

NOTE: Please fill out the form available and return it prior to the start of the meeting, if you would like to speak during public comment. When you speak, you must come to the podium in the front and clearly state your name and address for the record. Please turn off or mute your cell phone or pager at the start of the meeting. Thank you.

TOWN OF BAY HARBOR ISLANDS

SPECIAL COUNCIL MEETING AGENDA

June 6, 2022

SPECIAL NOTICE – HYBRID/VIRTUAL MEETING

Pursuant to Ordinance No. 1059, the Town of Bay Harbor Islands Special Council Meeting will be held as a Hybrid Meeting where a quorum of the Town Council will be physically present at the Town Hall Council Chambers at 9665 Bay Harbor Terrace, Second Floor. The general public and other members of staff will be able to view and participate in the meeting (Virtually) by utilizing the Zoom video conferencing platform.

Zoom Meeting Link: <https://us06web.zoom.us/j/89226711976>

Meeting ID: [892 2671 1976](#)

To request to speak during Public Comment, please utilize the “raise your hand” Zoom feature on your electronic device. You will be recognized at the direction of the Zoom Meeting Host.

The staff, members of the public and the applicants are strongly encouraged to attend virtually but will not be denied access to the physical meeting, consistent with public safety and health considerations.

In addition, any member of the public who does not wish, or is unable to participate through the Zoom video conferencing platform, but would still like to participate can do so by listening to the meeting as it happens by dialing the Toll-free numbers below:

US Toll Free Numbers: 877 853 5247 or 888 788 0099

For higher quality, dial a number based on your current location):

US: 1 312 626 6799 or 1 646 558 8656 or 1 301 715 8592

Meeting ID: [892 2671 1976](#)

Participant ID: Press the # key.

To request to speak: Dial *9 on your telephone device to activate the “Raise your Hand” feature on the zoom platform.

Members of the Public can also submit their request to speak and/or comments via email to the Office of the Town Clerk at yhamilton@bayharborislands-fl.gov .

CALL TO ORDER: 6:00 p.m.

Discussion regarding the proposed development adjacent to the west relief bridge.

PLEDGE OF ALLEGIANCE:

ROLL CALL:

ADJOURNMENT: Approximately 7:00 p.m.

Pursuant to Florida Statutes 286.0105, the Town hereby advises the public that should any person decide to appeal any decision of the Town Council with respect to any matter to be considered at this meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.



Traffic Impact Analysis

Whitehouse Residences

North Miami, Florida



Kimley»Horn

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April 2022

143424002

Traffic Impact Analysis

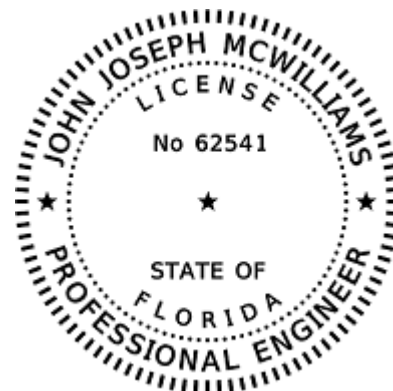
Whitehouse Residences North Miami, Florida

Prepared for:

Biscayne Harbour Venture, LLC

Prepared by:

Kimley-Horn and Associates, Inc.



This document has been digitally signed and sealed by John J. McWilliams, 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.

Kimley»Horn

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April 2022
143424002

John J. McWilliams, P.E.
Florida Registration Number 62541
Kimley-Horn and Associates, Inc.
8201 Peters Road, Suite 2200
Plantation, Florida 33324

EXECUTIVE SUMMARY

Biscayne Harbour Venture, LLC is proposing to redevelop the property located within the northeast corner of SR 922/NE 123rd Street and N Bayshore Drive in the City of North Miami, Florida. Currently, the site proposed for redevelopment is occupied by a vacant hotel. The proposed redevelopment consists of 54 high-rise luxury residential units. The project is expected to be completed by year 2024.

Primary access to the redevelopment is proposed via one (1) limited access (right-in/right-out) driveway along SR 922/NE 123rd Street approximately 300 feet east of N Bayshore Drive. Additionally, a secondary ingress (right-in only) driveway is proposed along N Bayshore Drive, just north of SR 922/NE 123rd Street.

The project is expected to generate 29 trips during the A.M. peak hour, 35 trips during the P.M. peak hour, and 234 daily trips.

The results of the intersection capacity analysis indicate that the study intersection is expected to operate at LOS B during the A.M. and P.M. peak hours under existing, future background, and future total conditions.

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

Biscayne Harbour Venture, LLC is proposing to redevelop the property located within the northeast corner of SR 922/NE 123rd Street and N Bayshore Drive in the City of North Miami, Florida. Currently, the site proposed for redevelopment is occupied by a vacant hotel. The proposed redevelopment consists of 54 high-rise luxury residential units. A project location map is included as Figure 1 and a conceptual site plan are provided in Appendix A. The project is expected to be completed by year 2024.

Kimley-Horn and Associates, Inc. has completed this traffic impact analysis to assess the project's impact on the surrounding roadway network consistent with the requirements of the City of North Miami. Methodology correspondence detailing the traffic study requirements is included in Appendix B. Note that the proposed redevelopment program and access has been updated since methodology approval. Additionally, the 11th Edition of the Institute of Transportation Engineer's (ITE's) report *Trip Generation Manual* was published since methodology approval. Therefore, the traffic study was prepared for the latest edition of ITE's *Trip Generation Manual*, and the updated development program and access. This report summarizes the data collection, project trip generation, trip assignment and distribution, capacity analysis, entry gate analysis, and turn lane queuing analysis for the redevelopment.



EXISTING TRAFFIC

A.M. peak period (7:00 to 9:00 A.M.) and P.M. peak period (4:00 to 6:00 P.M.) turning movement counts were collected on February 19, 2020 (Wednesday) at the intersection of SR 922/NE 123rd Street and N Bayshore Drive. As a result of atypical traffic conditions due to the COVID-19 pandemic, turning movement count data gathered from data collected before March 2020 was utilized for this analysis.

The traffic volumes were collected in 15-minute intervals and the peak hour was determined. The appropriate Florida Department of Transportation (FDOT) peak season conversion factor is 0.99. However, to provide a conservative analysis, a peak season conversion factor was not applied to the collected traffic data. As turning movement counts were collected in 2020, a growth rate of 0.92 percent (0.92%) was applied to establish existing (2022) conditions. Signal timing information was obtained from Miami-Dade County Department of Transportation and Public Works – Traffic Signals and Signs Division for all study area signalized intersections.

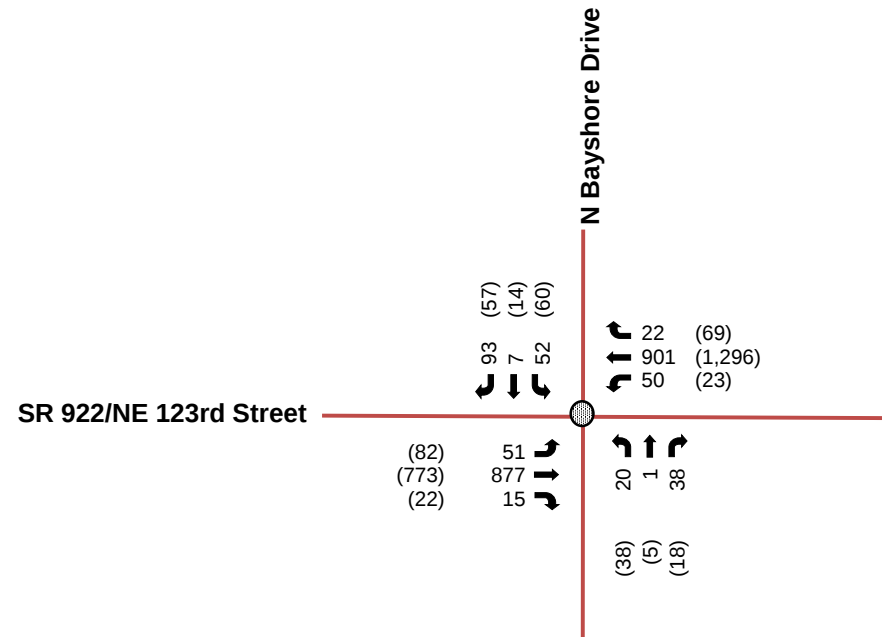
The turning movement counts, FDOT Peak Season Factor Category report, and signal timing data are included in Appendix C. Figure 2 presents the existing turning movement volumes at the study intersection during the A.M. and P.M. peak hours.



NOT TO SCALE

Legend

-  Study Roadway
-  Study Intersection
- XX A.M. Peak Hour Traffic
- (XX) P.M. Peak Hour Traffic



FUTURE BACKGROUND TRAFFIC

Future background traffic conditions are defined as expected traffic conditions on the roadway network in the year 2024 without the construction of the proposed redevelopment. Future background traffic volumes used in the analysis are the sum of the existing traffic, additional traffic generated by growth in the study area, and traffic generated by committed but not yet constructed developments in the study area. Refer to Figure 3 for the future background 2024 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 #871023 located on SR 922/NE 123rd Street, west of N Bayshore Drive
- Count Station #872523 located on SR 5/US 1/Biscayne Boulevard, north of SR 922/NE 123rd Street
- Count Station #878608 located on Broad Causeway, east of Gas Station Access

The historic growth rate analysis, based on FDOT count stations, examined linear, exponential, and decaying exponential growth rates for the most recent five (5) year and ten (10) year periods. The highest growth rate occurred during the most recent ten (10) year period and resulted in a growth rate of 0.92 percent (0.92%).

Based on the SERPM volume information obtained for the years 2015 and 2045, an annual growth rate of 0.36 percent (0.36%) in the vicinity of the redevelopment was calculated.

To provide a conservative analysis, the highest growth rate of 0.92 percent (0.92%) was applied to the existing traffic volumes to establish future (2024) background conditions. The worksheets

used to analyze the historic growth trends along with the SERPM transportation model outputs are included in Appendix D.

COMMITTED DEVELOPMENT

The Causeway Village redevelopment was identified as a committed development and was included under future background conditions. Trip assignments for the development are included in Appendix D.



NOT TO SCALE

Legend



Study Roadway



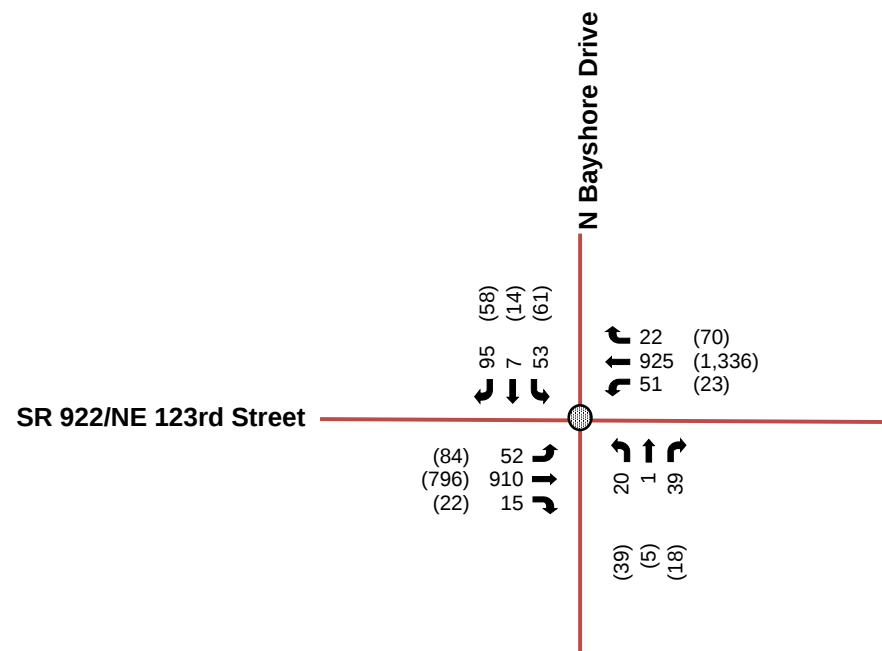
Study Intersection

XX

A.M. Peak Hour Traffic

(XX)

P.M. Peak Hour Traffic



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.

EXISTING AND PROPOSED LAND USES

The project site is currently occupied by a vacant hotel. The proposed redevelopment consists of 54 high-rise luxury residential units. Note that trip generation credit was not taken for the existing development.

PROJECT ACCESS

Primary access to the redevelopment is proposed via one (1) limited access (right-in/right-out) driveway along SR 922/NE 123rd Street approximately 300 feet east of N Bayshore Drive. Additionally, a secondary ingress (right-in only) driveway is proposed along N Bayshore Drive, just north of SR 922/NE 123rd Street.

TRIP GENERATION

Trip generation calculations for the proposed redevelopment were performed using the Institute of Transportation Engineer's (ITE's) report *Trip Generation Manual*, 11th Edition. Trip generation was determined using ITE Land Use Code (LUC) 222 (Multifamily Housing [High-Rise]). As shown in Table 1, this project is expected to generate 29 trips during the A.M. peak hour, 35 trips during the P.M. peak hour, and 234 daily trips. Detailed trip generation information is included in Appendix E.

Table 1: Trip Generation					
Proposed Land Use	ITE Code	Scale	New Project Trips		
			Enter	Exit	Total
A.M. Peak Hour (P.M. Peak Hour) [Daily]					
Multifamily Housing [High-Rise]	222	54 dwelling units	10 (20) [117]	19 (15) [117]	29 (35) [234]

MULTIMODAL REDUCTION

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census Means of Transportation to Work data was reviewed for the census tract in which the redevelopment is located. A multimodal factor of five (5) percent (5.0%) was determined for the redevelopment. It

is expected that a portion of residents, guests, and employees will choose to walk, bike, or use public transit to and from the redevelopment. Additionally, one (1) Miami-Dade County Department of Transportation and Public Works (DTPW) route and the Bay Harbor Islands shuttle currently operate in close proximity (within ½ mile) to the site during the A.M. and P.M. peak hours. Detailed transit route information is included in Appendix F.

- DTPW Route 107 operates along SR 922/NE 123rd Street in the vicinity of the project site with the nearest stop located just east of N Bayshore Drive. This route operates with approximately 30-minute headways.
- Bay Harbor Islands Shuttle operates along SR 922/NE 123rd Street in the vicinity of the project site with the nearest stop located just east of US-1/Biscayne Boulevard. This route operates with approximately 90-minute headways during the P.M. peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

The likely distribution of project traffic was forecasted for the trips expected to be generated by the proposed redevelopment. The trip distribution was based on a cardinal trip distribution for the project site's traffic analysis zone (TAZ 193) obtained from the *2015 and 2045 Cost Feasible Plan* travel demand models developed by the Miami-Dade Transportation Planning Organization (TPO). The cardinal trip distribution for TAZ 193 interpolated for the year 2024 is provided in Table 2. Detailed distribution data is provided in Appendix G.

Table 2: Cardinal Trip Distribution	
Cardinal Direction	Percentage of Trips
North-Northeast	17.3%
East-Northeast	0.3%
East-Southeast	0.6%
South-Southeast	4.0%
South-Southwest	21.2%
West-Southwest	22.4%
West-Northwest	13.8%
North-Northwest	20.4%
Total	100.0%

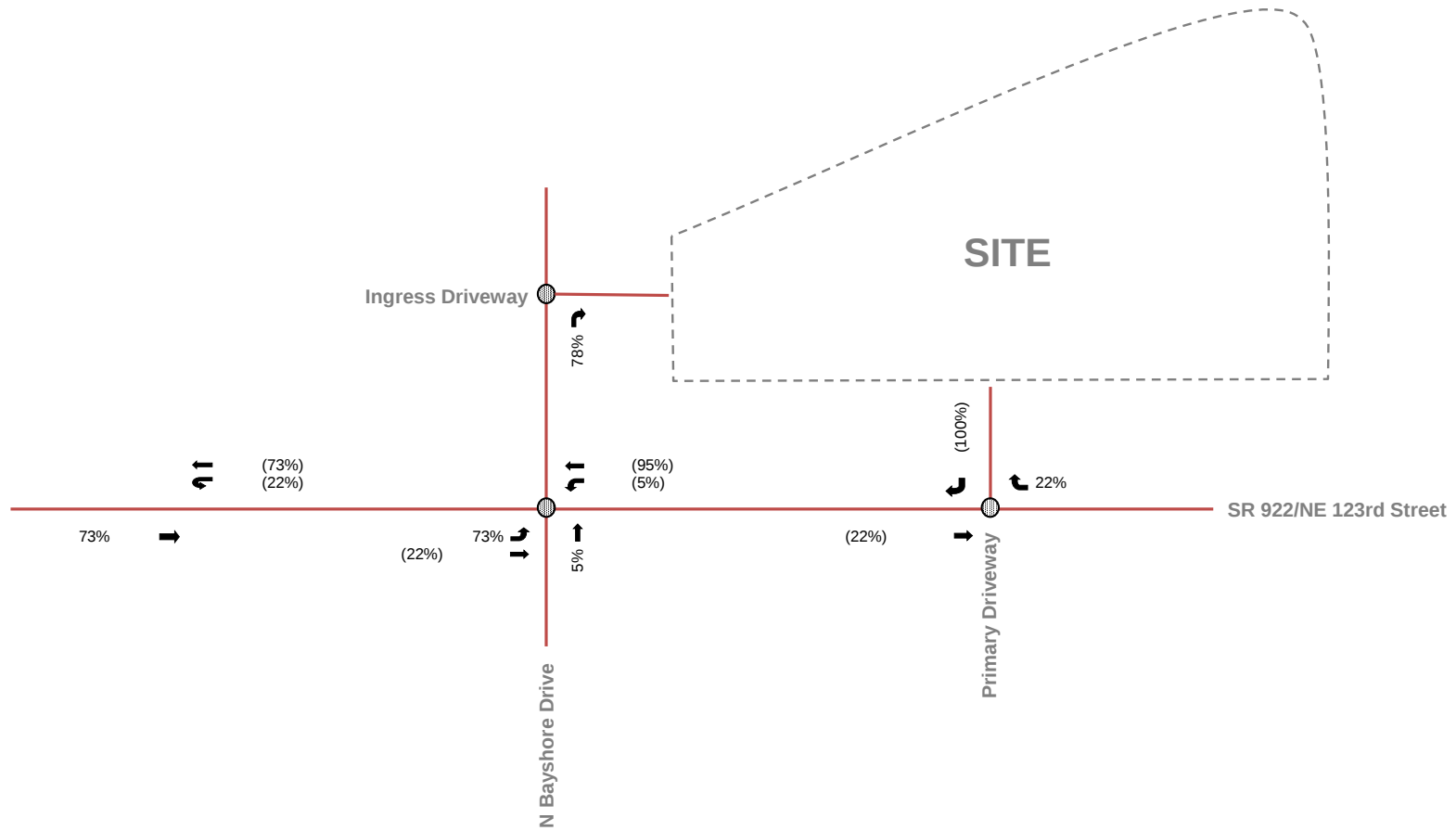
Figures 4 and 5 present the project's distribution and assignment for the weekday A.M. and P.M. peak hours.



NOT TO SCALE

Legend

-  Study Roadway
-  Study Intersection
- XX% Entering Trip Distribution
- (XX%) Exiting Trip Distribution

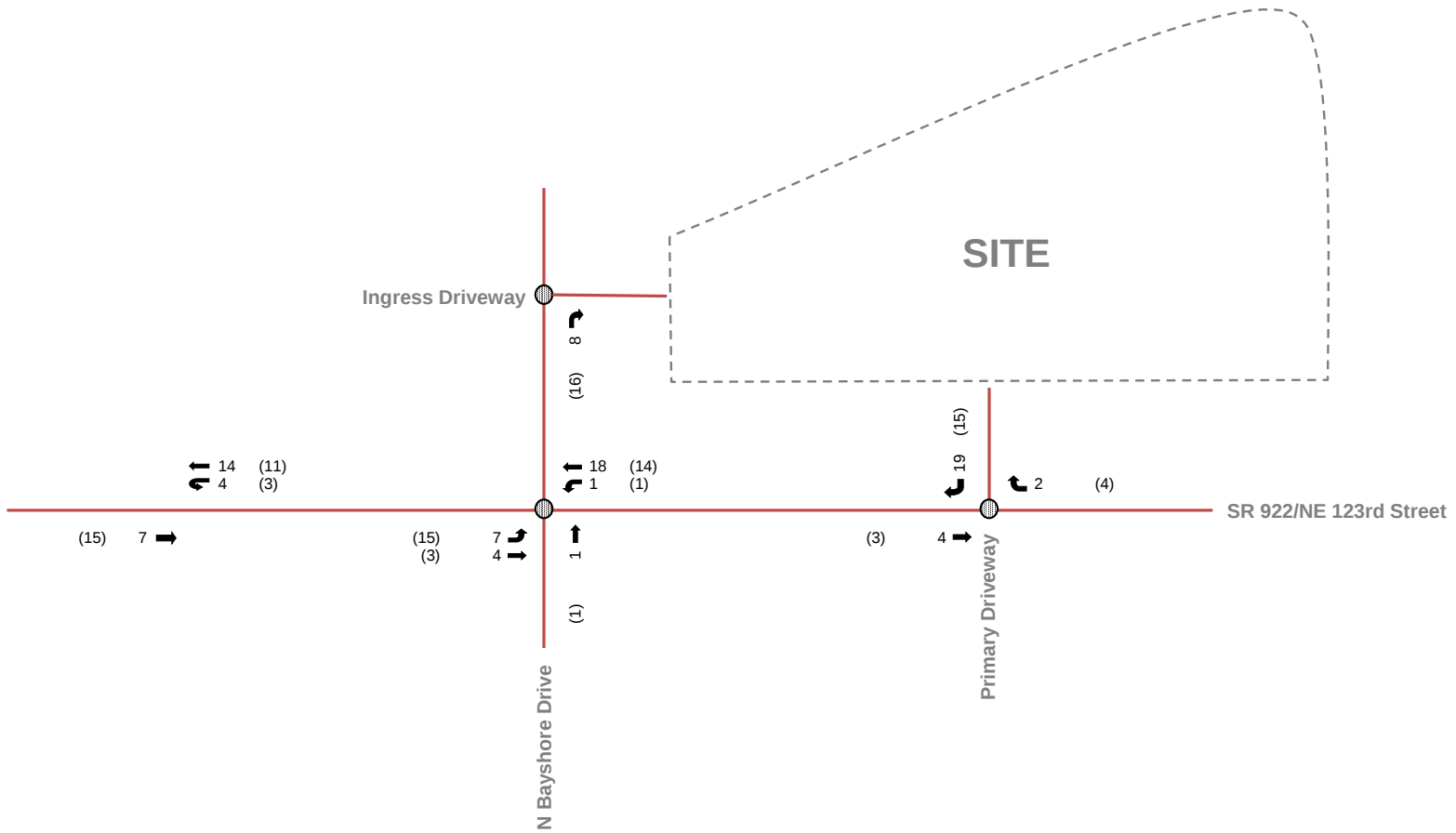




NOT TO SCALE

Legend

-  Study Roadway
-  Study Intersection
- XX A.M. Peak Hour Trip Assignment
- (XX) P.M. Peak Hour Trip Assignment



FUTURE TOTAL TRAFFIC

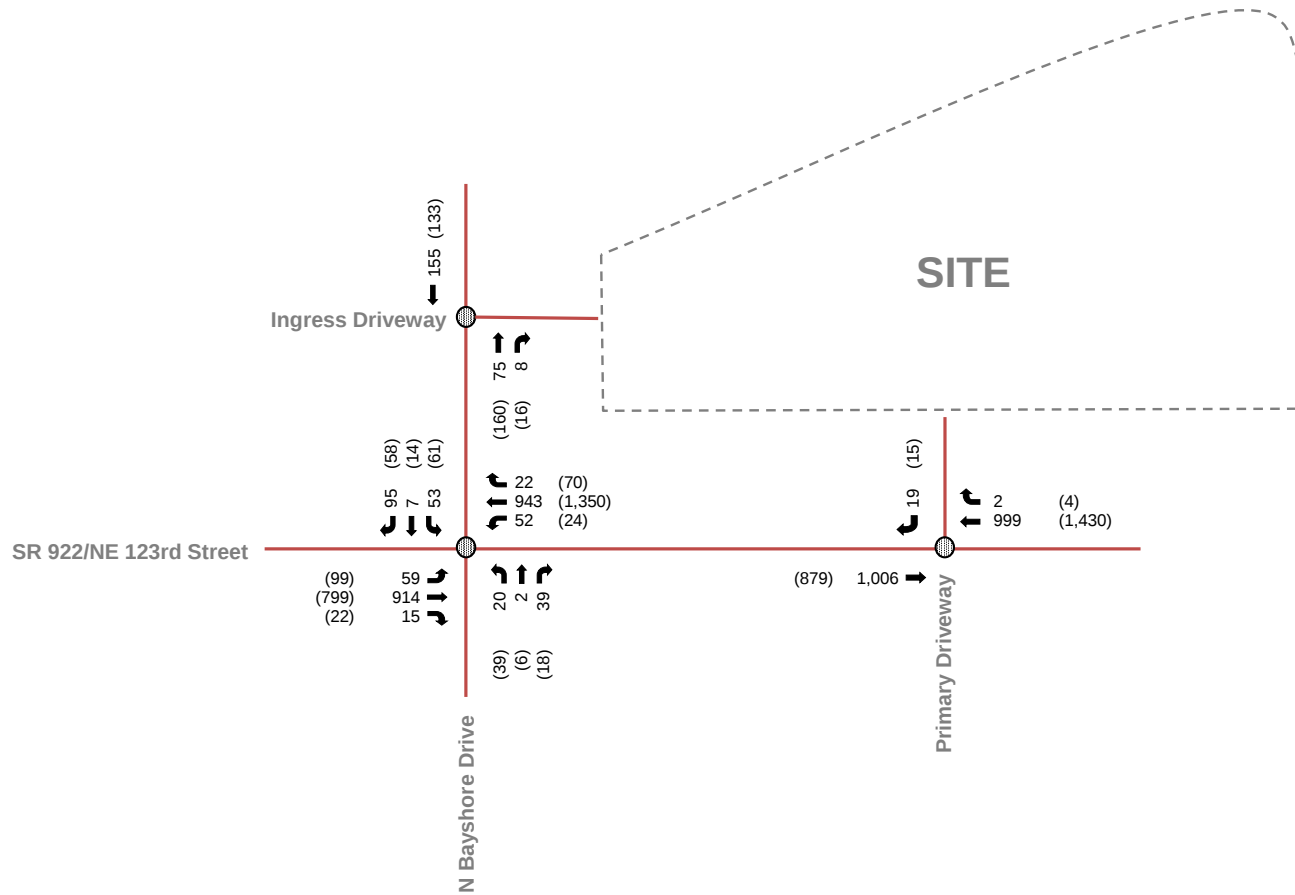
Future total traffic conditions are defined as the expected traffic conditions in the year 2024 after the opening of the project. Total traffic volumes considered in the analysis for this project are the sum of the year 2024 background traffic volumes and the expected project traffic volumes. Figure 6 presents the future traffic volumes for the weekday A.M. and P.M. peak hours. Volume development worksheets for the study intersections are included in Appendix H.



NOT TO SCALE

Legend

-  Study Roadway
-  Study Intersection
- XX A.M. Peak Hour Traffic
- (XX) P.M. Peak Hour Traffic



INTERSECTION CAPACITY ANALYSIS

The operating conditions were analyzed for the study intersections. Three (3) scenarios (existing conditions, future background conditions, and future total conditions) were analyzed using Trafficware's *SYNCHRO 11* Software, which applies methodologies outlined in the *Highway Capacity Manual*, 6th Edition. Synchro worksheets for the study intersections are included in Appendix I. A summary of the intersection analyses for the A.M. peak hour and P.M. peak hour is presented in Table 3. As this table indicates, the study intersection is expected to operate at level of service (LOS) B during the A.M. peak hour and P.M. peak hour under existing, future background, and future total conditions.

Table 3: A.M. and P.M. Peak Hour Capacity Analysis						
Intersection	Traffic Control	Overall LOS/Delay	Approach LOS			
			EB	WB	NB	SB
Existing (Future Background) [Future Total]						
A.M Peak Hour						
SR 922/NE 123 rd Street and N Bayshore Drive	Signalized	B/11.9 sec (B/12.1 sec) [B/12.1 sec]	A (A) [A]	A (A) [A]	D (D) [D]	E (E) [E]
SR 922/NE 123 rd Street and Primary Driveway	One-Way Stop-Controlled	(1)	(2)	(2)	(3)	(3) (3) [B]
N Bayshore Drive and Ingress Driveway	Free-Flow	(2)	(3)	(3)	(2)	(2)
P.M Peak Hour						
SR 922/NE 123 rd Street and N Bayshore Drive	Signalized	B/12.0 sec (B/12.3 sec) [B/12.4 sec]	A (A) [A]	B (B) [B]	D (D) [D]	E (E) [E]
SR 922/NE 123 rd Street and Primary Driveway	One-Way Stop-Controlled	(1)	(2)	(2)	(3)	(3) (3) [B]
N Bayshore Drive and Ingress Driveway	Free-Flow	(2)	(3)	(3)	(2)	(2)

Notes: ⁽¹⁾ Overall intersection LOS is not defined, as intersection operates under stop-control conditions.

⁽²⁾ Approach operates under free-flow conditions. LOS is not defined.

⁽³⁾ Approach does not exist.

ENTRY GATE ANALYSIS

An entry gate queue analysis for the redevelopment using the methodology outlined in ITE's *Transportation and Land Development*, 1988 was performed at the proposed entry gate. Approximately 190 feet of storage is provided for the entry gate including the service position, which provides sufficient space to accommodate approximately seven (7) vehicles.

The project is proposing to provide valet parking for residents and guests. It was assumed that valet attendants will utilize a proximity card access control system, which has a processing time of six (6) seconds per vehicle based on *Parking Structures* 3rd Edition: *Planning, Design, Construction, Maintenance, and Repair*, 2001. To provide a conservative analysis, it was assumed that all trips would utilize the valet service. Table 4 summarizes the entry gate analysis results.

Table 4: Peak Hour Entry Gate Analysis			
Entry Gate	Entering Volumes (vph)	Service Rates (minutes/vehicle)	95 th Percentile Queue including Service Position
<i>A.M. Peak Hour (P.M. Peak Hour)</i>			
Proposed Entry Gate	10 (20)	0.10 (0.10)	<1 vehicle (<1 vehicle)

The 95th percentile queue length is less than one (1) vehicle during the A.M. and P.M. peak hours for the proposed entry gate. Therefore, all anticipated queues are expected to be accommodated on-site without extending onto SR 922/NE 123rd Street or N Bayshore Drive. Detailed entry gate calculations are included in Appendix J.

PROGRAMMED MULTIMODAL IMPROVEMENTS

Local transportation plans were reviewed in order to gather information about planned and programmed transportation improvements in the study area. The purpose of the plan review is to identify programmed multimodal improvements for consideration in the analysis. The following transportation plans were examined as part of the background research.

- Miami-Dade Transportation Planning Organization's (TPO) Transportation Improvement Program (TIP)
- Florida Department of Transportation's (FDOT's) Five-Year Work Program
- Miami-Dade County Transportation Planning Organization's (TPO) Long Range Transportation Plan (LRTP)

Relevant information from these plans is summarized below.

MIAMI-DADE TPO TRANSPORTATION IMPROVEMENT PROGRAM

The Miami-Dade Transportation Improvement Program (TIP) specifies programmed improvements to be implemented within Miami-Dade County over the next five (5) years. The most recent TIP is for fiscal years 2021 to 2025. Improvements identified in the TIP are characterized as Intermodal, Highway, Transit, Aviation, Seaport, and Non-Motorized. Based on the review of the Miami-Dade TPO TIP, no multimodal improvements are programmed in proximity to the site.

FLORIDA DEPARTMENT OF TRANSPORTATION'S (FDOT'S) WORK PROGRAM

FDOT's Five Year Work Program specifies state regulated roadway improvements to be implemented over the next five (5) years (2021-2025). Based on the review of FDOT's Work Program, no multimodal improvements are programmed in proximity to the site.

MIAMI-DADE TPO 2045 LONG RANGE TRANSPORTATION PLAN

The *Miami-Dade 2045 Long Range Transportation Plan* (LRTP), adopted by the Miami-Dade County TPO, was developed to guide long-term transportation investments in Miami-Dade County. The LRTP focuses on the County's transportation infrastructure needs including roadways, transit facilities, bicycle facilities, pedestrian facilities, and other modes of transportation. Based on the review of Miami-Dade TPO's LRTP, no multimodal improvements are programmed in proximity to the site.

CONCLUSION

Biscayne Harbour Venture, LLC is proposing to redevelop the property located within the northeast corner of SR 922/NE 123rd Street and N Bayshore Drive in the City of North Miami, Florida. Currently, the site proposed for redevelopment is occupied by a vacant hotel. The proposed redevelopment consists of 54 high-rise luxury residential units. The project is expected to be completed by year 2024.

Primary access to the redevelopment is proposed via one (1) limited access (right-in/right-out) driveway along SR 922/NE 123rd Street approximately 300 feet east of N Bayshore Drive. Additionally, a secondary ingress (right-in only) driveway is proposed along N Bayshore Drive, just north of SR 922/NE 123rd Street.

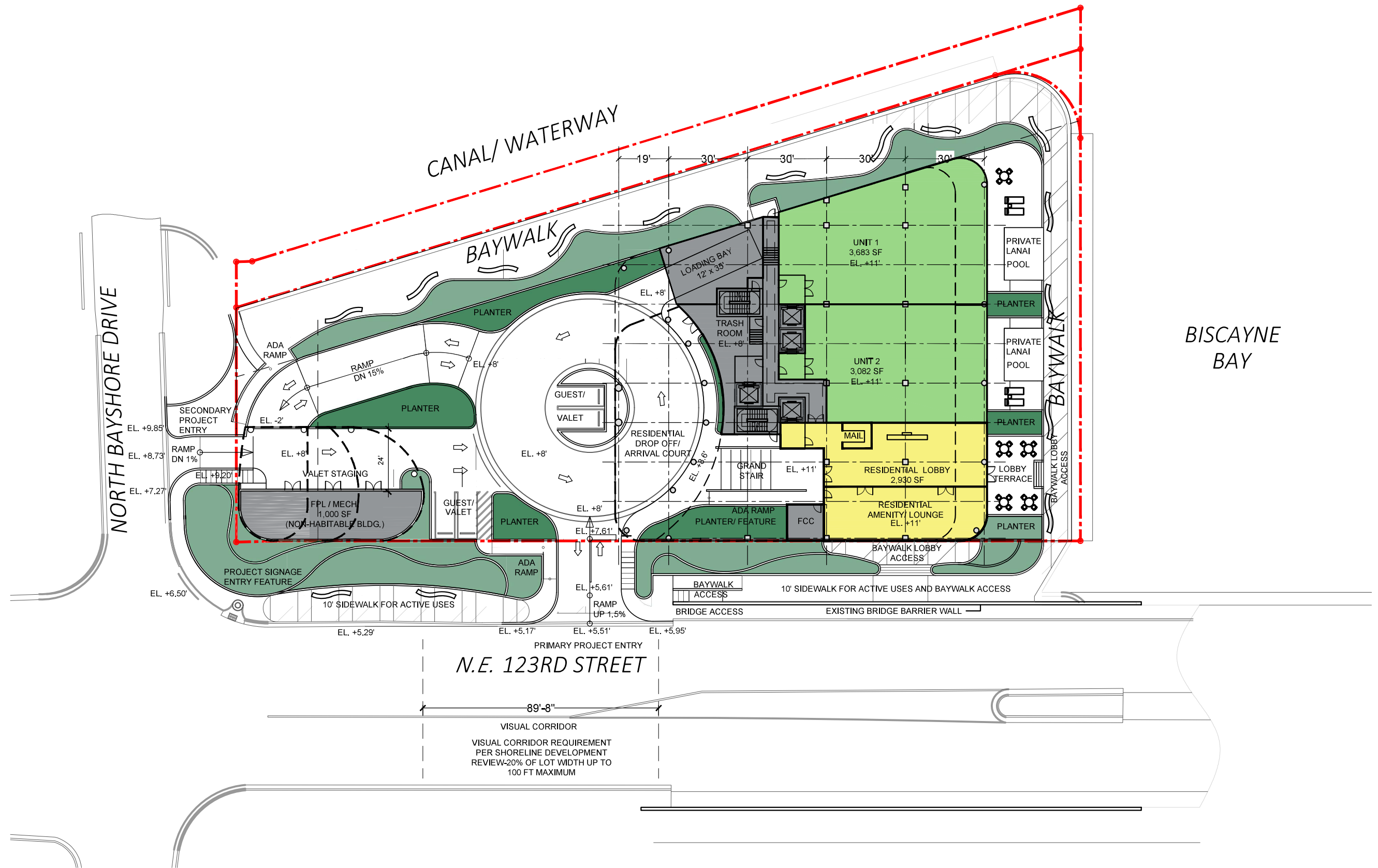
The project is expected to generate 29 trips during the A.M. peak hour, 35 trips during the P.M. peak hour, and 234 daily trips.

The results of the intersection capacity analysis indicate that the study intersection is expected to operate at LOS B during the A.M. and P.M. peak hours under existing, future background, and future total conditions.

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

Conceptual Site Plan



Appendix B

Methodology Correspondence

From: Zaid, Mohammad <mzaid@northmiamifl.gov>
Sent: Wednesday, July 21, 2021 6:59 AM
To: McWilliams, John
Cc: Selanikio, Raquel; Love, Debbie; Cook, Derrick; Pierre-Louis, Wisler; Positano, Thomas
Subject: RE: 3 Oceans Development - Traffic Impact Study Methodology
Categories: External

You don't often get email from mzaid@northmiamifl.gov. [Learn why this is important](#)

Hi John, Good morning, I have reviewed the subject traffic study methodology and approve it with the following comments:

1. **Additional justification** for 5% multimodal transit factor is required.
2. You are providing AM and PM peak trip projections but also provide **24 hour daily trip projections**.
3. **Identify any programmed multimodal transportation** improvement projects by the County and FDOT in the surrounding area of the development if any.
4. Provide **traffic mitigations** if any.
5. **Identify the intersections** which will be analyzed. In the intersection capacity analysis recommend any geometrics modifications and signal timing changes which can be implemented by the city, or Miami-Dade county or FDOT.
6. Get traffic study methodology **approval by Miami-Dade County** Department of Transportation and Public Works as well.

For any clarifications please contact me.

Thanks.



Mohammad Ayub Zaid

Transportation Manager

Public Works

1855 NE 142nd St

North Miami, FL 33161

Office: (305)893-6511 Ext. 14005

Office (Direct): (305)895-9883

From: McWilliams, John <John.McWilliams@kimley-horn.com>
Sent: Tuesday, July 20, 2021 2:14 PM
To: Zaid, Mohammad <mzaid@northmiamifl.gov>
Cc: Selanikio, Raquel <Raquel.Selanikio@kimley-horn.com>
Subject: 3 Oceans Development - Traffic Impact Study Methodology

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-City Of North Miami IT Department.

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-City Of North Miami IT Department.

Mohammad:

Good afternoon. Hope all is well. Per our call last week, attached is our proposed methodology for the 3 Oceans development. Please let me know if you have any questions or comments. We look forward to your response/approval.

Regards,

John

John J. McWilliams, P.E.

Kimley-Horn | 8201 Peters Road, Suite 2200, Plantation, FL 33324

Direct: 954-535-5106 | Mobile: 954-873-9407 | www.kimley-horn.com

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MEMORANDUM

To: Mohammad Ayub Zaid
City of North Miami

From: John J. McWilliams, P.E. 
Raquel Selanikio, E.I. 

Date: July 20, 2021

Subject: 3 Oceans
Traffic Study Methodology

The purpose of this memorandum is to summarize the traffic study methodology for the redevelopment located the northeast corner of SR 922/NE 123rd Street and N Bayshore Drive in the City of North Miami, Florida. Currently, the site proposed for redevelopment is occupied by a vacant hotel. The proposed redevelopment consists of 42 high-rise luxury residential units. A project location map is provided in Attachment A. The following sections summarize our proposed methodology.

TRIP GENERATION

Trip generation calculations for the existing development and the proposed redevelopment were performed using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. The trip generation for the proposed land use was determined using ITE LUC 222 (Multifamily Housing [High-Rise]).

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tract in which the redevelopment is located. A multimodal factor of 5.0 percent (5.0%) was determined for the proposed redevelopment. It is expected that a portion of employees and guests will choose to walk, bike, or use public transit to and from the proposed redevelopment. Miami-Dade County Transit (MDT) provides several bus services routes in the vicinity of the site. Transit route information will be documented in the report.

The project is expected to generate 24 net new weekday A.M. peak hour vehicular trips and 22 net new weekday P.M. peak hour vehicular trips. Trip generation calculations may be revised based on revisions to the redevelopment program or site plan modifications. Detailed trip generation calculations and US Census *Means of Transportation to Work* data are included in Attachment B.

STUDY AREA

Based on the proposed redevelopment plan, the intersection of SR 922/NE 123rd Street and N Bayshore Drive in addition to the project driveway are proposed to be analyzed:

DATA COLLECTION

As a result of atypical traffic conditions due to the COVID-19 pandemic, turning movement count data will be gathered from data collected before March 2020. The traffic was collected during the A.M. (7:00 A.M. to 9:00 A.M.) and P.M. (4:00 P.M. to 6:00 P.M.) peak periods on a typical weekday (Tuesday, Wednesday, or Thursday). All traffic counts will be adjusted to peak season conditions using the appropriate FDOT peak season category factors. Turning movement counts was collected in 15-minute

intervals during the two (2) peak periods. Turning movement counts also includes pedestrians and bicyclists.

Signal timing information will be obtained from Miami-Dade County Department of Transportation and Public Works – Traffic Signals and Signs Division. All traffic data collected will be provided in the Appendix of the traffic analysis report.

TRIP DISTRIBUTION

Trip distribution will be determined based on turning movements counts collected at the study area intersections and on an interpolated cardinal trip distribution for the project site's traffic analysis zones (TAZs) obtained from the Miami-Dade Transportation Planning Organization's (TPO) *2045 Cost Feasible Plan* travel demand model 2015 and 2045 data. The trip distribution for the anticipated build-out year of 2024 was interpolated from the 2015 and 2045 data. The project is located within TAZ 193. The detailed cardinal distribution is provided in Attachment C.

BACKGROUND GROWTH RATE/MAJOR COMMITTED DEVELOPMENT

A background growth rate will be calculated based on historic growth trends at nearby Florida Department of Transportation (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. Documentation will be provided in the Appendix of the traffic impact study.

The City's review of this document will determine any committed projects to include in background conditions. The City will provide the corresponding approved traffic study for any committed projects identified.

CAPACITY ANALYSIS

Capacity analyses will be conducted for the A.M. and P.M. peak hours at the study intersection. Intersection analyses will be performed using *Synchro* traffic engineering analysis software which applies the Transportation Research Board's (TRB's), *Highway Capacity Manual* (HCM) 2000 and 6th Edition methodologies. Capacity analyses will be conducted for three (3) scenarios: existing, future build-out without project (future background conditions), and future build-out with project (future total conditions). If intersection capacity deficiencies created by the redevelopment are identified, strategies may be developed to attain adopted levels of service. A build-out year of 2024 will be used in the analysis.

The following figures 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

A 95th percentile entry gate analysis will be prepared for parking garage entry points, if entry gates are provided. 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. 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.

TURN LANE ANALYSIS

Future total peak hour turning volumes at the study intersections will be compared to the applicable standards to determine if (a) a turn lane is required or (b) extensions to existing turn lanes are required. The analysis will be limited to turn lane locations where existing right-of-way appears available or where right-of-way can be made available from the project sites.

DOCUMENTATION

The results of the traffic 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.

K:\FTL_TPTO\143424000-3 Oceans\Correspondence\3 Oceans Traffic Study Methodology.docx

Attachment A
Project Location Map



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	Land Use Type	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total			
						In	Out																					
GROUP 1	1	Multifamily Housing (High-Rise)	Residential	10	222	42	du	24%	76%		6	19	25	5.0%	1	6	18	24	0.0%	0	6	18	24	0.0%	0	6	18	24
	2																											
	3																											
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											
	13																											
	14																											
	15																											
ITE Land Use Code						Rate or Equation		Total:		6	19	25	5.0%	1	6	18	24	0.0%	0	6	18	24	0.0%	0	6	18	24	
222						Y=0.28*(X)+12.86																						

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS							DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS						
Land Use	Land Use Type	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total					
						In	Out																							
GROUP 2	1	Multifamily Housing (High-Rise)	Residential	10	222	42	du	61%	39%				14	9	23	5.0%	1	13	9	22	0.0%	0	13	9	22	0.0%	0	13	9	22
	2																													
	3																													
	4																													
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													
	13																													
	14																													
	15																													
ITE Land Use Code							Total:		14	9	23	5.0%	1	13	9	22	0.0%	0	13	9	22	0.0%	0	13	9	22				
222							Y=0.34*(X)+8.56																							

MEANS OF TRANSPORTATION TO WORK

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

$(60+25+33)/2341=5.0\%$		Census Tract 1.20, Miami-Dade County, Florida	
Label	Estimate	Margin of Error	
▼ Total:	2,341	±285	
▼ Car, truck, or van:	1,926	±277	
Drove alone	1,851	±271	
▼ Carpooled:	75	±59	
In 2-person carpool	62	±56	
In 3-person carpool	13	±17	
In 4-person carpool	0	±13	
In 5- or 6-person carpool	0	±13	
In 7-or-more-person carpool	0	±13	
▼ Public transportation (excluding taxicab):	60	±68	
Bus or trolley bus	60	±68	
Streetcar or trolley car (carro publico in Puerto Rico)	0	±13	
Subway or elevated	0	±13	
Railroad	0	±13	
Ferryboat	0	±13	
Taxicab	32	±50	
Motorcycle	0	±13	
Bicycle	25	±23	
Walked	33	±40	
Other means	13	±21	
Worked at home	252	±102	

Table Notes

MEANS OF TRANSPORTATION TO WORK

Survey/Program: American Community Survey

Universe: Workers 16 years and over

Year: 2018

Estimates: 5-Year

Table ID: B08301

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

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

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

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

While the 2014-2018 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

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

Explanation of Symbols:

An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.

An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.

An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.

An "****" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

An "(X)" means that the estimate is not applicable or not available.

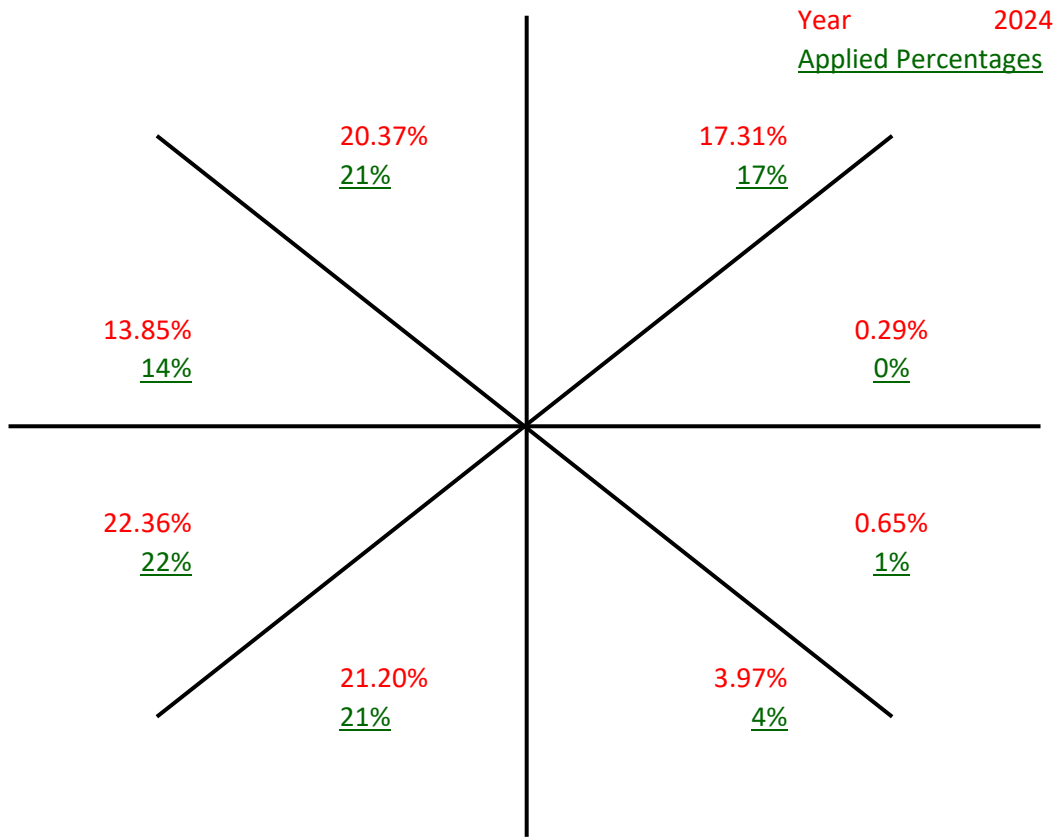
Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

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

Attachment C

Cardinal Trip Distribution

Cardinal Distribution for TAZ 193



Cardinal Trip Distribution

Cardinal Direction	Percentage of Trips		2024 Interpolated	2024 Rounded
	2015	2045		
North-Northeast	16.7%	18.00%	17.31%	17.00%
East-Northeast	0.1%	0.50%	0.29%	0.00%
East-Southeast	0.7%	0.60%	0.65%	1.00%
South-Southeast	4.3%	3.60%	3.97%	4.00%
South-Southwest	19.1%	23.60%	21.20%	21.00%
West-Southwest	23.2%	21.40%	22.36%	22.00%
West-Northwest	13.2%	14.60%	13.85%	14.00%
North-Northwest	22.7%	17.70%	20.37%	21.00%
Total	100.0%	100.0%	100.00%	100.00%



MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION

2045 LRTP

SUPPORTING DOCUMENTS

DIRECTIONAL TRIP DISTRIBUTION REPORT

SEPTEMBER 2019

DIRECTIONAL TRIP DISTRIBUTION REPORT

Miami-Dade 2015 Base Year Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
183	3083	Trips	585	648	1,059	1,164	586	71	49	129	4,489
183	3083	Percent	13.6	15.1	24.7	27.1	13.7	1.7	1.1	3.0	
184	3084	Trips	321	367	91	188	484	262	279	360	2,366
184	3084	Percent	13.7	15.6	3.9	8.0	20.6	11.1	11.9	15.3	
185	3085	Trips	1,447	436	4	409	1,233	988	1,002	913	6,542
185	3085	Percent	22.5	6.8	0.1	6.4	19.2	15.4	15.6	14.2	
186	3086	Trips	52	-	-	15	32	41	56	97	292
186	3086	Percent	17.7	-	-	5.0	11.0	14.1	19.1	33.2	
187	3087	Trips	443	4	0	89	241	520	508	1,139	2,981
187	3087	Percent	15.0	0.1	-	3.0	8.2	17.7	17.3	38.7	
188	3088	Trips	292	30	18	43	547	440	304	375	2,112
188	3088	Percent	14.2	1.5	0.9	2.1	26.7	21.5	14.8	18.3	
189	3089	Trips	959	135	131	203	879	688	517	806	4,360
189	3089	Percent	22.2	3.1	3.0	4.7	20.4	16.0	12.0	18.7	
190	3090	Trips	1,130	33	43	244	1,194	984	704	853	5,315
190	3090	Percent	21.8	0.6	0.8	4.7	23.0	19.0	13.6	16.5	
191	3091	Trips	594	35	32	160	650	566	323	494	2,984
191	3091	Percent	20.8	1.2	1.1	5.6	22.8	19.8	11.3	17.3	
192	3092	Trips	81	19	26	48	143	90	95	114	617
192	3092	Percent	13.2	3.0	4.3	7.8	23.2	14.6	15.4	18.5	
193	3093	Trips	676	5	28	175	774	937	535	919	4,159
193	3093	Percent	16.7	0.1	0.7	4.3	19.1	23.2	13.2	22.7	
194	3094	Trips	760	37	132	132	682	629	527	746	3,757
194	3094	Percent	20.8	1.0	3.6	3.6	18.7	17.2	14.5	20.5	
195	3095	Trips	999	28	52	260	1,095	1,019	935	1,144	5,787
195	3095	Percent	18.1	0.5	0.9	4.7	19.8	18.4	16.9	20.7	
196	3096	Trips	554	27	26	107	445	504	258	385	2,372
196	3096	Percent	24.0	1.2	1.1	4.6	19.3	21.9	11.2	16.7	
197	3097	Trips	868	139	104	205	788	609	336	733	3,805
197	3097	Percent	23.0	3.7	2.8	5.4	20.8	16.1	8.9	19.4	
198	3098	Trips	880	206	31	141	743	712	490	690	3,977
198	3098	Percent	22.6	5.3	0.8	3.6	19.1	18.3	12.6	17.7	
199	3099	Trips	606	58	135	119	516	511	385	505	2,895
199	3099	Percent	21.4	2.0	4.8	4.2	18.2	18.0	13.6	17.8	
200	3100	Trips	1,550	208	65	517	1,413	1,094	990	1,319	7,533
200	3100	Percent	21.7	2.9	0.9	7.2	19.8	15.3	13.8	18.4	
201	3101	Trips	117	19	5	50	126	123	120	92	651
201	3101	Percent	17.9	2.9	0.8	7.7	19.3	18.9	18.4	14.1	
202	3102	Trips	441	99	139	142	569	497	357	400	2,699
202	3102	Percent	16.7	3.7	5.3	5.4	21.5	18.8	13.5	15.1	
203	3103	Trips	948	191	90	387	927	758	629	745	4,722
203	3103	Percent	20.3	4.1	1.9	8.3	19.8	16.2	13.5	15.9	
204	3104	Trips	645	100	75	199	549	527	333	464	2,981
204	3104	Percent	22.3	3.5	2.6	6.9	19.0	18.2	11.5	16.1	
205	3105	Trips	869	201	158	331	802	551	386	544	3,932
205	3105	Percent	22.6	5.2	4.1	8.6	20.9	14.3	10.1	14.2	
206	3106	Trips	856	228	132	437	850	700	387	704	4,518
206	3106	Percent	19.9	5.3	3.1	10.2	19.8	16.3	9.0	16.4	
207	3107	Trips	799	166	306	284	816	769	517	782	4,636
207	3107	Percent	18.0	3.7	6.9	6.4	18.4	17.3	11.7	17.6	
208	3108	Trips	918	335	170	354	776	609	452	900	4,728
208	3108	Percent	20.3	7.4	3.8	7.9	17.2	13.5	10.0	19.9	

DIRECTIONAL TRIP DISTRIBUTION REPORT

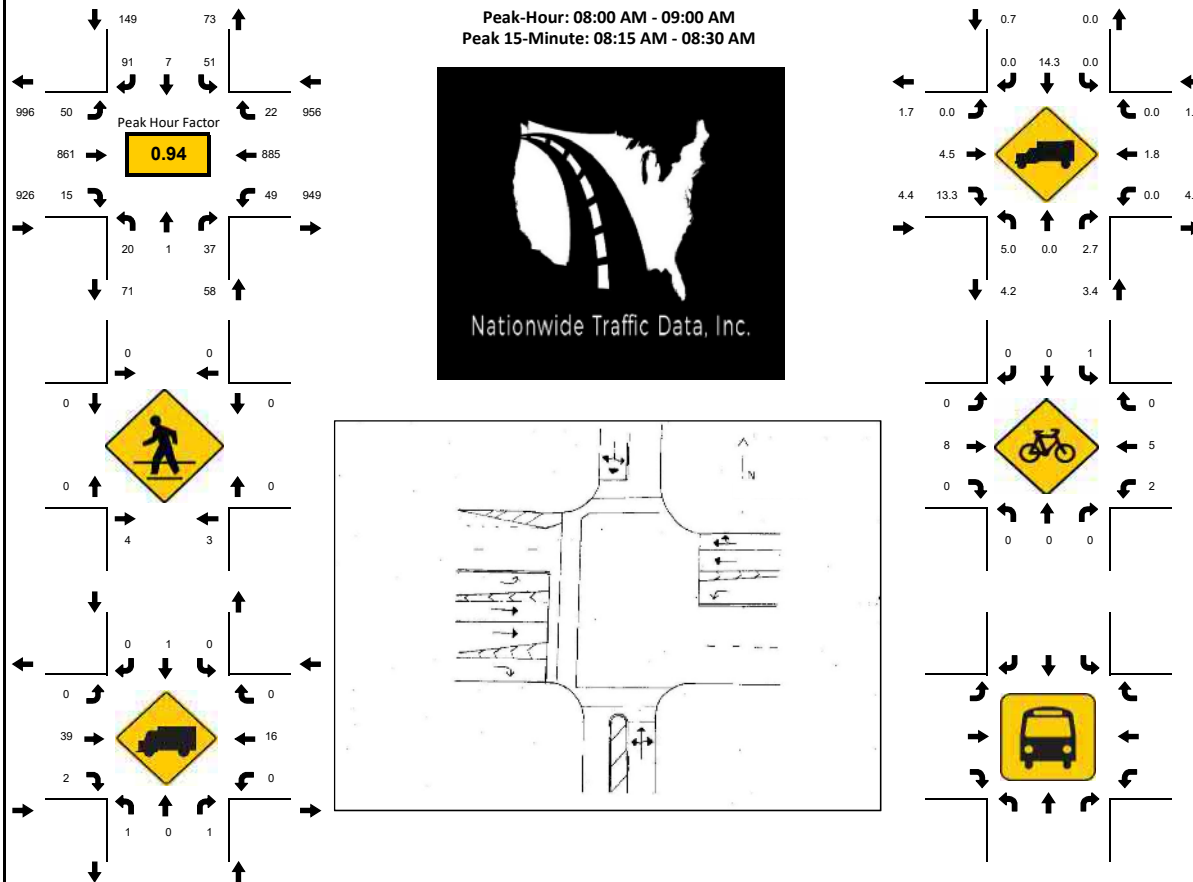
Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
183	3083	Trips	581	556	1,089	1,102	677	48	65	413	4,738
183	3083	Percent	12.8	12.3	24.0	24.3	14.9	1.1	1.4	9.1	
184	3084	Trips	398	445	183	241	670	373	374	469	3,215
184	3084	Percent	12.6	14.1	5.8	7.6	21.3	11.8	11.9	14.9	
185	3085	Trips	1,806	367	4	520	1,532	1,125	1,136	1,098	7,673
185	3085	Percent	23.8	4.8	0.1	6.9	20.2	14.8	15.0	14.5	
186	3086	Trips	50	-	-	17	78	110	108	123	486
186	3086	Percent	10.2	-	-	3.4	16.1	22.6	22.3	25.3	
187	3087	Trips	586	8	0	161	423	676	623	1,374	3,936
187	3087	Percent	15.2	0.2	-	4.2	11.0	17.6	16.2	35.7	
188	3088	Trips	2,270	167	51	472	3,407	2,590	1,887	2,174	14,335
188	3088	Percent	17.4	1.3	0.4	3.6	26.2	19.9	14.5	16.7	
189	3089	Trips	694	55	110	121	878	535	345	531	3,350
189	3089	Percent	21.2	1.7	3.4	3.7	26.9	16.4	10.5	16.3	
190	3090	Trips	1,433	44	61	242	1,411	1,057	744	1,030	6,244
190	3090	Percent	23.8	0.7	1.0	4.0	23.4	17.6	12.4	17.1	
191	3091	Trips	577	21	56	141	842	670	397	512	3,384
191	3091	Percent	18.0	0.6	1.8	4.4	26.2	20.8	12.3	15.9	
192	3092	Trips	266	29	17	57	276	149	161	179	1,137
192	3092	Percent	23.5	2.6	1.5	5.1	24.3	13.1	14.2	15.8	
193	3093	Trips	776	23	27	157	1,019	923	632	763	4,449
193	3093	Percent	18.0	0.5	0.6	3.6	23.6	21.4	14.6	17.7	
194	3094	Trips	1,028	46	163	188	984	770	726	773	4,826
194	3094	Percent	22.0	1.0	3.5	4.0	21.0	16.5	15.5	16.5	
195	3095	Trips	1,168	66	73	228	1,566	1,181	1,051	1,200	6,774
195	3095	Percent	17.9	1.0	1.1	3.5	24.0	18.1	16.1	18.4	
196	3096	Trips	589	52	17	102	723	548	356	461	2,921
196	3096	Percent	20.7	1.8	0.6	3.6	25.4	19.3	12.5	16.2	
197	3097	Trips	916	112	88	208	1,140	812	494	713	4,682
197	3097	Percent	20.4	2.5	2.0	4.6	25.4	18.1	11.0	15.9	
198	3098	Trips	811	140	56	175	987	832	601	617	4,312
198	3098	Percent	19.2	3.3	1.3	4.2	23.4	19.7	14.3	14.6	
199	3099	Trips	924	55	159	173	851	663	561	499	3,906
199	3099	Percent	23.8	1.4	4.1	4.4	21.9	17.1	14.4	12.8	
200	3100	Trips	1,774	149	75	498	1,941	1,428	997	1,177	8,682
200	3100	Percent	22.1	1.9	0.9	6.2	24.1	17.8	12.4	14.6	
201	3101	Trips	222	17	25	41	244	160	158	182	1,049
201	3101	Percent	21.2	1.6	2.4	3.9	23.3	15.3	15.1	17.3	
202	3102	Trips	504	107	108	176	705	528	425	324	2,934
202	3102	Percent	17.5	3.7	3.8	6.1	24.5	18.4	14.8	11.2	
203	3103	Trips	932	202	157	250	1,314	851	551	812	5,166
203	3103	Percent	18.4	4.0	3.1	4.9	25.9	16.8	10.9	16.0	
204	3104	Trips	682	118	48	223	922	683	359	554	3,662
204	3104	Percent	19.0	3.3	1.4	6.2	25.7	19.0	10.0	15.4	
205	3105	Trips	800	135	153	315	1,124	585	475	656	4,394
205	3105	Percent	18.9	3.2	3.6	7.4	26.5	13.8	11.2	15.5	
206	3106	Trips	845	201	114	379	1,003	831	430	622	4,717
206	3106	Percent	19.1	4.6	2.6	8.6	22.7	18.8	9.7	14.1	
207	3107	Trips	873	166	234	269	1,184	950	714	797	5,408
207	3107	Percent	16.8	3.2	4.5	5.2	22.8	18.3	13.8	15.4	
208	3108	Trips	1,144	392	177	418	1,413	926	726	1,124	6,597
208	3108	Percent	18.1	6.2	2.8	6.6	22.4	14.7	11.5	17.8	

Appendix C

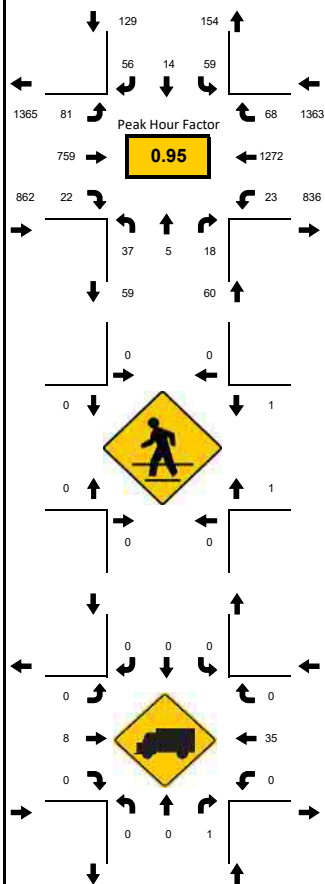
Traffic Data

Turning Movement Counts

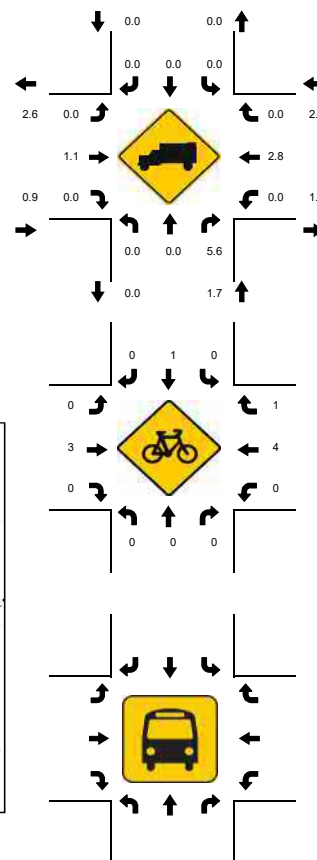
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DATE: 02/19/2020

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PROJECT ID: 20-1013-001
DATE: 02/19/2020



Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 04:30 PM - 04:45 PM

[illegible]

Peak Season Category Report

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

WEEK	DATES	SF	MOCF: 0.97 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

14-FEB-2020 15:39:30

830UPD

6_8700_PKSEASON.TXT

Signal Timings

TOD Schedule Report

for 2534: Bayshore Dr N&N Miami Blvd&Broad Cswy

Print Date:
9/24/2019

Print Time:
4:29 PM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
2534	Bayshore Dr N&N Miami Blvd&Broad C	DOW-3		Free	0	0	N/A	2	Max 1

Splits

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

Active Phase Bank: Phase Bank 2

<u>Phase</u>	<u>Walk</u>	<u>Don't Walk</u>	<u>Min Initial</u>	<u>Veh Ext</u>	<u>Max Limit</u>	<u>Max 2</u>	<u>Yellow</u>	<u>Red</u>
	<u>Phase Bank</u>							
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	5 - 6 - 5	6 - 5 - 5	4	2
2 WBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	40 - 86 - 60	40 - 44 - 30	4	2.2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	2.5 - 2.5 - 2.5	7 - 15 - 12	12 - 10 - 7	4	2.8
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 EBT	7 - 7 - 7	8 - 8 - 8	7 - 7 - 7	1 - 1 - 1	40 - 86 - 60	40 - 44 - 30	4	2.3
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	7 - 7 - 7	24 - 24 - 24	7 - 7 - 7	2.5 - 2.5 - 2.5	7 - 15 - 12	12 - 10 - 7	4	2.8

Last In Service Date: unknown

Permitted Phases

12345678

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

Local TOD Schedule

<u>Time</u>	<u>Plan</u>	<u>DOW</u>
0000	Free	Su M T W Th F S

<u>Current</u>		<u>Green Time</u>											
<u>TOD Schedule</u>	<u>Plan</u>	<u>Cycle</u>	1	2	3	4	5	6	7	8	<u>Ring Offset</u>	<u>Offset</u>	
			EBL	WBT	-	NBT	-	EBT	-	SBT			
18		110	4	56	0	31	0	66	0	31	0	61	
26		140	6	84	0	31	0	96	0	31	0	0	

TOD Schedule Report

for 2534: Bayshore Dr N&N Miami Blvd&Broad Cswy

Print Date:
9/24/2019

Print Time:
4:29 PM

Current Time of Day Function				Local Time of Day Function				* Settings
Time	Function	Settings *	Day of Week	Time	Function	Settings *	Day of Week	
0000	TOD OUTPUTS	----4---	SuM T W ThF S	0000	TOD OUTPUTS	----4---	SuM T W ThF S	Blank - FREE - Phase Bank 1, Max 1
0630	TOD OUTPUTS	-----1	M T W ThF	0600	TOD OUTPUTS	-----2-	Su S	Blank - Plan - Phase Bank 1, Max 2
0900	TOD OUTPUTS	-----3--	M T W ThF	0630	TOD OUTPUTS	-----1	M T W ThF	1 - Phase Bank 2, Max 1
1500	TOD OUTPUTS	-----1	M T W ThF	0900	TOD OUTPUTS	-----3--	M T W ThF	2 - Phase Bank 2, Max 2
1900	TOD OUTPUTS	-----2-	M T W ThF	1000	TOD OUTPUTS	-----3--	Su S	3 - Phase Bank 3, Max 1
2200	TOD OUTPUTS	----4---	M T W ThF S	1500	TOD OUTPUTS	-----1	M T W ThF	4 - Phase Bank 3, Max 2
				1900	TOD OUTPUTS	-----2-	M T W ThF	5 - EXTERNAL PERMIT 1
				2000	TOD OUTPUTS	----4---	Su	6 - EXTERNAL PERMIT 2
				2200	TOD OUTPUTS	----4---	M T W ThF S	7 - X-PED OMIT
								8 - TBA

No Calendar Defined/Enabled

SIGNAL OPERATING PLAN



Timing Phases	Direction	EB		WB	SEB	NWB	Ped Heads			Movements/Display/Actuation
	Head No.	1/6	6	2	8	4	P6	P2	P8	
(1+6) N Miami Blvd EB (ACTUATED)	Dwell	<G/G	G	R	R	R	W/F	DW	DW	
	2+6	<Y/G	G	R	R	R	DW	DW	DW	
(2+6) N Miami Blvd E/WB (RECALL)	Dwell	G	G	G	R	R	W/F	W/F	DW	
	4+8	Y	Y	Y	R	R	DW	DW	DW	
4+8 NB/SB Bayshore Dr (ACTUATED)	Dwell	R	R	R	G	G	DW	DW	W/F	
	1+6	R	R	R	Y	Y	DW	DW	DW	
	2+6	R	R	R	Y	Y	DW	DW	DW	
Flashing Operation		FY	FY	FY	FR	FR				

Miami-Dade County Public Works Department

Drawn William Rivera-Paz	Date 11/21/2012	Bayshore Dr N & N Miami Blvd & Broad Cswy			
Checked H. Hernandez	Date 11/21/2012	Placed in Service Date 11/28/12 By ARE		Phasing No. 3	Asset Number 2534

Appendix D

Background Area Growth 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
871023	SR 922/NE 125 Street -- 200' W of N Bay Shore Drive	-2.05%	43.86%	1.69%	24.63%	-2.12%	42.82%	1.69%	26.56%	-2.40%	60.11%	2.43%	49.26%
872523	SR 5/US 1 -- 200' N of SR 922/NE 123 Street	-1.80%	14.94%	-0.88%	19.21%	-1.81%	14.12%	-0.94%	19.41%	-1.79%	14.26%	-0.60%	7.76%
878608	Broad Causeway -- 200' E of Gas Station Access	0.11%	0.09%	-	-	0.35%	0.35%	-	-	1.51%	5.70%	-	-
Total		-1.25%	19.63%	0.41%	21.92%	-1.19%	19.10%	0.38%	22.99%	-0.89%	26.69%	0.92%	28.51%

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 1023 - SR 922/NE/NW 125 ST, 200' W N BAY SHORE DR

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2020	21500 C	E 10500	W 11000	9.00	54.20	2.20
2019	23500 C	E 11500	W 12000	9.00	54.60	5.50
2018	22000 C	E 11000	W 11000	9.00	54.30	10.00
2017	22500 C	E 11500	W 11000	9.00	55.00	9.20
2016	24000 C	E 12000	W 12000	9.00	54.50	12.60
2015	25000 C	E 14000	W 11000	9.00	54.70	8.80
2014	23000 C	E 11000	W 12000	9.00	54.50	7.60
2013	24000 C	E 11000	W 13000	9.00	52.40	5.00
2012	24000 C	E 12000	W 12000	9.00	55.70	4.20
2011	20100 C	E 10500	W 9600	9.00	55.10	5.10
2010	18000 C	E 9000	W 9000	8.98	54.08	3.80
2009	19800 C	E 10000	W 9800	8.99	53.24	4.60
2008	19900 C	E 10500	W 9400	9.09	55.75	1.50
2007	21000 C	E 10500	W 10500	8.01	54.34	1.00
2006	23000 C	E 11500	W 11500	7.97	54.22	4.60
2005	24000 C	E 12500	W 11500	8.80	53.80	2.40

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 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

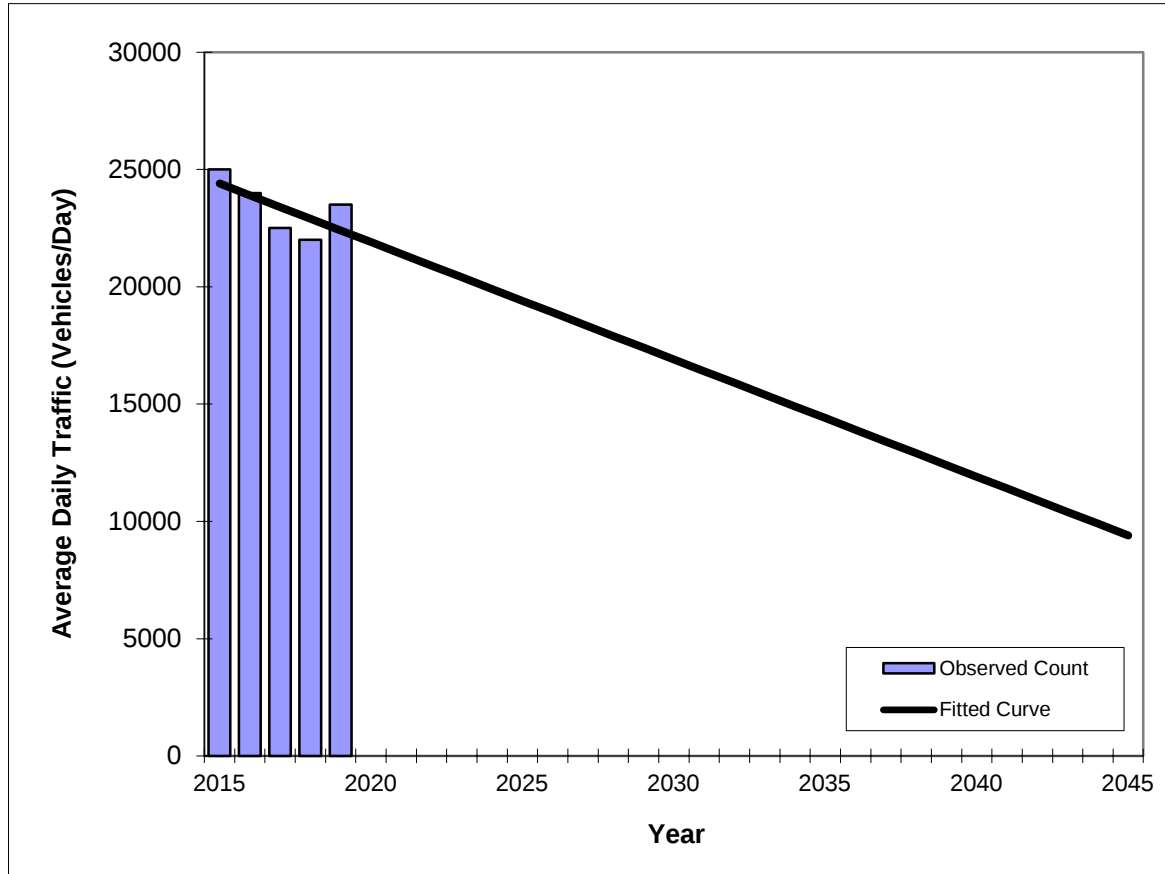
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	25000	24400
2016	24000	23900
2017	22500	23400
2018	22000	22900
2019	23500	22400

Trend R-squared: 43.86%

Trend Annual Historic Growth Rate: -2.05%

Printed: 21-Jul-21

Straight Line Growth Option

*Axle-Adjusted

Traffic Trends

SR 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

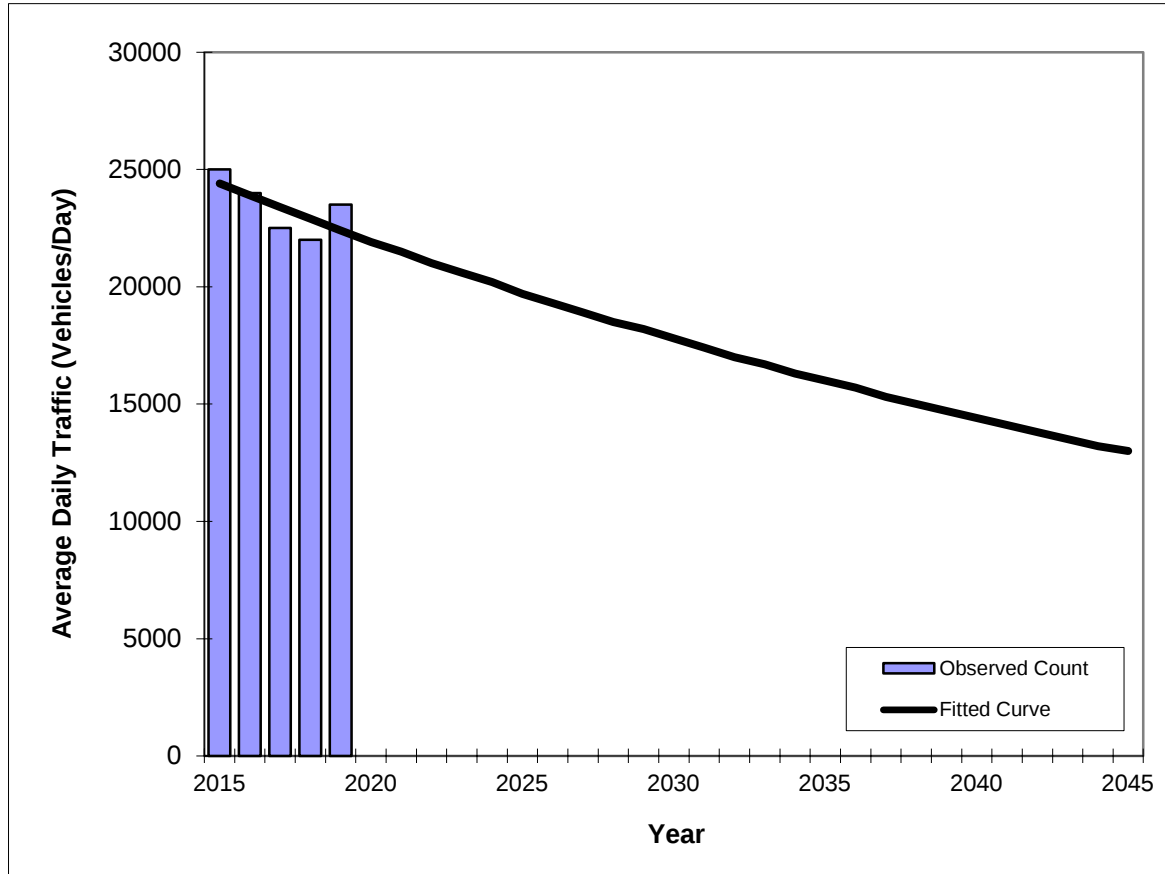
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	25000	24400
2016	24000	23900
2017	22500	23400
2018	22000	22900
2019	23500	22400

Trend R-squared: 42.82%

Compounded Annual Historic Growth Rate: -2.12%

Printed: 21-Jul-21

Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

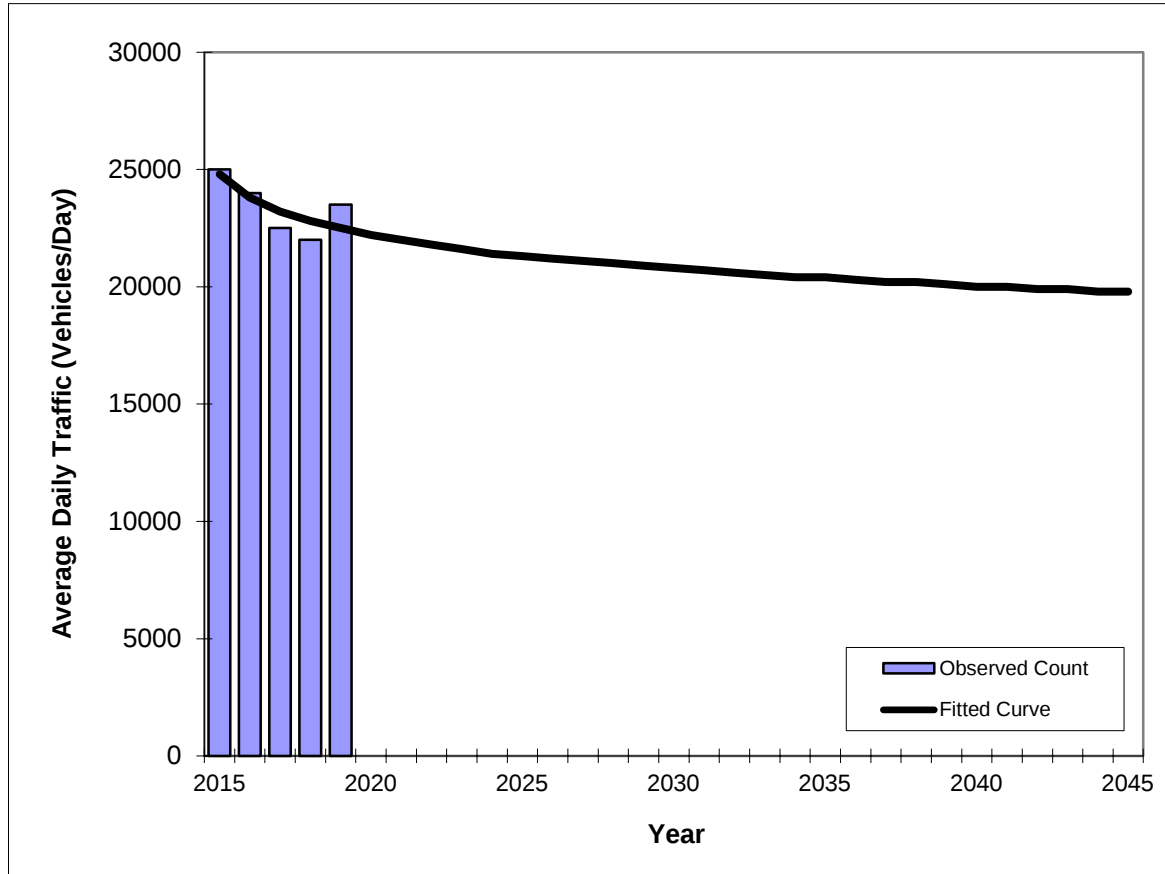
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	25000	24800
2016	24000	23800
2017	22500	23200
2018	22000	22800
2019	23500	22500

Trend R-squared: 60.11%

Compounded Annual Historic Growth Rate: -2.40%

Printed: 21-Jul-21

Decaying Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

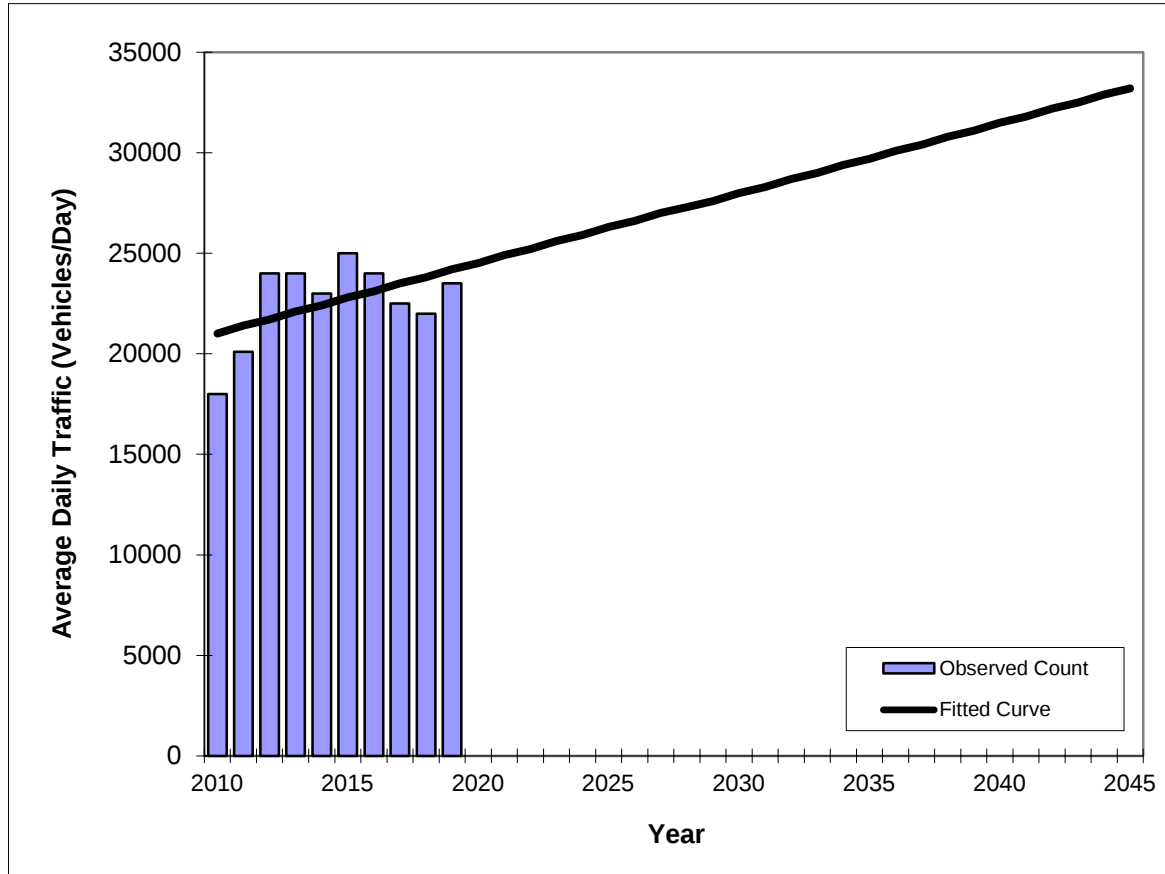
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	18000	21000
2011	20100	21400
2012	24000	21700
2013	24000	22100
2014	23000	22400
2015	25000	22800
2016	24000	23100
2017	22500	23500
2018	22000	23800
2019	23500	24200

Trend R-squared: 24.63%

Trend Annual Historic Growth Rate: 1.69%

Printed: 21-Jul-21

Straight Line Growth Option

*Axle-Adjusted

Traffic Trends

SR 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

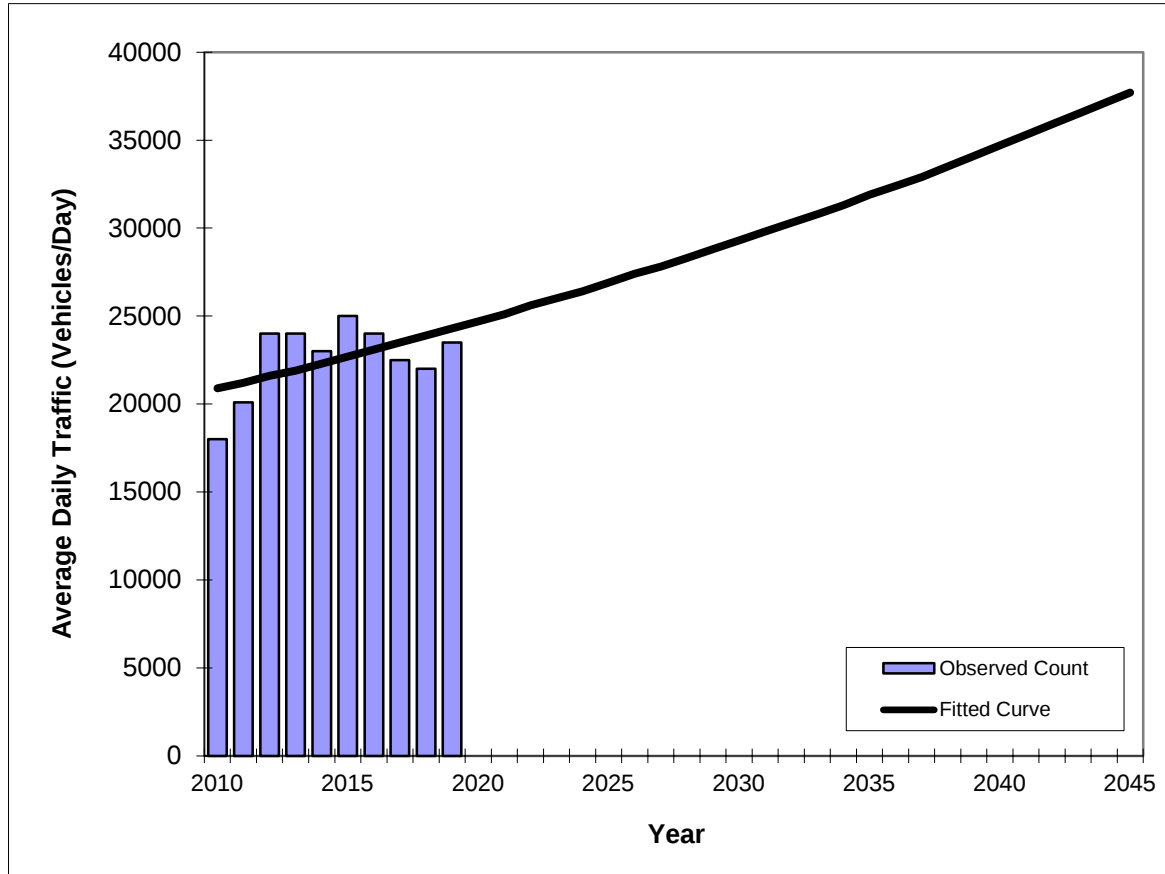
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	18000	20900
2011	20100	21200
2012	24000	21600
2013	24000	21900
2014	23000	22300
2015	25000	22700
2016	24000	23100
2017	22500	23500
2018	22000	23900
2019	23500	24300

Trend R-squared: 26.56%

Compounded Annual Historic Growth Rate: 1.69%

Printed: 21-Jul-21

Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 922/NE 125 Street -- 200' W of N Bay Shore Drive

County:

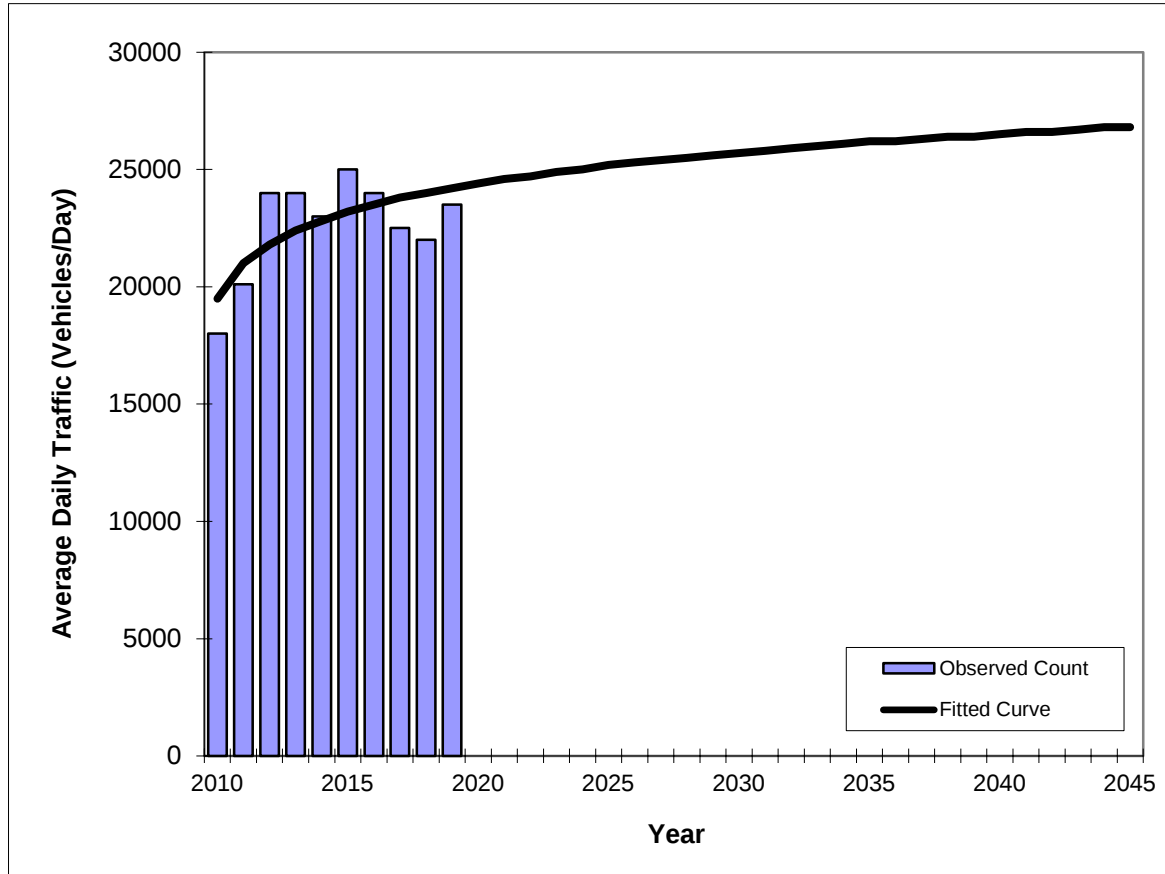
Miami (87)

Station #:

871023

Highway:

SR 922/NE 125 Street



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	18000	19500
2011	20100	21000
2012	24000	21800
2013	24000	22400
2014	23000	22800
2015	25000	23200
2016	24000	23500
2017	22500	23800
2018	22000	24000
2019	23500	24200

Trend R-squared: 49.26%

Compounded Annual Historic Growth Rate: 2.43%

Printed: 21-Jul-21

Decaying Exponential Growth Option

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2523 - SR 5/US-1, 200' N SR 922/NE 123 ST

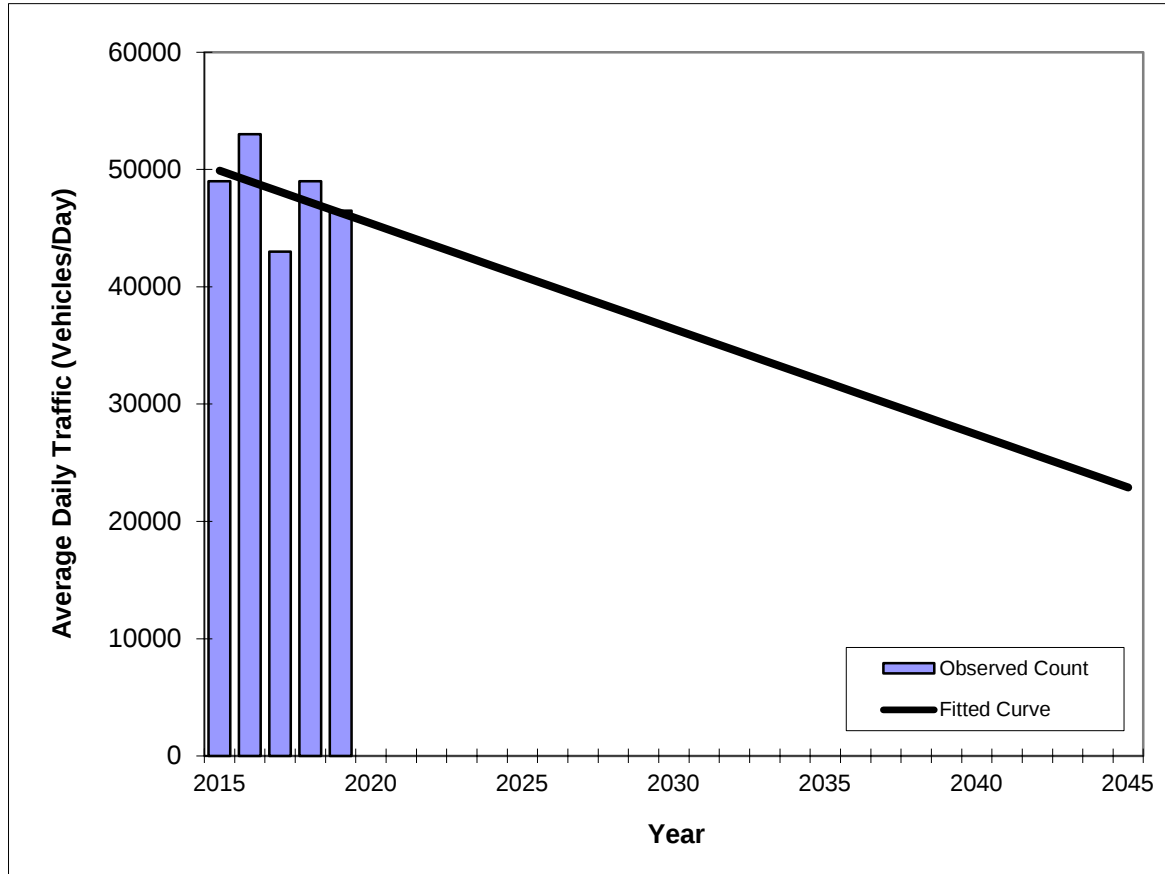
YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2020	39500 C	N	20000	S	19500	9.00	54.20	3.20
2019	46500 C	N	23500	S	23000	9.00	54.60	4.70
2018	49000 C	N	24500	S	24500	9.00	54.30	4.90
2017	43000 C	N	23500	S	19500	9.00	55.00	4.50
2016	53000 C	N	25500	S	27500	9.00	54.50	5.10
2015	49000 C	N	25000	S	24000	9.00	54.70	4.20
2014	52000 C	N	24500	S	27500	9.00	54.50	5.10
2013	50000 C	N	25000	S	25000	9.00	52.40	5.20
2012	52000 C	N	26000	S	26000	9.00	55.70	5.80
2011	52000 C	N	24500	S	27500	9.00	55.10	4.50
2010	48000 C	N	23000	S	25000	8.98	54.08	4.40
2009	44500 C	N	22000	S	22500	8.99	53.24	3.40
2008	44500 C	N	22000	S	22500	9.09	55.75	3.70
2007	42500 C	N	21000	S	21500	8.01	54.34	3.10
2006	43000 C	N	21000	S	22000	7.97	54.22	4.90
2005	48500 C	N	23000	S	25500	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 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	49000	49900
2016	53000	49000
2017	43000	48100
2018	49000	47200
2019	46500	46300

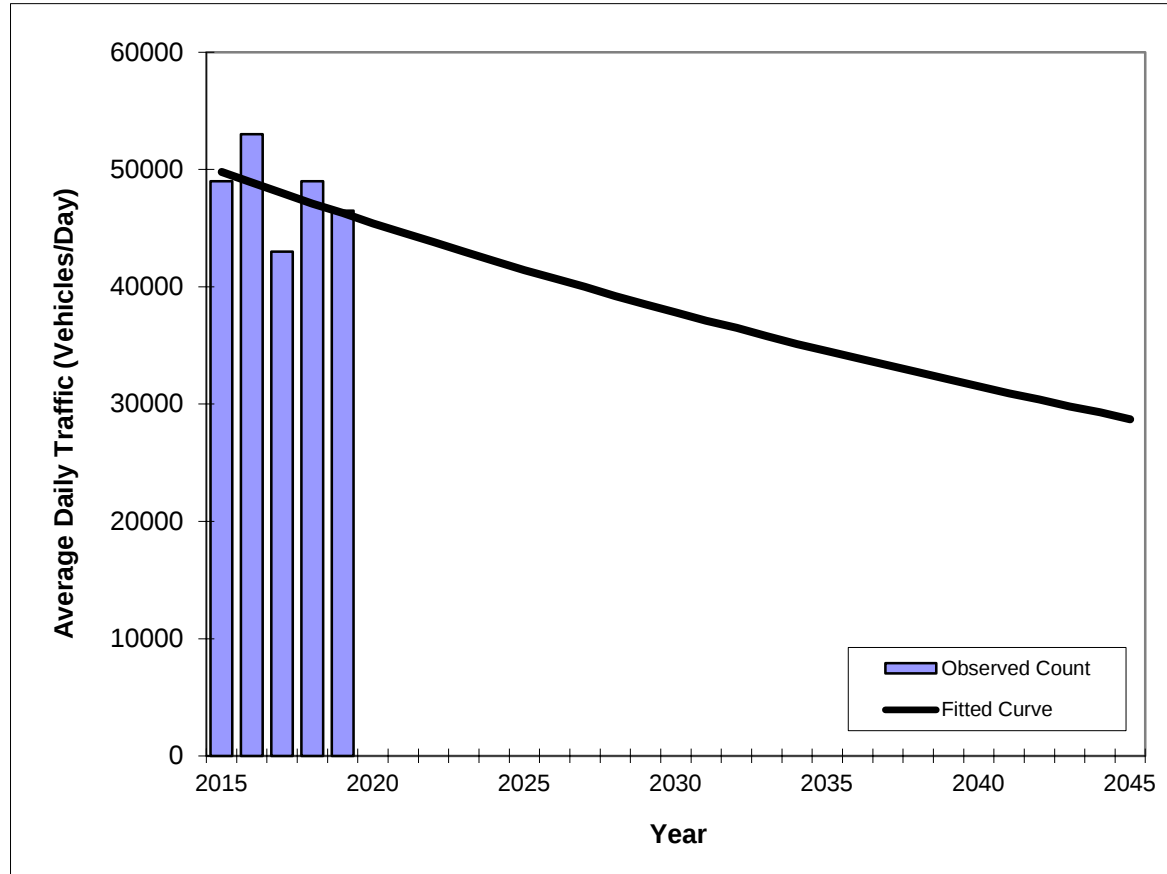
Trend R-squared:	14.94%
Trend Annual Historic Growth Rate:	-1.80%
Printed:	21-Jul-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends

SR 5/ US 1 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	49000	49800
2016	53000	48900
2017	43000	48000
2018	49000	47100
2019	46500	46300

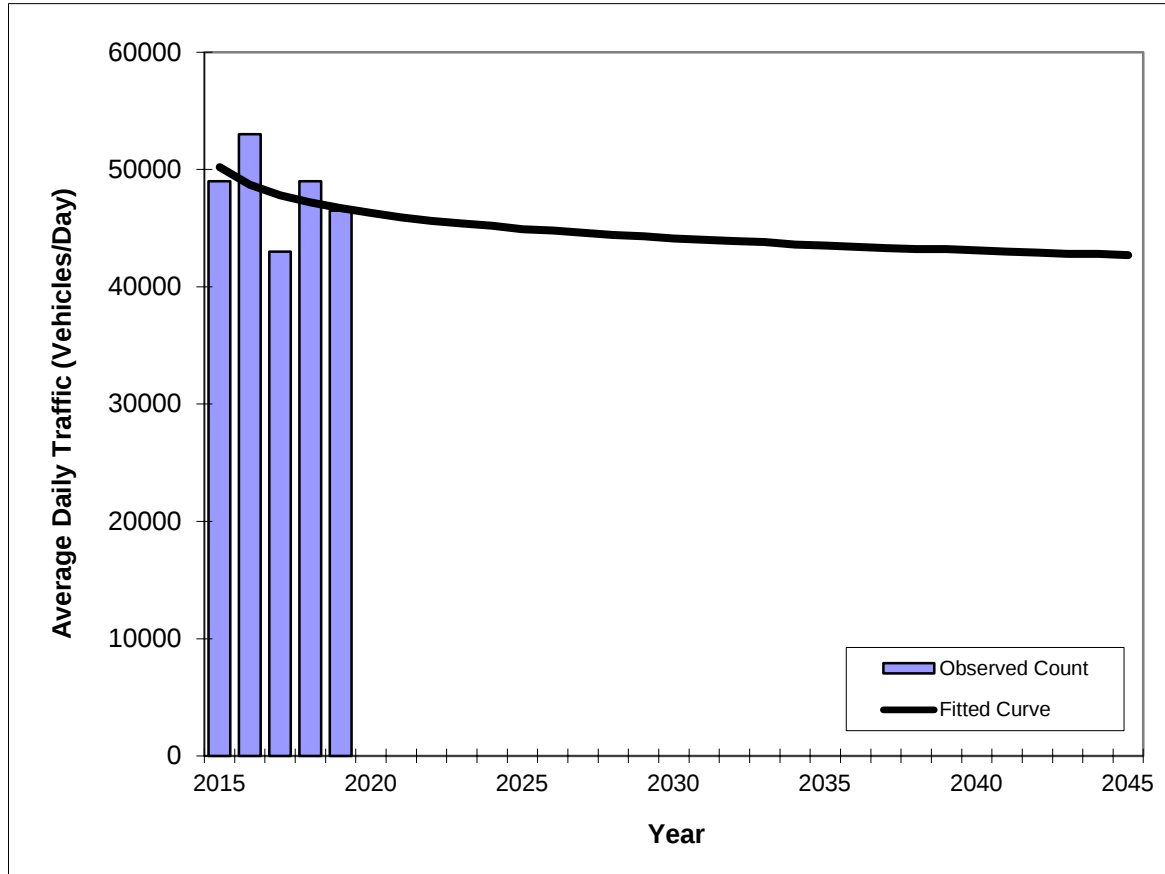
Trend R-squared:	14.12%
Compounded Annual Historic Growth Rate:	-1.81%
Printed:	21-Jul-21
Exponential Growth Option	

*Axle-Adjusted

Traffic Trends

SR 5/ US 1 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	49000	50200
2016	53000	48700
2017	43000	47800
2018	49000	47200
2019	46500	46700

Trend R-squared:	14.26%
Compounded Annual Historic Growth Rate:	-1.79%
Printed:	21-Jul-21

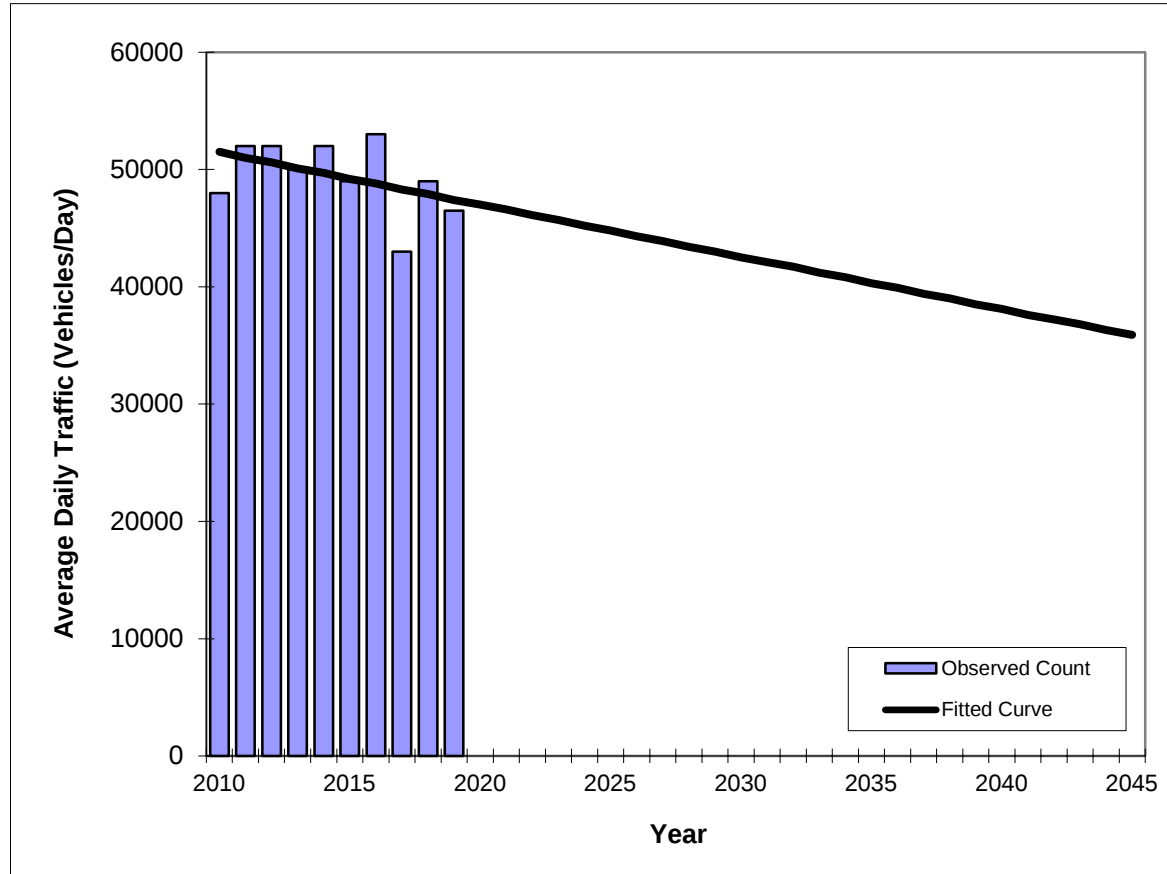
Decaying Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 5/ US 1 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	48000	51500
2011	52000	51000
2012	52000	50600
2013	50000	50100
2014	52000	49700
2015	49000	49200
2016	53000	48800
2017	43000	48300
2018	49000	47900
2019	46500	47400

Trend R-squared:	19.21%
Trend Annual Historic Growth Rate:	-0.88%
Printed:	21-Jul-21

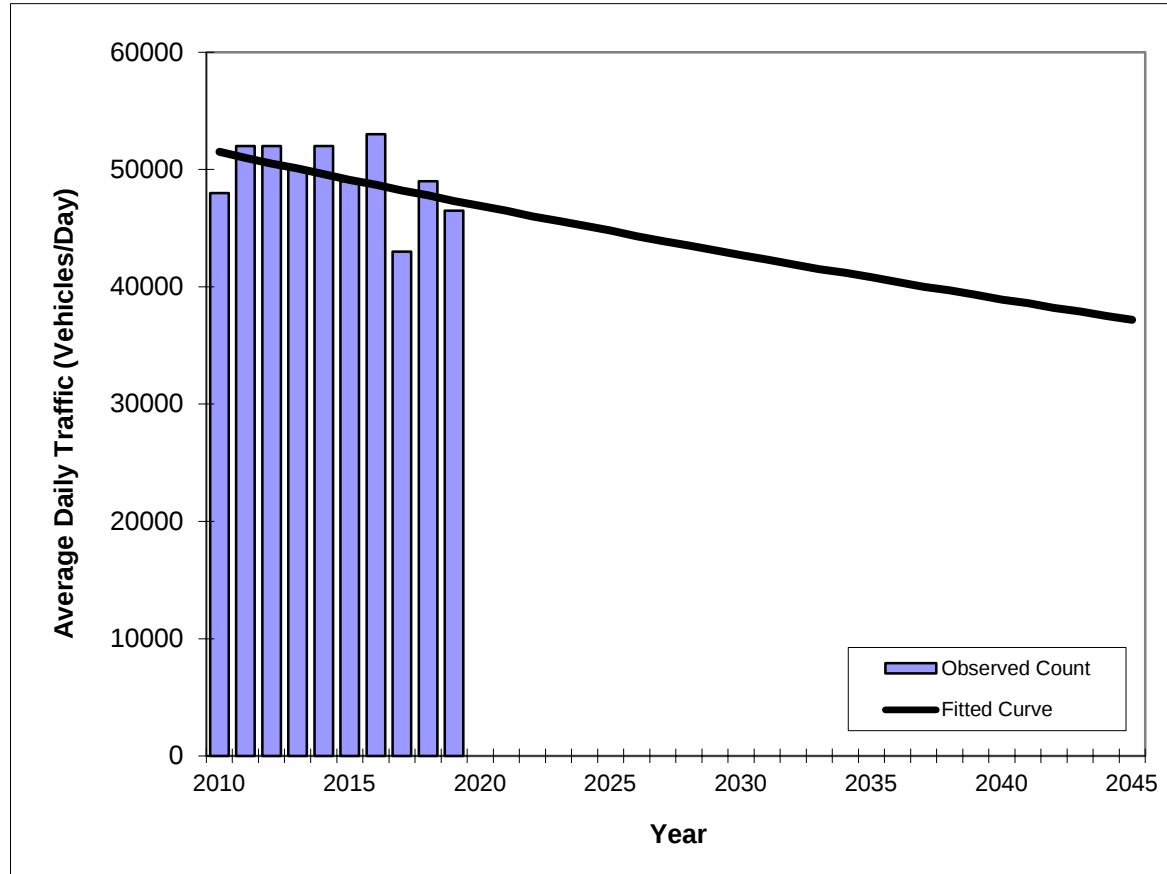
Straight Line Growth Option

*Axle-Adjusted

Traffic Trends

SR 5/ US 1 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	48000	51500
2011	52000	51000
2012	52000	50500
2013	50000	50100
2014	52000	49600
2015	49000	49100
2016	53000	48700
2017	43000	48200
2018	49000	47800
2019	46500	47300

Trend R-squared:	19.41%
Compounded Annual Historic Growth Rate:	-0.94%
Printed:	21-Jul-21

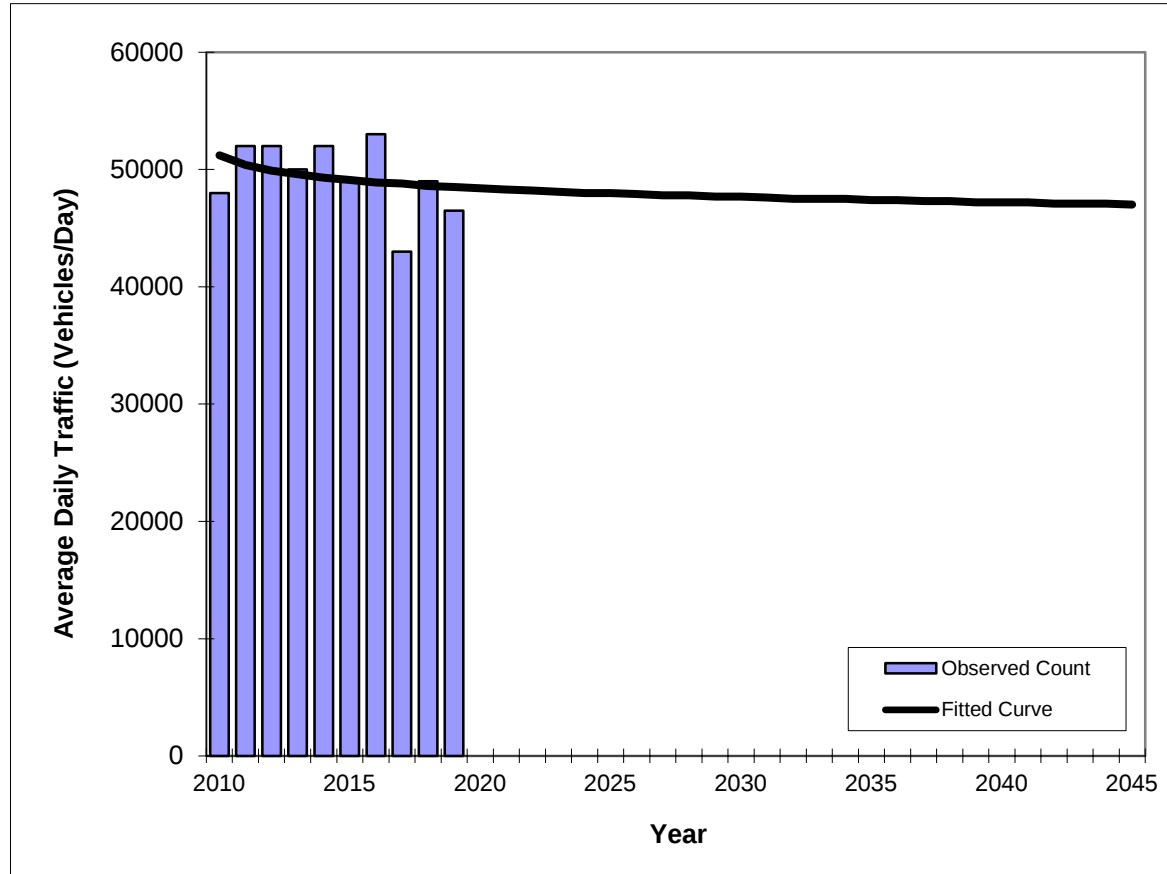
Exponential Growth Option

*Axle-Adjusted

Traffic Trends

SR 5/ US 1 -- 200' N of SR 922/NE 123 Street

County:	Miami (87)
Station #:	872523
Highway:	SR 5/ US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	48000	51200
2011	52000	50400
2012	52000	49900
2013	50000	49600
2014	52000	49300
2015	49000	49100
2016	53000	48900
2017	43000	48800
2018	49000	48600
2019	46500	48500

Trend R-squared:	7.76%
Compounded Annual Historic Growth Rate:	-0.60%
Printed:	21-Jul-21

Decaying Exponential Growth Option

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8608 - BROAD CSWY, 200 FT E OF GAS STATION ACCESS

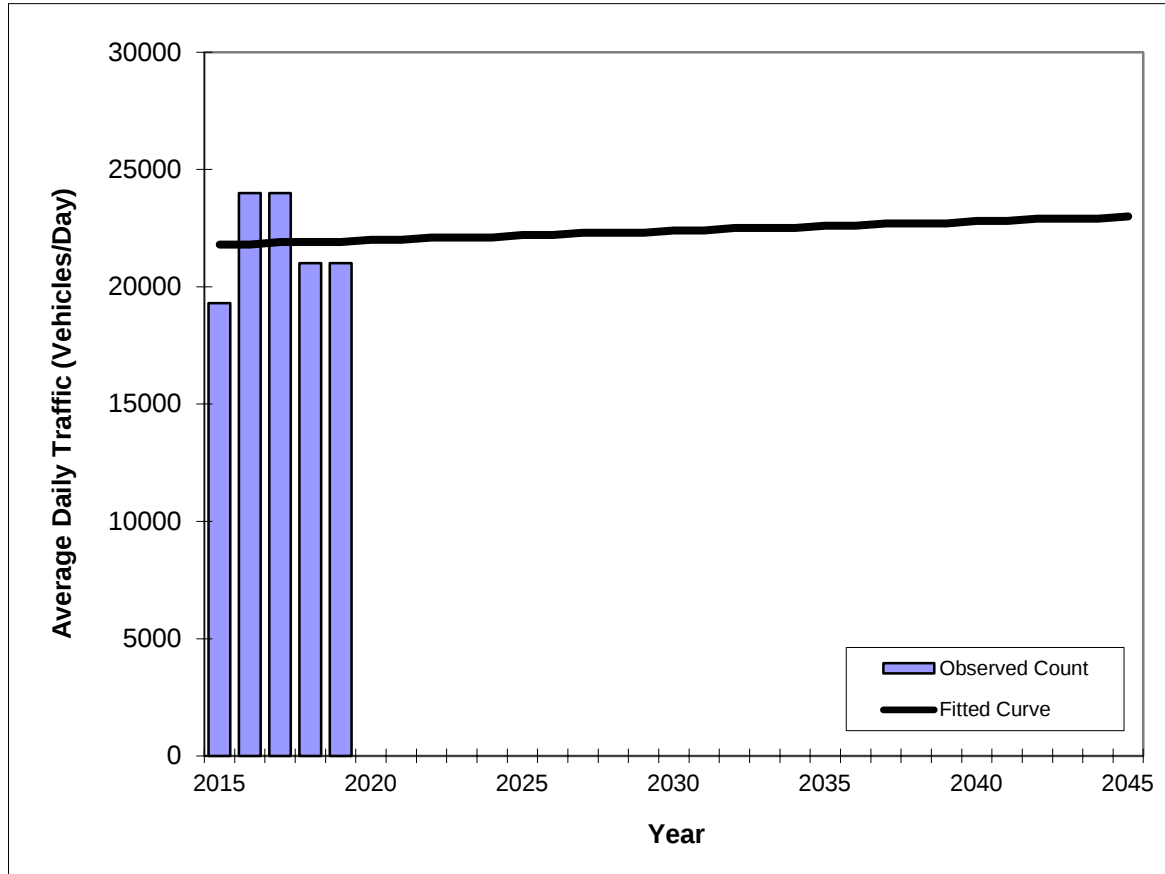
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2020	22000 C	E 10500	W 11500	9.00	56.00	2.40
2019	21000 T	E 10500	W 10500	9.00	56.00	3.40
2018	21000 S	E 10500	W 10500	9.00	54.30	4.30
2017	24000 F	E 12000	W 12000	9.00	55.70	3.50
2016	24000 C	E 12000	W 12000	9.00	56.10	4.00
2015	19300 T	E 9700	W 9600	9.00	57.40	4.80
2014	19500 S	E 9800	W 9700	9.00	59.30	5.20
2013	19700 F	E 9900	W 9800	9.00	58.90	16.20
2012	19900 C	E 10000	W 9900	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

Broad Csway -- 200' E of Gas Station Access

County:	Miami (87)
Station #:	878608
Highway:	Broad Csway



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	19300	21800
2016	24000	21800
2017	24000	21900
2018	21000	21900
2019	21000	21900

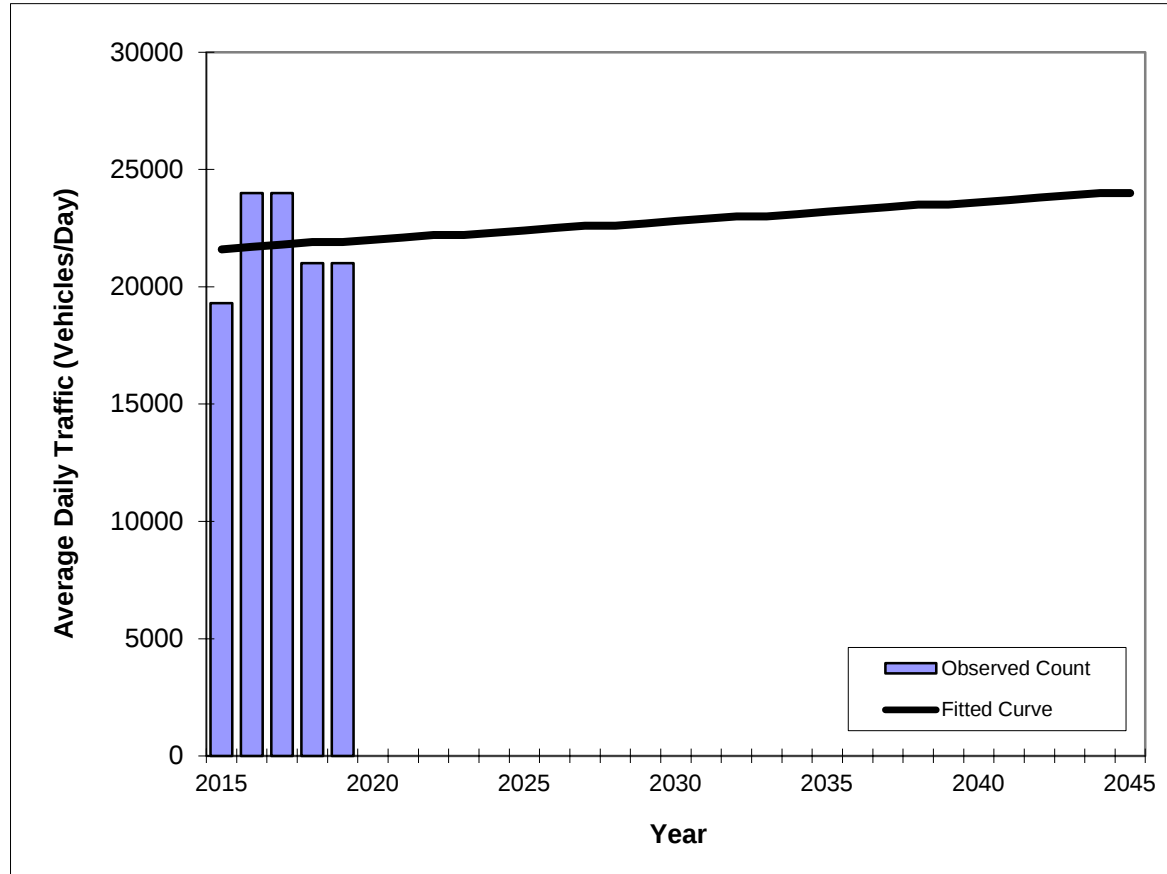
Trend R-squared:	0.09%
Trend Annual Historic Growth Rate:	0.11%
Printed:	21-Jul-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends

Broad Csway -- 200' E of Gas Station Access

County:	Miami (87)
Station #:	878608
Highway:	Broad Csway



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	19300	21600
2016	24000	21700
2017	24000	21800
2018	21000	21900
2019	21000	21900

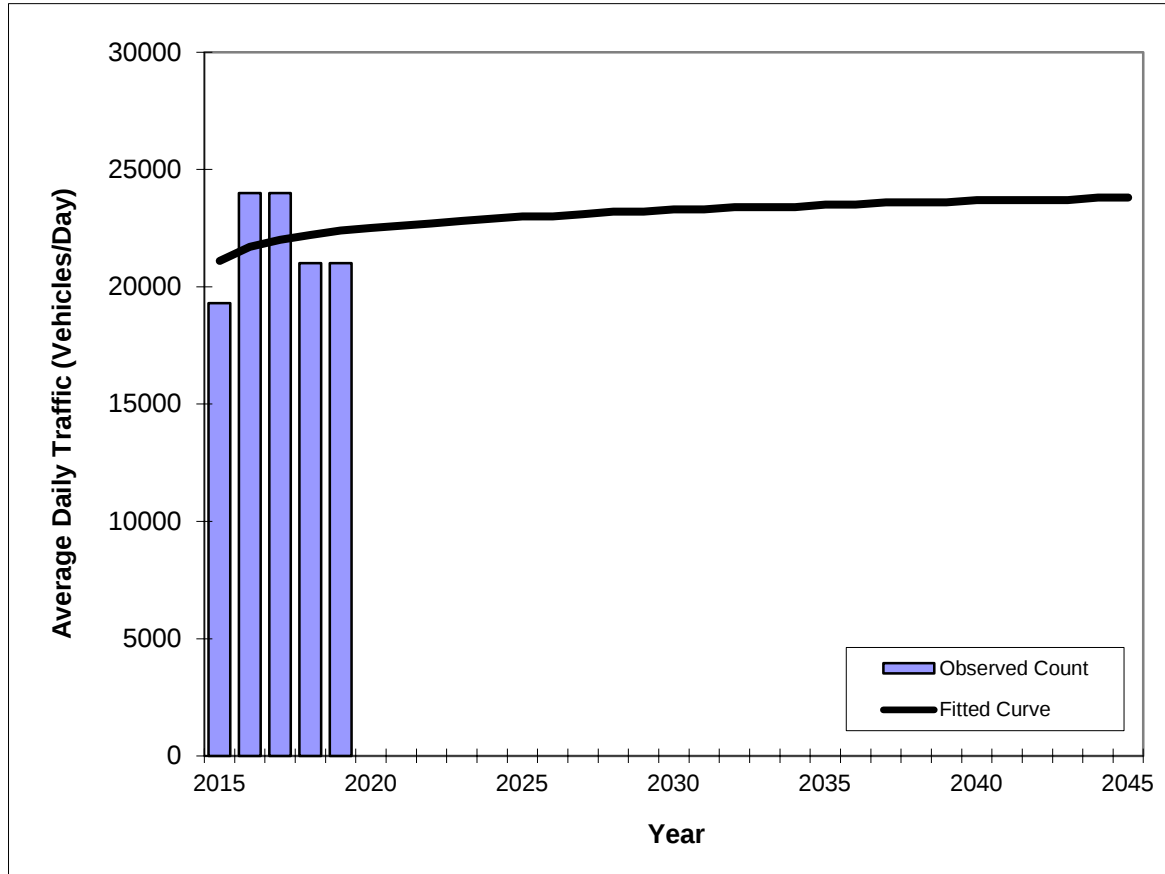
Trend R-squared:	0.35%
Compounded Annual Historic Growth Rate:	0.35%
Printed:	21-Jul-21
Exponential Growth Option	

*Axle-Adjusted

Traffic Trends

Broad Csway -- 200' E of Gas Station Access

County:	Miami (87)
Station #:	878608
Highway:	Broad Csway



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	19300	21100
2016	24000	21700
2017	24000	22000
2018	21000	22200
2019	21000	22400

Trend R-squared:	5.70%
Compounded Annual Historic Growth Rate:	1.51%
Printed:	21-Jul-21

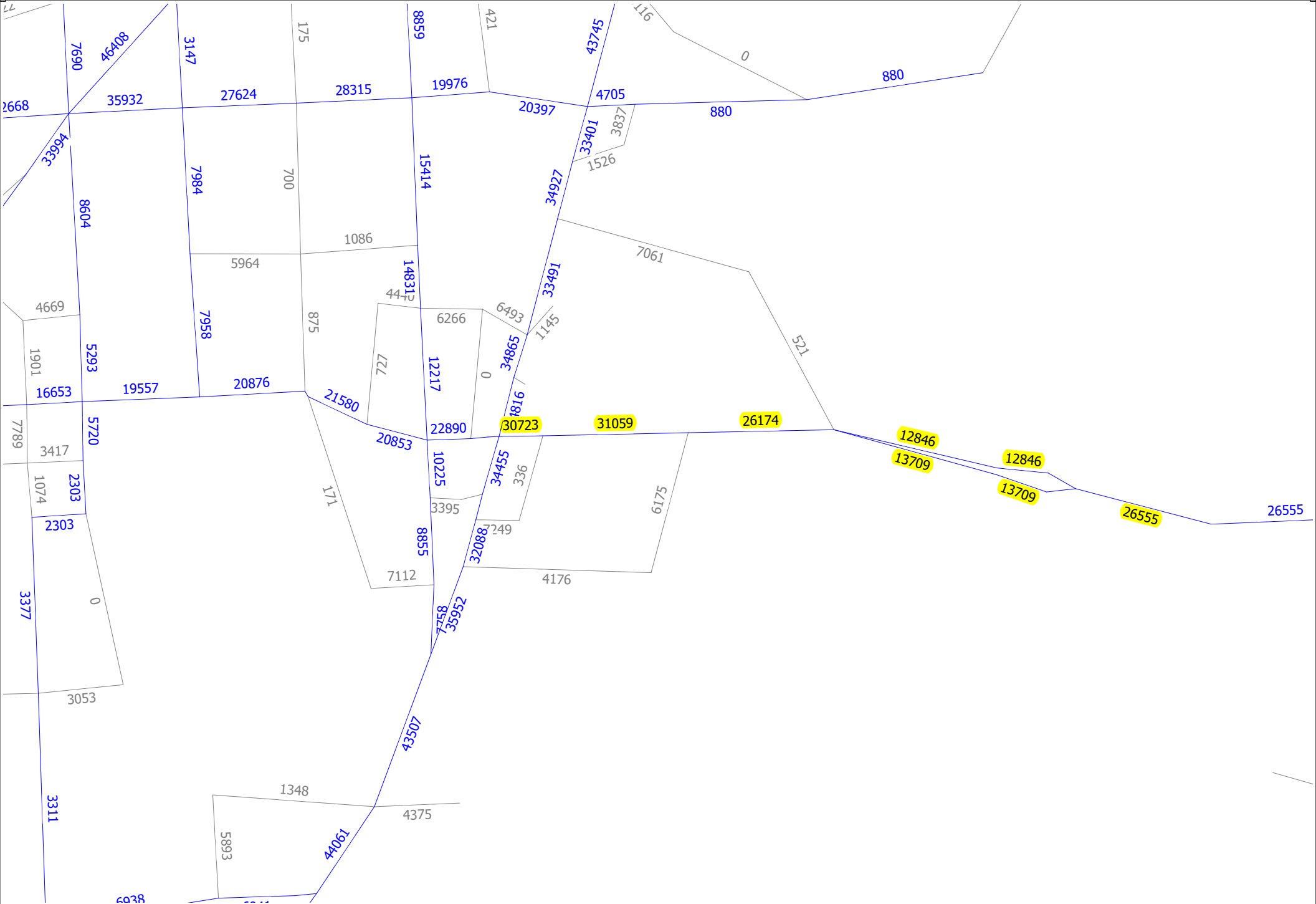
Decaying Exponential Growth Option

*Axle-Adjusted

SERPM Analysis

SERPM Growth Rate Summary					
Street Name	2015	2045	Difference	Growth Rate	Annual Growth Rate
SR 922/NE 123 Street	30,723	34,081	3,358	10.93%	0.36%
	31,059	34,657	3,598	11.58%	0.39%
	26,174	28,901	2,727	10.42%	0.35%
Broad Causeway	26,555	29,279	2,724	10.26%	0.34%
	26,555	29,279	2,724	10.26%	0.34%
	26,555	29,279	2,724	10.26%	0.34%
Total	167,621	185,476	17,855	10.65%	0.36%

3 Oceans Redevelopment
2015 Volumes
SERPM 8.504



Committed Developments

Appendix E

Project Trip Generation

PROPOSED DAILY 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	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total		
					In	Out																				
GROUP 2	1	Multifamily Housing (High-Rise) Not Close to Rail Tran	11	222	54	du	50%	50%	123	123	246	5.0%	12	117	117	234	0.0%	0	117	117	234	0.0%	0	117	117	234
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code		Rate or Equation			Total:		123	123	246	4.9%	12	117	117	234	0.0%	0	117	117	234	0.0%	0	117	117	234		
222		Y=4.54(X)																								

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	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Multifamily Housing (High-Rise) Not C	11	222	54	du	34%	66%	11	20	31	5.0%	2	10	19	29	0.0%	0	10	19	29	0.0%	0	10	19	29
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code						Rate or Equation		Total:																		
222						Y=0.22*(X)+18.85																				

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	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total												
					In	Out																														
GROUP 2	1	Multifamily Housing (High-Rise) Not C	11	222	54	du	56%	44%				21	16	37	5.0%	2	20	15	35	0.0%	0	20	15	35	0.0%	0	20	15	35							
	2																																			
	3																																			
	4																																			
	5																																			
	6																																			
	7																																			
	8																																			
	9																																			
	10																																			
	11																																			
	12																																			
	13																																			
	14																																			
	15																																			
ITE Land Use Code						Rate or Equation		Total:																												
222						Y=0.26*(X)+23.12					21		16		37		5.4%		2		20		15		35		0.0%		0		20		15		35	

MEANS OF TRANSPORTATION TO WORK

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

$(60+25+33)/2341=5.0\%$		Census Tract 1.20, Miami-Dade County, Florida	
Label	Estimate	Margin of Error	
▼ Total:	2,341	±285	
▼ Car, truck, or van:	1,926	±277	
Drove alone	1,851	±271	
▼ Carpooled:	75	±59	
In 2-person carpool	62	±56	
In 3-person carpool	13	±17	
In 4-person carpool	0	±13	
In 5- or 6-person carpool	0	±13	
In 7-or-more-person carpool	0	±13	
▼ Public transportation (excluding taxicab):	60	±68	
Bus or trolley bus	60	±68	
Streetcar or trolley car (carro publico in Puerto Rico)	0	±13	
Subway or elevated	0	±13	
Railroad	0	±13	
Ferryboat	0	±13	
Taxicab	32	±50	
Motorcycle	0	±13	
Bicycle	25	±23	
Walked	33	±40	
Other means	13	±21	
Worked at home	252	±102	

Table Notes

MEANS OF TRANSPORTATION TO WORK

Survey/Program: American Community Survey

Universe: Workers 16 years and over

Year: 2018

Estimates: 5-Year

Table ID: B08301

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

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

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

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

While the 2014-2018 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

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

Explanation of Symbols:

An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.

An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.

An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.

An "****" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

An "(X)" means that the estimate is not applicable or not available.

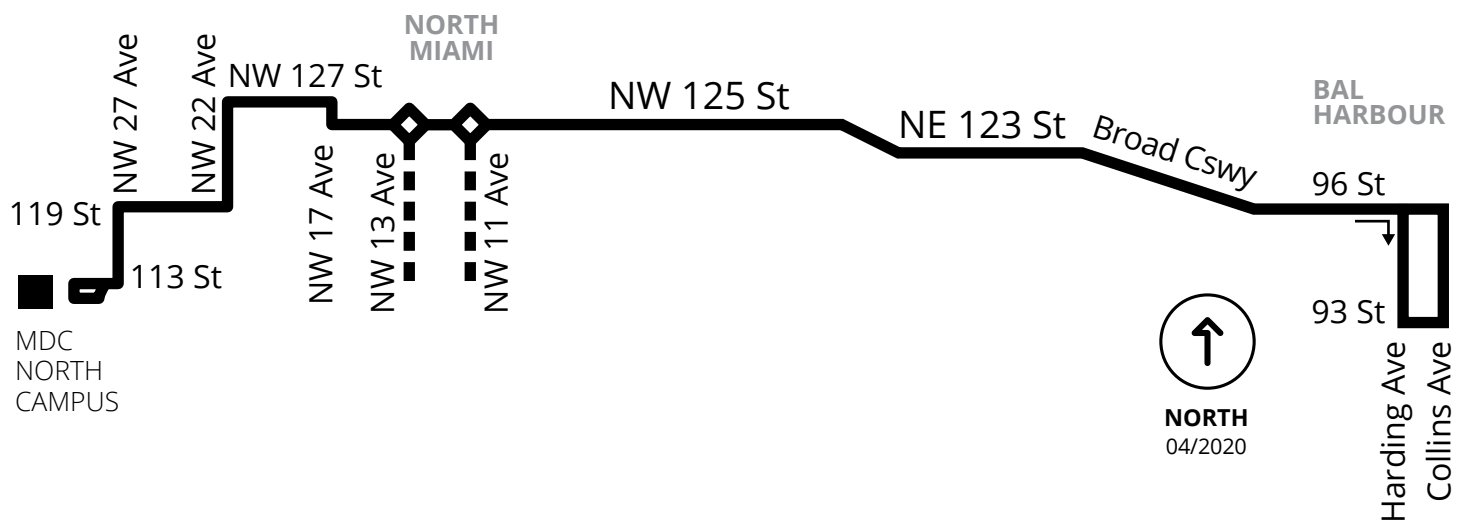
Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

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

Appendix F

Transit Information

MDT Route 107



@GoMiamiDade



GO Miami-Dade Transit

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



WEEKDAYS / DIAS LABORABLES / LASEMÈN

EASTBOUND RUMBO ESTE / DIREKSYON IS	MORNING / MAÑANA / MATEN														AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																	
Miami-Dade College North Campus	5:20	5:52	6:18	6:50	7:14	7:38	8:02	8:28	8:54	9:28	10:02	10:34	11:06	11:37	12:09	12:41	1:13	1:45	2:17	2:49	3:21	3:53	4:17	4:41	5:05	5:37	6:11	6:58	7:50	8:50	9:50	10:50	11:50	12:50
NW 125 St & 7 Ave	5:31	6:03	6:29	7:01	7:25	7:49	8:13	8:39	9:05	9:39	10:13	10:45	11:17	11:48	12:20	12:52	1:24	1:56	2:28	3:00	3:32	4:04	4:28	4:52	5:16	5:48	6:22	7:09	8:01	9:01	10:01	11:01	12:01	1:01
NE 125 St & 6 Ave	5:37	6:09	6:37	7:09	7:33	7:57	8:21	8:47	9:13	9:47	10:21	10:53	11:25	11:56	12:28	1:00	1:32	2:04	2:36	3:08	3:40	4:12	4:36	5:00	5:24	5:56	6:29	7:15	8:07	9:07	10:07	11:07	12:07	1:07
NE 123 St & Biscayne Blvd	5:42	6:14	6:44	7:16	7:40	8:04	8:28	8:54	9:20	9:54	10:28	11:00	11:32	12:04	12:36	1:08	1:40	2:12	2:44	3:16	3:48	4:20	4:44	5:08	5:32	6:04	6:36	7:21	8:12	9:12	10:12	11:12	12:12	1:12
Harding Ave & 94 St	5:52	6:24	6:56	7:28	7:52	8:16	8:40	9:06	9:32	10:06	10:40	11:12	11:44	12:16	12:48	1:20	1:52	2:24	2:56	3:28	4:00	4:32	4:56	5:20	5:44	6:16	6:48	7:32	8:22	9:22	10:22	11:22	12:22	1:22
WESTBOUND RUMBO OESTE / DIREKSYON WES	MORNING / MAÑANA / MATEN														AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																	
Harding Ave & 94 St	5:30	6:02	6:34	7:06	7:38	8:10	8:42	9:14	9:46	10:18	10:50	11:22	11:54	12:26	12:58	1:30	2:02	2:34	3:06	3:38	4:10	4:42	5:06	5:30	5:54	6:26	7:00	7:45	8:45	9:45	10:45	11:45	12:45	
NE 123 St & Biscayne Blvd	5:41	6:13	6:46	7:18	7:50	8:22	8:54	9:27	9:59	10:31	11:03	11:35	12:07	12:39	1:11	1:43	2:15	2:47	3:21	3:53	4:25	4:57	5:21	5:45	6:09	6:39	7:12	7:57	8:56	9:56	10:56	11:56	12:56	
NE 125 St & 6 Ave	5:48	6:20	6:54	7:26	7:58	8:30	9:02	9:35	10:07	10:39	11:11	11:43	12:15	12:47	1:19	1:51	2:23	2:55	3:31	4:03	4:35	5:07	5:31	5:55	6:17	6:47	7:19	8:04	9:02	10:02	11:02	12:02	1:02	
NW 125 St & 7 Ave	5:54	6:26	7:00	7:32	8:04	8:36	9:08	9:41	10:13	10:45	11:17	11:49	12:23	12:55	1:27	1:59	2:31	3:03	3:39	4:11	4:43	5:15	5:39	6:03	6:24	6:54	7:25	8:10	9:08	10:08	11:08	12:08	1:08	
Miami-Dade College North Campus	6:05	6:37	7:11	7:43	8:15	8:47	9:19	9:52	10:24	10:56	11:28	12:00	12:34	1:06	1:38	2:10	2:42	3:14	3:50	4:22	4:54	5:26	5:50	6:14	6:35	7:05	7:36	8:21	9:19	10:19	11:19	12:19	1:19	

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 tráfico y otras condiciones de las vías. 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 & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																
Miami-Dade College North Campus	6:10	6:45	7:20	7:55	8:28	9:03	9:38	10:13	10:48	11:23	11:58	12:38	1:13	1:48	2:28	3:04	3:39	4:19	4:54	5:29	6:05	6:52	7:43	8:43	9:43	10:43	11:43			
NW 125 St & 7 Ave	6:21	6:56	7:31	8:06	8:39	9:14	9:49	10:24	10:59	11:34	12:09	12:49	1:24	1:59	2:39	3:15	3:50	4:30	5:05	5:40	6:16	7:03	7:54	8:54	9:54	10:54	11:54			
NE 125 St & 6 Ave	6:29	7:04	7:39	8:14	8:47	9:22	9:57	10:32	11:07	11:42	12:17	12:57	1:32	2:07	2:47	3:22	3:57	4:37	5:12	5:47	6:22	7:09	8:00	9:00	10:00	11:00	12:00			
NE 123 St & Biscayne Blvd	6:36	7:11	7:46	8:21	8:54	9:29	10:04	10:39	11:14	11:49	12:24	1:04	1:39	2:14	2:54	3:29	4:04	4:44	5:19	5:54	6:29	7:15	8:05	9:05	10:05	11:05	12:05			
Harding Ave & 94 St	6:45	7:20	7:55	8:30	9:05	9:40	10:15	10:50	11:25	12:00	12:35	1:15	1:50	2:25	3:05	3:40	4:15	4:55	5:30	6:05	6:40	7:25	8:15	9:15	10:15	11:15	12:15			
WESTBOUND RUMBO OESTE / DIREKSYON WES	MORNING / MAÑANA / MATEN											AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																
Harding Ave & 94 St	6:25	7:00	7:35	8:10	8:45	9:20	9:55	10:30	11:05	11:40	12:15	12:50	1:30	2:05	2:40	3:20	3:55	4:30	5:10	5:45	6:20	7:00	7:45	8:45	9:45	10:45	11:45			
NE 123 St & Biscayne Blvd	6:36	7:11	7:46	8:21	8:56	9:32	10:07	10:42	11:17	11:52	12:27	1:02	1:42	2:17	2:52	3:33	4:08	4:43	5:23	5:58	6:32	7:12	7:57	8:56	9:56	10:56	11:56			
NE 125 St & 6 Ave	6:43	7:18	7:53	8:28	9:03	9:39	10:14	10:49	11:24	11:59	12:35	1:10	1:50	2:25	3:00	3:41	4:16	4:51	5:31	6:06	6:39	7:19	8:04	9:02	10:02	11:02	12:02			
NW 125 St & 7 Ave	6:49	7:24	7:59	8:34	9:10	9:46	10:21	10:56	11:31	12:07	12:43	1:18	1:58	2:33	3:08	3:49	4:24	4:59	5:39	6:13	6:46	7:25	8:10	9:08	10:08	11:08	12:08			
Miami-Dade College North Campus	7:00	7:35	8:10	8:45	9:21	9:57	10:32	11:07	11:42	12:18	12:54	1:29	2:09	2:44	3:19	4:00	4:35	5:10	5:50	6:24	6:57	7:36	8:21	9:19	10:19	11:19	12:19			



SUNDAY / DOMINGO / DIMANCH

EASTBOUND RUMBO ESTE / DIREKSYON IS	MORNING / MAÑANA / MATEN										AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																
Miami-Dade College North Campus	6:00	7:00	7:40	8:15	8:48	9:23	9:58	10:33	11:08	11:43	12:18	12:53	1:28	2:03	2:38	3:13	3:48	4:23	4:58	5:35	6:13	6:58	7:43	8:44	9:44	10:44	11:44		
NW 125 St & 7 Ave	6:11	7:11	7:51	8:26	8:59	9:34	10:09	10:44	11:19	11:54	12:29	1:04	1:39	2:14	2:49	3:24	3:59	4:34	5:09	5:46	6:24	7:09	7:54	8:55	9:55	10:55	11:55		
NE 125 St & 6 Ave	6:17	7:18	7:58	8:33	9:06	9:41	10:16	10:51	11:26	12:01	12:36	1:11	1:46	2:21	2:56	3:31	4:06	4:41	5:16	5:53	6:30	7:15	8:00	9:01	10:01	11:01	12:01		
NE 123 St & Biscayne Blvd	6:22	7:25	8:05	8:40	9:14	9:49	10:24	10:59	11:34	12:09	12:44	1:19	1:54	2:29	3:04	3:39	4:14	4:49	5:24	6:01	6:36	7:21	8:06	9:06	10:06	11:06	12:06		
Harding Ave & 94 St	6:32	7:35	8:15	8:50	9:25	10:00	10:35	11:10	11:45	12:20	12:55	1:30	2:05	2:40	3:15	3:50	4:25	5:00	5:35	6:10	6:45	7:30	8:15	9:15	10:15	11:15	12:15		
WESTBOUND RUMBO OESTE / DIREKSYON WES	MORNING / MAÑANA / MATEN										AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																
Harding Ave & 94 St	6:10	7:10	7:55	8:30	9:05	9:40	10:15	10:50	11:25	12:00	12:35	1:10	1:45	2:20	2:55	3:30	4:05	4:40	5:15	5:50	6:25	7:00	7:45	8:45	9:45	10:45	11:45		
NE 123 St & Biscayne Blvd	6:20	7:20	8:05	8:40	9:16	9:51	10:26	11:01	11:36	12:11	12:46	1:21	1:56	2:31	3:07	3:42	4:17	4:52	5:27	6:02	6:35	7:10	7:55	8:55	9:55	10:55	11:55		
NE 125 St & 6 Ave	6:26	7:26	8:11	8:46	9:23	9:58	10:33	11:08	11:43	12:18	12:53	1:28	2:03	2:38	3:14	3:49	4:24	4:59	5:34	6:08	6:41	7:16	8:01	9:01	10:01	11:01	12:01		
NW 125 St & 7 Ave	6:31	7:32	8:17	8:52	9:29	10:04	10:39	11:14	11:49	12:24	12:59	1:34	2:09	2:44	3:20	3:55	4:30	5:05	5:40	6:13	6:46	7:21	8:06	9:06	10:06	11:06	12:06		
Miami-Dade College North Campus	6:42	7:43	8:28	9:03	9:40	10:15	10:50	11:25	12:00	12:35	1:10	1:45	2:20	2:55	3:31	4:06	4:41	5:16	5:51	6:24	6:57	7:32	8:17	9:17	10:17	11:17	12:17		

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 tráfico y otras condiciones de las vías. Ore yo apwoksimatif. Vre le bis yo ap rive oswa deplase ka varye selon kondisyon sikilasyon sou wout yo.



Bay Harbor Islands Shuttle

SURFSIDE

Monday - Friday

Surfside Publix (shops & services)	7:30 am	8:00 am	8:30 am	9:11 am	9:52 am	10:33 am	11:14 am	11:55 am	12:36 pm	1:17 pm	1:58 pm	2:39 pm	3:20 pm	4:00 pm	4:42 pm
Bay Dr. & 95th St.	7:33 am	8:03 am	8:33 am	9:14 am	9:55 am	10:36 am	11:17 am	11:58 am	12:39 pm	1:20 pm	2:00 pm	2:42 pm	3:23 pm	4:04 pm	4:45 pm
Bay Dr. & Dickens	7:39 am	8:09 am	8:39 am	9:20 am	10:00 am	10:42 am	11:23 am	12:04 pm	12:45 pm	1:26 pm	2:07 pm	2:48 pm	3:29 pm	4:10 pm	4:41 pm
Bay Dr. & 92nd St.	7:41 am	8:11 am	8:41 am	9:21 am	10:03 am	10:44 am	11:25 am	12:06 pm	12:47 pm	1:28 pm	2:09 pm	2:50 pm	3:31 pm	4:12 pm	4:53 pm
Byron & 92nd St.	7:42 am	8:12 am	8:42 am	9:23 am	10:04 am	10:46 am	11:26 am	12:07 pm	12:48 pm	1:29 pm	2:10 pm	2:51 pm	3:32 pm	4:13 pm	4:54 pm
Dickens & 90th St.	7:44 am	8:14 am	8:44 am	9:25 am	10:06 am	10:47 am	11:28 am	12:09 pm	12:50 pm	1:31 pm	2:12 pm	2:53 pm	3:34 pm	4:15 pm	4:56 pm
Hawthorne & 90th St.	7:45 am	8:15 am	8:46 am	9:27 am	10:07 am	10:48 am	11:29 am	12:10 pm	12:51 pm	1:32 pm	2:13 pm	2:54 pm	3:35 pm	4:16 pm	4:57 pm
Byron & 88th St.	7:48 am	8:18 am	8:48 am	9:29 am	10:10 am	10:51 am	11:32 am	12:13 pm	12:54 pm	1:35 pm	2:16 pm	2:57 pm	3:38 pm	4:19 pm	4:59 pm
Byron & 87th St./8638	7:49 am	8:19 am	8:49 am	9:30 am	10:11 am	10:52 am	11:33 am	12:14 pm	12:55 pm	1:36 pm	2:17 pm	2:58 pm	3:39 pm	4:20 pm	5:00 pm
North Shore Library	no stop	no stop	8:50 am	9:31 am	10:12 am	10:53 am	11:34 am	12:15 pm	12:56 pm	1:37 pm	2:18 pm	3:00 pm	3:40 pm	4:21 pm	5:01 pm
90th St. & Collins	7:51 am	8:21 am	8:51 am	9:32 am	10:13 am	10:54 am	11:35 am	12:16 pm	12:57 pm	1:38 pm	2:19 pm	3:00 pm	3:41 pm	4:22 pm	5:02 pm
Community Center	7:52 am	8:22 am	8:58 am	9:39 am	10:20 am	11:01 am	11:42 am	12:23 pm	1:04 pm	1:45 pm	2:26 pm	3:07 pm	3:48 pm	4:29 pm	5:09 pm
Post Office	7:53 am	8:23 am	9:05 am	9:40 am	10:27 am	11:08 am	11:49 am	12:30 pm	1:11 pm	1:52 pm	2:33 pm	3:14 pm	3:55 pm	4:36 pm	5:16 pm

The Surfside Shuttle provides a limited shuttle schedule on **Saturdays from 8 am–1:30 pm**. The same stops are serviced at the same times listed above during this time period.

BAL HARBOUR

Monday - Thursday & Sunday

Friday & Saturday

96th St. & The Majestic, 9601 Collins Avenue	9:00 am	10:20 am	11:40 am	1:45 pm	3:15 pm	5:00 pm	6:50 pm	8:10 pm
St. Regis, 9703 Collins Avenue	9:01 am	10:22 am	11:41 am	1:46 pm	3:16 pm	5:05 pm	6:52 pm	8:12 pm
The Balmoral, 9801 Collins Avenue	9:02 am	10:22 am	11:42 am	1:47 pm	3:17 pm	5:08 pm	7:00 pm	8:13 pm
The Sea View Hotel, 9909 Collins Avenue	9:03 am	10:23 am	11:43 am	1:48 pm	3:18 pm	5:10 pm	7:02 pm	8:15 pm
The Bal Harbor Tower, 9999 Collins Avenue	9:05 am	10:25 am	11:45 am	1:50 pm	3:20 pm	5:12 pm	7:04 pm	8:16 pm
The Palace, 10101 Collins Avenue	9:06 am	10:26 am	11:46 am	1:51 pm	3:21 pm	5:14 pm	7:06 pm	8:17 pm
Bal Harbour 101 (curbside), 10155 Collins Avenue	9:07 am	10:27 am	11:47 am	1:52 pm	3:22 pm	5:16 pm	7:07 pm	8:18 pm
The Tiffany, 10175 Collins Avenue	9:09 am	10:29 am	11:49 am	1:54 pm	3:24 pm	5:18 pm	7:08 pm	8:20 pm
The Plaza/Beach Club Access, 10185 Collins Avenue	9:11 am	10:31 am	11:51 am	1:56 pm	3:26 pm	5:20 pm	7:09 pm	8:22 pm
The Carlton Terrace, 10245 Collins Avenue	9:13 am	10:33 am	11:53 am	1:58 pm	3:28 pm	5:22 pm	7:11 pm	8:24 pm
The Harbour House, 10275 Collins Avenue	9:14 am	10:34 am	11:54 am	1:59 pm	3:29 pm	5:23 pm	7:12 pm	8:25 pm
Ritz-Carlton Bal Harbour, 10295 Collins Avenue	9:15 am	10:35 am	11:55 am	2:00 pm	3:30 pm	5:25 pm	7:13 pm	8:26 pm
Haulover Bridge underpass, Frontage Road southbound	9:17 am	10:37 am	11:57 am	2:02 pm	3:32 pm	5:27 pm	7:15 pm	8:28 pm
Bal Bridge North, 10240 Collins Avenue	9:18 am	10:38 am	11:58 am	2:03 pm	3:33 pm	5:28 pm	7:16 pm	8:29 pm
Harbour Way, 10200 Collins Avenue	9:19 am	10:39 am	11:59 pm	2:04 pm	3:34 pm	5:30 pm	7:18 pm	8:31 pm
Bal Harbour Collins Apts, 9930 Collins Avenue	9:20 am	10:40 am	12:00 pm	2:05 pm	3:35 pm	5:32 pm	7:19 pm	8:32 pm
Bal Harbour Shops, 9700 Collins Avenue	9:21 am	10:41 am	12:01 pm	2:06 pm	3:36 pm	5:35 pm	7:20 pm	8:34 pm
Bal Harbour Village Hall/Park, 655 96th Street	9:22 am	10:42 am	12:02 pm	2:07 pm	3:37 pm	No stop	No stop	No stop
Bay Harbor/96th St. Town Hall, 9665 Bay Harbor Ter.	9:25 am	10:43 am	12:03 pm	2:08 pm	3:39 pm	No stop	No stop	No stop
Bay Harbor Terrace, corner of 95th St & Bay Harbor Ter.	9:27 am	10:43 am	12:03 pm	2:08 pm	3:39 pm	No stop	No stop	No stop
Surfside Publix, (shops & services)	9:31 am	10:49 am	12:09 pm	2:14 pm	3:45 pm	5:39 pm	7:25 pm	8:39 pm
169th St. & Collins (northbound)	9:41 am	11:05 am	12:25 pm	2:30 pm	4:00 pm	5:54 pm	7:35 pm	8:49 pm
Aventura Mall, 19535 Biscayne Blvd.	9:51 am	11:15 am	12:35 pm	2:45 pm	4:15 pm	6:10 pm	7:45 pm	8:59 pm
Sunny Isles Library, 18070 Collins Avenue	9:59 am	11:22 am	12:43 pm	2:53 pm	4:23 pm	6:23 pm	7:53 pm	No stop
170th St. & Collins (southbound)	10:01 am	11:25 am	12:45 pm	2:55 pm	4:30 pm	6:25 pm	7:55 pm	No stop
Haulover Beach	10:11 am	11:35 am	12:55 pm	3:10 pm	4:45 pm	6:35 pm	8:05 pm	No stop
Bal Harbour Collins Apts, 9930 Collins Avenue	10:13 am	11:36 am	12:57 pm	3:12 pm	4:47 pm	6:40 pm	8:07 pm	No stop

BAY HARBOR ISLANDS

Monday - Friday

Town Hall, 9665 Bay Harbor Ter	9:00 am	10:15 am	11:45 am	1:45 pm	3:15 pm	4:45 pm
Island Point, 10350 W. Bay Harbor Dr	9:05 am	10:20 am	11:50 am	1:50 pm	3:20 pm	4:50 pm
Blair House, 9100 W. Bay Harbor Dr	9:10 am	10:25 am	11:55 am	1:55 pm	3:25 pm	4:55 pm
1077 95 Street (Open Kitchen, Orlando's Pizza, Unico Cafe)	9:15 am	10:30 am	12:00 pm	2:00 pm	3:30 pm	No stop
North Park, 103 St./E. Broadview	No stop	10:37 am	12:07 pm	2:07 pm	3:37 pm	No stop
South Park, 94 St./E. Broadview	No stop	10:42 am	12:12 pm	2:12 pm	3:42 pm	No stop
Surfside Publix (shops & services)	9:20 am	10:49 am	12:19 pm	2:19 pm	3:49 pm	No stop
Saks (Bal Harbour Shops)	9:25 am	10:54 am	12:24 pm	2:24 pm	3:54 pm	No stop
Island Point, 10350 W. Bay Harbor Dr	9:30 am	10:59 am	12:29 pm	2:29 pm	3:59 pm	No stop
Blair House, 9100 W. Bay Harbor Dr	9:35 am	11:04 am	12:34 pm	2:34 pm	4:04 pm	No stop
Starbucks, 135th St & Biscayne Blvd	9:43 am	11:12 am	12:42 pm	2:42 pm	4:12 pm	No stop
Costco/Publix, 146th St & Biscayne Blvd	9:50 am	11:19 am	12:49 pm	2:49 pm	4:19 pm	No stop
Walgreens, 123rd St & Biscayne Blvd	10:00 am	11:30 am	1:30 pm	3:00 pm	4:30 pm	No stop

• Red schedules indicate when all three shuttles stop at the Surfside Publix, allowing riders to change routes.

• Brown schedules indicate when Bay Harbor Islands and Bal Harbour shuttles stop at the Bay Harbor Islands Town Hall, allowing riders to change routes.

Together We Will Get You There!

Get to where you need to go by making the connection among our three free shuttle routes.

Residents of Surfside, Bal Harbour and Bay Harbor Islands can take advantage of three complementary shuttle routes to enhance transportation opportunities within our three communities and to various locations in neighboring communities.

This map and corresponding schedules show how to connect from one shuttle to another and to access neighboring municipalities and destinations throughout the region, including Aventura, Miami Beach and North Miami. Use this interlocal shuttle system to also access the Miami-Dade County bus stops at various locations.



9293 Harding Avenue
Surfside, Florida 33154
(305) 861-4863
townofsurfsidefl.org

**BAL
HARBOUR**
- VILLAGE -
655 96th Street
Bal Harbour, Florida 33154
(305) 866-4633
balharbourgov.com



9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154
(305) 866-6241
bayharborislands.org



Make Your Connection with the Interlocal Shuttle System

**SURF
BAY**

Together We Will Get You There!

Get to where you need to go by
making the connection among our
three free shuttle routes

The Bal Harbour shuttle continues
north to stops at Haulover Beach
Sunny Isles Beach and the
Aventura Mall

The Bay Harbor
Islands shuttle
continues west to
stops at Starbucks,
Costco, Publix and
Walgreens in North
Miami

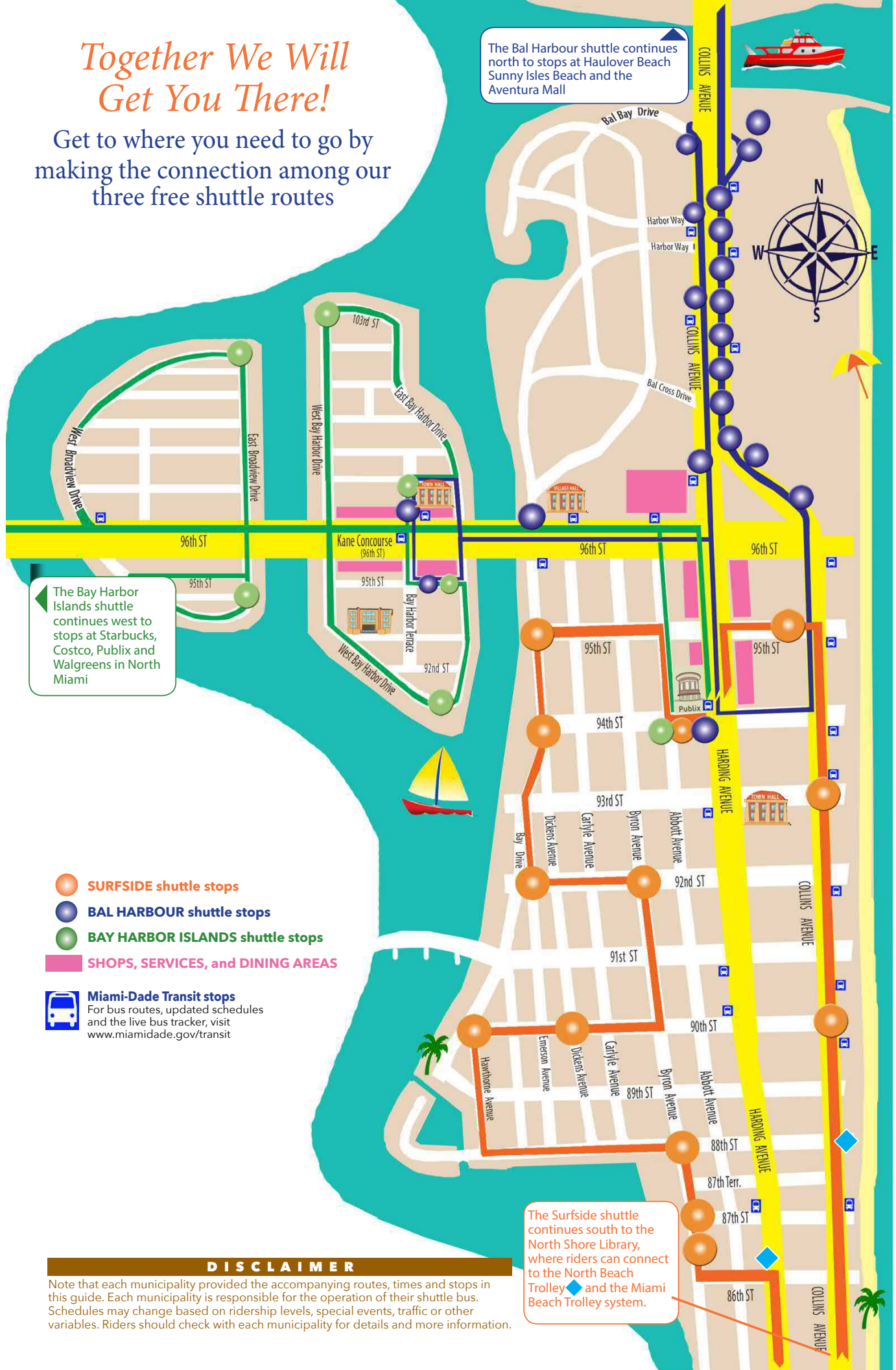
-  **SURFSIDE shuttle stops**
-  **BAL HARBOUR shuttle stops**
-  **BAY HARBOR ISLANDS shuttle stops**
-  **SHOPS, SERVICES, and DINING AREAS**

 **Miami-Dade Transit stops**
For bus routes, updated schedules
and the live bus tracker, visit
www.miamidade.gov/transit

DISCLAIMER

Note that each municipality provided the accompanying routes, times and stops in this guide. Each municipality is responsible for the operation of their shuttle bus. Schedules may change based on ridership levels, special events, traffic or other variables. Riders should check with each municipality for details and more information.

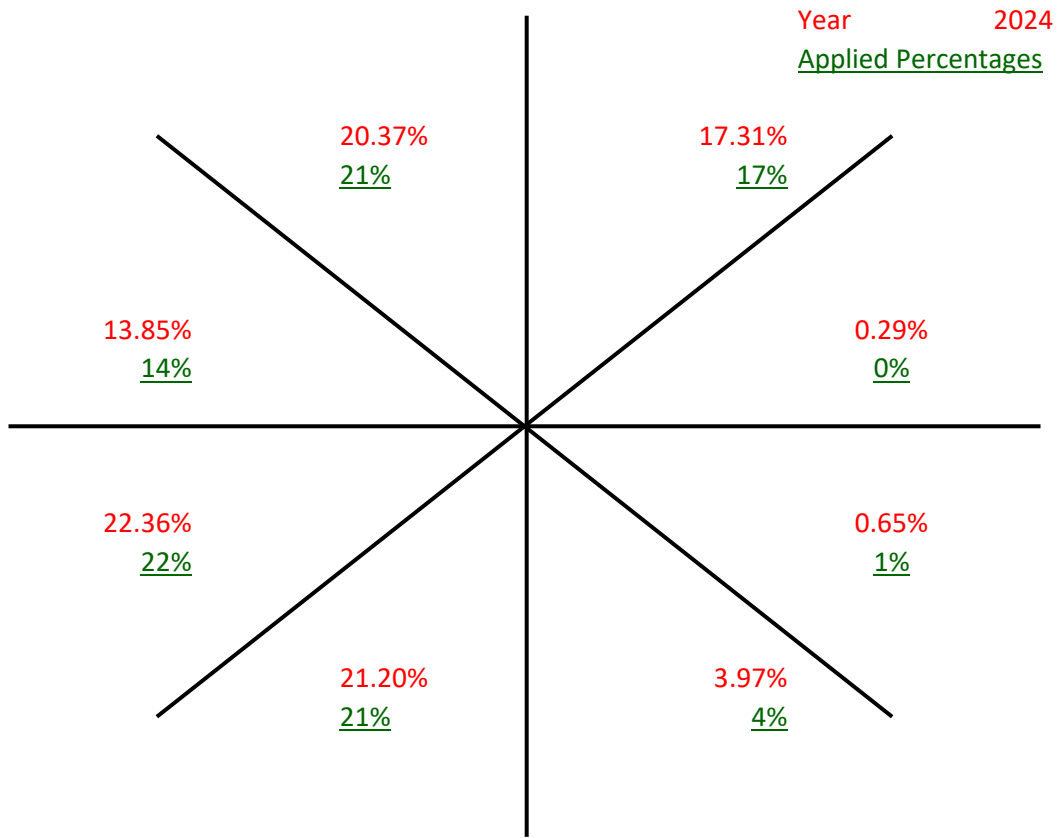
The Surfside shuttle
continues south to the
North Shore Library,
where riders can connect
to the North Beach
Trolley  and the Miami
Beach Trolley system.



Appendix G

Trip Distribution

Cardinal Distribution for TAZ 193



Cardinal Trip Distribution

Cardinal Direction	Percentage of Trips		2024 Interpolated	2024 Rounded
	2015	2045		
North-Northeast	16.7%	18.00%	17.31%	17.00%
East-Northeast	0.1%	0.50%	0.29%	0.00%
East-Southeast	0.7%	0.60%	0.65%	1.00%
South-Southeast	4.3%	3.60%	3.97%	4.00%
South-Southwest	19.1%	23.60%	21.20%	21.00%
West-Southwest	23.2%	21.40%	22.36%	22.00%
West-Northwest	13.2%	14.60%	13.85%	14.00%
North-Northwest	22.7%	17.70%	20.37%	21.00%
Total	100.0%	100.0%	100.00%	100.00%



MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION

2045 LRTP

SUPPORTING DOCUMENTS

DIRECTIONAL TRIP DISTRIBUTION REPORT

SEPTEMBER 2019

DIRECTIONAL TRIP DISTRIBUTION REPORT

Miami-Dade 2015 Base Year Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
183	3083	Trips	585	648	1,059	1,164	586	71	49	129	4,489
183	3083	Percent	13.6	15.1	24.7	27.1	13.7	1.7	1.1	3.0	
184	3084	Trips	321	367	91	188	484	262	279	360	2,366
184	3084	Percent	13.7	15.6	3.9	8.0	20.6	11.1	11.9	15.3	
185	3085	Trips	1,447	436	4	409	1,233	988	1,002	913	6,542
185	3085	Percent	22.5	6.8	0.1	6.4	19.2	15.4	15.6	14.2	
186	3086	Trips	52	-	-	15	32	41	56	97	292
186	3086	Percent	17.7	-	-	5.0	11.0	14.1	19.1	33.2	
187	3087	Trips	443	4	0	89	241	520	508	1,139	2,981
187	3087	Percent	15.0	0.1	-	3.0	8.2	17.7	17.3	38.7	
188	3088	Trips	292	30	18	43	547	440	304	375	2,112
188	3088	Percent	14.2	1.5	0.9	2.1	26.7	21.5	14.8	18.3	
189	3089	Trips	959	135	131	203	879	688	517	806	4,360
189	3089	Percent	22.2	3.1	3.0	4.7	20.4	16.0	12.0	18.7	
190	3090	Trips	1,130	33	43	244	1,194	984	704	853	5,315
190	3090	Percent	21.8	0.6	0.8	4.7	23.0	19.0	13.6	16.5	
191	3091	Trips	594	35	32	160	650	566	323	494	2,984
191	3091	Percent	20.8	1.2	1.1	5.6	22.8	19.8	11.3	17.3	
192	3092	Trips	81	19	26	48	143	90	95	114	617
192	3092	Percent	13.2	3.0	4.3	7.8	23.2	14.6	15.4	18.5	
193	3093	Trips	676	5	28	175	774	937	535	919	4,159
193	3093	Percent	16.7	0.1	0.7	4.3	19.1	23.2	13.2	22.7	
194	3094	Trips	760	37	132	132	682	629	527	746	3,757
194	3094	Percent	20.8	1.0	3.6	3.6	18.7	17.2	14.5	20.5	
195	3095	Trips	999	28	52	260	1,095	1,019	935	1,144	5,787
195	3095	Percent	18.1	0.5	0.9	4.7	19.8	18.4	16.9	20.7	
196	3096	Trips	554	27	26	107	445	504	258	385	2,372
196	3096	Percent	24.0	1.2	1.1	4.6	19.3	21.9	11.2	16.7	
197	3097	Trips	868	139	104	205	788	609	336	733	3,805
197	3097	Percent	23.0	3.7	2.8	5.4	20.8	16.1	8.9	19.4	
198	3098	Trips	880	206	31	141	743	712	490	690	3,977
198	3098	Percent	22.6	5.3	0.8	3.6	19.1	18.3	12.6	17.7	
199	3099	Trips	606	58	135	119	516	511	385	505	2,895
199	3099	Percent	21.4	2.0	4.8	4.2	18.2	18.0	13.6	17.8	
200	3100	Trips	1,550	208	65	517	1,413	1,094	990	1,319	7,533
200	3100	Percent	21.7	2.9	0.9	7.2	19.8	15.3	13.8	18.4	
201	3101	Trips	117	19	5	50	126	123	120	92	651
201	3101	Percent	17.9	2.9	0.8	7.7	19.3	18.9	18.4	14.1	
202	3102	Trips	441	99	139	142	569	497	357	400	2,699
202	3102	Percent	16.7	3.7	5.3	5.4	21.5	18.8	13.5	15.1	
203	3103	Trips	948	191	90	387	927	758	629	745	4,722
203	3103	Percent	20.3	4.1	1.9	8.3	19.8	16.2	13.5	15.9	
204	3104	Trips	645	100	75	199	549	527	333	464	2,981
204	3104	Percent	22.3	3.5	2.6	6.9	19.0	18.2	11.5	16.1	
205	3105	Trips	869	201	158	331	802	551	386	544	3,932
205	3105	Percent	22.6	5.2	4.1	8.6	20.9	14.3	10.1	14.2	
206	3106	Trips	856	228	132	437	850	700	387	704	4,518
206	3106	Percent	19.9	5.3	3.1	10.2	19.8	16.3	9.0	16.4	
207	3107	Trips	799	166	306	284	816	769	517	782	4,636
207	3107	Percent	18.0	3.7	6.9	6.4	18.4	17.3	11.7	17.6	
208	3108	Trips	918	335	170	354	776	609	452	900	4,728
208	3108	Percent	20.3	7.4	3.8	7.9	17.2	13.5	10.0	19.9	

DIRECTIONAL TRIP DISTRIBUTION REPORT

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	
183	3083	Trips	581	556	1,089	1,102	677	48	65	413	4,738
183	3083	Percent	12.8	12.3	24.0	24.3	14.9	1.1	1.4	9.1	
184	3084	Trips	398	445	183	241	670	373	374	469	3,215
184	3084	Percent	12.6	14.1	5.8	7.6	21.3	11.8	11.9	14.9	
185	3085	Trips	1,806	367	4	520	1,532	1,125	1,136	1,098	7,673
185	3085	Percent	23.8	4.8	0.1	6.9	20.2	14.8	15.0	14.5	
186	3086	Trips	50	-	-	17	78	110	108	123	486
186	3086	Percent	10.2	-	-	3.4	16.1	22.6	22.3	25.3	
187	3087	Trips	586	8	0	161	423	676	623	1,374	3,936
187	3087	Percent	15.2	0.2	-	4.2	11.0	17.6	16.2	35.7	
188	3088	Trips	2,270	167	51	472	3,407	2,590	1,887	2,174	14,335
188	3088	Percent	17.4	1.3	0.4	3.6	26.2	19.9	14.5	16.7	
189	3089	Trips	694	55	110	121	878	535	345	531	3,350
189	3089	Percent	21.2	1.7	3.4	3.7	26.9	16.4	10.5	16.3	
190	3090	Trips	1,433	44	61	242	1,411	1,057	744	1,030	6,244
190	3090	Percent	23.8	0.7	1.0	4.0	23.4	17.6	12.4	17.1	
191	3091	Trips	577	21	56	141	842	670	397	512	3,384
191	3091	Percent	18.0	0.6	1.8	4.4	26.2	20.8	12.3	15.9	
192	3092	Trips	266	29	17	57	276	149	161	179	1,137
192	3092	Percent	23.5	2.6	1.5	5.1	24.3	13.1	14.2	15.8	
193	3093	Trips	776	23	27	157	1,019	923	632	763	4,449
193	3093	Percent	18.0	0.5	0.6	3.6	23.6	21.4	14.6	17.7	
194	3094	Trips	1,028	46	163	188	984	770	726	773	4,826
194	3094	Percent	22.0	1.0	3.5	4.0	21.0	16.5	15.5	16.5	
195	3095	Trips	1,168	66	73	228	1,566	1,181	1,051	1,200	6,774
195	3095	Percent	17.9	1.0	1.1	3.5	24.0	18.1	16.1	18.4	
196	3096	Trips	589	52	17	102	723	548	356	461	2,921
196	3096	Percent	20.7	1.8	0.6	3.6	25.4	19.3	12.5	16.2	
197	3097	Trips	916	112	88	208	1,140	812	494	713	4,682
197	3097	Percent	20.4	2.5	2.0	4.6	25.4	18.1	11.0	15.9	
198	3098	Trips	811	140	56	175	987	832	601	617	4,312
198	3098	Percent	19.2	3.3	1.3	4.2	23.4	19.7	14.3	14.6	
199	3099	Trips	924	55	159	173	851	663	561	499	3,906
199	3099	Percent	23.8	1.4	4.1	4.4	21.9	17.1	14.4	12.8	
200	3100	Trips	1,774	149	75	498	1,941	1,428	997	1,177	8,682
200	3100	Percent	22.1	1.9	0.9	6.2	24.1	17.8	12.4	14.6	
201	3101	Trips	222	17	25	41	244	160	158	182	1,049
201	3101	Percent	21.2	1.6	2.4	3.9	23.3	15.3	15.1	17.3	
202	3102	Trips	504	107	108	176	705	528	425	324	2,934
202	3102	Percent	17.5	3.7	3.8	6.1	24.5	18.4	14.8	11.2	
203	3103	Trips	932	202	157	250	1,314	851	551	812	5,166
203	3103	Percent	18.4	4.0	3.1	4.9	25.9	16.8	10.9	16.0	
204	3104	Trips	682	118	48	223	922	683	359	554	3,662
204	3104	Percent	19.0	3.3	1.4	6.2	25.7	19.0	10.0	15.4	
205	3105	Trips	800	135	153	315	1,124	585	475	656	4,394
205	3105	Percent	18.9	3.2	3.6	7.4	26.5	13.8	11.2	15.5	
206	3106	Trips	845	201	114	379	1,003	831	430	622	4,717
206	3106	Percent	19.1	4.6	2.6	8.6	22.7	18.8	9.7	14.1	
207	3107	Trips	873	166	234	269	1,184	950	714	797	5,408
207	3107	Percent	16.8	3.2	4.5	5.2	22.8	18.3	13.8	15.4	
208	3108	Trips	1,144	392	177	418	1,413	926	726	1,124	6,597
208	3108	Percent	18.1	6.2	2.8	6.6	22.4	14.7	11.5	17.8	

Appendix H

Volume Development Worksheets

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION:	SR 922/NE 123rd Street and N Bayshore Drive
COUNT DATE:	February 19, 2020
AM PEAK HOUR FACTOR:	0.94
PM PEAK HOUR FACTOR:	0.95

"AM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements		50	861	15		49	885	22		20	1	37		51	7	91
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Years To 2022	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
AM EXISTING CONDITIONS		51	877	15		50	901	22		20	1	38		52	7	93

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements		81	759	22		23	1,272	68		37	5	18		59	14	56
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Years To 2022	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
PM EXISTING CONDITIONS		82	773	22		23	1,296	69		38	5	18		60	14	57

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village			17				7									
TOTAL "VESTED" TRAFFIC		0	17	0		0	7	0		0	0	0		0	0	0

[illegible]

AM NON-PROJECT TRAFFIC		52	910	15		51	925	22		20	1	39		53	7	95
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"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village			9				16									
TOTAL "VESTED" TRAFFIC		0	9	0		0	16	0		0	0	0		0	0	0

[illegible]

PM NON-PROJECT TRAFFIC		84	796	22		23	1,336	70		39	5	18		61	14	58
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[illegible][illegible]

"AM PROJECT TRAFFIC"		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		7	4			1	18				1					
AM TOTAL PROJECT TRAFFIC			7	4	0		1	18	0		0	1	0		0	0	0
AM TOTAL TRAFFIC			59	914	15		52	943	22		20	2	39		53	7	95

"PM PROJECT TRAFFIC"		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	15	3			1	14				1						
PM TOTAL PROJECT TRAFFIC		15	3	0		1	14	0			1	0			0	0	0
PM TOTAL TRAFFIC		99	799	22		24	1,350	70		39	6	18			61	14	58

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: SR 922/NE 123rd Street and Primary Driveway
COUNT DATE: February 19, 2020
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	NBR	SBU	SBL	SBT	SBR
AM Raw Turning Movements	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Season Correction Factor	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Years To 2022	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
Yearly Growth Rate	0	0	967	0	0	0	974	0	0	0	0	0	0	0	0	0
AM EXISTING CONDITIONS																

"PM EXISTING TRAFFIC"	EBU	EBL	EBT*	EBR	WBU	WBL	WBT*	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Raw Turning Movements	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Season Correction Factor	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Years To 2022	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
Yearly Growth Rate	0	0	851	0	0	0	1,388	0	0	0	0	0	0	0	0	0
PM EXISTING CONDITIONS																

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village			17				7									
TOTAL "VESTED" TRAFFIC		0	17	0		0	7	0		0	0	0		0	0	0

Years To Buildout	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
AM BACKGROUND TRAFFIC GROWTH	0	18	0	0		0	18	0		0	0	0		0	0	0

AM NON-PROJECT TRAFFIC		0	1,002	0		0	999	0		0	0	0		0	0	0
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"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village			9				16									
TOTAL "VESTED" TRAFFIC		0	9	0		0	16	0		0	0	0		0	0	0

Years To Buildout	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
PM BACKGROUND TRAFFIC GROWTH	0	16	0	0		0	26	0		0	0	0		0	0	0

PM NON-PROJECT TRAFFIC		0	876	0		0	1,430	0		0	0	0		0	0	0
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"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																	
Distribution	Exiting																	
Valet Distribution	Entering																	
Distribution	Exiting																	
Net New Distribution	Entering								22.0%									
Distribution	Exiting			22.0%														100.0%

"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																	
Distribution	Exiting																	
Valet Distribution	Entering																	
Distribution	Exiting																	
Net New Distribution	Entering								22.0%									
Distribution	Exiting			22.0%														100.0%

"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			4					2									19
AM TOTAL PROJECT TRAFFIC			0	4	0		0	0	2		0	0	0		0	0	0	19
AM TOTAL TRAFFIC			0	1,006	0		0	999	2		0	0	0		0	0	0	19

"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			3					4									15
PM TOTAL PROJECT TRAFFIC			0	3	0		0	0	4		0	0	0		0	0	0	15
PM TOTAL TRAFFIC			0	879	0		0	1,430	4		0	0	0		0	0	0	15

* Through volumes calculated based on adjacent intersection of SR 922/NE 123rd Street & N Bayshore Drive

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: N Bayshore Drive and Ingress Driveway
COUNT DATE: February 19, 2020
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*	NBR	SBU	SBL	SBT*	SBR
AM Raw Turning Movements		0	0	0		0	0	0		0	73	0		0	149	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Years To 2022	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
AM EXISTING CONDITIONS		0	0	0		0	0	0		0	74	0		0	152	0

"PM EXISTING TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT*	NBR	SBU	SBL	SBT*	SBR
PM Raw Turning Movements		0	0	0		0	0	0		0	154	0		0	129	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Years To 2022	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
PM EXISTING CONDITIONS		0	0	0		0	0	0		0	157	0		0	131	0

"AM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village																
TOTAL "VESTED" TRAFFIC		0	0	0		0	0	0		0	0	0		0	0	0

Years To Buildout	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
AM BACKGROUND TRAFFIC GROWTH		0	0	0		0	0	0		0	1	0		0	3	0

AM NON-PROJECT TRAFFIC		0	0	0		0	0	0		0	75	0		0	155	0
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"PM BACKGROUND TRAFFIC"	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Causeway Village																
TOTAL "VESTED" TRAFFIC		0	0	0		0	0	0		0	0	0		0	0	0

Years To Buildout	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yearly Growth Rate	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%	0.92%
PM BACKGROUND TRAFFIC GROWTH		0	0	0		0	0	0		0	3	0		0	2	0

PM NON-PROJECT TRAFFIC		0	0	0		0	0	0		0	160	0		0	133	0
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"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												78.0%					
	Exiting																	

"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												78.0%					
	Exiting																	

"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				
AM TOTAL PROJECT TRAFFIC			0	0	0		0	0	0		0	0	8		0	0	0	0
AM TOTAL TRAFFIC			0	0	0		0	0	0		0	75	8		0	155	0	0

"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													16		0	0	0
PM TOTAL PROJECT TRAFFIC			0	0	0		0	0	0		0	0	16		0	0	0	0
PM TOTAL TRAFFIC			0	0	0		0	0	0		0	160	16		0	133	0	0

* Through volumes calculated based on adjacent intersection of SR 922/NE 123rd Street and N Bayshore Drive

Appendix I

Intersection Capacity Analyses

Existing A.M.

Timings

1: SR 922/NE 123 Street & N Bayshore Drive

Existing Conditions

A.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	51	877	15	50	901	20	1	52	7
Future Volume (vph)	51	877	15	50	901	20	1	52	7
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 123.5

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

					
Ø1	Ø2			Ø4	
12 s	92 s			21 s	
					
Ø6				Ø8	
104 s				21 s	

Queues

1: SR 922/NE 123 Street & N Bayshore Drive

Existing Conditions

A.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	54	933	16	53	982	62	161
v/c Ratio	0.13	0.34	0.01	0.13	0.39	0.41	0.82
Control Delay	3.6	4.1	0.4	7.6	7.9	31.7	67.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	4.1	0.4	7.6	7.9	31.7	67.5
Queue Length 50th (ft)	8	98	0	13	162	16	86
Queue Length 95th (ft)	17	122	2	30	202	62	#192
Internal Link Dist (ft)		376			458	164	256
Turn Bay Length (ft)	200		200	200			
Base Capacity (vph)	427	2783	1186	403	2516	169	218
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.34	0.01	0.13	0.39	0.37	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

Existing Conditions
A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	877	15	50	901	22	20	1	38	52	7	93
Future Volume (veh/h)	51	877	15	50	901	22	20	1	38	52	7	93
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		0.97	1.00		1.00	1.00		1.00
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	54	933	16	53	959	23	21	1	40	55	7	99
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	451	2756	1194	467	2460	59	79	19	110	91	16	110
Arrive On Green	0.03	0.78	0.78	0.70	0.70	0.70	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1767	3526	1528	586	3516	84	360	171	965	463	145	971
Grp Volume(v), veh/h	54	933	16	53	481	501	62	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1528	586	1763	1838	1496	0	0	1580	0	0
Q Serve(g_s), s	1.0	9.8	0.3	3.7	14.1	14.1	0.0	0.0	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.8	0.3	3.7	14.1	14.1	4.4	0.0	0.0	12.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	0.34		0.65	0.34		0.61
Lane Grp Cap(c), veh/h	451	2756	1194	467	1233	1286	209	0	0	218	0	0
V/C Ratio(X)	0.12	0.34	0.01	0.11	0.39	0.39	0.30	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	476	2756	1194	467	1233	1286	209	0	0	218	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.2	4.1	3.0	6.2	7.7	7.7	51.0	0.0	0.0	54.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.9	0.9	0.6	0.0	0.0	11.8	0.0	0.0
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	0.6	5.6	0.1	0.9	9.1	9.4	3.3	0.0	0.0	9.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.2	4.4	3.0	6.7	8.7	8.6	51.6	0.0	0.0	66.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	E	A	A
Approach Vol, veh/h		1003			1035			62			161	
Approach Delay, s/veh		4.4			8.6			51.6			66.3	
Approach LOS		A			A			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.2	93.8		21.0		104.0		21.0				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+I1), s	3.0	16.1		6.4		11.8		14.5				
Green Ext Time (p_c), s	0.0	2.7		0.1		2.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay 12.0
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.

Future Background A.M.

Timings

1: SR 922/NE 123 Street & N Bayshore Drive

Future Background Conditions

A.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	910	15	51	925	20	1	53	7
Future Volume (vph)	52	910	15	51	925	20	1	53	7
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125
 Actuated Cycle Length: 123.6
 Natural Cycle: 80
 Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

								
Ø1	Ø2					Ø4		
12 s	92 s					21 s		
								
Ø6						Ø8		
104 s						21 s		

Queues

Future Background Conditions

1: SR 922/NE 123 Street & N Bayshore Drive

A.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	55	968	16	54	1007	63	164
v/c Ratio	0.13	0.35	0.01	0.14	0.40	0.41	0.83
Control Delay	3.7	4.2	0.4	7.7	8.0	31.6	68.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	4.2	0.4	7.7	8.0	31.6	68.9
Queue Length 50th (ft)	8	104	0	14	167	16	89
Queue Length 95th (ft)	17	128	2	31	209	62	#197
Internal Link Dist (ft)		376			458	164	256
Turn Bay Length (ft)	200		200	200			
Base Capacity (vph)	416	2780	1185	390	2516	170	218
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.35	0.01	0.14	0.40	0.37	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

Future Background Conditions

A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (veh/h)	52	910	15	51	925	22	20	1	39	53	7	95
Future Volume (veh/h)	52	910	15	51	925	22	20	1	39	53	7	95
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		0.97	1.00		1.00	1.00		1.00
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	55	968	16	54	984	23	21	1	41	56	7	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	441	2756	1194	454	2461	58	78	19	111	92	16	111
Arrive On Green	0.03	0.78	0.78	0.70	0.70	0.70	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1767	3526	1528	567	3519	82	351	171	973	466	142	974
Grp Volume(v), veh/h	55	968	16	54	493	514	63	0	0	164	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1528	567	1763	1838	1495	0	0	1582	0	0
Q Serve(g_s), s	1.0	10.3	0.3	4.0	14.6	14.6	0.0	0.0	0.0	8.3	0.0	0.0
Cycle Q Clear(g_c), s	1.0	10.3	0.3	4.0	14.6	14.6	4.5	0.0	0.0	12.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.33		0.65	0.34		0.62
Lane Grp Cap(c), veh/h	441	2756	1194	454	1233	1286	208	0	0	218	0	0
V/C Ratio(X)	0.12	0.35	0.01	0.12	0.40	0.40	0.30	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	466	2756	1194	454	1233	1286	208	0	0	218	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	4.1	3.0	6.3	7.8	7.8	51.0	0.0	0.0	54.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.5	1.0	0.9	0.6	0.0	0.0	13.0	0.0	0.0
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	0.6	5.9	0.1	0.9	9.3	9.6	3.3	0.0	0.0	9.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	4.5	3.0	6.8	8.8	8.8	51.6	0.0	0.0	67.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	E	A	A
Approach Vol, veh/h		1039			1061			63			164	
Approach Delay, s/veh		4.5			8.7			51.6			67.5	
Approach LOS		A			A			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.3	93.7		21.0		104.0		21.0				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+l1), s	3.0	16.6		6.5		12.3		14.7				
Green Ext Time (p_c), s	0.0	2.8		0.1		3.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 12.1
 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.

Future Total A.M.

Timings

1: SR 922/NE 123 Street & N Bayshore Drive

Future Total Conditions

A.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	914	15	52	943	20	2	53	7
Future Volume (vph)	59	914	15	52	943	20	2	53	7
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 123.6

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

								
Ø1	Ø2						Ø4	
12 s	92 s						21 s	
								
Ø6							Ø8	
104 s							21 s	

Queues

1: SR 922/NE 123 Street & N Bayshore Drive

Future Total Conditions

A.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	63	972	16	55	1026	64	164
v/c Ratio	0.16	0.35	0.01	0.14	0.41	0.42	0.83
Control Delay	3.8	4.2	0.4	7.7	8.1	31.9	68.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	4.2	0.4	7.7	8.1	31.9	68.9
Queue Length 50th (ft)	10	104	0	14	173	17	89
Queue Length 95th (ft)	19	128	2	31	214	64	#197
Internal Link Dist (ft)		376			230	164	126
Turn Bay Length (ft)	200		200	100			
Base Capacity (vph)	408	2780	1185	388	2515	171	218
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.35	0.01	0.14	0.41	0.37	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

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)	59	914	15	52	943	22	20	2	39	53	7	95
Future Volume (veh/h)	59	914	15	52	943	22	20	2	39	53	7	95
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		0.97	1.00		1.00	1.00		1.00
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	63	972	16	55	1003	23	21	2	41	56	7	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	435	2756	1194	452	2458	56	77	22	109	92	16	111
Arrive On Green	0.04	0.78	0.78	0.70	0.70	0.70	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1767	3526	1528	565	3520	81	345	195	963	466	142	975
Grp Volume(v), veh/h	63	972	16	55	502	524	64	0	0	164	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1528	565	1763	1838	1503	0	0	1583	0	0
Q Serve(g_s), s	1.2	10.4	0.3	4.1	15.0	15.0	0.0	0.0	0.0	8.2	0.0	0.0
Cycle Q Clear(g_c), s	1.2	10.4	0.3	4.1	15.0	15.0	4.5	0.0	0.0	12.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.33		0.64	0.34		0.62
Lane Grp Cap(c), veh/h	435	2756	1194	452	1231	1283	209	0	0	218	0	0
V/C Ratio(X)	0.14	0.35	0.01	0.12	0.41	0.41	0.31	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	458	2756	1194	452	1231	1283	209	0	0	218	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.4	4.1	3.0	6.3	8.0	8.0	51.1	0.0	0.0	54.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.6	1.0	1.0	0.6	0.0	0.0	12.9	0.0	0.0
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	0.7	5.9	0.1	1.0	9.6	9.9	3.4	0.0	0.0	9.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.4	4.5	3.0	6.9	9.0	8.9	51.7	0.0	0.0	67.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	E	A	A
Approach Vol, veh/h		1051			1081			64			164	
Approach Delay, s/veh		4.5			8.8			51.7			67.5	
Approach LOS		A			A			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.4	93.6		21.0		104.0		21.0				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+I1), s	3.2	17.0		6.5		12.4		14.7				
Green Ext Time (p_c), s	0.0	2.8		0.1		3.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 12.1
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.

HCM 6th TWSC
2: SR 922/NE 123 Street & Primary Driveway

Future Total Conditions
A.M. Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	1006	999	2	0	19
Future Vol, veh/h	0	1006	999	2	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	0	1093	1086	2	0	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	701
HCM Lane V/C Ratio	-	-	-	0.029
HCM Control Delay (s)	-	-	-	10.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Existing P.M.

Timings

1: SR 922/NE 123 Street & N Bayshore Drive

Existing Conditions

P.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	82	773	22	23	1296	38	5	60	14
Future Volume (vph)	82	773	22	23	1296	38	5	60	14
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125
 Actuated Cycle Length: 123.6
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

							
Ø1	Ø2					Ø4	
12 s	92 s					21 s	
							
Ø6						Ø8	
104 s						21 s	

Queues

Existing Conditions

1: SR 922/NE 123 Street & N Bayshore Drive

P.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	86	814	23	24	1437	64	138
v/c Ratio	0.33	0.29	0.02	0.05	0.59	0.49	0.80
Control Delay	6.4	3.9	0.7	6.7	11.0	54.5	76.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	3.9	0.7	6.7	11.0	54.5	76.1
Queue Length 50th (ft)	13	82	0	6	293	38	90
Queue Length 95th (ft)	24	102	4	15	355	87	#189
Internal Link Dist (ft)		376			458	164	256
Turn Bay Length (ft)	200		200	200			
Base Capacity (vph)	265	2776	1222	444	2430	146	191
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.29	0.02	0.05	0.59	0.44	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

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)	82	773	22	23	1296	69	38	5	18	60	14	57
Future Volume (veh/h)	82	773	22	23	1296	69	38	5	18	60	14	57
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		0.99	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	86	814	23	24	1364	73	40	5	19	63	15	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	313	2794	1220	518	2398	128	122	21	40	110	25	70
Arrive On Green	0.04	0.79	0.79	0.71	0.71	0.71	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1767	3526	1539	651	3399	181	736	211	400	663	242	696
Grp Volume(v), veh/h	86	814	23	24	706	731	64	0	0	138	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1539	651	1763	1818	1347	0	0	1601	0	0
Q Serve(g_s), s	1.5	7.7	0.4	1.4	24.2	24.4	0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	1.5	7.7	0.4	1.4	24.2	24.4	5.4	0.0	0.0	10.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	0.62		0.30	0.46		0.43
Lane Grp Cap(c), veh/h	313	2794	1220	518	1243	1282	184	0	0	205	0	0
V/C Ratio(X)	0.27	0.29	0.02	0.05	0.57	0.57	0.35	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	331	2794	1220	518	1243	1282	203	0	0	225	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.4	3.5	2.7	5.6	8.9	8.9	52.1	0.0	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.2	1.9	1.8	0.8	0.0	0.0	6.1	0.0	0.0
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	0.9	4.2	0.2	0.4	14.1	14.5	3.4	0.0	0.0	8.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.6	3.7	2.7	5.7	10.8	10.8	52.9	0.0	0.0	60.3	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	A	E	A	A
Approach Vol, veh/h		923			1461			64			138	
Approach Delay, s/veh		4.1			10.7			52.9			60.3	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.7	93.3		19.3		104.0		19.3				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+l1), s	3.5	26.4		7.4		9.7		12.3				
Green Ext Time (p_c), s	0.0	4.2		0.1		2.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay 12.0
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.

Future Background P.M.

Timings

1: SR 922/NE 123 Street & N Bayshore Drive

Future Background Conditions

P.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	84	796	22	23	1336	39	5	61	14
Future Volume (vph)	84	796	22	23	1336	39	5	61	14
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125
 Actuated Cycle Length: 123.7
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

								
Ø1	Ø2					Ø4		
12 s	92 s					21 s		
								
Ø6						Ø8		
104 s						21 s		

Queues

Future Background Conditions

1: SR 922/NE 123 Street & N Bayshore Drive

P.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	88	838	23	24	1480	65	140
v/c Ratio	0.35	0.30	0.02	0.06	0.61	0.50	0.81
Control Delay	6.9	4.0	0.7	6.8	11.3	56.0	76.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	4.0	0.7	6.8	11.3	56.0	76.9
Queue Length 50th (ft)	14	85	0	6	310	40	91
Queue Length 95th (ft)	25	106	4	15	373	88	#193
Internal Link Dist (ft)		376			458	164	256
Turn Bay Length (ft)	200		200	200			
Base Capacity (vph)	254	2774	1221	434	2427	144	191
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.30	0.02	0.06	0.61	0.45	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

Future Background Conditions
P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	796	22	23	1336	70	39	5	18	61	14	58
Future Volume (veh/h)	84	796	22	23	1336	70	39	5	18	61	14	58
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		0.99	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	88	838	23	24	1406	74	41	5	19	64	15	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	302	2790	1218	507	2396	126	123	21	40	110	24	71
Arrive On Green	0.04	0.79	0.79	0.70	0.70	0.70	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1767	3526	1539	637	3403	179	739	205	390	663	238	696
Grp Volume(v), veh/h	88	838	23	24	726	754	65	0	0	140	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1539	637	1763	1819	1335	0	0	1597	0	0
Q Serve(g_s), s	1.6	8.0	0.4	1.4	25.6	25.8	0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	1.6	8.0	0.4	1.4	25.6	25.8	5.5	0.0	0.0	10.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	0.63		0.29	0.46		0.44
Lane Grp Cap(c), veh/h	302	2790	1218	507	1241	1281	184	0	0	206	0	0
V/C Ratio(X)	0.29	0.30	0.02	0.05	0.59	0.59	0.35	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	319	2790	1218	507	1241	1281	202	0	0	225	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.0	3.5	2.7	5.6	9.2	9.2	52.0	0.0	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.2	2.0	2.0	0.8	0.0	0.0	6.5	0.0	0.0
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	1.1	4.4	0.2	0.4	14.8	15.3	3.5	0.0	0.0	8.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	3.8	2.8	5.8	11.2	11.2	52.9	0.0	0.0	60.7	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	A	E	A	A
Approach Vol, veh/h		949			1504			65			140	
Approach Delay, s/veh		4.2			11.1			52.9			60.7	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.8	93.2		19.5		104.0		19.5				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+I1), s	3.6	27.8		7.5		10.0		12.5				
Green Ext Time (p_c), s	0.0	4.4		0.1		2.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 12.3
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.

Future Total P.M.

Timings
1: SR 922/NE 123 Street & N Bayshore Drive

Future Total Conditions
P.M. Peak Hour

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		 			 		 		 
Traffic Volume (vph)	99	799	22	24	1350	39	6	61	14
Future Volume (vph)	99	799	22	24	1350	39	6	61	14
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6			2		4		8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	21.3	21.3	21.2	21.2	13.8	13.8	37.8	37.8
Total Split (s)	12.0	104.0	104.0	92.0	92.0	21.0	21.0	21.0	21.0
Total Split (%)	9.6%	83.2%	83.2%	73.6%	73.6%	16.8%	16.8%	16.8%	16.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.3	2.3	2.2	2.2	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.3	6.3	6.2	6.2		6.8		6.8
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Max	Max	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 125
Actuated Cycle Length: 123.7
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 1: SR 922/NE 123 Street & N Bayshore Drive

 Ø1	 Ø2		 Ø4
12 s	92 s		21 s
 Ø6			 Ø8
104 s			21 s

Queues

1: SR 922/NE 123 Street & N Bayshore Drive

Future Total Conditions

P.M. Peak Hour

							
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	104	841	23	25	1495	66	140
v/c Ratio	0.42	0.30	0.02	0.06	0.62	0.50	0.81
Control Delay	8.3	4.0	0.7	6.8	11.5	56.1	77.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	4.0	0.7	6.8	11.5	56.1	77.3
Queue Length 50th (ft)	16	86	0	6	315	40	91
Queue Length 95th (ft)	28	107	4	16	380	90	#193
Internal Link Dist (ft)		376			226	164	124
Turn Bay Length (ft)	200		200	100			
Base Capacity (vph)	249	2774	1221	432	2428	145	190
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.30	0.02	0.06	0.62	0.46	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

1: SR 922/NE 123 Street & N Bayshore Drive

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)	99	799	22	24	1350	70	39	6	18	61	14	58
Future Volume (veh/h)	99	799	22	24	1350	70	39	6	18	61	14	58
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		0.99	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	104	841	23	25	1421	74	41	6	19	64	15	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	299	2790	1218	505	2395	124	122	23	40	110	24	71
Arrive On Green	0.04	0.79	0.79	0.70	0.70	0.70	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1767	3526	1539	635	3405	177	729	227	387	662	238	695
Grp Volume(v), veh/h	104	841	23	25	734	761	66	0	0	140	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1539	635	1763	1819	1343	0	0	1596	0	0
Q Serve(g_s), s	1.9	8.1	0.4	1.5	26.1	26.4	0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	1.9	8.1	0.4	1.5	26.1	26.4	5.6	0.0	0.0	10.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	0.62		0.29	0.46		0.44
Lane Grp Cap(c), veh/h	299	2790	1218	505	1240	1279	185	0	0	206	0	0
V/C Ratio(X)	0.35	0.30	0.02	0.05	0.59	0.60	0.36	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	315	2790	1218	505	1240	1279	203	0	0	225	0	0
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	3.5	2.7	5.7	9.3	9.3	52.1	0.0	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.2	2.1	2.0	0.9	0.0	0.0	6.5	0.0	0.0
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	1.4	4.4	0.2	0.4	15.0	15.5	3.6	0.0	0.0	8.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.7	3.8	2.8	5.8	11.4	11.4	52.9	0.0	0.0	60.7	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	A	E	A	A
Approach Vol, veh/h		968			1520			66			140	
Approach Delay, s/veh		4.3			11.3			52.9			60.7	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.9	93.1		19.5		104.0		19.5				
Change Period (Y+Rc), s	6.0	* 6.3		* 6.8		* 6.3		* 6.8				
Max Green Setting (Gmax), s	6.0	* 86		* 14		* 98		* 14				
Max Q Clear Time (g_c+I1), s	3.9	28.4		7.6		10.1		12.5				
Green Ext Time (p_c), s	0.0	4.5		0.1		2.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 12.4
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.

HCM 6th TWSC
2: SR 922/NE 123 Street & Primary Driveway

Future Total Conditions
P.M. Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	879	1430	4	0	15
Future Vol, veh/h	0	879	1430	4	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2
Mvmt Flow	0	955	1554	4	0	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	553
HCM Lane V/C Ratio	-	-	-	0.029
HCM Control Delay (s)	-	-	-	11.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Appendix J

Entry Gate Analysis

3 Oceans A.M. Peak Hour (Residential Entry Gate)

Arrival Rate

IN
10

 veh/hr

Service Rate

IN
0.10

 mins/veh

Number Entry Lanes (N) = 1
Level of Confidence = 0.95
Storage Provided On-Site = 7 vehicles

Total Entering and Exiting Vehicles(q) = 10 veh/hr
Service Capacity per N (60 mins/Service Rate) (Q) = 600.00 veh/hr/pos
Average Service Rate (t) = 0.10 mins/veh
rho (t/Q) = 0.017

Control Delay = min
N
0.70 1
0.75 2

N-1
0 P(n=0)= 1.000
1 P(n=1)= 0.000

P(0) = 98.33%

Service Time = 0.10 mins/veh

Expected (avg.) number of vehicles in the system E(m)= 0.00
Expected (avg.) number of vehicles waiting in queue E(n)= 0.02
Mean time in the queue E(w)= 0.00 mins
Mean time in system E(t)= 0.10 mins

Proportion of customers who wait (P) (E(w) > 0)= 1.67%
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 0.0 vehicles

3 Oceans P.M. Peak Hour (Residential Entry Gate)

Arrival Rate

IN
20

 veh/hr

Service Rate

IN
0.10

 mins/veh

Number Entry Lanes (N) = 1
Level of Confidence = 0.95
Storage Provided On-Site = 7 vehicles

Total Entering and Exiting Vehicles(q) = 20 veh/hr
Service Capacity per N (60 mins/Service Rate) (Q) = 600.00 veh/hr/pos
Average Service Rate (t) = 0.10 mins/veh
rho (t/Q) = 0.033

Control Delay = min
N
0.70 1
0.75 2

N-1
0 P(n=0)= 1.000
1 P(n=1)= 0.000
P(0) = 96.67%

Service Time = 0.10 mins/veh

Expected (avg.) number of vehicles in the system E(m)= 0.00
Expected (avg.) number of vehicles waiting in queue E(n)= 0.03
Mean time in the queue E(w)= 0.00 mins
Mean time in system E(t)= 0.10 mins

Proportion of customers who wait (P) (E(w) > 0)= 3.33%
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 0.0 vehicles

