:19 PM	3:59 PM	4:35 PM	5:14 PM	5:50 PM	6:30 PM	7:06 PM
14	NE 6th Ave & NE 175th ST	8:26 AM	9:02 AM	9:41 AM	10:17 AM	10:57 AM	11:33 AM	12:12 PM	12:48 PM	1:28 PM	2:04 PM	2:43 PM	3:19 PM	3:59 PM	4:35 PM	5:14 PM	5:50 PM	6:30 PM	7:06 PM
15	Sabal Palm Elem. School	8:29 AM	9:05 AM	9:44 AM	10:20 AM	10:59 AM	11:35 AM	12:15 PM	12:51 PM	1:30 PM	2:06 PM	2:46 PM	3:22 PM	4:01 PM	4:37 PM	5:17 PM	5:53 PM	6:32 PM	7:08 PM
16	NE 10th Ave & NE 169th ST	8:32 AM	9:08 AM	9:48 AM	10:24 AM	11:03 AM	11:39 AM	12:19 PM	12:55 PM	1:34 PM	2:10 PM	2:50 PM	3:26 PM	4:05 PM	4:41 PM	5:21 PM	5:57 PM	6:36 PM	7:12 PM
17	NMB High & JFK Middle	8:40 AM	9:16 AM	9:56 AM	10:32 AM	11:11 AM	11:47 AM	12:27 PM	1:03 PM	1:42 PM	2:18 PM	2:58 PM	3:34 PM	4:13 PM	4:49 PM	5:29 PM	6:05 PM	6:44 PM	7:20 PM

One Vision • One Mission

NMBone City

TROLLEY SCHEDULES

MONDAY - SATURDAY

7:30 A.M. TO 7:30 P.M.

Includes a map with major locations in NMB

Major Locations in North Miami Beach

ROUTE A

1. Intracoastal Mall Transfer SIB Shuttle
6. Stratford House
7. U.S. Postal Office
9. NMB Public Library
10. Walmart
12. City Hall / Victory Pool

ROUTE B

1. Walmart
4. Greynolds Park Elementary
6. Shops at Skylake
9. City Hall / Victory Pool
11. Spanish Monastery
16. NMB Public Library

ROUTE C

1. Walmart
3. Fulford Elementary/ Allen Park
9. FIU Transfer NOMI
15. Biscayne Commons
13. Highland Village
17. Washington Park

ROUTE D

1. Walmart
2. Fulford Elementary/ Allen Park
6. Jefferson Plaza
8. Uleta Park
9. Jackson North Medical Center
12. Transfer Miami Gardens Express
19. Sabal Palms Elem.

○ NMB Line trolley stop only

□ NMB Line & MIAMI-DADE Transit bus stop

Transfer to Sunny Isles' SIB Shuttle, North Miami's NOMI Express and Miami Garden's Express.

@CityNMB
#IamNMB

Appendix F

Trip Generation

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 1	1	Multifamily Housing (High-Rise) Not Close to Rail Transit	11	222	437	du	34%	66%	39	76	115	10.0%	11	35	69	104	1.9%	2	34	68	102	0.0%	0	34	68	102
	2	Strip Retail Plaza	11	822	7.44	ksf	60%	40%	11	7	18	10.0%	2	10	6	16	12.5%	2	9	5	14	0.0%	0	9	5	14
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code		Rate or Equation				Total:	50	83	133	10.0%	13	45	75	120	3.3%	4	43	73	116	0.0%	0	43	73	116
		222		Y=0.22*(X)+18.85																						
		822		Y=2.36(X)																						

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

		ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
		Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent In	Percent Out	In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
GROUP 2	1	Multifamily Housing (High-Rise) Not Close to Rail Transit	11	222	437	du	56%	44%	77	60	137	10.0%	14	69	54	123	8.1%	10	62	51	113	0.0%	0	62	51	113
	2	Strip Retail Plaza	11	822	7.44	ksf	50%	50%	32	31	63	10.0%	6	29	28	57	17.5%	10	26	21	47	34.0%	16	17	14	31
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code		Rate or Equation				Total:	109	91	200	10.0%	20	98	82	180	11.1%	20	88	72	160	10.0%	16	79	65	144
		222		Y=0.26*(X)+23.12																						
		822		LN(Y) = 0.71*LN(X)+2.72																						

Internal Capture Reduction Calculations

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

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

SUMMARY (PROPOSED)

GROSS TRIP GENERATION

INPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	10	6	29	28
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	35	69	69	54
Hotel	0	0	0	0
	45	75	98	82

INTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	1	1	3	7
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	1	1	7	3
Hotel	0	0	0	0
	2	2	10	10

OUTPUT

Total % Reduction	*3.3%*	*11.1%*
Office		
Retail	12.5%	17.5%
Restaurant		
Cinema/Entertainment		
Residential	1.9%	8.1%
Hotel		

EXTERNAL TRIPS

OUTPUT

Land Use	A.M. Peak Hour		P.M. Peak Hour	
	Enter	Exit	Enter	Exit
Office	0	0	0	0
Retail	9	5	26	21
Restaurant	0	0	0	0
Cinema/Entertainment	0	0	0	0
Residential	34	68	62	51
Hotel	0	0	0	0
	43	73	88	72

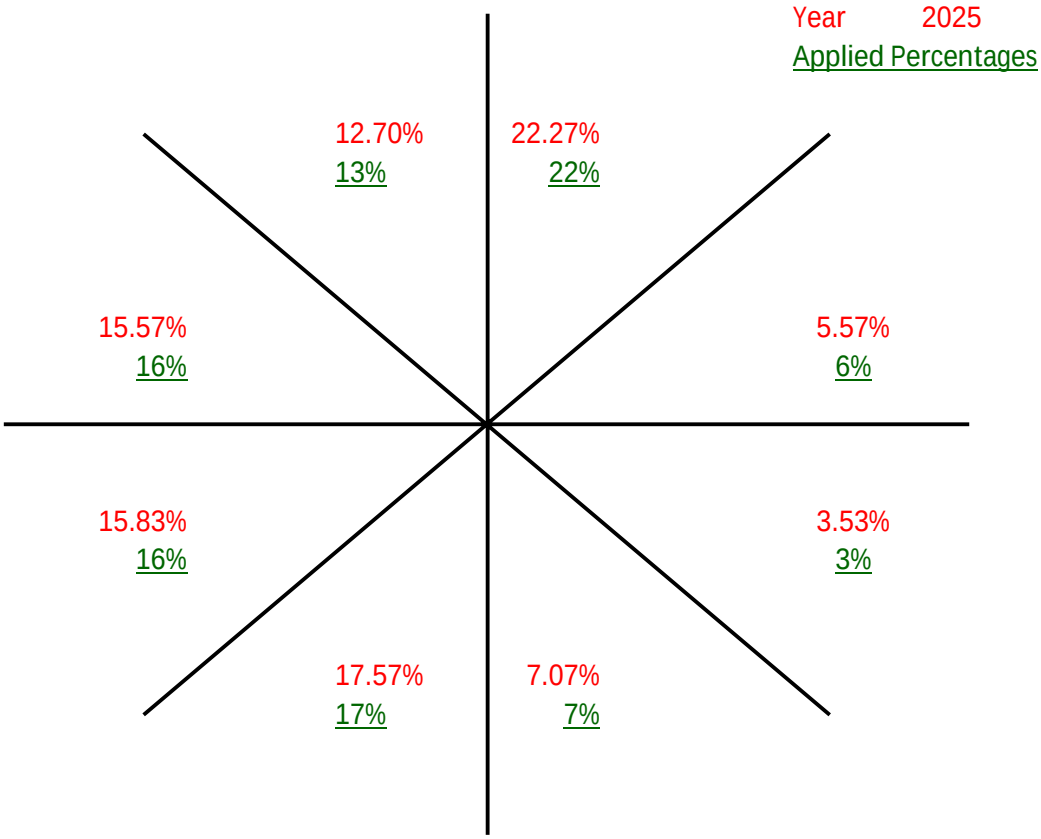
Replica Mode-Split Data

geo_id	tract	week_starting	population	total_count_avg_weekday	other_travel_mode_count_avg_weekday	public_transit_count_avg_weekday	private_auto_count_avg_weekday	auto_passenger_count_avg_weekday	Non-vehicular Mode-Split
12086000214	2.14 (Miami-Dade, FL)	1/20/2020	24064	1701	13	240	1216	232	14.87%
12086000214	2.14 (Miami-Dade, FL)	1/27/2020	24064	2088	15	293	1495	285	14.75%
12086000214	2.14 (Miami-Dade, FL)	2/3/2020	24064	2205	17	309	1579	300	14.78%
12086000214	2.14 (Miami-Dade, FL)	2/10/2020	24064	2182	15	305	1565	297	14.67%
12086000214	2.14 (Miami-Dade, FL)	2/17/2020	24064	1779	12	250	1274	243	14.73%
12086000214	2.14 (Miami-Dade, FL)	2/24/2020	24064	1969	15	275	1411	268	14.73%
								Average Non-vehicular Mode-Split	14.80%

Appendix G

Cardinal Trip Distribution

Cardinal Distribution for TAZ 96



Cardinal Trip Distribution

Cardinal Direction	Percentage of Trips		2025 Interpolated	2025 Rounded
	2015	2045		
North-Northeast	23.1%	20.60%	22.27%	22.00%
East-Northeast	6.1%	4.50%	5.57%	6.00%
East-Southeast	4.0%	2.60%	3.53%	3.00%
South-Southeast	6.9%	7.40%	7.07%	7.00%
South-Southwest	15.4%	21.90%	17.57%	17.00%
West-Southwest	15.9%	15.70%	15.83%	16.00%
West-Northwest	15.6%	15.50%	15.57%	16.00%
North-Northwest	13.1%	11.90%	12.70%	13.00%
Total	100.1%	100.1%	100.10%	100.00%

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	

Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
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 H

Volume Development Worksheets

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: NE 164th Street and NE 19th Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.87
PM PEAK HOUR FACTOR: 0.93

"AM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM Raw Turning Movements	2	80	48	7	9	9	44	29	2	34	453	22	10	64	676	216
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**2**	**97**	**58**	**9**	**11**	**11**	**54**	**35**	**2**	**41**	**552**	**27**	**12**	**78**	**823**	**263**

"PM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM Raw Turning Movements	0	125	79	19	15	13	92	51	0	22	569	9	13	43	708	169
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**0**	**152**	**96**	**23**	**18**	**16**	**112**	**62**	**0**	**27**	**693**	**11**	**16**	**52**	**862**	**206**

"AM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway											81				151	
Skygarden Miami		8	24	13		3									3	
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC	0	8	24	13	0	3	0	0	0	0	81	0	0	0	154	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	0	13	8	1	1	1	7	5	0	5	71	3	2	10	107	34
AM NON-PROJECT TRAFFIC	**2**	**118**	**90**	**23**	**12**	**15**	**61**	**40**	**2**	**46**	**704**	**30**	**14**	**88**	**1,084**	**297**

"PM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway											64				50	
Skygarden Miami		7	20	14		9									9	
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC	0	7	20	14	0	9	0	0	0	0	64	0	0	0	59	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	0	20	12	3	2	2	14	8	0	3	90	1	2	7	112	27
PM NON-PROJECT TRAFFIC	**0**	**179**	**128**	**40**	**20**	**27**	**126**	**70**	**0**	**30**	**847**	**12**	**18**	**59**	**1,033**	**233**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By	Entering																
Distribution	Exiting																
Valet	Entering																
Distribution	Exiting																
Net New	Entering														18.0%		
Distribution	Exiting								18.0%								

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By	Entering																
Distribution	Exiting																
Valet	Entering																
Distribution	Exiting																
Net New	Entering														18.0%		
Distribution	Exiting								18.0%								

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New								13						8		
AM TOTAL PROJECT TRAFFIC		0	0	0	0	0	0	0	13	0	0	0	0	0	8	0	0
AM TOTAL TRAFFIC		**2**	**118**	**90**	**23**	**12**	**15**	**61**	**53**	**2**	**46**	**704**	**30**	**14**	**96**	**1,084**	**297**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New								12						14		
PM TOTAL PROJECT TRAFFIC		0	0	0	0	0	0	0	12	0	0	0	0	0	14	0	0
PM TOTAL TRAFFIC		**0**	**179**	**128**	**40**	**20**	**27**	**126**	**82**	**0**	**30**	**847**	**12**	**18**	**73**	**1,033**	**233**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: NE 164th Street and NE 20th Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.89
PM PEAK HOUR FACTOR: 0.9

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements		4	94	27		14	55	2		21	16	47		2	7	3
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS		**5**	**114**	**33**		**17**	**67**	**2**		**26**	**19**	**57**		**2**	**9**	**4**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements		7	95	27		15	104	4		47	59	39		6	6	2
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS		**9**	**116**	**33**		**18**	**127**	**5**		**57**	**72**	**48**		**7**	**7**	**2**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami			24				3									
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	24	0		0	3	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH		1	15	4		2	9	0		3	2	7		0	1	1
AM NON-PROJECT TRAFFIC		**6**	**153**	**37**		**19**	**79**	**2**		**29**	**21**	**64**		**2**	**10**	**5**

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami			20				9									
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	20	0		0	9	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH		1	15	4		2	16	1		7	9	6		1	1	0
PM NON-PROJECT TRAFFIC		**10**	**151**	**37**		**20**	**152**	**6**		**64**	**81**	**54**		**8**	**8**	**2**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			18.0%													
	Exiting							18.0%									

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			18.0%													
	Exiting							18.0%									

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New			8				13									
AM TOTAL PROJECT TRAFFIC			**0**	**8**	**0**		**0**	**13**	**0**		**0**	**0**	**0**		**0**	**0**	**0**
AM TOTAL TRAFFIC			**6**	**161**	**37**		**19**	**92**	**2**		**29**	**21**	**64**		**2**	**10**	**5**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New			14				12									
PM TOTAL PROJECT TRAFFIC			**0**	**14**	**0**		**0**	**12**	**0**		**0**	**0**	**0**		**0**	**0**	**0**
PM TOTAL TRAFFIC			**10**	**165**	**37**		**20**	**164**	**6**		**64**	**81**	**54**		**8**	**8**	**2**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: NE 164th Street and NE 21st Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.9
PM PEAK HOUR FACTOR: 0.89

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements		6	127	9		55	59	14		4	7	31		17	2	6
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS		**7**	**155**	**11**		**67**	**72**	**17**		**5**	**9**	**38**		**21**	**2**	**7**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements		7	119	16		42	110	13		12	16	34		17	4	4
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS		**9**	**145**	**19**		**51**	**134**	**16**		**15**	**19**	**41**		**21**	**5**	**5**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami			24				3									
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	24	0		0	3	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH		1	20	1		9	9	2		1	1	5		3	0	1
AM NON-PROJECT TRAFFIC		**8**	**199**	**12**		**76**	**84**	**19**		**6**	**10**	**43**		**24**	**2**	**8**

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami			20				9									
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	20	0		0	9	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH		1	19	2		7	17	2		2	2	5		3	1	1
PM NON-PROJECT TRAFFIC		**10**	**184**	**21**		**58**	**160**	**18**		**17**	**21**	**46**		**24**	**6**	**6**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering				18.0%		7.0%										
	Exiting										18.0%		55.0%				

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting												44.0%				
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering				18.0%		7.0%										
	Exiting										18.0%		55.0%				

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New				8		3				13		40				
AM TOTAL PROJECT TRAFFIC			**0**	**0**	**8**		**3**	**0**	**0**		**13**	**0**	**40**		**0**	**0**	**0**
AM TOTAL TRAFFIC			**8**	**199**	**20**		**79**	**84**	**19**		**19**	**10**	**83**		**24**	**2**	**8**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By												3				
	Valet																
	Net New				14		6				12		35				
PM TOTAL PROJECT TRAFFIC			**0**	**0**	**14**		**6**	**0**	**0**		**12**	**0**	**38**		**0**	**0**	**0**
PM TOTAL TRAFFIC			**10**	**184**	**35**		**64**	**160**	**18**		**29**	**21**	**84**		**24**	**6**	**6**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: NE 164th Street and NE 22nd Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.94
PM PEAK HOUR FACTOR: 0.96

"AM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM Raw Turning Movements	72	84	5	119	2	5	3	4	0	38	382	3	17	5	437	72
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**88**	**102**	**6**	**145**	**2**	**6**	**4**	**5**	**0**	**46**	**465**	**4**	**21**	**6**	**532**	**88**

"PM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM Raw Turning Movements	53	90	7	85	9	6	3	13	1	71	532	10	11	1	520	101
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**65**	**110**	**9**	**104**	**11**	**7**	**4**	**16**	**1**	**86**	**648**	**12**	**13**	**1**	**633**	**123**

"AM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway											4				6	
15780 West Dixie Highway											90				126	
Skygarden Miami			24				3				1				17	
16051 West Dixie Highway															8	
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC	0	0	24	0	0	0	3	0	0	0	95	0	0	0	157	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	11	13	1	19	0	1	1	1	0	6	60	1	3	1	69	11
AM NON-PROJECT TRAFFIC	**99**	**115**	**31**	**164**	**2**	**7**	**8**	**6**	**0**	**52**	**620**	**5**	**24**	**7**	**758**	**99**

"PM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway											8				8	
15780 West Dixie Highway											75				62	
Skygarden Miami			20				9				4				17	
16051 West Dixie Highway															2	
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC	0	0	20	0	0	0	9	0	0	0	87	0	0	0	89	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	8	14	1	13	1	1	1	2	0	11	84	2	2	0	82	16
PM NON-PROJECT TRAFFIC	**73**	**124**	**30**	**117**	**12**	**8**	**14**	**18**	**1**	**97**	**819**	**14**	**15**	**1**	**804**	**139**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering																7.0%
	Exiting		22.0%		33.0%												

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting				44.0%												
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering																7.0%
	Exiting		22.0%		33.0%												

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New		16		24												3
AM TOTAL PROJECT TRAFFIC		**0**	**16**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
AM TOTAL TRAFFIC		**99**	**131**	**31**	**188**	**2**	**7**	**8**	**6**	**0**	**52**	**620**	**5**	**24**	**7**	**758**	**102**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By				3												
	Valet																
	Net New		14		21												6
PM TOTAL PROJECT TRAFFIC		**0**	**14**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
PM TOTAL TRAFFIC		**73**	**138**	**30**	**141**	**12**	**8**	**14**	**18**	**1**	**97**	**819**	**14**	**15**	**1**	**804**	**145**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: SR 826/NE 163rd Street and NE 19th Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.97
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM Raw Turning Movements	0	314	1,406	0	16	0	1,115	198	0	0	0	0	158	416	0	268
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**0**	**382**	**1,713**	**0**	**19**	**0**	**1,358**	**241**	**0**	**0**	**0**	**0**	**192**	**507**	**0**	**326**

"PM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM Raw Turning Movements	0	293	1,255	0	12	0	1,732	236	0	0	0	0	126	394	0	328
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**0**	**357**	**1,529**	**0**	**15**	**0**	**2,110**	**287**	**0**	**0**	**0**	**0**	**153**	**480**	**0**	**400**

"AM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway		45					27	36						88		63
Skygarden Miami			7				11							8		11
16051 West Dixie Highway			9													
Uptown Biscayne			50				31									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	45	66	0	0	0	65	36	0	0	0	0	0	96	0	74
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	0	49	222	0	2	0	176	31	0	0	0	0	25	66	0	42
AM NON-PROJECT TRAFFIC	**0**	**476**	**2,001**	**0**	**21**	**0**	**1,599**	**308**	**0**	**0**	**0**	**0**	**217**	**669**	**0**	**442**

"PM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway		14						50						39		11
Skygarden Miami			6				34							7		25
16051 West Dixie Highway			2													
Uptown Biscayne			78				91									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	14	86	0	0	0	121	50	0	0	0	0	0	46	0	36
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	0	46	198	0	2	0	273	37	0	0	0	0	20	62	0	52
PM NON-PROJECT TRAFFIC	**0**	**417**	**1,813**	**0**	**17**	**0**	**2,504**	**374**	**0**	**0**	**0**	**0**	**173**	**588**	**0**	**488**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			27.0%													
	Exiting							27.0%									

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering							-56.0%									
	Exiting							56.0%									
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			27.0%													
	Exiting							27.0%									

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New			12				20									
AM TOTAL PROJECT TRAFFIC		**0**	**0**	**12**	**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM TOTAL TRAFFIC		**0**	**476**	**2,013**	**0**	**21**	**0**	**1,619**	**308**	**0**	**0**	**0**	**0**	**217**	**669**	**0**	**442**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By							-1									
	Valet																
	Net New			21				18									
PM TOTAL PROJECT TRAFFIC		**0**	**0**	**21**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM TOTAL TRAFFIC		**0**	**417**	**1,834**	**0**	**17**	**0**	**2,521**	**374**	**0**	**0**	**0**	**0**	**173**	**588**	**0**	**488**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: SR 826/NE 163rd Street and NE 20th Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.98

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements	21	84	1,639	5		0	1,276	28		0	0	1		0	0	28
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**26**	**102**	**1,996**	**6**		**0**	**1,554**	**34**		**0**	**0**	**1**		**0**	**0**	**34**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements	25	71	1,620	5		0	1,918	42		0	0	4		0	0	42
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**30**	**86**	**1,973**	**6**		**0**	**2,336**	**51**		**0**	**0**	**5**		**0**	**0**	**51**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway			90				101									
Skygarden Miami			15				11									
16051 West Dixie Highway			9													
Uptown Biscayne			50				31									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	164	0		0	139	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	3	13	258	1		0	201	4		0	0	0		0	0	4
AM NON-PROJECT TRAFFIC	**29**	**115**	**2,418**	**7**		**0**	**1,894**	**38**		**0**	**0**	**1**		**0**	**0**	**38**

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway			49				67									
Skygarden Miami			13				34									
16051 West Dixie Highway			2													
Uptown Biscayne			78				91									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	142	0		0	188	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	4	11	255	1		0	302	7		0	0	1		0	0	7
PM NON-PROJECT TRAFFIC	**34**	**97**	**2,370**	**7**		**0**	**2,826**	**58**		**0**	**0**	**6**		**0**	**0**	**58**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			27.0%													
	Exiting							27.0%									

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering							-56.0%									
	Exiting							56.0%									
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering			27.0%													
	Exiting							27.0%									

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New			12				20									
AM TOTAL PROJECT TRAFFIC		**0**	**0**	**12**	**0**		**0**	**20**	**0**		**0**	**0**	**0**		**0**	**0**	**0**
AM TOTAL TRAFFIC		**29**	**115**	**2,430**	**7**		**0**	**1,914**	**38**		**0**	**0**	**1**		**0**	**0**	**38**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By							-1									
	Valet																
	Net New			21				18									
PM TOTAL PROJECT TRAFFIC		**0**	**0**	**21**	**0**		**0**	**17**	**0**		**0**	**0**	**0**		**0**	**0**	**0**
PM TOTAL TRAFFIC		**34**	**97**	**2,391**	**7**		**0**	**2,843**	**58**		**0**	**0**	**6**		**0**	**0**	**58**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: SR 826/NE 163rd Street and NE 21st Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.93
PM PEAK HOUR FACTOR: 0.94

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements	2	34	1,554	87	2	16	1,169	17		0	0	5		0	0	38
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**2**	**41**	**1,893**	**106**	**2**	**19**	**1,424**	**21**		**0**	**0**	**6**		**0**	**0**	**46**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements	10	60	1,511	64	8	23	1,902	21		0	0	18		0	0	42
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**12**	**73**	**1,840**	**78**	**10**	**28**	**2,317**	**26**		**0**	**0**	**22**		**0**	**0**	**51**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway			90				101									
Skygarden Miami			15				11									
16051 West Dixie Highway			9													
Uptown Biscayne			50				31									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	164	0	0	0	139	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	0	5	245	14	0	2	184	3		0	0	1		0	0	6
AM NON-PROJECT TRAFFIC	**2**	**46**	**2,302**	**120**	**2**	**21**	**1,747**	**24**		**0**	**0**	**7**		**0**	**0**	**52**

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway			49				67									
Skygarden Miami			13				35									
16051 West Dixie Highway			2													
Uptown Biscayne			78				91									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	142	0	0	0	189	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	2	9	238	10	1	4	300	3		0	0	3		0	0	7
PM NON-PROJECT TRAFFIC	**14**	**82**	**2,220**	**88**	**11**	**32**	**2,806**	**29**		**0**	**0**	**25**		**0**	**0**	**58**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering		27.0%						48.0%								
	Exiting																27.0%

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		44.0%	-44.0%				-56.0%	56.0%								
	Exiting																56.0%
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering		27.0%						48.0%								
	Exiting																27.0%

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New		12						20								20
AM TOTAL PROJECT TRAFFIC		**0**	**12**	**0**	**0**	**0**	**0**	**0**	**20**		**0**	**0**	**0**		**0**	**0**	**20**
AM TOTAL TRAFFIC		**2**	**58**	**2,302**	**120**	**2**	**21**	**1,747**	**44**		**0**	**0**	**7**		**0**	**0**	**72**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By		4	-4				-5	5								4
	Valet																
	Net New		21						38								18
PM TOTAL PROJECT TRAFFIC		**0**	**25**	**-4**	**0**	**0**	**0**	**-5**	**43**		**0**	**0**	**0**		**0**	**0**	**22**
PM TOTAL TRAFFIC		**14**	**107**	**2,216**	**88**	**11**	**32**	**2,801**	**72**		**0**	**0**	**25**		**0**	**0**	**80**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: SR 826/NE 163rd Street and NE 22nd Avenue
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.98
PM PEAK HOUR FACTOR: 0.94

"AM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM Raw Turning Movements	0	55	1,360	41	4	260	1,128	95	50	89	253	110	12	166	332	62
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**0**	**67**	**1,656**	**50**	**5**	**317**	**1,374**	**116**	**61**	**108**	**308**	**134**	**15**	**202**	**404**	**76**

"PM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM Raw Turning Movements	0	115	1,404	63	4	220	1,720	132	32	148	356	190	27	163	366	90
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**0**	**140**	**1,710**	**77**	**5**	**268**	**2,095**	**161**	**39**	**180**	**434**	**231**	**33**	**199**	**446**	**110**

"AM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway											4				6	
15780 West Dixie Highway			27	63		226	38			63	90	162			126	
Skygarden Miami			9	5			8			2	1			12	4	1
16051 West Dixie Highway				9		55									8	
Uptown Biscayne			50				31									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	86	77	0	281	73	0	0	65	95	162	0	12	144	1
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	0	9	214	6	1	41	178	15	8	14	40	17	2	26	52	10
AM NON-PROJECT TRAFFIC	**0**	**76**	**1,956**	**133**	**6**	**639**	**1,625**	**131**	**69**	**187**	**443**	**313**	**17**	**240**	**600**	**87**

"PM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway											8				8	
15780 West Dixie Highway			21	28		101	17			50	75	128			62	
Skygarden Miami			8	5			25			6	4			10	3	4
16051 West Dixie Highway				2		13									2	
Uptown Biscayne			78				91									
Uptown Biscayne Pass-by							-4									
TOTAL "VESTED" TRAFFIC	0	0	107	35	0	114	129	0	0	56	87	128	0	10	75	4
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	0	18	221	10	1	35	271	21	5	23	56	30	4	26	58	14
PM NON-PROJECT TRAFFIC	**0**	**158**	**2,038**	**122**	**6**	**417**	**2,495**	**182**	**44**	**259**	**577**	**389**	**37**	**235**	**579**	**128**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering							40.0%			8.0%						
	Exiting														25.0%	8.0%	

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By Distribution	Entering			-44.0%													
	Exiting														44.0%		
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering							40.0%			8.0%						
	Exiting														25.0%	8.0%	

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New							17			3				18	6	
AM TOTAL PROJECT TRAFFIC		**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**3**	**0**	**0**	**0**	**18**	**6**	**0**
AM TOTAL TRAFFIC		**0**	**76**	**1,956**	**133**	**6**	**639**	**1,642**	**131**	**69**	**190**	**443**	**313**	**17**	**258**	**606**	**87**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By			-4											3		
	Valet																
	Net New							32			6				16	5	
PM TOTAL PROJECT TRAFFIC		**0**	**0**	**-4**	**0**	**0**	**0**	**32**	**0**	**0**	**6**	**0**	**0**	**0**	**19**	**5**	**0**
PM TOTAL TRAFFIC		**0**	**158**	**2,034**	**122**	**6**	**417**	**2,527**	**182**	**44**	**265**	**577**	**389**	**37**	**254**	**584**	**128**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: SR 826/NE 163rd Street and US-1/Biscayne Boulevard
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.91
PM PEAK HOUR FACTOR: 0.93

"AM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM Raw Turning Movements	28	183	1,210	289	212	455	811	446	56	277	1,025	512	56	456	1,381	413
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS	**34**	**223**	**1,474**	**352**	**258**	**554**	**988**	**543**	**68**	**337**	**1,248**	**624**	**68**	**555**	**1,682**	**503**

"PM EXISTING TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM Raw Turning Movements	22	337	997	379	272	449	1,089	645	71	418	1,337	677	41	479	1,428	433
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS	**27**	**410**	**1,214**	**462**	**331**	**547**	**1,326**	**786**	**86**	**509**	**1,628**	**825**	**50**	**583**	**1,739**	**527**

"AM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway		99	90				125									138
Skygarden Miami		6	8	8			3			3						2
16051 West Dixie Highway							10			16						29
Uptown Biscayne		35	15			30	31	7			34	14		8		
Uptown Biscayne Pass-by		9	-9			6	-4							6	-12	
TOTAL "VESTED" TRAFFIC	0	149	104	8	0	36	165	7	0	19	34	14	0	14	-12	169
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH	4	29	191	46	33	72	128	70	9	44	162	81	9	72	218	65
AM NON-PROJECT TRAFFIC	**38**	**401**	**1,769**	**406**	**291**	**662**	**1,281**	**620**	**77**	**400**	**1,444**	**719**	**77**	**641**	**1,888**	**737**

"PM BACKGROUND TRAFFIC"	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
15699 West Dixie Highway																
15780 West Dixie Highway		78	71				56									62
Skygarden Miami		5	7	7			9			9						7
16051 West Dixie Highway							2			4						7
Uptown Biscayne		54	24			87	91	16			54	22		22		
Uptown Biscayne Pass-by		35	-35			35	-4							30	-41	
TOTAL "VESTED" TRAFFIC	0	172	67	7	0	122	154	16	0	13	54	22	0	52	-41	76
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH	3	53	157	60	43	71	172	102	11	66	211	107	6	75	225	68
PM NON-PROJECT TRAFFIC	**30**	**635**	**1,438**	**529**	**374**	**740**	**1,652**	**904**	**97**	**588**	**1,893**	**954**	**56**	**710**	**1,923**	**671**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By	Entering																
Distribution	Exiting																
Valet	Entering																
Distribution	Exiting																
Net New	Entering							9.0%			16.0%						15.0%
Distribution	Exiting			9.0%	16.0%												

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
Pass-By	Entering			-44.0%													
Distribution	Exiting			44.0%													
Valet	Entering																
Distribution	Exiting																
Net New	Entering							9.0%			16.0%						15.0%
Distribution	Exiting			9.0%	16.0%												

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New			6	12			4			7						6
AM TOTAL PROJECT TRAFFIC		**0**	**0**	**6**	**12**	**0**	**0**	**4**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**6**
AM TOTAL TRAFFIC		**38**	**401**	**1,775**	**418**	**291**	**662**	**1,285**	**620**	**77**	**407**	**1,444**	**719**	**77**	**641**	**1,888**	**743**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBRTOR	EBL	EBT	EBR	WBRTOR	WBL	WBT	WBR	NBRTOR	NBL	NBT	NBR	SBRTOR	SBL	SBT	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By			-1													
	Valet																
	Net New			6	10			7			13						12
PM TOTAL PROJECT TRAFFIC		**0**	**0**	**5**	**10**	**0**	**0**	**7**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**12**
PM TOTAL TRAFFIC		**30**	**635**	**1,443**	**539**	**374**	**740**	**1,659**	**904**	**97**	**601**	**1,893**	**954**	**56**	**710**	**1,923**	**683**

TRAFFIC VOLUMES
AT STUDY INTERSECTIONS

INTERSECTION: NE 21st Avenue and Project Driveway
COUNT DATE: December 7, 2021
AM PEAK HOUR FACTOR: 0.92
PM PEAK HOUR FACTOR: 0.92

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
AM Raw Turning Movements		0	0	0		0	0	0		0	47	0		0	52	0
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
AM EXISTING CONDITIONS		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**57**	**0**		**0**	**63**	**0**

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
PM Raw Turning Movements		0	0	0		0	0	0		0	72	0		0	52	0
Peak Season Correction Factor	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050
COVID-19 Adjustment Factor	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160	1.160
PM EXISTING CONDITIONS		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**88**	**0**		**0**	**63**	**0**

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami																
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	0	0		0	0	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
AM BACKGROUND TRAFFIC GROWTH		0	0	0		0	0	0		0	7	0		0	8	0
AM NON-PROJECT TRAFFIC		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**64**	**0**		**0**	**71**	**0**

"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
15699 West Dixie Highway																
15780 West Dixie Highway																
Skygarden Miami																
16051 West Dixie Highway																
Uptown Biscayne																
Uptown Biscayne Pass-by																
TOTAL "VESTED" TRAFFIC		0	0	0		0	0	0		0	0	0		0	0	0
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
PM BACKGROUND TRAFFIC GROWTH		0	0	0		0	0	0		0	11	0		0	8	0
PM NON-PROJECT TRAFFIC		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**99**	**0**		**0**	**71**	**0**

"AM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
Pass-By Distribution	Entering																
	Exiting																
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering										75.0%						25.0%
	Exiting		73.0%		27.0%												

"PM PROJECT DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
Pass-By Distribution	Entering										100.0%						
	Exiting		44.0%		56.0%												
Valet Distribution	Entering																
	Exiting																
Net New Distribution	Entering										75.0%						25.0%
	Exiting		73.0%		27.0%												

"AM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
AM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By																
	Valet																
	Net New		53		20						32						11
AM TOTAL PROJECT TRAFFIC			**53**	**0**	**20**		**0**	**0**	**0**		**32**	**0**	**0**		**0**	**0**	**11**
AM TOTAL TRAFFIC			**53**	**0**	**20**		**0**	**0**	**0**		**32**	**64**	**0**		**0**	**71**	**11**

"PM PROJECT TRAFFIC"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT (1)	NBR	SBU	SBL	SBT (1)	SBR
PM TRAFFIC DIVERSIONS																	
Project Trips	Pass - By		3		4						9						
	Valet																
	Net New		47		18						59						20
PM TOTAL PROJECT TRAFFIC			**50**	**0**	**22**		**0**	**0**	**0**		**68**	**0**	**0**		**0**	**0**	**20**
PM TOTAL TRAFFIC			**50**	**0**	**22**		**0**	**0**	**0**		**68**	**99**	**0**		**0**	**71**	**20**

Note: (1) Northbound and southbound through volumes determined based on the existing turning movement counts collected at the intersections of NE 164th Street at NE 21st Avenue and NE 163rd Street at NE 21st Avenue

Appendix I

Intersection Capacity Analysis Worksheets

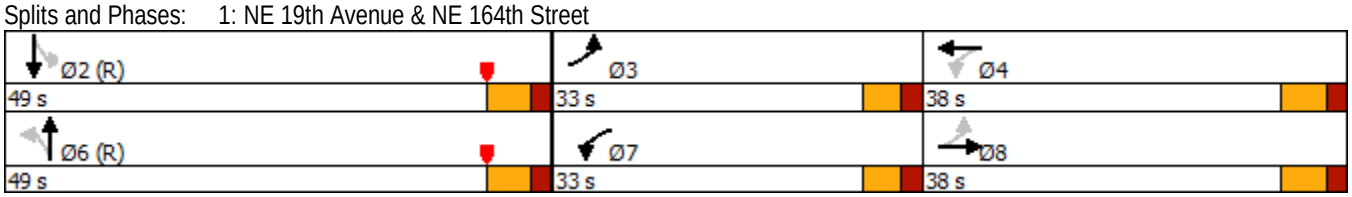
Existing A.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	97	58	11	54	41	552	78	823
Future Volume (vph)	97	58	11	54	41	552	78	823
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	33.0	38.0	33.0	38.0	49.0	49.0	49.0	49.0
Total Split (%)	27.5%	31.7%	27.5%	31.7%	40.8%	40.8%	40.8%	40.8%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	58	9	11	54	35	41	552	27	78	823	263
Future Volume (veh/h)	97	58	9	11	54	35	41	552	27	78	823	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	111	67	8	13	62	27	47	634	29	90	946	288
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	236	219	26	208	102	45	190	2611	121	575	2563	778
Arrive On Green	0.07	0.15	0.15	0.01	0.09	0.09	0.92	0.92	0.92	0.92	0.92	0.92
Sat Flow, veh/h	1767	1463	175	1767	1094	476	222	3780	175	765	3711	1127
Grp Volume(v), veh/h	111	0	75	13	0	89	212	253	245	90	861	373
Grp Sat Flow(s),veh/h/ln	1767	0	1637	1767	0	1571	1158	1537	1483	765	1689	1460
Q Serve(g_s), s	6.6	0.0	4.9	0.8	0.0	6.5	0.0	2.1	2.1	1.7	3.8	3.8
Cycle Q Clear(g_c), s	6.6	0.0	4.9	0.8	0.0	6.5	1.3	2.1	2.1	3.8	3.8	3.8
Prop In Lane	1.00		0.11	1.00		0.30	0.22		0.12	1.00		0.77
Lane Grp Cap(c), veh/h	236	0	245	208	0	147	836	1061	1024	575	2332	1009
V/C Ratio(X)	0.47	0.00	0.31	0.06	0.00	0.61	0.25	0.24	0.24	0.16	0.37	0.37
Avail Cap(c_a), veh/h	517	0	437	588	0	419	836	1061	1024	575	2332	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.17	0.17	0.17	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	45.5	48.1	0.0	52.3	1.6	1.6	1.6	1.8	1.7	1.7
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.0	0.0	4.8	0.1	0.1	0.1	0.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.3	0.0	3.7	0.6	0.0	5.0	0.8	1.0	1.0	0.5	1.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	0.0	46.3	48.1	0.0	57.0	1.7	1.7	1.7	2.4	2.1	2.7
LnGrp LOS	D	A	D	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h		186			102			710			1324	
Approach Delay, s/veh		44.8			55.9			1.7			2.3	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		88.9	13.9	17.2		88.9	7.2	24.0				
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0				
Max Green Setting (Gmax), s		43.0	27.6	32.0		43.0	27.6	32.0				
Max Q Clear Time (g_c+I1), s		5.8	8.6	8.5		4.1	2.8	6.9				
Green Ext Time (p_c), s		4.1	0.1	0.5		2.0	0.0	0.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	114	33	17	67	2	26	19	57	2	9	4
Future Vol, veh/h	5	114	33	17	67	2	26	19	57	2	9	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	6	128	37	19	75	2	29	21	64	2	10	4
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	8.8	8.3	8.1	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	100%	0%	100%	0%	13%
Vol Thru, %	19%	0%	78%	0%	97%	60%
Vol Right, %	56%	0%	22%	0%	3%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	5	147	17	69	15
LT Vol	26	5	0	17	0	2
Through Vol	19	0	114	0	67	9
RT Vol	57	0	33	0	2	4
Lane Flow Rate	115	6	165	19	78	17
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.138	0.008	0.22	0.029	0.107	0.022
Departure Headway (Hd)	4.342	5.438	4.798	5.494	4.972	4.607
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	829	660	753	653	722	778
Service Time	2.356	3.158	2.498	3.217	2.694	2.627
HCM Lane V/C Ratio	0.139	0.009	0.219	0.029	0.108	0.022
HCM Control Delay	8.1	8.2	8.8	8.4	8.3	7.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0.8	0.1	0.4	0.1

Intersection												
Int Delay, s/veh	3.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	155	11	67	72	17	5	9	38	21	2	7
Future Vol, veh/h	7	155	11	67	72	17	5	9	38	21	2	7
Conflicting Peds, #/hr	6	0	3	3	0	6	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	172	12	74	80	19	6	10	42	23	2	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	187	0	0	442	450	182	465	447	98
Stage 1	-	-	-	-	-	-	197	197	-	244	244	-
Stage 2	-	-	-	-	-	-	245	253	-	221	203	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1480	-	-	1381	-	-	776	770	1004	759	773	1091
Stage 1	-	-	-	-	-	-	930	961	-	875	912	-
Stage 2	-	-	-	-	-	-	874	902	-	902	955	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1377	-	-	730	718	1000	682	721	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	730	718	-	682	721	-
Stage 1	-	-	-	-	-	-	923	953	-	865	857	-
Stage 2	-	-	-	-	-	-	817	848	-	849	947	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	3.3	9.2	10
HCM LOS			A	B

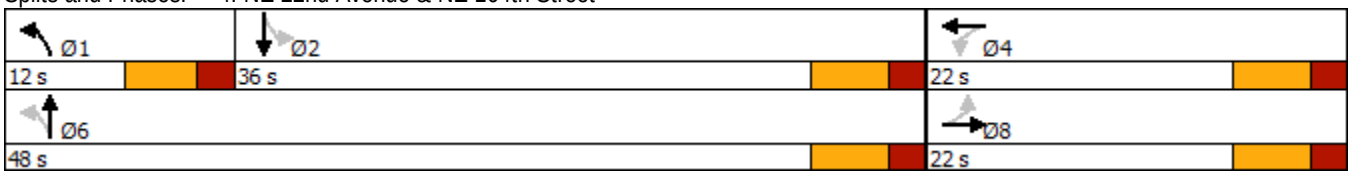
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	906	1472	-	-	1377	-	-	749
HCM Lane V/C Ratio	0.064	0.005	-	-	0.054	-	-	0.045
HCM Control Delay (s)	9.2	7.5	-	-	7.8	-	-	10
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	102	6	6	4	46	465	6	532
Future Volume (vph)	102	6	6	4	46	465	6	532
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	22.0	22.0	22.0	22.0	12.0	48.0	36.0	36.0
Total Split (%)	31.4%	31.4%	31.4%	31.4%	17.1%	68.6%	51.4%	51.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 42.6
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	6	145	6	4	5	46	465	4	6	532	88
Future Volume (veh/h)	102	6	145	6	4	5	46	465	4	6	532	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.97	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	109	6	60	6	4	3	49	495	4	6	566	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	407	24	239	209	122	61	477	1842	15	425	837	106
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.12	0.54	0.54	0.28	0.28	0.28
Sat Flow, veh/h	1383	144	1435	485	733	366	1767	3399	27	885	2972	377
Grp Volume(v), veh/h	109	0	66	13	0	0	49	257	242	6	335	303
Grp Sat Flow(s),veh/h/ln	1383	0	1579	1585	0	0	1767	1763	1664	885	1763	1586
Q Serve(g_s), s	2.6	0.0	1.5	0.0	0.0	0.0	0.6	3.2	3.2	0.2	6.9	7.0
Cycle Q Clear(g_c), s	2.9	0.0	1.5	0.3	0.0	0.0	0.6	3.2	3.2	0.2	6.9	7.0
Prop In Lane	1.00		0.91	0.46		0.23	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	407	0	263	392	0	0	477	955	902	425	497	447
V/C Ratio(X)	0.27	0.00	0.25	0.03	0.00	0.00	0.10	0.27	0.27	0.01	0.67	0.68
Avail Cap(c_a), veh/h	715	0	614	726	0	0	533	1800	1699	821	1286	1157
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	14.9	14.4	0.0	0.0	7.4	5.1	5.1	10.7	13.1	13.1
Incr Delay (d2), s/veh	0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.9	0.2	0.0	0.0	0.3	1.3	1.2	0.1	4.1	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	0.0	15.3	14.4	0.0	0.0	7.4	5.1	5.1	10.7	13.7	13.8
LnGrp LOS	B	A	B	B	A	A	A	A	A	B	B	B
Approach Vol, veh/h		175			13			548			644	
Approach Delay, s/veh		15.6			14.4			5.3			13.7	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.7	17.6		12.8		28.3		12.8
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 6.3	30.0		16.0		42.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	9.0		2.3		5.2		4.9
Green Ext Time (p_c), s	0.0	1.4		0.0		1.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

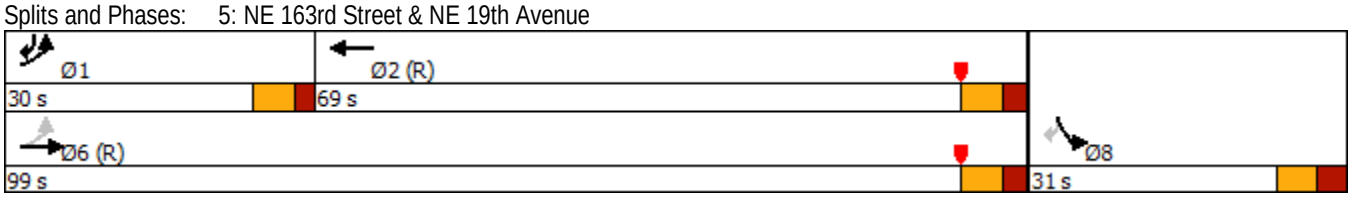
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	382	1713	1358	507	326
Future Volume (vph)	382	1713	1358	507	326
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	30.0	99.0	69.0	31.0	30.0
Total Split (%)	23.1%	76.2%	53.1%	23.8%	23.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 92 (71%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	1713	1358	241	507	326
Future Volume (veh/h)	382	1713	1358	241	507	326
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	394	1766	1400	228	523	138
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	417	3681	2386	388	581	482
Arrive On Green	0.18	0.97	0.72	0.72	0.17	0.17
Sat Flow, veh/h	1767	5233	4556	714	3428	1572
Grp Volume(v), veh/h	394	1766	1077	551	523	138
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1726	1714	1572
Q Serve(g_s), s	15.4	2.8	19.9	20.0	19.4	8.7
Cycle Q Clear(g_c), s	15.4	2.8	19.9	20.0	19.4	8.7
Prop In Lane	1.00			0.41	1.00	1.00
Lane Grp Cap(c), veh/h	417	3681	1836	938	581	482
V/C Ratio(X)	0.95	0.48	0.59	0.59	0.90	0.29
Avail Cap(c_a), veh/h	501	3681	1836	938	633	505
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	23.5	0.6	11.0	11.0	52.9	34.3
Incr Delay (d2), s/veh	23.2	0.5	1.4	2.7	13.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	20.7	1.2	10.2	10.8	14.3	6.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.7	1.1	12.4	13.7	66.8	34.5
LnGrp LOS	D	A	B	B	E	C
Approach Vol, veh/h		2160	1628		661	
Approach Delay, s/veh		9.4	12.8		60.1	
Approach LOS		A	B		E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	23.8	77.2				101.0	29.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	24.0	62.5				92.5	24.0
Max Q Clear Time (g_c+I1), s	17.4	22.0				4.8	21.4
Green Ext Time (p_c), s	0.4	5.4				7.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection													
Int Delay, s/veh	1.9												

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	26	102	1996	6	0	1554	34	0	0	1	0	0	34
Future Vol, veh/h	26	102	1996	6	0	1554	34	0	0	1	0	0	34
Conflicting Peds, #/hr	0	0	0	3	3	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	27	106	2079	6	0	1619	35	0	0	1	0	0	35

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1208	1654	0	0	-	-	0	-	-	1050	-	-	827
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	333	185	-	-	0	-	-	0	0	419	0	0	527
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	202	202	-	-	-	-	-	-	-	416	-	-	527
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	13.7	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	416	202	-	-	-	-	527
HCM Lane V/C Ratio	0.003	0.66	-	-	-	-	0.067
HCM Control Delay (s)	13.7	52.1	-	-	-	-	12.3
HCM Lane LOS	B	F	-	-	-	-	B
HCM 95th %tile Q(veh)	0	4	-	-	-	-	0.2

Intersection														
Int Delay, s/veh	0.8													

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	2	41	1893	106	2	19	1424	21	0	0	6	0	0	46
Future Vol, veh/h	2	41	1893	106	2	19	1424	21	0	0	6	0	0	46
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	44	2035	114	2	20	1531	23	0	0	6	0	0	49

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1134	1554	0	0	1569	2156	0	0	-	-	1084	-	-	777
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	367	207	-	-	209	103	-	-	0	0	404	0	0	554
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	211	211	-	-	107	107	-	-	-	-	401	-	-	554
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.7	14.1	12.1
HCM LOS			B	B

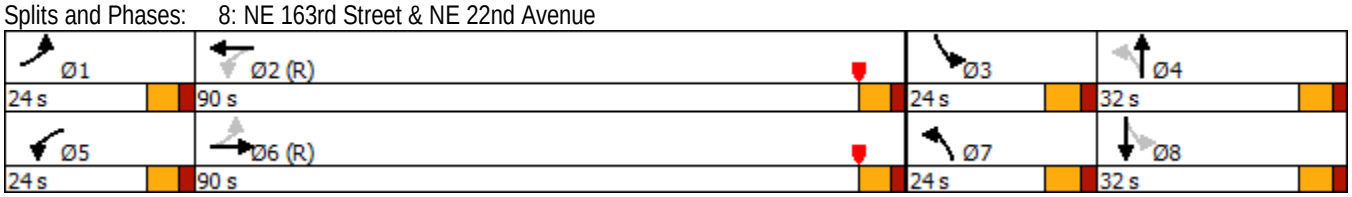
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	401	211	-	-	107	-	-	554
HCM Lane V/C Ratio	0.016	0.219	-	-	0.211	-	-	0.089
HCM Control Delay (s)	14.1	26.8	-	-	47.4	-	-	12.1
HCM Lane LOS	B	D	-	-	E	-	-	B
HCM 95th %tile Q(veh)	0	0.8	-	-	0.7	-	-	0.3

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	1656	317	1374	108	308	202	404
Future Volume (vph)	67	1656	317	1374	108	308	202	404
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1656	50	317	1374	116	108	308	134	202	404	76
Future Volume (veh/h)	67	1656	50	317	1374	116	108	308	134	202	404	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	68	1690	51	323	1402	113	110	314	75	206	412	63
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	260	2591	78	318	2814	227	193	370	87	245	520	79
Arrive On Green	0.04	0.68	0.68	0.14	0.78	0.78	0.07	0.13	0.13	0.10	0.17	0.17
Sat Flow, veh/h	1767	5050	152	1767	4772	385	1767	2814	660	1767	3057	464
Grp Volume(v), veh/h	68	1130	611	323	992	523	110	195	194	206	236	239
Grp Sat Flow(s),veh/h/ln	1767	1689	1825	1767	1689	1779	1767	1763	1712	1767	1763	1758
Q Serve(g_s), s	3.1	32.6	32.6	18.0	17.7	17.7	9.1	18.3	18.9	16.9	21.8	22.2
Cycle Q Clear(g_c), s	3.1	32.6	32.6	18.0	17.7	17.7	9.1	18.3	18.9	16.9	21.8	22.2
Prop In Lane	1.00		0.08	1.00		0.22	1.00		0.39	1.00		0.26
Lane Grp Cap(c), veh/h	260	1733	936	318	1992	1049	193	232	225	245	300	299
V/C Ratio(X)	0.26	0.65	0.65	1.02	0.50	0.50	0.57	0.84	0.86	0.84	0.79	0.80
Avail Cap(c_a), veh/h	396	1733	936	318	1992	1049	261	265	258	245	300	299
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	18.4	18.3	18.3	35.9	9.4	9.4	59.3	72.0	72.3	56.1	67.6	67.8
Incr Delay (d2), s/veh	0.2	1.9	3.5	42.2	0.5	1.0	1.0	17.9	21.8	15.8	9.3	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	17.5	19.2	22.4	8.2	8.7	7.5	14.5	14.8	12.8	15.2	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	20.2	21.9	78.1	9.9	10.4	60.3	89.9	94.1	71.9	76.9	77.9
LnGrp LOS	B	C	C	F	A	B	E	F	F	E	E	E
Approach Vol, veh/h		1809			1838			499			681	
Approach Delay, s/veh		20.7			22.1			85.0			75.7	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	106.3	24.0	28.8	24.0	93.2	17.5	35.3
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	5.1	19.7	18.9	20.9	20.0	34.6	11.1	24.2
Green Ext Time (p_c), s	0.1	4.7	0.0	0.8	0.0	5.8	0.1	0.4

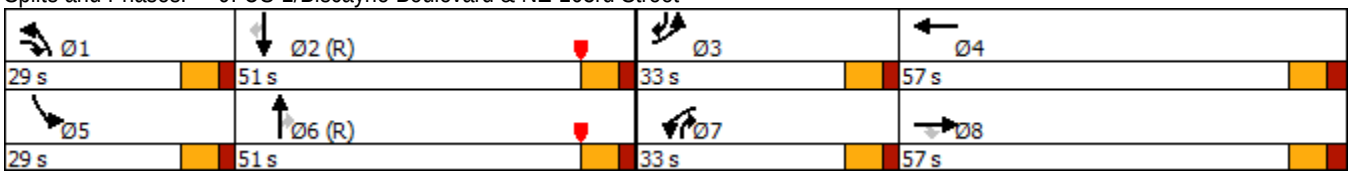
Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	223	1474	352	554	988	543	337	1248	624	555	1682	503
Future Volume (vph)	223	1474	352	554	988	543	337	1248	624	555	1682	503
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	57.0	29.0	33.0	57.0		29.0	51.0	33.0	29.0	51.0	33.0
Total Split (%)	19.4%	33.5%	17.1%	19.4%	33.5%		17.1%	30.0%	19.4%	17.1%	30.0%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1474	352	554	988	543	337	1248	624	555	1682	503
Future Volume (veh/h)	223	1474	352	554	988	543	337	1248	624	555	1682	503
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	245	1620	350	609	1086	0	370	1371	611	610	1848	478
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	1469	635	528	1815		410	1645	638	448	1715	549
Arrive On Green	0.09	0.29	0.29	0.15	0.36	0.00	0.16	0.34	0.34	0.17	0.36	0.36
Sat Flow, veh/h	3428	5066	1540	3428	5066	1572	3428	6383	1537	3428	6383	1541
Grp Volume(v), veh/h	245	1620	350	609	1086	0	370	1371	611	610	1848	478
Grp Sat Flow(s),veh/h/ln	1714	1689	1540	1714	1689	1572	1714	1596	1537	1714	1596	1541
Q Serve(g_s), s	12.0	49.3	29.5	26.2	29.8	0.0	18.0	33.6	43.8	22.2	45.7	45.7
Cycle Q Clear(g_c), s	12.0	49.3	29.5	26.2	29.8	0.0	18.0	33.6	43.8	22.2	45.7	45.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	1469	635	528	1815		410	1645	638	448	1715	549
V/C Ratio(X)	0.83	1.10	0.55	1.15	0.60		0.90	0.83	0.96	1.36	1.08	0.87
Avail Cap(c_a), veh/h	528	1469	635	528	1815		448	1645	638	448	1715	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.5	60.4	38.3	71.9	44.6	0.0	70.5	52.5	44.5	70.2	54.6	45.5
Incr Delay (d2), s/veh	3.8	53.2	0.5	88.6	0.5	0.0	20.2	5.1	26.5	177.1	46.0	17.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.5	37.6	15.7	26.8	18.6	0.0	13.8	19.7	39.5	31.6	32.5	28.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.3	113.6	38.9	160.5	45.0	0.0	90.7	57.7	71.0	247.3	100.7	62.6
LnGrp LOS	F	F	D	F	D		F	E	E	F	F	E
Approach Vol, veh/h		2215			1695	A		2352			2936	
Approach Delay, s/veh		98.1			86.5			66.3			124.9	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.1	52.9	21.4	68.6	29.0	51.0	33.0	57.0
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	22.2	* 44	26.2	* 49	22.2	* 44	26.2	* 49
Max Q Clear Time (g_c+I1), s	20.0	47.7	14.0	31.8	24.2	45.8	28.2	51.3
Green Ext Time (p_c), s	0.3	0.0	0.6	6.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	96.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

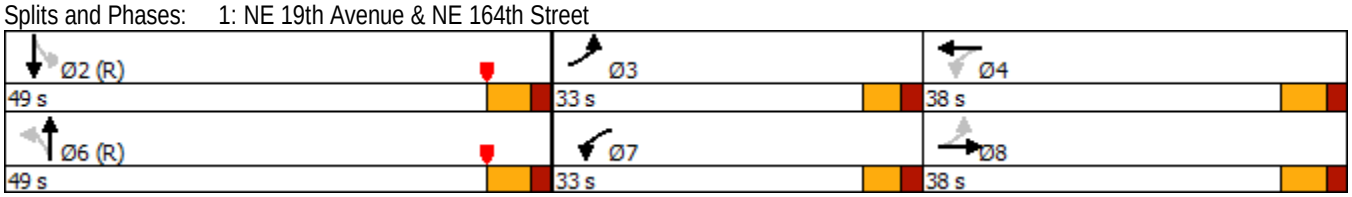
Future Background A.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	118	90	15	61	46	704	88	1084
Future Volume (vph)	118	90	15	61	46	704	88	1084
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	33.0	38.0	33.0	38.0	49.0	49.0	49.0	49.0
Total Split (%)	27.5%	31.7%	27.5%	31.7%	40.8%	40.8%	40.8%	40.8%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	90	23	15	61	40	46	704	30	88	1084	297
Future Volume (veh/h)	118	90	23	15	61	40	46	704	30	88	1084	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	103	24	17	70	33	53	809	32	101	1246	327
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	258	220	51	212	109	51	162	2439	97	471	2576	676
Arrive On Green	0.08	0.17	0.17	0.02	0.10	0.10	0.89	0.89	0.89	0.89	0.89	0.89
Sat Flow, veh/h	1767	1308	305	1767	1064	502	186	3645	145	648	3849	1010
Grp Volume(v), veh/h	136	0	127	17	0	103	227	338	329	101	1093	480
Grp Sat Flow(s),veh/h/ln	1767	0	1613	1767	0	1566	951	1537	1489	648	1689	1482
Q Serve(g_s), s	8.0	0.0	8.5	1.0	0.0	7.6	0.5	4.1	4.1	3.7	7.5	7.5
Cycle Q Clear(g_c), s	8.0	0.0	8.5	1.0	0.0	7.6	8.0	4.1	4.1	7.8	7.5	7.5
Prop In Lane	1.00		0.19	1.00		0.32	0.23		0.10	1.00		0.68
Lane Grp Cap(c), veh/h	258	0	271	212	0	160	673	1028	996	471	2260	992
V/C Ratio(X)	0.53	0.00	0.47	0.08	0.00	0.64	0.34	0.33	0.33	0.21	0.48	0.48
Avail Cap(c_a), veh/h	516	0	430	587	0	418	673	1028	996	471	2260	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	0.0	45.1	46.9	0.0	51.7	2.3	2.4	2.4	3.0	2.6	2.6
Incr Delay (d2), s/veh	0.6	0.0	1.5	0.1	0.0	5.1	0.1	0.1	0.1	1.0	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	6.4	0.8	0.0	5.8	1.1	1.5	1.5	0.8	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	46.6	46.9	0.0	56.9	2.4	2.5	2.5	4.1	3.3	4.3
LnGrp LOS	D	A	D	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h		263			120			894			1674	
Approach Delay, s/veh		44.4			55.4			2.5			3.7	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		86.3	15.4	18.3		86.3	7.6	26.1				
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0				
Max Green Setting (Gmax), s		43.0	27.6	32.0		43.0	27.6	32.0				
Max Q Clear Time (g_c+I1), s		9.8	10.0	9.6		10.0	3.0	10.5				
Green Ext Time (p_c), s		5.9	0.2	0.6		2.8	0.0	0.7				

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	153	37	19	79	2	29	21	64	2	10	5
Future Vol, veh/h	6	153	37	19	79	2	29	21	64	2	10	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	172	42	21	89	2	33	24	72	2	11	6
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.6	8.5	8.4	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	100%	0%	100%	0%	12%
Vol Thru, %	18%	0%	81%	0%	98%	59%
Vol Right, %	56%	0%	19%	0%	2%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	114	6	190	19	81	17
LT Vol	29	6	0	19	0	2
Through Vol	21	0	153	0	79	10
RT Vol	64	0	37	0	2	5
Lane Flow Rate	128	7	213	21	91	19
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.16	0.01	0.288	0.033	0.128	0.025
Departure Headway (Hd)	4.504	5.502	4.863	5.591	5.071	4.775
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	797	651	741	641	708	749
Service Time	2.526	3.227	2.587	3.318	2.797	2.806
HCM Lane V/C Ratio	0.161	0.011	0.287	0.033	0.129	0.025
HCM Control Delay	8.4	8.3	9.6	8.5	8.5	7.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	1.2	0.1	0.4	0.1

Intersection												
Int Delay, s/veh	3.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	199	12	76	84	19	6	10	43	24	2	8
Future Vol, veh/h	8	199	12	76	84	19	6	10	43	24	2	8
Conflicting Peds, #/hr	6	0	3	3	0	6	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	221	13	84	93	21	7	11	48	27	2	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	237	0	0	528	537	232	554	533	112
Stage 1	-	-	-	-	-	-	249	249	-	278	278	-
Stage 2	-	-	-	-	-	-	279	288	-	276	255	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1462	-	-	1324	-	-	712	706	956	694	709	1076
Stage 1	-	-	-	-	-	-	870	906	-	837	877	-
Stage 2	-	-	-	-	-	-	836	867	-	840	900	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1454	-	-	1320	-	-	664	651	952	612	654	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	664	651	-	612	654	-
Stage 1	-	-	-	-	-	-	862	898	-	827	816	-
Stage 2	-	-	-	-	-	-	773	806	-	782	892	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	3.4	9.6	10.6
HCM LOS			A	B

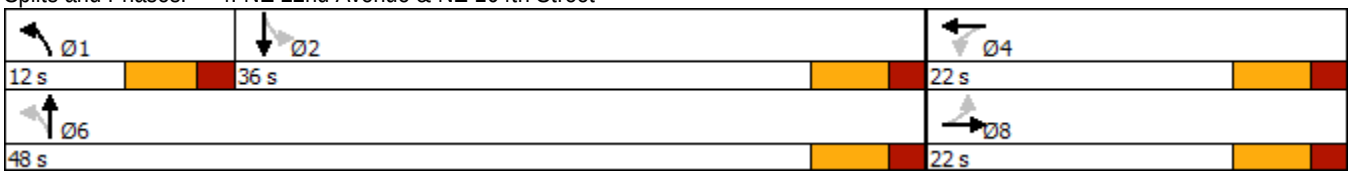
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	848	1454	-	-	1320	-	-	683
HCM Lane V/C Ratio	0.077	0.006	-	-	0.064	-	-	0.055
HCM Control Delay (s)	9.6	7.5	-	-	7.9	-	-	10.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	115	31	7	8	52	620	7	758
Future Volume (vph)	115	31	7	8	52	620	7	758
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	22.0	22.0	22.0	22.0	12.0	48.0	36.0	36.0
Total Split (%)	31.4%	31.4%	31.4%	31.4%	17.1%	68.6%	51.4%	51.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 52.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	31	164	7	8	6	52	620	5	7	758	99
Future Volume (veh/h)	115	31	164	7	8	6	52	620	5	7	758	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	122	33	80	7	9	4	55	660	5	7	806	83
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	383	77	187	158	160	53	416	1961	15	418	1047	108
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	0.58	0.58	0.34	0.34	0.34
Sat Flow, veh/h	1375	477	1156	324	987	328	1767	3401	26	761	3050	314
Grp Volume(v), veh/h	122	0	113	20	0	0	55	342	323	7	466	423
Grp Sat Flow(s),veh/h/ln	1375	0	1632	1639	0	0	1767	1763	1664	761	1763	1601
Q Serve(g_s), s	3.2	0.0	2.9	0.0	0.0	0.0	0.7	4.7	4.7	0.3	10.8	10.8
Cycle Q Clear(g_c), s	3.6	0.0	2.9	0.4	0.0	0.0	0.7	4.7	4.7	0.3	10.8	10.8
Prop In Lane	1.00		0.71	0.35		0.20	1.00		0.02	1.00		0.20
Lane Grp Cap(c), veh/h	383	0	264	371	0	0	416	1016	959	418	605	549
V/C Ratio(X)	0.32	0.00	0.43	0.05	0.00	0.00	0.13	0.34	0.34	0.02	0.77	0.77
Avail Cap(c_a), veh/h	640	0	569	659	0	0	466	1614	1524	655	1153	1047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	17.3	16.3	0.0	0.0	8.0	5.1	5.1	10.0	13.4	13.4
Incr Delay (d2), s/veh	0.4	0.0	0.8	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	1.8	0.3	0.0	0.0	0.4	2.0	1.8	0.1	6.5	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	18.1	16.3	0.0	0.0	8.0	5.2	5.2	10.0	14.2	14.3
LnGrp LOS	B	A	B	B	A	A	A	A	A	A	B	B
Approach Vol, veh/h		235			20			720			896	
Approach Delay, s/veh		18.0			16.3			5.4			14.2	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.7	21.7		13.4		32.4		13.4
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 6.3	30.0		16.0		42.0		16.0
Max Q Clear Time (g_c+I1), s	2.7	12.8		2.4		6.7		5.6
Green Ext Time (p_c), s	0.0	2.0		0.0		1.4		0.6

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

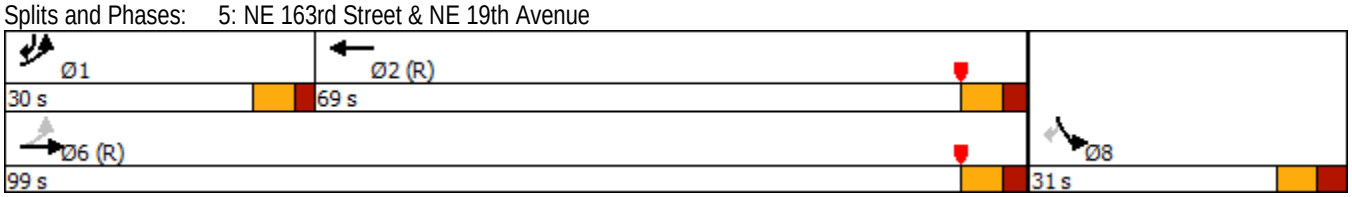
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	476	2001	1599	669	442
Future Volume (vph)	476	2001	1599	669	442
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	30.0	99.0	69.0	31.0	30.0
Total Split (%)	23.1%	76.2%	53.1%	23.8%	23.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 92 (71%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	476	2001	1599	308	669	442
Future Volume (veh/h)	476	2001	1599	308	669	442
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	491	2063	1648	298	690	258
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	426	3604	2075	373	633	581
Arrive On Green	0.25	0.95	0.64	0.64	0.18	0.18
Sat Flow, veh/h	1767	5233	4484	775	3428	1572
Grp Volume(v), veh/h	491	2063	1287	659	690	258
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1715	1714	1572
Q Serve(g_s), s	24.0	6.2	36.2	36.8	24.0	16.1
Cycle Q Clear(g_c), s	24.0	6.2	36.2	36.8	24.0	16.1
Prop In Lane	1.00			0.45	1.00	1.00
Lane Grp Cap(c), veh/h	426	3604	1624	825	633	581
V/C Ratio(X)	1.15	0.57	0.79	0.80	1.09	0.44
Avail Cap(c_a), veh/h	426	3604	1624	825	633	581
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.85	0.85
Uniform Delay (d), s/veh	35.2	1.2	18.7	18.8	53.0	30.9
Incr Delay (d2), s/veh	92.3	0.7	4.1	8.0	60.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	33.2	2.3	18.8	20.4	22.6	10.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	127.5	1.8	22.8	26.8	113.3	31.3
LnGrp LOS	F	A	C	C	F	C
Approach Vol, veh/h		2554	1946		948	
Approach Delay, s/veh		26.0	24.1		90.9	
Approach LOS		C	C		F	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	30.0	69.0				99.0	31.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	24.0	62.5				92.5	24.0
Max Q Clear Time (g_c+I1), s	26.0	38.8				8.2	26.0
Green Ext Time (p_c), s	0.0	6.7				9.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection													
Int Delay, s/veh	5.8												

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	29	115	2418	7	0	1894	38	0	0	1	0	0	38
Future Vol, veh/h	29	115	2418	7	0	1894	38	0	0	1	0	0	38
Conflicting Peds, #/hr	0	0	0	3	3	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	30	120	2519	7	0	1973	40	0	0	1	0	0	40

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1469	2013	0	0	-	-	0	-	-	1270	-	-	1007
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	238	122	-	-	0	-	-	0	0	333	0	0	438
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	134	134	-	-	-	-	-	-	-	331	-	-	438
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	0	15.9	14
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	331	134	-	-	-	-	438
HCM Lane V/C Ratio	0.003	1.119	-	-	-	-	0.09
HCM Control Delay (s)	15.9	178.8	-	-	-	-	14
HCM Lane LOS	C	F	-	-	-	-	B
HCM 95th %tile Q(veh)	0	8.6	-	-	-	-	0.3

Intersection														
Int Delay, s/veh	1.2													

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	2	46	2302	120	2	21	1747	24	0	0	7	0	0	52
Future Vol, veh/h	2	46	2302	120	2	21	1747	24	0	0	7	0	0	52
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	49	2475	129	2	23	1878	26	0	0	8	0	0	56

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1390	1904	0	0	1901	2611	0	0	-	-	1311	-	-	952
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	263	138	-	-	135	60	-	-	0	0	319	0	0	463
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	140	140	-	-	63	63	-	-	-	-	316	-	-	463
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.2	16.7	13.8
HCM LOS			C	B

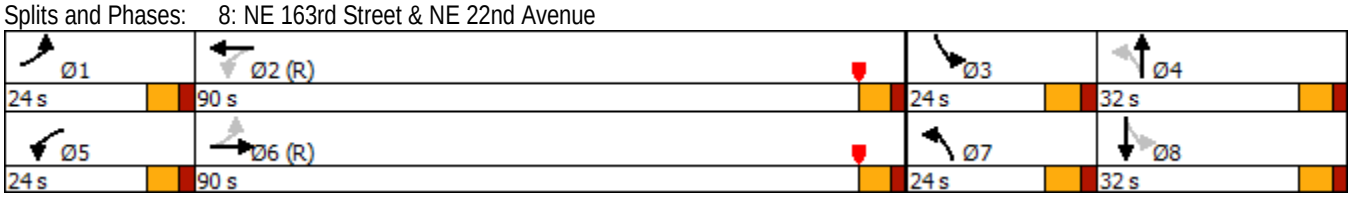
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	316	140	-	-	63	-	-	463
HCM Lane V/C Ratio	0.024	0.369	-	-	0.393	-	-	0.121
HCM Control Delay (s)	16.7	44.8	-	-	95.1	-	-	13.8
HCM Lane LOS	C	E	-	-	F	-	-	B
HCM 95th %tile Q(veh)	0.1	1.5	-	-	1.5	-	-	0.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	1956	639	1625	187	443	240	600
Future Volume (vph)	76	1956	639	1625	187	443	240	600
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	1956	133	639	1625	131	187	443	313	240	600	87
Future Volume (veh/h)	76	1956	133	639	1625	131	187	443	313	240	600	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	78	1996	136	652	1658	129	191	452	257	245	612	74
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	2391	162	263	2713	211	223	323	182	225	479	58
Arrive On Green	0.04	0.66	0.66	0.14	0.75	0.75	0.10	0.15	0.15	0.10	0.15	0.15
Sat Flow, veh/h	1767	4839	328	1767	4787	372	1767	2148	1211	1767	3156	381
Grp Volume(v), veh/h	78	1390	742	652	1169	618	191	370	339	245	341	345
Grp Sat Flow(s),veh/h/ln	1767	1689	1790	1767	1689	1782	1767	1763	1596	1767	1763	1775
Q Serve(g_s), s	3.7	53.0	53.9	18.0	26.8	26.9	15.4	25.6	25.6	17.6	25.8	25.8
Cycle Q Clear(g_c), s	3.7	53.0	53.9	18.0	26.8	26.9	15.4	25.6	25.6	17.6	25.8	25.8
Prop In Lane	1.00		0.18	1.00		0.21	1.00		0.76	1.00		0.21
Lane Grp Cap(c), veh/h	208	1669	884	263	1914	1010	223	265	240	225	268	269
V/C Ratio(X)	0.37	0.83	0.84	2.48	0.61	0.61	0.86	1.40	1.41	1.09	1.28	1.28
Avail Cap(c_a), veh/h	337	1669	884	263	1914	1010	225	265	240	225	268	269
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.53	0.53	0.53
Uniform Delay (d), s/veh	20.5	23.8	24.0	49.5	12.4	12.4	55.1	72.2	72.2	57.1	72.1	72.1
Incr Delay (d2), s/veh	0.4	5.0	9.4	667.9	0.1	0.3	24.9	199.1	207.2	69.2	138.6	140.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	27.5	30.5	82.0	9.9	10.5	13.3	39.9	37.4	17.6	31.0	31.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	28.9	33.4	717.4	12.5	12.6	80.0	271.3	279.4	126.3	210.7	212.6
LnGrp LOS	C	C	C	F	B	B	F	F	F	F	F	F
Approach Vol, veh/h		2210			2439			900			931	
Approach Delay, s/veh		30.1			201.0			233.8			189.2	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	102.4	24.0	32.0	24.0	90.0	23.8	32.2
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	5.7	28.9	19.6	27.6	20.0	55.9	17.4	27.8
Green Ext Time (p_c), s	0.1	6.1	0.0	0.0	0.0	7.8	0.0	0.0

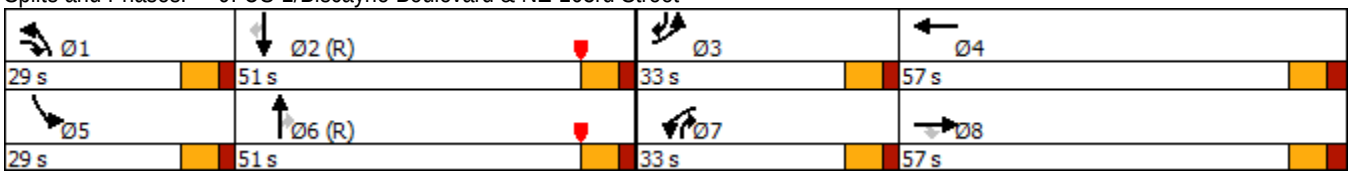
Intersection Summary	
HCM 6th Ctrl Delay	145.6
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	1769	406	662	1281	620	400	1444	719	641	1888	737
Future Volume (vph)	401	1769	406	662	1281	620	400	1444	719	641	1888	737
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	57.0	29.0	33.0	57.0		29.0	51.0	33.0	29.0	51.0	33.0
Total Split (%)	19.4%	33.5%	17.1%	19.4%	33.5%		17.1%	30.0%	19.4%	17.1%	30.0%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	401	1769	406	662	1281	620	400	1444	719	641	1888	737
Future Volume (veh/h)	401	1769	406	662	1281	620	400	1444	719	641	1888	737
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	441	1944	409	727	1408	0	440	1587	715	704	2075	735
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	484	1469	652	528	1534		448	1645	638	448	1645	619
Arrive On Green	0.14	0.29	0.29	0.15	0.30	0.00	0.17	0.34	0.34	0.17	0.34	0.34
Sat Flow, veh/h	3428	5066	1540	3428	5066	1572	3428	6383	1537	3428	6383	1540
Grp Volume(v), veh/h	441	1944	409	727	1408	0	440	1587	715	704	2075	735
Grp Sat Flow(s),veh/h/ln	1714	1689	1540	1714	1689	1572	1714	1596	1537	1714	1596	1540
Q Serve(g_s), s	21.5	49.3	35.6	26.2	45.6	0.0	21.7	41.5	43.8	22.2	43.8	43.8
Cycle Q Clear(g_c), s	21.5	49.3	35.6	26.2	45.6	0.0	21.7	41.5	43.8	22.2	43.8	43.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	484	1469	652	528	1534		448	1645	638	448	1645	619
V/C Ratio(X)	0.91	1.32	0.63	1.38	0.92		0.98	0.96	1.12	1.57	1.26	1.19
Avail Cap(c_a), veh/h	528	1469	652	528	1534		448	1645	638	448	1645	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.34	0.34	0.34	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	60.4	38.9	71.9	57.2	0.0	70.0	55.1	46.0	70.2	55.9	46.8
Incr Delay (d2), s/veh	7.9	147.2	0.6	180.8	9.1	0.0	37.9	15.3	73.3	268.2	122.8	99.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.1	56.1	17.3	37.8	28.3	0.0	17.3	24.8	54.8	40.8	45.6	60.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	207.5	39.4	252.7	66.3	0.0	108.0	70.4	119.3	338.5	178.7	146.6
LnGrp LOS	E	F	D	F	E		F	E	F	F	F	F
Approach Vol, veh/h		2794			2135	A		2742			3514	
Approach Delay, s/veh		162.8			129.8			89.2			204.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	51.0	30.8	59.2	29.0	51.0	33.0	57.0
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	22.2	* 44	26.2	* 49	22.2	* 44	26.2	* 49
Max Q Clear Time (g_c+I1), s	23.7	45.8	23.5	47.6	24.2	45.8	28.2	51.3
Green Ext Time (p_c), s	0.0	0.0	0.5	1.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	151.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

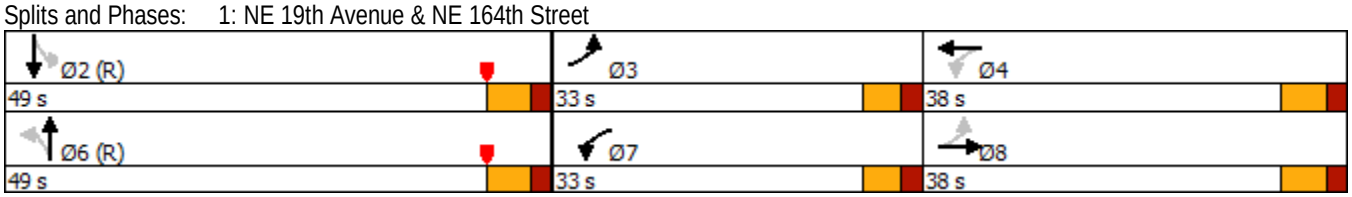
Future Total A.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	118	90	15	61	46	704	96	1084
Future Volume (vph)	118	90	15	61	46	704	96	1084
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	33.0	38.0	33.0	38.0	49.0	49.0	49.0	49.0
Total Split (%)	27.5%	31.7%	27.5%	31.7%	40.8%	40.8%	40.8%	40.8%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	90	23	15	61	53	46	704	30	96	1084	297
Future Volume (veh/h)	118	90	23	15	61	53	46	704	30	96	1084	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	103	24	17	70	48	53	809	32	110	1246	327
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	255	232	54	225	103	71	159	2395	95	463	2539	666
Arrive On Green	0.08	0.18	0.18	0.02	0.11	0.11	0.88	0.88	0.88	0.88	0.88	0.88
Sat Flow, veh/h	1767	1308	305	1767	914	627	185	3631	144	648	3849	1010
Grp Volume(v), veh/h	136	0	127	17	0	118	224	340	330	110	1093	480
Grp Sat Flow(s),veh/h/ln	1767	0	1613	1767	0	1541	935	1537	1489	648	1689	1482
Q Serve(g_s), s	7.9	0.0	8.4	1.0	0.0	8.8	1.0	4.6	4.6	4.6	8.4	8.4
Cycle Q Clear(g_c), s	7.9	0.0	8.4	1.0	0.0	8.8	9.4	4.6	4.6	9.2	8.4	8.4
Prop In Lane	1.00		0.19	1.00		0.41	0.24		0.10	1.00		0.68
Lane Grp Cap(c), veh/h	255	0	286	225	0	173	654	1014	982	463	2228	978
V/C Ratio(X)	0.53	0.00	0.44	0.08	0.00	0.68	0.34	0.33	0.34	0.24	0.49	0.49
Avail Cap(c_a), veh/h	515	0	430	600	0	411	654	1014	982	463	2228	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	0.0	44.1	45.8	0.0	51.2	2.7	2.8	2.8	3.6	3.0	3.0
Incr Delay (d2), s/veh	0.6	0.0	1.3	0.1	0.0	5.6	0.1	0.1	0.1	1.2	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.3	0.0	6.3	0.8	0.0	6.6	1.2	1.7	1.6	1.0	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	45.4	45.9	0.0	56.7	2.8	2.9	2.9	4.8	3.8	4.8
LnGrp LOS	D	A	D	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h		263			135			894			1683	
Approach Delay, s/veh		43.4			55.4			2.8			4.1	
Approach LOS		D			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		85.2	15.3	19.5		85.2	7.6	27.3
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0
Max Green Setting (Gmax), s		43.0	27.6	32.0		43.0	27.6	32.0
Max Q Clear Time (g_c+I1), s		11.2	9.9	10.8		11.4	3.0	10.4
Green Ext Time (p_c), s		5.9	0.2	0.7		2.8	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	161	37	19	92	2	29	21	64	2	10	5
Future Vol, veh/h	6	161	37	19	92	2	29	21	64	2	10	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	181	42	21	103	2	33	24	72	2	11	6
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	8.7	8.5	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	100%	0%	100%	0%	12%
Vol Thru, %	18%	0%	81%	0%	98%	59%
Vol Right, %	56%	0%	19%	0%	2%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	114	6	198	19	94	17
LT Vol	29	6	0	19	0	2
Through Vol	21	0	161	0	92	10
RT Vol	64	0	37	0	2	5
Lane Flow Rate	128	7	222	21	106	19
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.162	0.01	0.302	0.033	0.149	0.026
Departure Headway (Hd)	4.561	5.518	4.884	5.602	5.084	4.836
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	786	649	736	639	706	739
Service Time	2.588	3.247	2.613	3.333	2.815	2.873
HCM Lane V/C Ratio	0.163	0.011	0.302	0.033	0.15	0.026
HCM Control Delay	8.5	8.3	9.7	8.5	8.7	8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	1.3	0.1	0.5	0.1

Intersection												
Int Delay, s/veh	3.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	199	20	79	84	19	19	10	83	24	2	8
Future Vol, veh/h	8	199	20	79	84	19	19	10	83	24	2	8
Conflicting Peds, #/hr	6	0	3	3	0	6	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	221	22	88	93	21	21	11	92	27	2	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	246	0	0	540	549	236	589	550	112
Stage 1	-	-	-	-	-	-	253	253	-	286	286	-
Stage 2	-	-	-	-	-	-	287	296	-	303	264	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1462	-	-	1314	-	-	704	698	952	670	697	1076
Stage 1	-	-	-	-	-	-	865	902	-	829	869	-
Stage 2	-	-	-	-	-	-	828	859	-	811	891	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1454	-	-	1310	-	-	654	641	948	560	641	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	654	641	-	560	641	-
Stage 1	-	-	-	-	-	-	857	894	-	819	806	-
Stage 2	-	-	-	-	-	-	762	796	-	718	883	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	3.4	10	11
HCM LOS			B	B

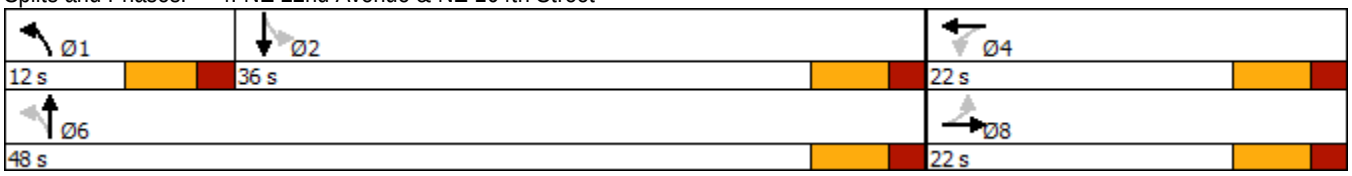
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	847	1454	-	-	1310	-	-	636
HCM Lane V/C Ratio	0.147	0.006	-	-	0.067	-	-	0.059
HCM Control Delay (s)	10	7.5	-	-	7.9	-	-	11
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	31	7	8	52	620	7	758
Future Volume (vph)	131	31	7	8	52	620	7	758
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	22.0	22.0	22.0	22.0	12.0	48.0	36.0	36.0
Total Split (%)	31.4%	31.4%	31.4%	31.4%	17.1%	68.6%	51.4%	51.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 53.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



HCM 6th Signalized Intersection Summary
4: NE 22nd Avenue & NE 164th Street

Future Total Conditions
A.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	31	188	7	8	6	52	620	5	7	758	102
Future Volume (veh/h)	131	31	188	7	8	6	52	620	5	7	758	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	139	33	106	7	9	4	55	660	5	7	806	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	411	63	202	151	151	49	414	1960	15	418	1044	113
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	0.58	0.58	0.34	0.34	0.34
Sat Flow, veh/h	1378	384	1233	277	922	300	1767	3401	26	761	3033	327
Grp Volume(v), veh/h	139	0	139	20	0	0	55	342	323	7	468	425
Grp Sat Flow(s),veh/h/ln	1378	0	1617	1499	0	0	1767	1763	1664	761	1763	1598
Q Serve(g_s), s	0.0	0.0	3.6	0.0	0.0	0.0	0.7	4.7	4.7	0.3	10.9	10.9
Cycle Q Clear(g_c), s	3.3	0.0	3.6	3.6	0.0	0.0	0.7	4.7	4.7	0.3	10.9	10.9
Prop In Lane	1.00		0.76	0.35		0.20	1.00		0.02	1.00		0.20
Lane Grp Cap(c), veh/h	411	0	264	350	0	0	414	1016	959	418	606	550
V/C Ratio(X)	0.34	0.00	0.53	0.06	0.00	0.00	0.13	0.34	0.34	0.02	0.77	0.77
Avail Cap(c_a), veh/h	664	0	561	631	0	0	464	1606	1517	652	1147	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	17.6	16.3	0.0	0.0	8.0	5.1	5.1	10.0	13.5	13.5
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.0	2.3	0.3	0.0	0.0	0.4	2.0	1.9	0.1	6.6	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	18.8	16.4	0.0	0.0	8.1	5.2	5.2	10.0	14.3	14.4
LnGrp LOS	B	A	B	B	A	A	A	A	A	B	B	B
Approach Vol, veh/h		278			20			720			900	
Approach Delay, s/veh		18.4			16.4			5.4			14.3	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.7	21.9		13.5		32.6		13.5
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 6.3	30.0		16.0		42.0		16.0
Max Q Clear Time (g_c+I1), s	2.7	12.9		5.6		6.7		5.6
Green Ext Time (p_c), s	0.0	2.0		0.0		1.4		0.7

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

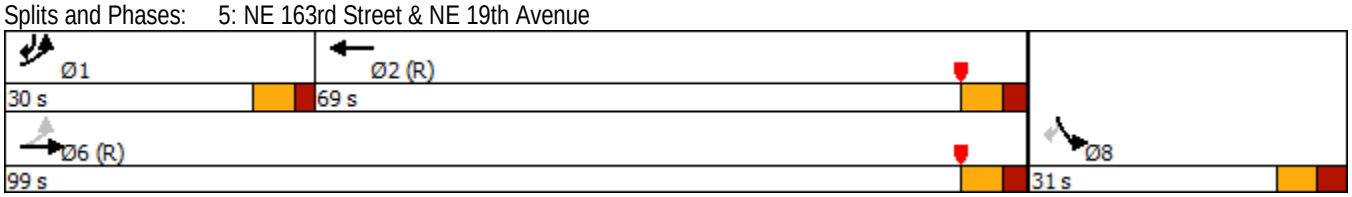
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	476	2013	1619	669	442
Future Volume (vph)	476	2013	1619	669	442
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	30.0	99.0	69.0	31.0	30.0
Total Split (%)	23.1%	76.2%	53.1%	23.8%	23.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 92 (71%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	476	2013	1619	308	669	442
Future Volume (veh/h)	476	2013	1619	308	669	442
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	491	2075	1669	298	690	258
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	424	3604	2080	369	633	581
Arrive On Green	0.25	0.95	0.64	0.64	0.18	0.18
Sat Flow, veh/h	1767	5233	4494	767	3428	1572
Grp Volume(v), veh/h	491	2075	1300	667	690	258
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1717	1714	1572
Q Serve(g_s), s	24.0	6.3	37.0	37.7	24.0	16.1
Cycle Q Clear(g_c), s	24.0	6.3	37.0	37.7	24.0	16.1
Prop In Lane	1.00			0.45	1.00	1.00
Lane Grp Cap(c), veh/h	424	3604	1624	825	633	581
V/C Ratio(X)	1.16	0.58	0.80	0.81	1.09	0.44
Avail Cap(c_a), veh/h	424	3604	1624	825	633	581
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.84	0.84
Uniform Delay (d), s/veh	35.5	1.2	18.8	19.0	53.0	30.9
Incr Delay (d2), s/veh	94.8	0.7	4.3	8.4	60.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	33.4	2.3	19.1	20.8	22.5	9.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	130.3	1.8	23.1	27.3	113.1	31.3
LnGrp LOS	F	A	C	C	F	C
Approach Vol, veh/h		2566	1967		948	
Approach Delay, s/veh		26.4	24.5		90.8	
Approach LOS		C	C		F	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	30.0	69.0				99.0	31.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	24.0	62.5				92.5	24.0
Max Q Clear Time (g_c+I1), s	26.0	39.7				8.3	26.0
Green Ext Time (p_c), s	0.0	6.7				9.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Int Delay, s/veh	6.1

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	29	115	2430	7	0	1914	38	0	0	1	0	0	38
Future Vol, veh/h	29	115	2430	7	0	1914	38	0	0	1	0	0	38
Conflicting Peds, #/hr	0	0	0	3	3	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	30	120	2531	7	0	1994	40	0	0	1	0	0	40

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1484	2034	0	0	-	-	0	-	-	1276	-	-	1017
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	233	~ 119	-	-	0	-	-	0	0	331	0	0	433
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	131	131	-	-	-	-	-	-	-	329	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	0	16	14.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	329	131	-	-	-	-	433
HCM Lane V/C Ratio	0.003	1.145	-	-	-	-	0.091
HCM Control Delay (s)	16	189.9	-	-	-	-	14.1
HCM Lane LOS	C	F	-	-	-	-	B
HCM 95th %tile Q(veh)	0	8.8	-	-	-	-	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection														
Int Delay, s/veh	1.5													

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	2	58	2302	120	2	21	1747	44	0	0	7	0	0	72
Future Vol, veh/h	2	58	2302	120	2	21	1747	44	0	0	7	0	0	72
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	62	2475	129	2	23	1878	47	0	0	8	0	0	77

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1406	1925	0	0	1901	2611	0	0	-	-	1311	-	-	963
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	258	135	-	-	135	60	-	-	0	0	319	0	0	458
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	137	137	-	-	63	63	-	-	-	-	316	-	-	458
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1.2	16.7	14.5
HCM LOS			C	B

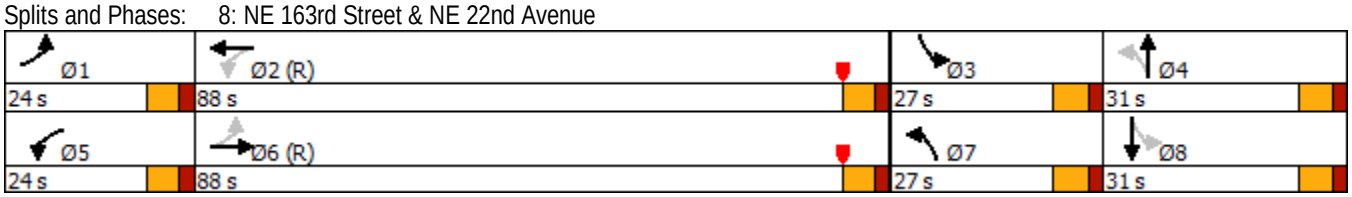
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	316	137	-	-	63	-	-	458
HCM Lane V/C Ratio	0.024	0.471	-	-	0.393	-	-	0.169
HCM Control Delay (s)	16.7	52.9	-	-	95.1	-	-	14.5
HCM Lane LOS	C	F	-	-	F	-	-	B
HCM 95th %tile Q(veh)	0.1	2.2	-	-	1.5	-	-	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	1956	639	1642	190	443	258	606
Future Volume (vph)	76	1956	639	1642	190	443	258	606
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	88.0	24.0	88.0	27.0	31.0	27.0	31.0
Total Split (%)	14.1%	51.8%	14.1%	51.8%	15.9%	18.2%	15.9%	18.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	1956	133	639	1642	131	190	443	313	258	606	87
Future Volume (veh/h)	76	1956	133	639	1642	131	190	443	313	258	606	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	78	1996	136	652	1676	129	194	452	257	263	618	74
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	2334	158	258	2657	204	227	311	175	256	509	61
Arrive On Green	0.04	0.64	0.64	0.14	0.74	0.74	0.10	0.14	0.14	0.12	0.16	0.16
Sat Flow, veh/h	1767	4839	328	1767	4791	368	1767	2147	1210	1767	3161	378
Grp Volume(v), veh/h	78	1390	742	652	1181	624	194	370	339	263	344	348
Grp Sat Flow(s),veh/h/ln	1767	1689	1790	1767	1689	1782	1767	1763	1595	1767	1763	1776
Q Serve(g_s), s	3.8	55.4	56.3	18.0	29.1	29.3	15.7	24.6	24.6	20.6	27.4	27.4
Cycle Q Clear(g_c), s	3.8	55.4	56.3	18.0	29.1	29.3	15.7	24.6	24.6	20.6	27.4	27.4
Prop In Lane	1.00		0.18	1.00		0.21	1.00		0.76	1.00		0.21
Lane Grp Cap(c), veh/h	201	1629	863	258	1873	988	227	255	231	256	284	286
V/C Ratio(X)	0.39	0.85	0.86	2.53	0.63	0.63	0.85	1.45	1.47	1.03	1.21	1.22
Avail Cap(c_a), veh/h	328	1629	863	258	1873	988	256	255	231	256	284	286
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.53	0.53	0.53
Uniform Delay (d), s/veh	21.8	25.7	25.9	50.5	13.8	13.8	55.6	72.7	72.7	55.9	71.3	71.3
Incr Delay (d2), s/veh	0.5	5.9	10.9	689.2	0.1	0.3	19.5	224.0	232.4	47.5	111.7	113.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	29.0	32.3	74.8	11.0	11.6	13.1	41.3	38.6	17.4	29.5	29.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	31.6	36.8	739.7	13.9	14.1	75.1	296.7	305.1	103.4	183.0	184.6
LnGrp LOS	C	C	D	F	B	B	E	F	F	F	F	F
Approach Vol, veh/h		2210			2457			903			955	
Approach Delay, s/veh		33.0			206.5			252.3			161.7	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	100.3	27.0	31.0	24.0	88.0	24.2	33.8
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	82.0	20.6	24.6	18.0	82.0	20.6	24.6
Max Q Clear Time (g_c+I1), s	5.8	31.3	22.6	26.6	20.0	58.3	17.7	29.4
Green Ext Time (p_c), s	0.1	6.2	0.0	0.0	0.0	7.5	0.1	0.0

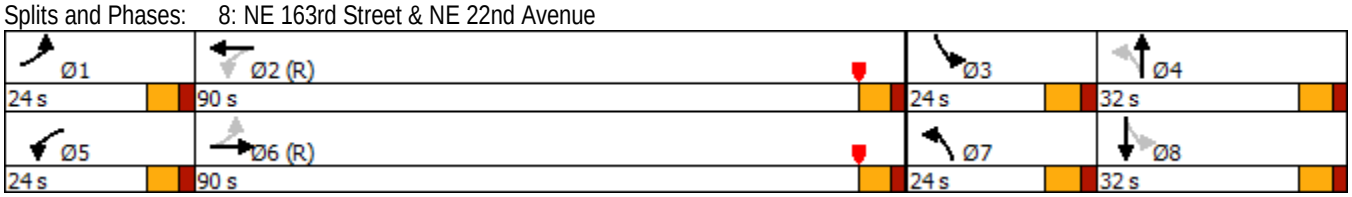
Intersection Summary	
HCM 6th Ctrl Delay	147.5
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	1956	639	1642	190	443	258	606
Future Volume (vph)	76	1956	639	1642	190	443	258	606
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	1956	133	639	1642	131	190	443	313	258	606	87
Future Volume (veh/h)	76	1956	133	639	1642	131	190	443	313	258	606	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	78	1996	136	652	1676	129	194	452	257	263	618	74
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	206	2391	162	263	2716	209	225	323	182	225	476	57
Arrive On Green	0.04	0.66	0.66	0.14	0.75	0.75	0.10	0.15	0.15	0.10	0.15	0.15
Sat Flow, veh/h	1767	4839	328	1767	4791	368	1767	2148	1211	1767	3160	378
Grp Volume(v), veh/h	78	1390	742	652	1181	624	194	370	339	263	344	348
Grp Sat Flow(s),veh/h/ln	1767	1689	1790	1767	1689	1782	1767	1763	1596	1767	1763	1775
Q Serve(g_s), s	3.7	53.0	53.9	18.0	27.3	27.4	15.6	25.6	25.6	17.6	25.6	25.6
Cycle Q Clear(g_c), s	3.7	53.0	53.9	18.0	27.3	27.4	15.6	25.6	25.6	17.6	25.6	25.6
Prop In Lane	1.00		0.18	1.00		0.21	1.00		0.76	1.00		0.21
Lane Grp Cap(c), veh/h	206	1669	884	263	1914	1010	225	265	240	225	265	267
V/C Ratio(X)	0.38	0.83	0.84	2.48	0.62	0.62	0.86	1.40	1.41	1.17	1.30	1.30
Avail Cap(c_a), veh/h	334	1669	884	263	1914	1010	225	265	240	225	265	267
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.53	0.53	0.53
Uniform Delay (d), s/veh	20.6	23.8	24.0	49.5	12.4	12.4	55.0	72.2	72.2	57.1	72.2	72.2
Incr Delay (d2), s/veh	0.4	5.0	9.4	667.9	0.1	0.3	26.0	199.1	207.2	98.0	147.6	149.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	27.5	30.5	74.2	10.1	10.6	13.5	39.9	37.4	20.3	31.8	32.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	28.9	33.4	717.4	12.6	12.7	81.1	271.3	279.4	155.0	219.8	221.7
LnGrp LOS	C	C	C	F	B	B	F	F	F	F	F	F
Approach Vol, veh/h		2210			2457			903			955	
Approach Delay, s/veh		30.1			199.6			233.5			202.7	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	102.4	24.0	32.0	24.0	90.0	24.0	32.0
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	5.7	29.4	19.6	27.6	20.0	55.9	17.6	27.6
Green Ext Time (p_c), s	0.1	6.2	0.0	0.0	0.0	7.8	0.0	0.0

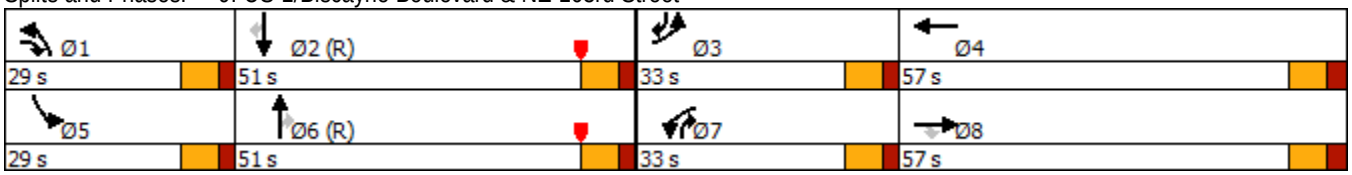
Intersection Summary	
HCM 6th Ctrl Delay	147.3
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	1775	418	662	1285	620	407	1444	719	641	1888	743
Future Volume (vph)	401	1775	418	662	1285	620	407	1444	719	641	1888	743
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	57.0	29.0	33.0	57.0		29.0	51.0	33.0	29.0	51.0	33.0
Total Split (%)	19.4%	33.5%	17.1%	19.4%	33.5%		17.1%	30.0%	19.4%	17.1%	30.0%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



HCM 6th Signalized Intersection Summary
9: US-1/Biscayne Boulevard & NE 163rd Street

Future Total Conditions
A.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	401	1775	418	662	1285	620	407	1444	719	641	1888	743
Future Volume (veh/h)	401	1775	418	662	1285	620	407	1444	719	641	1888	743
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	441	1951	422	727	1412	0	447	1587	715	704	2075	741
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	484	1469	652	528	1534		448	1645	638	448	1645	619
Arrive On Green	0.14	0.29	0.29	0.15	0.30	0.00	0.17	0.34	0.34	0.17	0.34	0.34
Sat Flow, veh/h	3428	5066	1540	3428	5066	1572	3428	6383	1537	3428	6383	1540
Grp Volume(v), veh/h	441	1951	422	727	1412	0	447	1587	715	704	2075	741
Grp Sat Flow(s),veh/h/ln	1714	1689	1540	1714	1689	1572	1714	1596	1537	1714	1596	1540
Q Serve(g_s), s	21.5	49.3	37.2	26.2	45.8	0.0	22.2	41.5	43.8	22.2	43.8	43.8
Cycle Q Clear(g_c), s	21.5	49.3	37.2	26.2	45.8	0.0	22.2	41.5	43.8	22.2	43.8	43.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	484	1469	652	528	1534		448	1645	638	448	1645	619
V/C Ratio(X)	0.91	1.33	0.65	1.38	0.92		1.00	0.96	1.12	1.57	1.26	1.20
Avail Cap(c_a), veh/h	528	1469	652	528	1534		448	1645	638	448	1645	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.32	0.32	0.32	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	60.4	39.3	71.9	57.3	0.0	70.2	55.1	46.0	70.2	55.9	46.8
Incr Delay (d2), s/veh	7.5	149.2	0.7	180.8	9.3	0.0	42.1	15.3	73.3	268.2	122.8	103.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.0	56.3	17.9	37.8	28.4	0.0	17.8	24.8	54.8	40.8	45.6	61.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.5	209.6	40.0	252.7	66.6	0.0	112.3	70.4	119.3	338.5	178.7	150.5
LnGrp LOS	E	F	D	F	E		F	E	F	F	F	F
Approach Vol, veh/h		2814			2139	A		2749			3520	
Approach Delay, s/veh		163.7			129.9			89.9			204.7	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	51.0	30.8	59.2	29.0	51.0	33.0	57.0
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	22.2	* 44	26.2	* 49	22.2	* 44	26.2	* 49
Max Q Clear Time (g_c+I1), s	24.2	45.8	23.5	47.8	24.2	45.8	28.2	51.3
Green Ext Time (p_c), s	0.0	0.0	0.5	1.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	152.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	20	32	64	71	11
Future Vol, veh/h	53	20	32	64	71	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	58	22	35	70	77	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	223	83	89	0	-	0
Stage 1	83	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	5	5	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3	3	2.227	-	-	-
Pot Cap-1 Maneuver	965	1107	1500	-	-	-
Stage 1	1096	-	-	-	-	-
Stage 2	1029	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	942	1107	1500	-	-	-
Mov Cap-2 Maneuver	942	-	-	-	-	-
Stage 1	1070	-	-	-	-	-
Stage 2	1029	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	982	-	-
HCM Lane V/C Ratio	0.023	-	0.081	-	-
HCM Control Delay (s)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

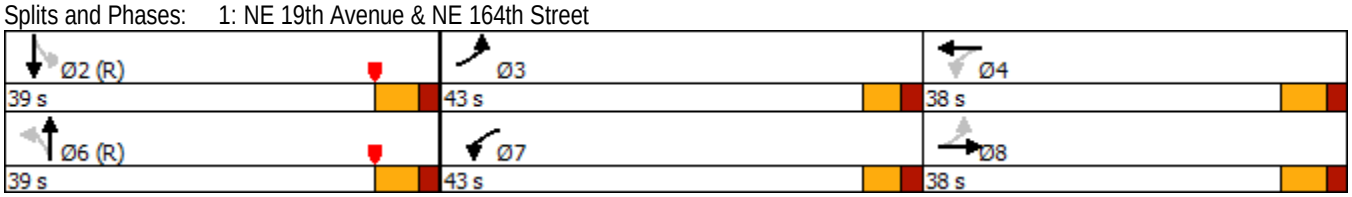
Existing P.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	152	96	16	112	27	693	52	862
Future Volume (vph)	152	96	16	112	27	693	52	862
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	38.0	43.0	38.0	39.0	39.0	39.0	39.0
Total Split (%)	35.8%	31.7%	35.8%	31.7%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	96	23	16	112	62	27	693	11	52	862	206
Future Volume (veh/h)	152	96	23	16	112	62	27	693	11	52	862	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	163	103	25	17	120	48	29	745	12	56	927	205
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	277	284	69	271	163	65	107	2698	44	463	2463	542
Arrive On Green	0.09	0.22	0.22	0.02	0.14	0.14	0.82	0.82	0.82	0.82	0.82	0.82
Sat Flow, veh/h	1767	1293	314	1767	1131	453	120	4373	71	698	3992	879
Grp Volume(v), veh/h	163	0	128	17	0	168	269	261	256	56	784	348
Grp Sat Flow(s),veh/h/ln	1767	0	1607	1767	0	1584	1523	1537	1504	698	1689	1494
Q Serve(g_s), s	9.1	0.0	8.1	1.0	0.0	12.2	0.0	4.7	4.7	2.5	7.2	7.3
Cycle Q Clear(g_c), s	9.1	0.0	8.1	1.0	0.0	12.2	3.9	4.7	4.7	7.2	7.2	7.3
Prop In Lane	1.00		0.20	1.00		0.29	0.11		0.05	1.00		0.59
Lane Grp Cap(c), veh/h	277	0	353	271	0	228	973	948	928	463	2084	922
V/C Ratio(X)	0.59	0.00	0.36	0.06	0.00	0.74	0.28	0.28	0.28	0.12	0.38	0.38
Avail Cap(c_a), veh/h	665	0	428	793	0	422	973	948	928	463	2084	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.16	0.16	0.16	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	39.7	42.5	0.0	49.2	4.5	4.5	4.5	5.4	4.8	4.8
Incr Delay (d2), s/veh	0.7	0.0	0.8	0.0	0.0	5.5	0.1	0.1	0.1	0.5	0.5	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	0.0	5.9	0.8	0.0	8.9	2.1	2.1	2.1	0.7	3.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	40.4	42.6	0.0	54.6	4.6	4.7	4.7	5.9	5.3	6.0
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		291			185			786			1188	
Approach Delay, s/veh		39.3			53.5			4.6			5.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		80.0	16.7	23.3		80.0	7.6	32.4				
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0				
Max Green Setting (Gmax), s		33.0	37.6	32.0		33.0	37.6	32.0				
Max Q Clear Time (g_c+I1), s		9.3	11.1	14.2		6.7	3.0	10.1				
Green Ext Time (p_c), s		3.5	0.2	1.0		1.9	0.0	0.8				

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	116	33	18	127	5	57	72	48	7	7	2
Future Vol, veh/h	9	116	33	18	127	5	57	72	48	7	7	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	10	129	37	20	141	6	63	80	53	8	8	2
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.4	9.3	9.4	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	100%	0%	100%	0%	44%
Vol Thru, %	41%	0%	78%	0%	96%	44%
Vol Right, %	27%	0%	22%	0%	4%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	177	9	149	18	132	16
LT Vol	57	9	0	18	0	7
Through Vol	72	0	116	0	127	7
RT Vol	48	0	33	0	5	2
Lane Flow Rate	197	10	166	20	147	18
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.259	0.016	0.234	0.032	0.213	0.025
Departure Headway (Hd)	4.732	5.749	5.089	5.751	5.221	5.084
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	757	621	704	621	685	700
Service Time	2.77	3.497	2.837	3.5	2.969	3.142
HCM Lane V/C Ratio	0.26	0.016	0.236	0.032	0.215	0.026
HCM Control Delay	9.4	8.6	9.4	8.7	9.4	8.3
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	1	0	0.9	0.1	0.8	0.1

Intersection												
Int Delay, s/veh	3.2											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	145	19	51	134	16	15	19	41	21	5	5
Future Vol, veh/h	9	145	19	51	134	16	15	19	41	21	5	5
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	3	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	10	163	21	57	151	18	17	21	46	24	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	191	0	0	483	484	184	504	485	162
Stage 1	-	-	-	-	-	-	201	201	-	274	274	-
Stage 2	-	-	-	-	-	-	282	283	-	230	211	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1402	-	-	1377	-	-	745	745	1002	730	744	1024
Stage 1	-	-	-	-	-	-	926	957	-	842	881	-
Stage 2	-	-	-	-	-	-	833	872	-	891	946	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1402	-	-	1368	-	-	703	704	992	653	703	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	703	704	-	653	703	-
Stage 1	-	-	-	-	-	-	913	944	-	836	844	-
Stage 2	-	-	-	-	-	-	787	835	-	822	933	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2	9.8	10.4
HCM LOS			A	B

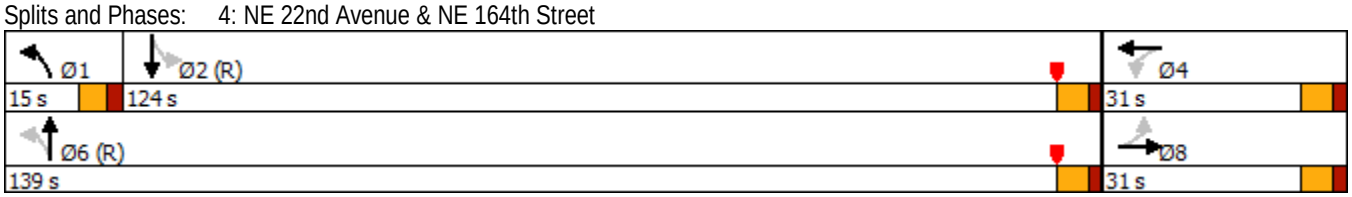
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	837	1402	-	-	1368	-	-	702
HCM Lane V/C Ratio	0.101	0.007	-	-	0.042	-	-	0.05
HCM Control Delay (s)	9.8	7.6	-	-	7.7	-	-	10.4
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	110	9	7	4	86	648	1	633
Future Volume (vph)	110	9	7	4	86	648	1	633
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	31.0	31.0	31.0	31.0	15.0	139.0	124.0	124.0
Total Split (%)	18.2%	18.2%	18.2%	18.2%	8.8%	81.8%	72.9%	72.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 106 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	9	104	7	4	16	86	648	12	1	633	123
Future Volume (veh/h)	110	9	104	7	4	16	86	648	12	1	633	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	115	9	40	7	4	6	90	675	11	1	659	114
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	191	31	138	78	46	51	618	2769	45	611	2157	373
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1367	292	1296	450	431	480	1767	3366	55	748	2837	490
Grp Volume(v), veh/h	115	0	49	17	0	0	90	353	333	1	409	364
Grp Sat Flow(s),veh/h/ln	1367	0	1587	1361	0	0	1767	1763	1658	748	1763	1565
Q Serve(g_s), s	8.7	0.0	4.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.6	0.0	4.8	4.9	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.82	0.41		0.35	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	191	0	169	175	0	0	618	1450	1364	611	1340	1189
V/C Ratio(X)	0.60	0.00	0.29	0.10	0.00	0.00	0.15	0.24	0.24	0.00	0.31	0.31
Avail Cap(c_a), veh/h	246	0	233	235	0	0	663	1450	1364	611	1340	1189
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.8	0.0	70.0	68.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	0.0	3.6	1.2	0.0	0.0	1.0	0.0	0.0	0.0	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	0.0	70.7	68.7	0.0	0.0	3.5	0.0	0.0	0.0	0.6	0.7
LnGrp LOS	E	A	E	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		164			17			776			774	
Approach Delay, s/veh		74.4			68.7			0.4			0.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.6	135.2		24.1		145.9		24.1
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 9.3	118.0		25.0		133.0		25.0
Max Q Clear Time (g_c+I1), s	3.8	2.0		6.9		2.0		15.6
Green Ext Time (p_c), s	0.0	1.8		0.0		1.5		0.3

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

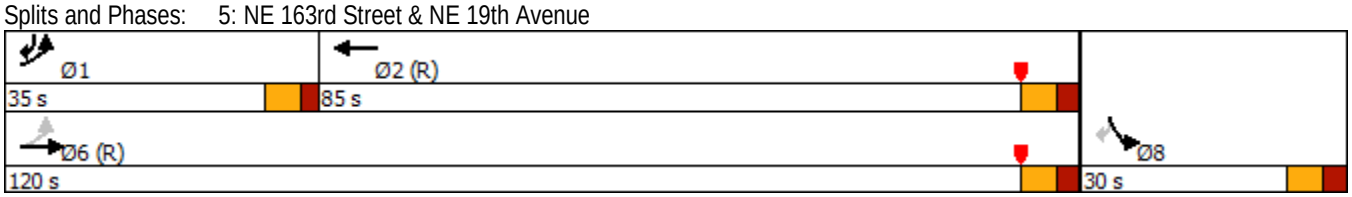
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	357	1529	2110	480	400
Future Volume (vph)	357	1529	2110	480	400
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	35.0	120.0	85.0	30.0	35.0
Total Split (%)	23.3%	80.0%	56.7%	20.0%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	357	1529	2110	287	480	400
Future Volume (veh/h)	357	1529	2110	287	480	400
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	368	1576	2175	281	495	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	386	3833	2430	307	526	526
Arrive On Green	0.24	1.00	0.71	0.71	0.15	0.15
Sat Flow, veh/h	1767	5233	4706	573	3428	1572
Grp Volume(v), veh/h	368	1576	1605	851	495	254
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1736	1714	1572
Q Serve(g_s), s	25.1	0.0	55.9	60.8	21.4	19.2
Cycle Q Clear(g_c), s	25.1	0.0	55.9	60.8	21.4	19.2
Prop In Lane	1.00			0.33	1.00	1.00
Lane Grp Cap(c), veh/h	386	3833	1807	929	526	526
V/C Ratio(X)	0.95	0.41	0.89	0.92	0.94	0.48
Avail Cap(c_a), veh/h	407	3833	1807	929	526	526
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	46.2	0.0	18.1	18.8	62.8	39.6
Incr Delay (d2), s/veh	31.3	0.3	6.9	15.1	24.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.1	0.2	26.8	31.9	16.4	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	77.4	0.3	25.0	33.9	86.8	40.1
LnGrp LOS	E	A	C	C	F	D
Approach Vol, veh/h		1944	2456		749	
Approach Delay, s/veh		14.9	28.1		71.0	
Approach LOS		B	C		E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	33.2	86.8				120.0	30.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	29.0	78.5				113.5	23.0
Max Q Clear Time (g_c+I1), s	27.1	62.8				2.0	23.4
Green Ext Time (p_c), s	0.1	7.9				5.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Int Delay, s/veh	9

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	30	86	1973	6	0	2336	51	0	0	5	0	0	51
Future Vol, veh/h	30	86	1973	6	0	2336	51	0	0	5	0	0	51
Conflicting Peds, #/hr	0	10	0	1	1	0	10	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	31	88	2013	6	0	2384	52	0	0	5	0	0	52

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1778	2446	0	0	-	-	0	-	-	1013	-	-	1230
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	159	~ 73	-	-	0	-	-	0	0	435	0	0	348
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	82	~ 82	-	-	-	-	-	-	-	434	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.1	0	13.4	17.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	434	~ 82	-	-	-	-	344
HCM Lane V/C Ratio	0.012	1.444	-	-	-	-	0.151
HCM Control Delay (s)	13.4	$ 345.8	-	-	-	-	17.3
HCM Lane LOS	B	F	-	-	-	-	C
HCM 95th %tile Q(veh)	0	9.3	-	-	-	-	0.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection														
Int Delay, s/veh	5.9													

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	12	73	1840	78	10	28	2317	26	0	0	22	0	0	51
Future Vol, veh/h	12	73	1840	78	10	28	2317	26	0	0	22	0	0	51
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	78	1957	83	11	30	2465	28	0	0	23	0	0	54

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1820	2493	0	0	1490	2047	0	0	-	-	1027	-	-	1247
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	150	~ 69	-	-	231	117	-	-	0	0	429	0	0	341
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	74	~ 74	-	-	132	132	-	-	-	-	426	-	-	341
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	0.7	13.9	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	426	~ 74	-	-	132	-	-	341
HCM Lane V/C Ratio	0.055	1.222	-	-	0.306	-	-	0.159
HCM Control Delay (s)	13.9	276.1	-	-	43.7	-	-	17.5
HCM Lane LOS	B	F	-	-	E	-	-	C
HCM 95th %tile Q(veh)	0.2	6.9	-	-	1.2	-	-	0.6

Notes

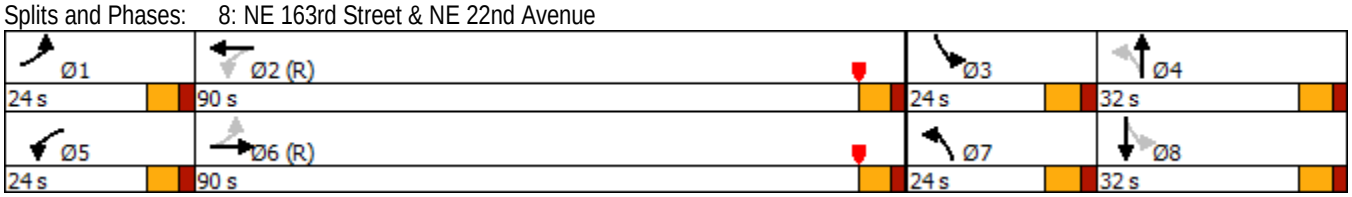
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	140	1710	268	2095	180	434	199	446
Future Volume (vph)	140	1710	268	2095	180	434	199	446
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1710	77	268	2095	161	180	434	231	199	446	110
Future Volume (veh/h)	140	1710	77	268	2095	161	180	434	231	199	446	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		Yes			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	149	1819	82	285	2229	166	191	462	205	212	474	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	169	2453	110	288	2625	194	223	358	157	225	456	78
Arrive On Green	0.07	0.66	0.66	0.14	0.73	0.73	0.10	0.15	0.15	0.10	0.15	0.15
Sat Flow, veh/h	1767	4965	223	1767	4813	355	1767	2375	1045	1767	3004	517
Grp Volume(v), veh/h	149	1236	665	285	1557	838	191	342	325	212	277	279
Grp Sat Flow(s),veh/h/ln	1767	1689	1812	1767	1689	1791	1767	1763	1657	1767	1763	1758
Q Serve(g_s), s	7.2	41.6	41.8	17.6	55.7	57.8	15.4	25.6	25.6	17.3	25.8	25.8
Cycle Q Clear(g_c), s	7.2	41.6	41.8	17.6	55.7	57.8	15.4	25.6	25.6	17.3	25.8	25.8
Prop In Lane	1.00		0.12	1.00		0.20	1.00		0.63	1.00		0.29
Lane Grp Cap(c), veh/h	169	1669	895	288	1842	977	223	265	250	225	268	267
V/C Ratio(X)	0.88	0.74	0.74	0.99	0.85	0.86	0.86	1.29	1.30	0.94	1.04	1.05
Avail Cap(c_a), veh/h	259	1669	895	288	1842	977	225	265	250	225	268	267
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.13	0.13	0.13	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	35.5	21.9	21.9	42.1	18.3	18.5	55.1	72.2	72.2	55.7	72.1	72.1
Incr Delay (d2), s/veh	14.0	3.0	5.5	16.7	0.7	1.4	24.9	155.1	162.0	41.9	63.1	66.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	22.0	24.2	8.7	21.1	23.3	13.3	34.6	33.5	15.6	23.3	23.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	24.9	27.4	58.8	18.9	20.0	80.0	227.3	234.2	97.5	135.2	138.2
LnGrp LOS	D	C	C	E	B	B	F	F	F	F	F	F
Approach Vol, veh/h		2050			2680			858			768	
Approach Delay, s/veh		27.5			23.5			197.1			125.9	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	98.7	24.0	32.0	24.0	90.0	23.8	32.2
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	9.2	59.8	19.3	27.6	19.6	43.8	17.4	27.8
Green Ext Time (p_c), s	0.1	9.1	0.0	0.0	0.0	6.7	0.0	0.0

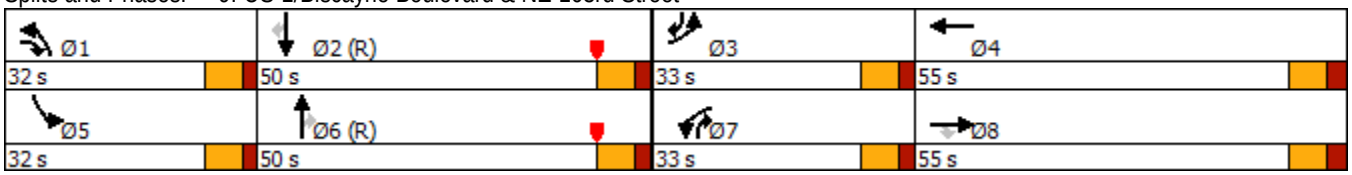
Intersection Summary	
HCM 6th Ctrl Delay	60.6
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	1214	462	547	1326	786	509	1628	825	583	1739	527
Future Volume (vph)	410	1214	462	547	1326	786	509	1628	825	583	1739	527
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	55.0	32.0	33.0	55.0		32.0	50.0	33.0	32.0	50.0	33.0
Total Split (%)	19.4%	32.4%	18.8%	19.4%	32.4%		18.8%	29.4%	19.4%	18.8%	29.4%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



HCM 6th Signalized Intersection Summary
9: US-1/Biscayne Boulevard & NE 163rd Street

Existing Conditions
P.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	1214	462	547	1326	786	509	1628	825	583	1739	527
Future Volume (veh/h)	410	1214	462	547	1326	786	509	1628	825	583	1739	527
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	441	1305	468	588	1426	0	547	1751	795	627	1870	513
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	484	1402	656	528	1467		508	1617	632	508	1617	612
Arrive On Green	0.14	0.28	0.28	0.15	0.29	0.00	0.20	0.34	0.34	0.20	0.34	0.34
Sat Flow, veh/h	3428	5066	1529	3428	5066	1572	3428	6383	1537	3428	6383	1539
Grp Volume(v), veh/h	441	1305	468	588	1426	0	547	1751	795	627	1870	513
Grp Sat Flow(s),veh/h/ln	1714	1689	1529	1714	1689	1572	1714	1596	1537	1714	1596	1539
Q Serve(g_s), s	21.5	42.7	43.1	26.2	47.3	0.0	25.2	43.1	43.1	25.2	43.1	43.1
Cycle Q Clear(g_c), s	21.5	42.7	43.1	26.2	47.3	0.0	25.2	43.1	43.1	25.2	43.1	43.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	484	1402	656	528	1467		508	1617	632	508	1617	612
V/C Ratio(X)	0.91	0.93	0.71	1.11	0.97		1.08	1.08	1.26	1.23	1.16	0.84
Avail Cap(c_a), veh/h	528	1409	659	528	1467		508	1617	632	508	1617	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.52	0.52	0.52	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	59.9	40.5	71.9	59.7	0.0	68.2	56.4	46.4	68.2	56.4	42.2
Incr Delay (d2), s/veh	11.3	6.5	1.8	73.9	17.2	0.0	62.0	48.6	129.0	121.4	78.0	12.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.1	24.3	21.5	25.0	30.4	0.0	22.3	31.4	70.2	29.2	36.7	29.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	66.4	42.3	145.8	76.9	0.0	130.3	105.0	175.4	189.6	134.4	55.2
LnGrp LOS	F	E	D	F	E		F	F	F	F	F	E
Approach Vol, veh/h		2214			2014	A		3093			3010	
Approach Delay, s/veh		64.7			97.0			127.5			132.4	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	50.3	30.8	56.9	32.0	50.3	33.0	54.7
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	25.2	* 43	26.2	* 47	25.2	* 43	26.2	* 47
Max Q Clear Time (g_c+I1), s	27.2	45.1	23.5	49.3	27.2	45.1	28.2	45.1
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	109.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

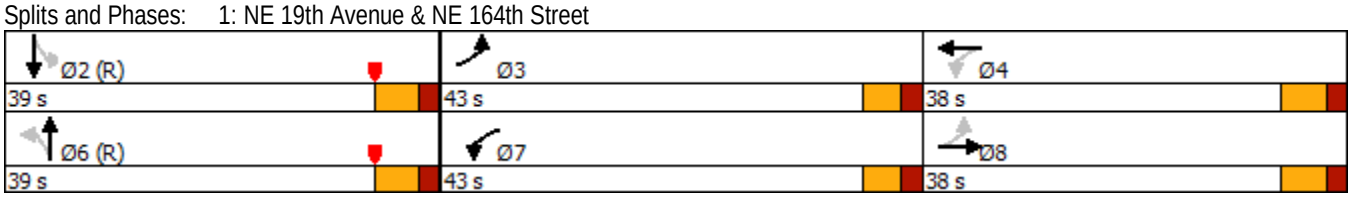
Future Background P.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	179	128	27	126	30	847	59	1033
Future Volume (vph)	179	128	27	126	30	847	59	1033
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	38.0	43.0	38.0	39.0	39.0	39.0	39.0
Total Split (%)	35.8%	31.7%	35.8%	31.7%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	128	40	27	126	70	30	847	12	59	1033	233
Future Volume (veh/h)	179	128	40	27	126	70	30	847	12	59	1033	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	192	138	43	29	135	56	32	911	13	63	1111	234
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	297	289	90	272	176	73	94	2578	37	377	2382	501
Arrive On Green	0.11	0.24	0.24	0.03	0.16	0.16	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1767	1215	379	1767	1118	464	103	4361	62	598	4028	848
Grp Volume(v), veh/h	192	0	181	29	0	191	319	322	316	63	931	414
Grp Sat Flow(s),veh/h/ln	1767	0	1594	1767	0	1582	1483	1537	1506	598	1689	1499
Q Serve(g_s), s	10.5	0.0	11.7	1.6	0.0	13.9	0.0	7.4	7.4	4.4	11.2	11.2
Cycle Q Clear(g_c), s	10.5	0.0	11.7	1.6	0.0	13.9	5.7	7.4	7.4	11.8	11.2	11.2
Prop In Lane	1.00		0.24	1.00		0.29	0.10		0.04	1.00		0.57
Lane Grp Cap(c), veh/h	297	0	379	272	0	249	910	909	890	377	1997	887
V/C Ratio(X)	0.65	0.00	0.48	0.11	0.00	0.77	0.35	0.35	0.35	0.17	0.47	0.47
Avail Cap(c_a), veh/h	663	0	425	780	0	422	910	909	890	377	1997	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	39.3	40.7	0.0	48.5	5.8	6.0	6.0	7.8	6.4	6.4
Incr Delay (d2), s/veh	0.9	0.0	1.1	0.1	0.0	5.9	0.1	0.1	0.1	1.0	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.0	8.3	1.3	0.0	9.9	2.7	2.8	2.7	1.0	5.9	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	0.0	40.4	40.8	0.0	54.3	5.9	6.1	6.1	8.7	7.2	8.2
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		373			220			956			1408	
Approach Delay, s/veh		38.7			52.6			6.1			7.6	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		77.0	18.2	24.9		77.0	8.5	34.5				
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0				
Max Green Setting (Gmax), s		33.0	37.6	32.0		33.0	37.6	32.0				
Max Q Clear Time (g_c+I1), s		13.8	12.5	15.9		9.4	3.6	13.7				
Green Ext Time (p_c), s		4.2	0.3	1.1		2.4	0.0	1.1				

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	151	37	20	152	6	64	81	54	8	8	2
Future Vol, veh/h	10	151	37	20	152	6	64	81	54	8	8	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	168	41	22	169	7	71	90	60	9	9	2
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.2	9.9	10.1	8.6
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	100%	0%	100%	0%	44%
Vol Thru, %	41%	0%	80%	0%	96%	44%
Vol Right, %	27%	0%	20%	0%	4%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	10	188	20	158	18
LT Vol	64	10	0	20	0	8
Through Vol	81	0	151	0	152	8
RT Vol	54	0	37	0	6	2
Lane Flow Rate	221	11	209	22	176	20
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.303	0.018	0.304	0.036	0.261	0.03
Departure Headway (Hd)	4.931	5.875	5.232	5.892	5.36	5.351
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	725	606	683	604	665	663
Service Time	2.987	3.643	2.999	3.662	3.13	3.436
HCM Lane V/C Ratio	0.305	0.018	0.306	0.036	0.265	0.03
HCM Control Delay	10.1	8.8	10.3	8.9	10	8.6
HCM Lane LOS	B	A	B	A	A	A
HCM 95th-tile Q	1.3	0.1	1.3	0.1	1	0.1

Intersection												
Int Delay, s/veh	3.2											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	184	21	58	160	18	17	21	46	24	6	6
Future Vol, veh/h	10	184	21	58	160	18	17	21	46	24	6	6
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	3	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	207	24	65	180	20	19	24	52	27	7	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	238	0	0	577	578	229	602	580	192
Stage 1	-	-	-	-	-	-	248	248	-	320	320	-
Stage 2	-	-	-	-	-	-	329	330	-	282	260	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1366	-	-	1323	-	-	678	678	959	661	676	995
Stage 1	-	-	-	-	-	-	871	907	-	793	836	-
Stage 2	-	-	-	-	-	-	784	827	-	833	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1314	-	-	633	635	950	579	633	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	633	635	-	579	633	-
Stage 1	-	-	-	-	-	-	858	893	-	787	795	-
Stage 2	-	-	-	-	-	-	732	786	-	759	882	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.9	10.3	11.1
HCM LOS			B	B

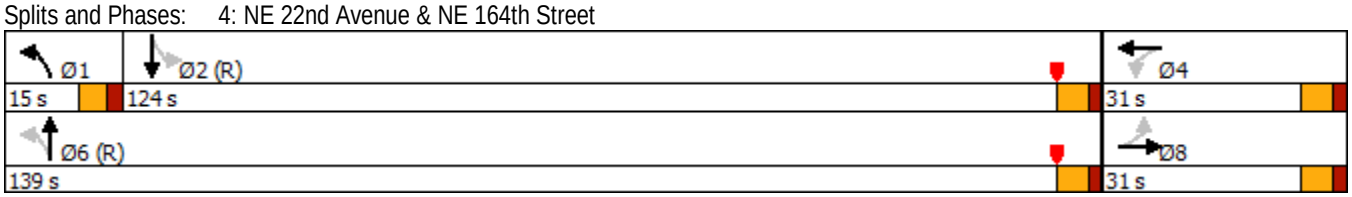
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	775	1366	-	-	1314	-	-	632
HCM Lane V/C Ratio	0.122	0.008	-	-	0.05	-	-	0.064
HCM Control Delay (s)	10.3	7.7	-	-	7.9	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	30	8	14	97	819	1	804
Future Volume (vph)	124	30	8	14	97	819	1	804
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	31.0	31.0	31.0	31.0	15.0	139.0	124.0	124.0
Total Split (%)	18.2%	18.2%	18.2%	18.2%	8.8%	81.8%	72.9%	72.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 106 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	30	117	8	14	18	97	819	14	1	804	139
Future Volume (veh/h)	124	30	117	8	14	18	97	819	14	1	804	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	129	31	54	8	15	8	101	853	14	1	838	131
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	193	75	131	58	102	46	516	2706	44	511	2138	334
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.04	1.00	1.00	0.99	0.99	0.99
Sat Flow, veh/h	1357	599	1044	253	812	370	1767	3366	55	632	2885	451
Grp Volume(v), veh/h	129	0	85	31	0	0	101	447	420	1	512	457
Grp Sat Flow(s),veh/h/ln	1357	0	1644	1436	0	0	1767	1763	1658	632	1763	1573
Q Serve(g_s), s	10.1	0.0	8.1	0.1	0.0	0.0	2.3	0.0	0.0	0.0	1.1	1.1
Cycle Q Clear(g_c), s	18.3	0.0	8.1	8.2	0.0	0.0	2.3	0.0	0.0	0.0	1.1	1.1
Prop In Lane	1.00		0.64	0.26		0.26	1.00		0.03	1.00		0.29
Lane Grp Cap(c), veh/h	193	0	206	207	0	0	516	1417	1333	511	1307	1166
V/C Ratio(X)	0.67	0.00	0.41	0.15	0.00	0.00	0.20	0.32	0.32	0.00	0.39	0.39
Avail Cap(c_a), veh/h	223	0	242	241	0	0	561	1417	1333	511	1307	1166
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	0.0	68.6	66.2	0.0	0.0	4.3	0.0	0.0	0.3	0.3	0.3
Incr Delay (d2), s/veh	5.3	0.0	1.0	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.8	0.0	6.3	2.2	0.0	0.0	1.2	0.0	0.0	0.0	1.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	0.0	69.5	66.5	0.0	0.0	4.3	0.1	0.1	0.3	1.2	1.3
LnGrp LOS	E	A	E	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		214			31			968			970	
Approach Delay, s/veh		75.3			66.5			0.5			1.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.7	132.0		27.3		142.7		27.3
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 9.3	118.0		25.0		133.0		25.0
Max Q Clear Time (g_c+I1), s	4.3	3.1		10.2		2.0		20.3
Green Ext Time (p_c), s	0.0	2.4		0.1		2.0		0.3

Intersection Summary		
HCM 6th Ctrl Delay		9.1
HCM 6th LOS		A

Notes

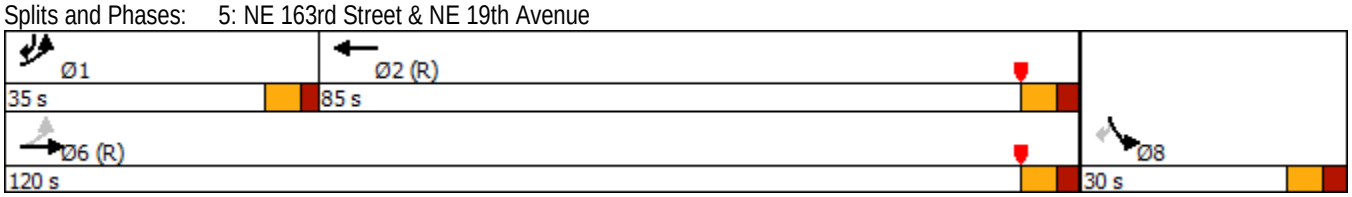
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	417	1813	2504	588	488
Future Volume (vph)	417	1813	2504	588	488
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	35.0	120.0	85.0	30.0	35.0
Total Split (%)	23.3%	80.0%	56.7%	20.0%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	417	1813	2504	374	588	488
Future Volume (veh/h)	417	1813	2504	374	588	488
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	430	1869	2581	371	606	345
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	390	3833	2351	320	526	545
Arrive On Green	0.26	1.00	0.70	0.70	0.15	0.15
Sat Flow, veh/h	1767	5233	4659	612	3428	1572
Grp Volume(v), veh/h	430	1869	1905	1047	606	345
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1728	1714	1572
Q Serve(g_s), s	29.0	0.0	78.5	78.5	23.0	23.0
Cycle Q Clear(g_c), s	29.0	0.0	78.5	78.5	23.0	23.0
Prop In Lane	1.00			0.35	1.00	1.00
Lane Grp Cap(c), veh/h	390	3833	1767	904	526	545
V/C Ratio(X)	1.10	0.49	1.08	1.16	1.15	0.63
Avail Cap(c_a), veh/h	390	3833	1767	904	526	545
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.86	0.86
Uniform Delay (d), s/veh	48.9	0.0	22.8	22.8	63.5	41.0
Incr Delay (d2), s/veh	76.6	0.4	45.9	83.5	86.4	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	30.8	0.3	49.7	65.4	24.1	16.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	125.5	0.4	68.7	106.3	149.9	42.9
LnGrp LOS	F	A	F	F	F	D
Approach Vol, veh/h		2299	2952		951	
Approach Delay, s/veh		23.8	82.0		111.1	
Approach LOS		C	F		F	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	35.0	85.0				120.0	30.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	29.0	78.5				113.5	23.0
Max Q Clear Time (g_c+I1), s	31.0	80.5				2.0	25.0
Green Ext Time (p_c), s	0.0	0.0				7.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	64.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection													
Int Delay, s/veh	26.5												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	34	97	2370	7	0	2826	58	0	0	6	0	0	58
Future Vol, veh/h	34	97	2370	7	0	2826	58	0	0	6	0	0	58
Conflicting Peds, #/hr	0	10	0	1	1	0	10	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	99	2418	7	0	2884	59	0	0	6	0	0	59

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	2148	2953	0	0	-	-	0	-	-	1216	-	-	1484
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	98	~ 39	-	-	0	-	-	0	0	353	0	0	266
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	45	~ 45	-	-	-	-	-	-	-	352	-	-	263
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	57	0	15.4	22.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	352	~ 45	-	-	-	-	263
HCM Lane V/C Ratio	0.017	2.971	-	-	-	-	0.225
HCM Control Delay (s)	15.4	$ 1091.2	-	-	-	-	22.6
HCM Lane LOS	C	F	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	14.5	-	-	-	-	0.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection														
Int Delay, s/veh	18.2													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	14	82	2220	88	11	32	2806	29	0	0	25	0	0	58
Future Vol, veh/h	14	82	2220	88	11	32	2806	29	0	0	25	0	0	58
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	87	2362	94	12	34	2985	31	0	0	27	0	0	62

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	2202	3016	0	0	1792	2463	0	0	-	-	1235	-	-	1508
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	91	~ 36	-	-	156	71	-	-	0	0	346	0	0	260
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	39	~ 39	-	-	82	82	-	-	-	-	344	-	-	260
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.3	1.4	16.3	23.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	~ 39	-	-	82	-	-	260
HCM Lane V/C Ratio	0.077	2.619	-	-	0.558	-	-	0.237
HCM Control Delay (s)	16.3	$ 960.2	-	-	94.7	-	-	23.1
HCM Lane LOS	C	F	-	-	F	-	-	C
HCM 95th %tile Q(veh)	0.2	11.3	-	-	2.5	-	-	0.9

Notes

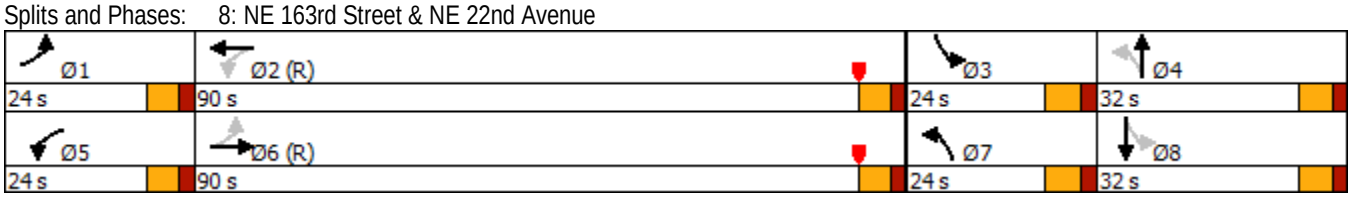
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	158	2038	417	2495	259	577	235	579
Future Volume (vph)	158	2038	417	2495	259	577	235	579
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	2038	122	417	2495	182	259	577	389	235	579	128
Future Volume (veh/h)	158	2038	122	417	2495	182	259	577	389	235	579	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		Yes			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	168	2168	130	444	2654	189	276	614	373	250	616	101
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2414	144	248	2505	175	225	316	192	225	456	75
Arrive On Green	0.11	0.66	0.66	0.14	0.69	0.69	0.10	0.15	0.15	0.10	0.15	0.15
Sat Flow, veh/h	1767	4884	291	1767	4834	337	1767	2101	1276	1767	3029	496
Grp Volume(v), veh/h	168	1494	804	444	1837	1006	276	515	472	250	358	359
Grp Sat Flow(s),veh/h/ln	1767	1689	1798	1767	1689	1794	1767	1763	1614	1767	1763	1762
Q Serve(g_s), s	11.8	62.7	64.2	18.0	88.1	88.1	17.6	25.6	25.6	17.6	25.6	25.6
Cycle Q Clear(g_c), s	11.8	62.7	64.2	18.0	88.1	88.1	17.6	25.6	25.6	17.6	25.6	25.6
Prop In Lane	1.00		0.16	1.00		0.19	1.00		0.79	1.00		0.28
Lane Grp Cap(c), veh/h	187	1669	889	248	1750	930	225	265	243	225	265	265
V/C Ratio(X)	0.90	0.90	0.90	1.79	1.05	1.08	1.22	1.94	1.94	1.11	1.35	1.35
Avail Cap(c_a), veh/h	229	1669	889	248	1750	930	225	265	243	225	265	265
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	55.2	25.5	25.8	53.4	26.4	26.4	57.1	72.2	72.2	57.1	72.2	72.2
Incr Delay (d2), s/veh	27.2	7.9	14.4	357.2	24.2	39.0	134.1	437.1	438.3	90.1	178.1	180.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	32.3	36.7	47.0	41.3	49.2	25.4	68.2	63.0	20.7	37.1	37.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.3	33.4	40.1	410.7	50.6	65.4	191.2	509.3	510.5	147.1	250.3	252.3
LnGrp LOS	F	C	D	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		2466			3287			1263			967	
Approach Delay, s/veh		38.9			103.8			440.2			224.4	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	94.1	24.0	32.0	24.0	90.0	24.0	32.0
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	13.8	90.1	19.6	27.6	20.0	66.2	19.6	27.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	7.6	0.0	0.0

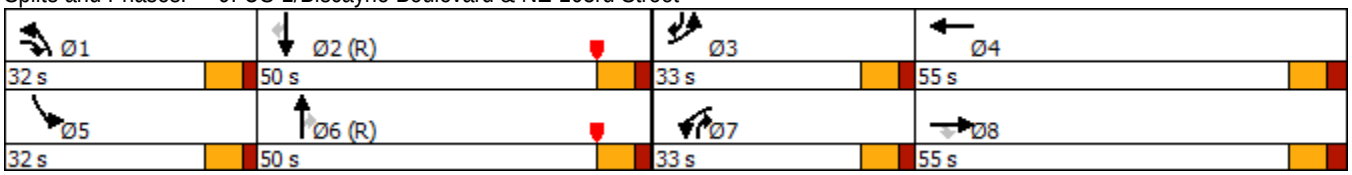
Intersection Summary	
HCM 6th Ctrl Delay	151.6
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	635	1438	529	740	1652	904	588	1893	954	710	1923	671
Future Volume (vph)	635	1438	529	740	1652	904	588	1893	954	710	1923	671
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	55.0	32.0	33.0	55.0		32.0	50.0	33.0	32.0	50.0	33.0
Total Split (%)	19.4%	32.4%	18.8%	19.4%	32.4%		18.8%	29.4%	19.4%	18.8%	29.4%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	635	1438	529	740	1652	904	588	1893	954	710	1923	671
Future Volume (veh/h)	635	1438	529	740	1652	904	588	1893	954	710	1923	671
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	683	1546	540	796	1776	0	632	2035	934	763	2068	668
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
Arrive On Green	0.15	0.28	0.28	0.15	0.28	0.00	0.20	0.33	0.33	0.20	0.33	0.33
Sat Flow, veh/h	3428	5066	1530	3428	5066	1572	3428	6383	1537	3428	6383	1539
Grp Volume(v), veh/h	683	1546	540	796	1776	0	632	2035	934	763	2068	668
Grp Sat Flow(s),veh/h/ln	1714	1689	1530	1714	1689	1572	1714	1596	1537	1714	1596	1539
Q Serve(g_s), s	26.2	47.3	47.3	26.2	47.3	0.0	25.2	42.8	42.8	25.2	42.8	42.8
Cycle Q Clear(g_c), s	26.2	47.3	47.3	26.2	47.3	0.0	25.2	42.8	42.8	25.2	42.8	42.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
V/C Ratio(X)	1.29	1.10	0.82	1.51	1.26		1.24	1.27	1.48	1.50	1.29	1.06
Avail Cap(c_a), veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.21	0.21	0.21	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	61.4	43.2	71.9	61.4	0.0	68.2	56.5	46.5	68.2	56.5	46.5
Incr Delay (d2), s/veh	134.8	46.5	1.8	237.7	122.9	0.0	125.4	124.9	226.4	235.8	133.9	53.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	28.4	32.3	23.9	44.6	52.7	0.0	29.6	45.1	97.9	42.3	46.7	48.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	206.7	107.8	45.0	309.6	184.3	0.0	193.7	181.5	272.9	304.0	190.5	99.5
LnGrp LOS	F	F	D	F	F		F	F	F	F	F	F
Approach Vol, veh/h		2769			2572	A		3601			3499	
Approach Delay, s/veh		119.9			223.0			207.3			197.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	50.0	33.0	55.0	32.0	50.0	33.0	55.0
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	25.2	* 43	26.2	* 47	25.2	* 43	26.2	* 47
Max Q Clear Time (g_c+I1), s	27.2	44.8	28.2	49.3	27.2	44.8	28.2	49.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	188.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

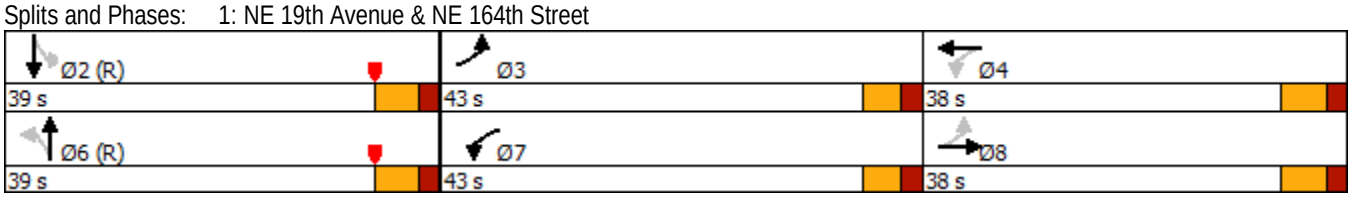
Future Total P.M.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	179	128	27	126	30	847	73	1033
Future Volume (vph)	179	128	27	126	30	847	73	1033
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	3	8	7	4		6		2
Permitted Phases	8		4		6		2	
Detector Phase	3	8	7	4	6	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.4	38.0	10.4	38.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	38.0	43.0	38.0	39.0	39.0	39.0	39.0
Total Split (%)	35.8%	31.7%	35.8%	31.7%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.4	4.0	3.4	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	6.0	5.4	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 1: NE 19th Avenue & NE 164th Street



HCM 6th Signalized Intersection Summary

1: NE 19th Avenue & NE 164th Street

Future Total Conditions

P.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	128	40	27	126	82	30	847	12	73	1033	233
Future Volume (veh/h)	179	128	40	27	126	82	30	847	12	73	1033	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.99	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	192	138	43	29	135	69	32	911	13	78	1111	234
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	298	93	282	172	88	93	2548	36	371	2352	495
Arrive On Green	0.11	0.25	0.25	0.03	0.17	0.17	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1767	1215	379	1767	1039	531	103	4363	62	598	4028	848
Grp Volume(v), veh/h	192	0	181	29	0	204	319	322	315	78	931	414
Grp Sat Flow(s),veh/h/ln	1767	0	1594	1767	0	1570	1485	1537	1506	598	1689	1499
Q Serve(g_s), s	10.4	0.0	11.6	1.6	0.0	15.0	0.0	7.8	7.8	5.9	11.7	11.7
Cycle Q Clear(g_c), s	10.4	0.0	11.6	1.6	0.0	15.0	6.0	7.8	7.8	13.6	11.7	11.7
Prop In Lane	1.00		0.24	1.00		0.34	0.10		0.04	1.00		0.57
Lane Grp Cap(c), veh/h	294	0	391	282	0	260	900	897	879	371	1972	875
V/C Ratio(X)	0.65	0.00	0.46	0.10	0.00	0.78	0.35	0.36	0.36	0.21	0.47	0.47
Avail Cap(c_a), veh/h	661	0	425	790	0	419	900	897	879	371	1972	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	38.6	39.9	0.0	48.0	6.2	6.4	6.4	8.6	6.9	6.9
Incr Delay (d2), s/veh	0.9	0.0	1.0	0.1	0.0	6.2	0.1	0.1	0.1	1.3	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.0	8.2	1.3	0.0	10.4	2.8	2.9	2.8	1.3	6.2	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	39.6	40.0	0.0	54.2	6.3	6.5	6.5	9.8	7.7	8.7
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		373			233			956			1423	
Approach Delay, s/veh		38.0			52.4			6.5			8.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		76.1	18.1	25.9		76.1	8.5	35.4
Change Period (Y+Rc), s		6.0	5.4	6.0		6.0	5.4	6.0
Max Green Setting (Gmax), s		33.0	37.6	32.0		33.0	37.6	32.0
Max Q Clear Time (g_c+I1), s		15.6	12.4	17.0		9.8	3.6	13.6
Green Ext Time (p_c), s		4.2	0.3	1.1		2.4	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	165	37	20	164	6	64	81	54	8	8	2
Future Vol, veh/h	10	165	37	20	164	6	64	81	54	8	8	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	183	41	22	182	7	71	90	60	9	9	2
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.5	10.2	10.3	8.7
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	100%	0%	100%	0%	44%
Vol Thru, %	41%	0%	82%	0%	96%	44%
Vol Right, %	27%	0%	18%	0%	4%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	10	202	20	170	18
LT Vol	64	10	0	20	0	8
Through Vol	81	0	165	0	164	8
RT Vol	54	0	37	0	6	2
Lane Flow Rate	221	11	224	22	189	20
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.307	0.018	0.328	0.037	0.282	0.03
Departure Headway (Hd)	5.001	5.894	5.261	5.913	5.383	5.431
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	714	603	678	601	663	652
Service Time	3.064	3.669	3.034	3.689	3.16	3.528
HCM Lane V/C Ratio	0.31	0.018	0.33	0.037	0.285	0.031
HCM Control Delay	10.3	8.8	10.6	8.9	10.3	8.7
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.3	0.1	1.4	0.1	1.2	0.1

Intersection												
Int Delay, s/veh	3.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	184	35	64	160	18	29	21	84	24	6	6
Future Vol, veh/h	10	184	35	64	160	18	29	21	84	24	6	6
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	3	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	207	39	72	180	20	33	24	94	27	7	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	253	0	0	599	600	237	645	609	192
Stage 1	-	-	-	-	-	-	256	256	-	334	334	-
Stage 2	-	-	-	-	-	-	343	344	-	311	275	-
Critical Hdwy	4.13	-	-	4.13	-	-	5	5	5	5	5	5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3	3	3	3	3	3
Pot Cap-1 Maneuver	1366	-	-	1306	-	-	663	663	951	633	657	995
Stage 1	-	-	-	-	-	-	862	899	-	778	823	-
Stage 2	-	-	-	-	-	-	769	814	-	802	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1297	-	-	616	617	942	525	611	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	616	617	-	525	611	-
Stage 1	-	-	-	-	-	-	849	886	-	772	777	-
Stage 2	-	-	-	-	-	-	714	768	-	695	867	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.1	10.7	11.6
HCM LOS			B	B

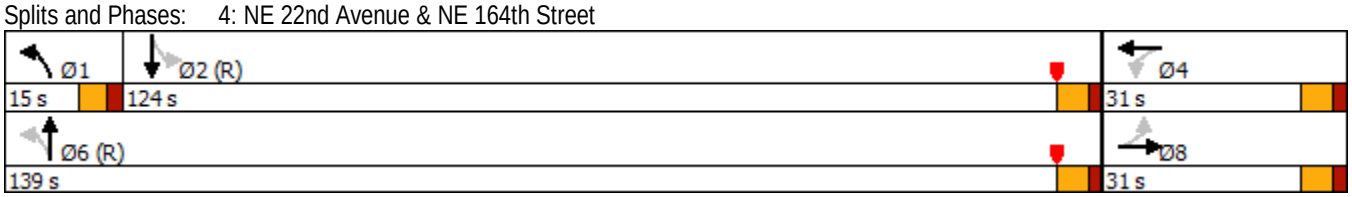
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	787	1366	-	-	1297	-	-	585
HCM Lane V/C Ratio	0.191	0.008	-	-	0.055	-	-	0.069
HCM Control Delay (s)	10.7	7.7	-	-	7.9	-	-	11.6
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	138	30	8	14	97	819	1	804
Future Volume (vph)	138	30	8	14	97	819	1	804
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	6		2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	29.0	29.0	10.7	30.0	30.0	30.0
Total Split (s)	31.0	31.0	31.0	31.0	15.0	139.0	124.0	124.0
Total Split (%)	18.2%	18.2%	18.2%	18.2%	8.8%	81.8%	72.9%	72.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.7	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	5.7	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 106 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 4: NE 22nd Avenue & NE 164th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	30	141	8	14	18	97	819	14	1	804	145
Future Volume (veh/h)	138	30	141	8	14	18	97	819	14	1	804	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	144	31	79	8	15	8	101	853	14	1	838	137
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	65	166	59	104	47	498	2649	43	500	2074	339
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.04	1.00	1.00	0.96	0.96	0.96
Sat Flow, veh/h	1361	457	1165	229	730	333	1767	3366	55	632	2864	468
Grp Volume(v), veh/h	144	0	110	31	0	0	101	447	420	1	516	459
Grp Sat Flow(s),veh/h/ln	1361	0	1622	1292	0	0	1767	1763	1658	632	1763	1569
Q Serve(g_s), s	11.4	0.0	10.6	0.1	0.0	0.0	2.4	0.0	0.0	0.0	3.0	3.0
Cycle Q Clear(g_c), s	22.1	0.0	10.6	10.7	0.0	0.0	2.4	0.0	0.0	0.0	3.0	3.0
Prop In Lane	1.00		0.72	0.26		0.26	1.00		0.03	1.00		0.30
Lane Grp Cap(c), veh/h	201	0	231	211	0	0	498	1387	1305	500	1277	1136
V/C Ratio(X)	0.72	0.00	0.48	0.15	0.00	0.00	0.20	0.32	0.32	0.00	0.40	0.40
Avail Cap(c_a), veh/h	207	0	239	218	0	0	543	1387	1305	500	1277	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.4	0.0	67.1	63.7	0.0	0.0	5.0	0.0	0.0	0.9	0.9	0.9
Incr Delay (d2), s/veh	10.1	0.0	1.1	0.2	0.0	0.0	0.0	0.1	0.1	0.0	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.1	0.0	8.0	2.2	0.0	0.0	1.3	0.0	0.0	0.0	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	0.0	68.2	63.9	0.0	0.0	5.0	0.1	0.1	0.9	1.9	2.0
LnGrp LOS	F	A	E	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		254			31			968			976	
Approach Delay, s/veh		76.9			63.9			0.6			1.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.7	129.1		30.2		139.8		30.2
Change Period (Y+Rc), s	* 5.7	6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s	* 9.3	118.0		25.0		133.0		25.0
Max Q Clear Time (g_c+I1), s	4.4	5.0		12.7		2.0		24.1
Green Ext Time (p_c), s	0.0	2.4		0.0		2.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

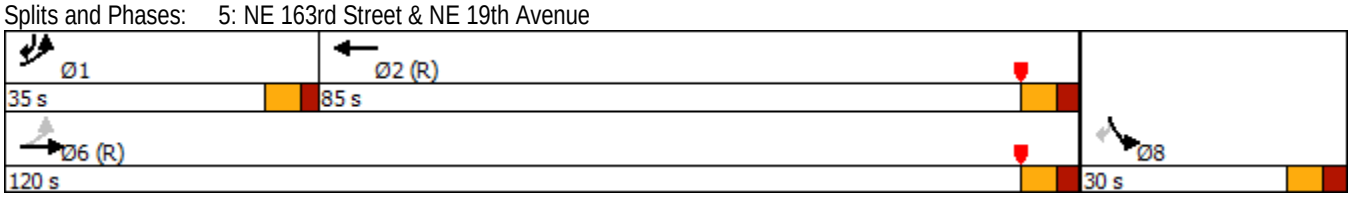
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	417	1834	2521	588	488
Future Volume (vph)	417	1834	2521	588	488
Turn Type	pm+pt	NA	NA	Prot	pm+ov
Protected Phases	1	6	2	8	1
Permitted Phases	6				8
Detector Phase	1	6	2	8	1
Switch Phase					
Minimum Initial (s)	5.0	7.0	7.0	7.0	5.0
Minimum Split (s)	11.0	44.5	44.5	40.0	11.0
Total Split (s)	35.0	120.0	85.0	30.0	35.0
Total Split (%)	23.3%	80.0%	56.7%	20.0%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.5	2.5	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.5	7.0	6.0
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 5: NE 163rd Street & NE 19th Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	417	1834	2521	374	588	488
Future Volume (veh/h)	417	1834	2521	374	588	488
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	430	1891	2599	371	606	345
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	390	3833	2353	319	526	545
Arrive On Green	0.26	1.00	0.70	0.70	0.15	0.15
Sat Flow, veh/h	1767	5233	4664	609	3428	1572
Grp Volume(v), veh/h	430	1891	1917	1053	606	345
Grp Sat Flow(s),veh/h/ln	1767	1689	1689	1728	1714	1572
Q Serve(g_s), s	29.0	0.0	78.5	78.5	23.0	23.0
Cycle Q Clear(g_c), s	29.0	0.0	78.5	78.5	23.0	23.0
Prop In Lane	1.00			0.35	1.00	1.00
Lane Grp Cap(c), veh/h	390	3833	1767	904	526	545
V/C Ratio(X)	1.10	0.49	1.08	1.16	1.15	0.63
Avail Cap(c_a), veh/h	390	3833	1767	904	526	545
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.85	0.85
Uniform Delay (d), s/veh	48.9	0.0	22.8	22.8	63.5	41.0
Incr Delay (d2), s/veh	76.6	0.5	48.3	86.1	86.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	30.8	0.3	50.7	66.5	24.0	16.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	125.5	0.5	71.1	108.9	149.8	42.8
LnGrp LOS	F	A	F	F	F	D
Approach Vol, veh/h		2321	2970		951	
Approach Delay, s/veh		23.6	84.5		111.0	
Approach LOS		C	F		F	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	35.0	85.0				120.0	30.0
Change Period (Y+Rc), s	6.0	6.5				6.5	7.0
Max Green Setting (Gmax), s	29.0	78.5				113.5	23.0
Max Q Clear Time (g_c+I1), s	31.0	80.5				2.0	25.0
Green Ext Time (p_c), s	0.0	0.0				8.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	65.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection													
Int Delay, s/veh	26.4												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	34	97	2391	7	0	2843	58	0	0	6	0	0	58
Future Vol, veh/h	34	97	2391	7	0	2843	58	0	0	6	0	0	58
Conflicting Peds, #/hr	0	10	0	1	1	0	10	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	145	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	99	2440	7	0	2901	59	0	0	6	0	0	59

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	2161	2970	0	0	-	-	0	-	-	1227	-	-	1492
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	-	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	-	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	96	~ 39	-	-	0	-	-	0	0	349	0	0	264
Stage 1	-	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	45	~ 45	-	-	-	-	-	-	-	348	-	-	261
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	56.7	0	15.5	22.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	348	~ 45	-	-	-	-	261
HCM Lane V/C Ratio	0.018	2.971	-	-	-	-	0.227
HCM Control Delay (s)	15.5	$ 1094.2	-	-	-	-	22.8
HCM Lane LOS	C	F	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	14.5	-	-	-	-	0.9

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection														
Int Delay, s/veh	31.2													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	14	107	2216	88	11	32	2801	72	0	0	25	0	0	80
Future Vol, veh/h	14	107	2216	88	11	32	2801	72	0	0	25	0	0	80
Conflicting Peds, #/hr	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	135	-	-	-	135	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	114	2357	94	12	34	2980	77	0	0	27	0	0	85

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	2231	3057	0	0	1789	2458	0	0	-	-	1233	-	-	1529
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.66	5.36	-	-	5.66	5.36	-	-	-	-	5	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.33	3.13	-	-	2.33	3.13	-	-	-	-	3	-	-	3
Pot Cap-1 Maneuver	88	~ 35	-	-	157	72	-	-	0	0	346	0	0	254
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	37	~ 37	-	-	83	83	-	-	-	-	344	-	-	254
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	67.4	1.4	16.3	26.2
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	~ 37	-	-	83	-	-	254
HCM Lane V/C Ratio	0.077	3.479	-	-	0.551	-	-	0.335
HCM Control Delay (s)	16.3	$ 1351.6	-	-	92.7	-	-	26.2
HCM Lane LOS	C	F	-	-	F	-	-	D
HCM 95th %tile Q(veh)	0.2	14.7	-	-	2.4	-	-	1.4

Notes

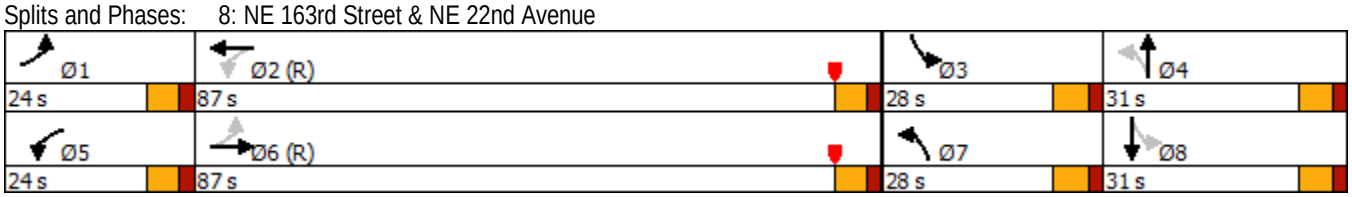
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	158	2034	417	2527	265	577	254	584
Future Volume (vph)	158	2034	417	2527	265	577	254	584
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	87.0	24.0	87.0	28.0	31.0	28.0	31.0
Total Split (%)	14.1%	51.2%	14.1%	51.2%	16.5%	18.2%	16.5%	18.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	2034	122	417	2527	182	265	577	389	254	584	128
Future Volume (veh/h)	158	2034	122	417	2527	182	265	577	389	254	584	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		Yes			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	168	2164	130	444	2688	189	282	614	373	270	621	101
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2327	139	241	2422	167	267	304	185	267	439	71
Arrive On Green	0.11	0.63	0.63	0.14	0.67	0.67	0.13	0.14	0.14	0.13	0.14	0.14
Sat Flow, veh/h	1767	4884	291	1767	4839	333	1767	2100	1276	1767	3033	492
Grp Volume(v), veh/h	168	1492	802	444	1858	1019	282	515	472	270	360	362
Grp Sat Flow(s),veh/h/ln	1767	1689	1798	1767	1689	1795	1767	1763	1613	1767	1763	1762
Q Serve(g_s), s	11.8	66.7	68.3	18.0	85.1	85.1	21.6	24.6	24.6	21.6	24.6	24.6
Cycle Q Clear(g_c), s	11.8	66.7	68.3	18.0	85.1	85.1	21.6	24.6	24.6	21.6	24.6	24.6
Prop In Lane	1.00		0.16	1.00		0.19	1.00		0.79	1.00		0.28
Lane Grp Cap(c), veh/h	187	1609	857	241	1690	898	267	255	233	267	255	255
V/C Ratio(X)	0.90	0.93	0.94	1.84	1.10	1.13	1.06	2.02	2.02	1.01	1.41	1.42
Avail Cap(c_a), veh/h	229	1609	857	241	1690	898	267	255	233	267	255	255
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	54.4	28.5	28.8	54.8	28.4	28.4	55.2	72.7	72.7	55.2	72.7	72.7
Incr Delay (d2), s/veh	27.2	10.7	18.7	379.3	45.7	61.8	70.8	472.7	473.9	55.5	205.8	207.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	35.2	40.1	48.0	48.0	57.0	22.1	69.5	64.2	20.0	38.9	39.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.6	39.2	47.5	434.0	74.1	90.3	126.0	545.4	546.6	110.8	278.5	280.5
LnGrp LOS	F	D	D	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		2462			3321			1269			992	
Approach Delay, s/veh		44.8			127.2			452.7			233.5	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	91.1	28.0	31.0	24.0	87.0	28.0	31.0
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	81.0	21.6	24.6	18.0	81.0	21.6	24.6
Max Q Clear Time (g_c+I1), s	13.8	87.1	23.6	26.6	20.0	70.3	23.6	26.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	5.8	0.0	0.0

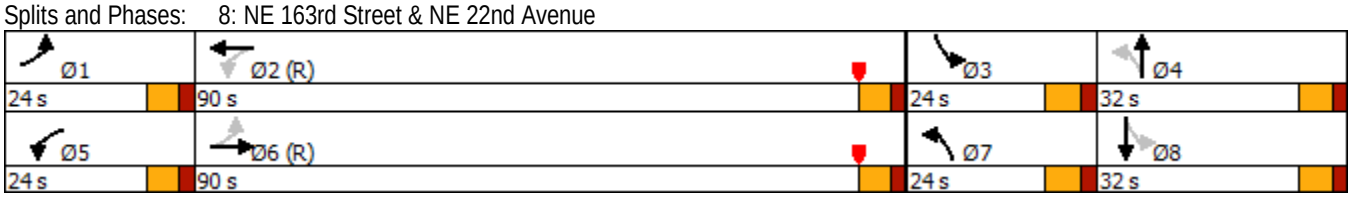
Intersection Summary	
HCM 6th Ctrl Delay	166.4
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	158	2034	417	2527	265	577	254	584
Future Volume (vph)	158	2034	417	2527	265	577	254	584
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	32.0	11.0	32.0	11.4	30.4	11.4	30.4
Total Split (s)	24.0	90.0	24.0	90.0	24.0	32.0	24.0	32.0
Total Split (%)	14.1%	52.9%	14.1%	52.9%	14.1%	18.8%	14.1%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 27 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 8: NE 163rd Street & NE 22nd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	2034	122	417	2527	182	265	577	389	254	584	128
Future Volume (veh/h)	158	2034	122	417	2527	182	265	577	389	254	584	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		Yes			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	168	2164	130	444	2688	189	282	614	373	270	621	101
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2413	144	248	2508	173	225	316	192	225	457	74
Arrive On Green	0.11	0.66	0.66	0.14	0.69	0.69	0.10	0.15	0.15	0.10	0.15	0.15
Sat Flow, veh/h	1767	4884	291	1767	4839	333	1767	2101	1276	1767	3033	492
Grp Volume(v), veh/h	168	1492	802	444	1858	1019	282	515	472	270	360	362
Grp Sat Flow(s),veh/h/ln	1767	1689	1798	1767	1689	1795	1767	1763	1614	1767	1763	1762
Q Serve(g_s), s	11.8	62.4	64.0	18.0	88.1	88.1	17.6	25.6	25.6	17.6	25.6	25.6
Cycle Q Clear(g_c), s	11.8	62.4	64.0	18.0	88.1	88.1	17.6	25.6	25.6	17.6	25.6	25.6
Prop In Lane	1.00		0.16	1.00		0.19	1.00		0.79	1.00		0.28
Lane Grp Cap(c), veh/h	187	1669	888	248	1750	930	225	265	243	225	265	265
V/C Ratio(X)	0.90	0.89	0.90	1.79	1.06	1.10	1.25	1.94	1.94	1.20	1.36	1.36
Avail Cap(c_a), veh/h	229	1669	888	248	1750	930	225	265	243	225	265	265
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	55.2	25.4	25.7	53.3	26.4	26.4	57.1	72.2	72.2	57.1	72.2	72.2
Incr Delay (d2), s/veh	27.2	7.8	14.2	356.1	29.3	44.9	144.4	437.1	438.3	121.5	181.8	183.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	32.2	36.5	47.0	43.1	51.5	26.4	68.2	63.0	23.9	37.5	37.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.3	33.2	39.9	409.5	55.7	71.3	201.5	509.3	510.5	178.6	254.0	255.9
LnGrp LOS	F	C	D	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		2462			3321			1269			992	
Approach Delay, s/veh		38.8			107.8			441.3			234.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	94.1	24.0	32.0	24.0	90.0	24.0	32.0
Change Period (Y+Rc), s	6.0	6.0	6.4	6.4	6.0	6.0	6.4	6.4
Max Green Setting (Gmax), s	18.0	84.0	17.6	25.6	18.0	84.0	17.6	25.6
Max Q Clear Time (g_c+I1), s	13.8	90.1	19.6	27.6	20.0	66.0	19.6	27.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	7.6	0.0	0.0

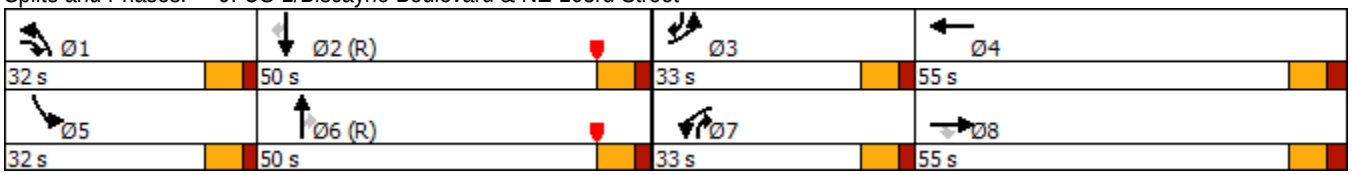
Intersection Summary	
HCM 6th Ctrl Delay	154.9
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	635	1443	539	740	1659	904	601	1893	954	710	1923	683
Future Volume (vph)	635	1443	539	740	1659	904	601	1893	954	710	1923	683
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			Free			6			2
Detector Phase	3	8	1	7	4		1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	7.0	5.0	5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0
Minimum Split (s)	11.8	58.7	11.8	11.8	58.7		11.8	49.2	11.8	11.8	49.2	11.8
Total Split (s)	33.0	55.0	32.0	33.0	55.0		32.0	50.0	33.0	32.0	50.0	33.0
Total Split (%)	19.4%	32.4%	18.8%	19.4%	32.4%		18.8%	29.4%	19.4%	18.8%	29.4%	19.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8		4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.9	2.0	2.0	2.9		2.0	2.4	2.0	2.0	2.4	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	7.7	6.8	6.8	7.7		6.8	7.2	6.8	6.8	7.2	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 77 (45%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 9: US-1/Biscayne Boulevard & NE 163rd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	635	1443	539	740	1659	904	601	1893	954	710	1923	683
Future Volume (veh/h)	635	1443	539	740	1659	904	601	1893	954	710	1923	683
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	683	1552	551	796	1784	0	646	2035	934	763	2068	680
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
Arrive On Green	0.15	0.28	0.28	0.15	0.28	0.00	0.20	0.33	0.33	0.20	0.33	0.33
Sat Flow, veh/h	3428	5066	1530	3428	5066	1572	3428	6383	1537	3428	6383	1539
Grp Volume(v), veh/h	683	1552	551	796	1784	0	646	2035	934	763	2068	680
Grp Sat Flow(s),veh/h/ln	1714	1689	1530	1714	1689	1572	1714	1596	1537	1714	1596	1539
Q Serve(g_s), s	26.2	47.3	47.3	26.2	47.3	0.0	25.2	42.8	42.8	25.2	42.8	42.8
Cycle Q Clear(g_c), s	26.2	47.3	47.3	26.2	47.3	0.0	25.2	42.8	42.8	25.2	42.8	42.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
V/C Ratio(X)	1.29	1.10	0.84	1.51	1.27		1.27	1.27	1.48	1.50	1.29	1.08
Avail Cap(c_a), veh/h	528	1409	659	528	1409		508	1607	629	508	1607	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	0.19	0.19	0.19	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	61.4	43.7	71.9	61.4	0.0	68.2	56.5	46.5	68.2	56.5	46.5
Incr Delay (d2), s/veh	134.5	48.0	1.9	237.7	125.4	0.0	136.8	124.9	226.4	235.8	133.9	59.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	28.2	32.4	24.4	44.6	53.3	0.0	30.9	45.1	97.9	42.3	46.7	50.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	206.4	109.4	45.6	309.6	186.7	0.0	205.1	181.5	272.9	304.0	190.5	105.7
LnGrp LOS	F	F	D	F	F		F	F	F	F	F	F
Approach Vol, veh/h		2786			2580	A		3615			3511	
Approach Delay, s/veh		120.5			224.6			209.3			198.7	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	50.0	33.0	55.0	32.0	50.0	33.0	55.0
Change Period (Y+Rc), s	6.8	* 7.2	6.8	* 7.7	6.8	* 7.2	6.8	* 7.7
Max Green Setting (Gmax), s	25.2	* 43	26.2	* 47	25.2	* 43	26.2	* 47
Max Q Clear Time (g_c+I1), s	27.2	44.8	28.2	49.3	27.2	44.8	28.2	49.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	189.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	3.6					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	22	68	99	71	20
Future Vol, veh/h	50	22	68	99	71	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	54	24	74	108	77	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	344	88	99	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	5	5	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3	3	2.227	-	-	-
Pot Cap-1 Maneuver	856	1101	1488	-	-	-
Stage 1	1090	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	811	1101	1488	-	-	-
Mov Cap-2 Maneuver	811	-	-	-	-	-
Stage 1	1032	-	-	-	-	-
Stage 2	906	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1488	-	882	-	-
HCM Lane V/C Ratio	0.05	-	0.089	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Appendix J

Left-Turn Lane Analysis

A.M. Peak Hour - NE 21st Avenue and Project Driveway

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

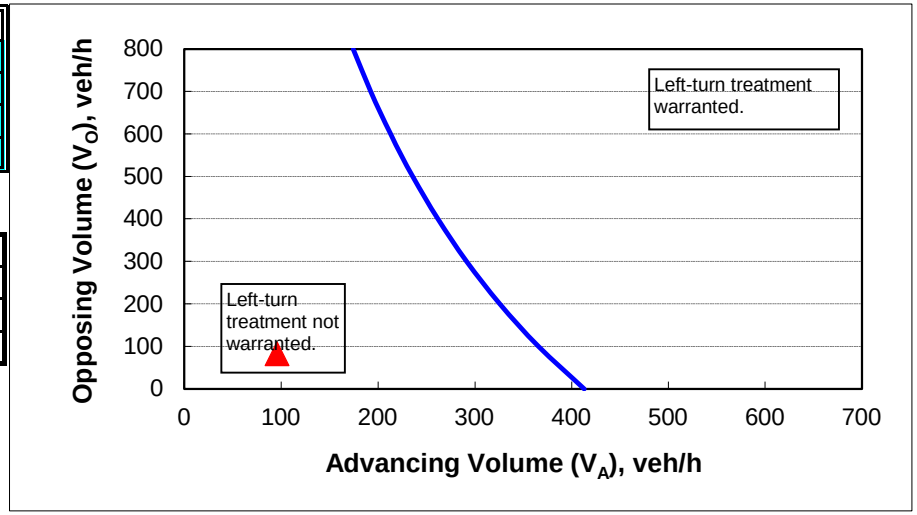
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	33%
Advancing volume (V_A), veh/h:	96
Opposing volume (V_O), veh/h:	82

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	374
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

P.M. Peak Hour - NE 21st Avenue and Project Driveway

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

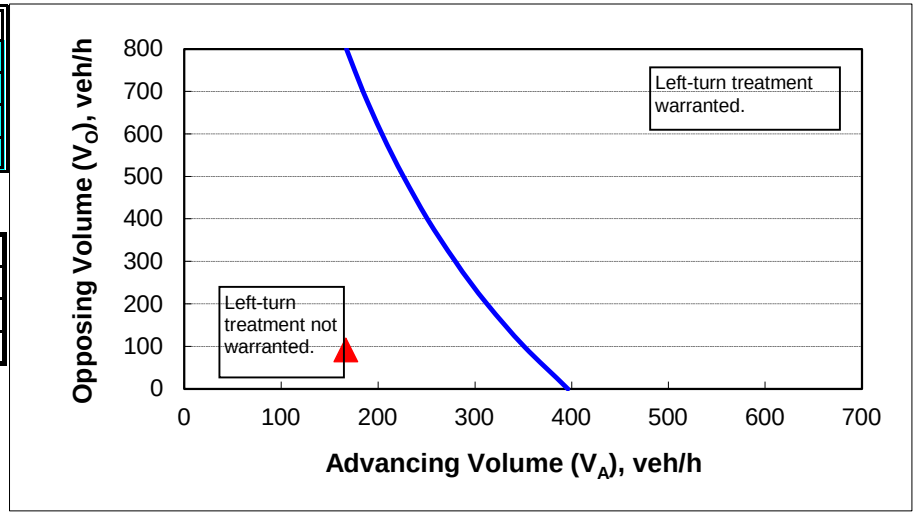
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	41%
Advancing volume (V_A), veh/h:	167
Opposing volume (V_O), veh/h:	91

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	355
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Appendix K

Entry Gate Analysis

Entry Gate Analysis (A.M. Peak Hour)

Arrival Rate	IN				
	31		Number of Entry Gates (N) =	1	
			Level of Confidence =	0.95	
Service Rate	IN		Total Entering and Exiting Vehicles(q) =	31	veh/hr
	0.075	mins/veh	Service Capacity per N (60 mins/Service Rate) (Q) =	800.00	veh/hr/pos
			Average Service Rate (t) =	0.08	mins/veh
			rho (t/Q) =	0.039	

Service Time = 0.08 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.00	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.04	
Mean time in the queue	E(w)=	0.00	mins
Mean time in system	E(t)=	0.08	mins

Proportion of customers who wait (P) (E(w) > 0)=	3.88%	
Probability of a queue exceeding a length (M) P(x > M)=	5.00%	

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

Entry Gate Analysis (P.M. Peak Hour)

Arrival Rate	IN
	56

Service Rate	IN
	0.075

Number of Entry Gates (N) =	1	
Level of Confidence =	0.95	
Total Entering and Exiting Vehicles(q) =	56	veh/hr
Service Capacity per N (60 mins/Service Rate) (Q) =	800.00	veh/hr/pos
Average Service Rate (t) =	0.08	mins/veh
rho (t/Q) =	0.070	

Service Time = 0.08 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.01	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.08	
Mean time in the queue	E(w)=	0.01	mins
Mean time in system	E(t)=	0.08	mins

Proportion of customers who wait (P) (E(w) > 0)=	7.00%	
Probability of a queue exceeding a length (M) P(x > M)=	5.00%	

Queue length which is exceeded 5.00% of the times is equal to -0.9 vehicles