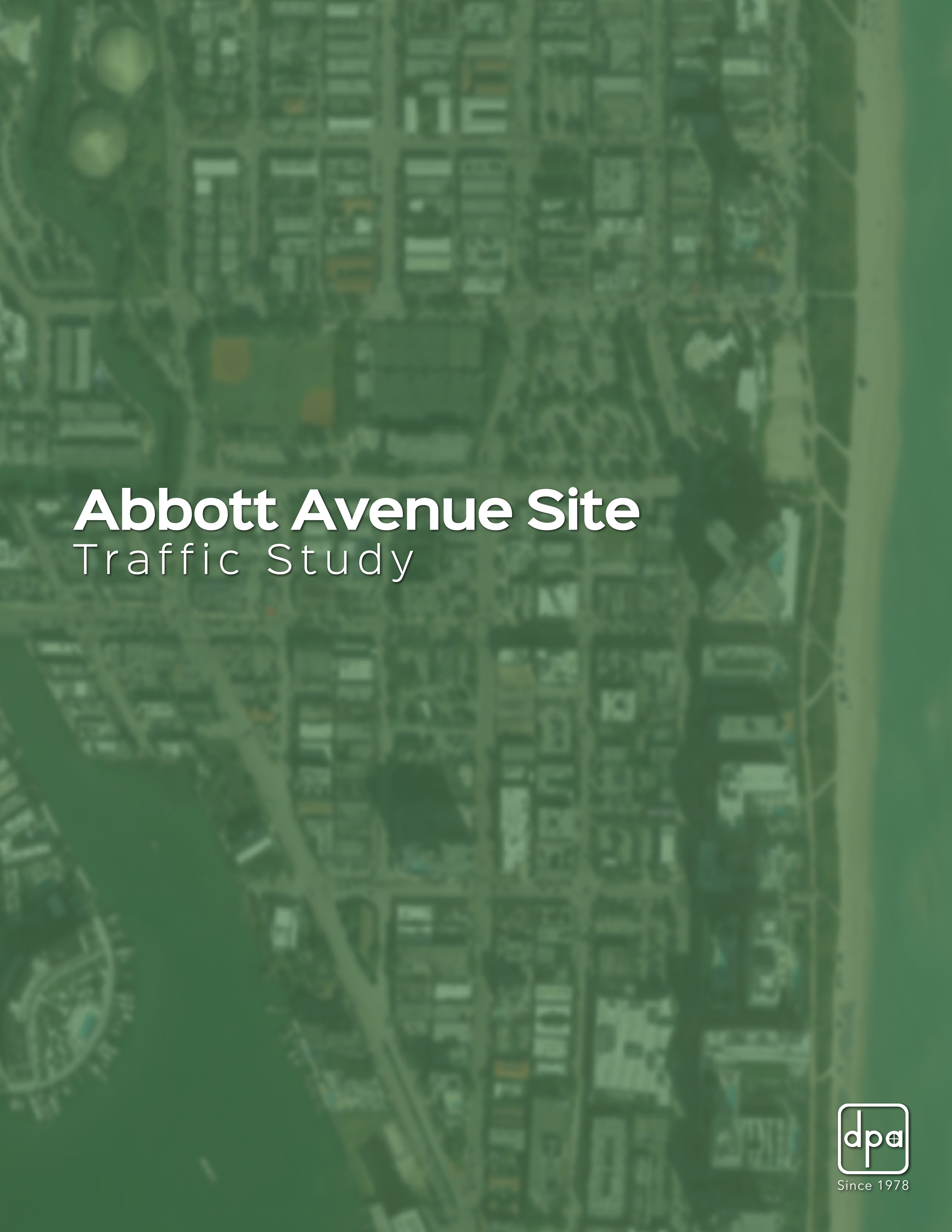

Abbott Avenue Site

Traffic Study

Since 1978

JUAN B. ESPINOSA-LEAL, PE
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PROFESSIONAL ENGINEER

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author of this document
Date: 2020-02-10 10:
04:39

Prepared By:
David Plummer & Associates

Prepared For:
Abbott Avenue Partners, LLC

Prepared In:
February 2020

DPA Job #:
19218

DAVID PLUMMER & ASSOCIATES
TRAFFIC ENGINEERING • CIVIL ENGINEERING • TRANSPORTATION PLANNING

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Responses to City of Miami Beach Comments
(January 14th, 2020 and January 31, 2020)

Re: Review of 7140 Abbott Avenue Traffic Impact Analysis Dated November 2019

1. **Executive Summary – Please revise the list of intersections analyzed.**

DPA Response: The report has been revised, as requested.

2. **Traffic Counts – Please review the peak season conversion factor.**

DPA Response: The analysis has been revised to reflect a 1.02 peak season factor.

3. **Volume Development – Please submit your volume development worksheets to facilitate the review process.**

DPA Response: Volume development worksheets have been included in Appendix D.

New Comment: Per the committed developments 71st and Byron Avenue EBL volumes are shown as null although there will be project trips for this movement.

DPA 2nd Response: The committed development assignment was revised to match their traffic study excerpts included in Appendix E. Volume development worksheets, Synchro analysis and results were revised in the traffic study.

4. **Exhibit 2 – Please review your input; on a spot check, the southbound volumes for the intersection of Abbott Avenue and 71st Street did not match the outputs in the appendix.**

DPA Response: All volumes have been reviewed and corrections made as needed.

5. **Background Volumes – the report indicates that a 1.6% growth rate was used for consistency with other studies. However, the 7140 Collins Hotel is actually referring to another study; It is unclear which study and how old it is. In addition, for consistency with other ongoing projects adjacent to this one, a growth rate of 0.86% is recommended. This growth rate was determined based on the forecasted volumes obtained from the 2010 and 2040 FSUTMS SERPM models.**

DPA Response: The analysis was revised to reflect a 0.86% annual growth to account for future background growth.

6. **Exhibit 5 - Please revise the land use description for mid-rise multi-family housing and the inbound trips for Land Use 222.**

DPA Response: Exhibit 5 was revised.

7. **Committed Development Trip Generation - neither Exhibit 5 nor the appendix show any of the applicable reductions (e.g. Transit, the existing trips).**

DPA Response: Exhibit 5, as well as the analysis, was revised to reflect the net new external trips for the committed developments. These were obtained from the approved traffic study for each of the developments included in Appendix E.

8. **Trip Generation - Existing trip generation values do not match the appendix. In addition, the existing trip generation should account for the internalized trips.**

DPA Response: Exhibit 8 and the corresponding analysis, was revised to reflect the trip generation presented in Appendix F.

9. **Trip Generation - Trip Generation Handbook explicitly states that the rates presented are valid for the specific hours of data collection. Therefore, the 34% pass-by reduction factor from the PM peak should not be directly assumed to the AM peak hour, especially without knowing the composition of the retail space.**

DPA Response: Although pass-by is a condition that occurs throughout the day, the pass-by deduction has been removed from AM peak conditions.

10. **Trip Generation – Please review the order in which the trip reductions are calculated. Transit trips should be calculated prior to the other reductions.**

DPA Response: The trip generation was revised, as requested.

11. **Trip Generation – The trip generation calculations for LUC 820 for the proposed conditions were calculated using the average instead of the best fit formula. Due to the wide range of uses within LUC 820, without knowing the specific tenant(s), the calculations for the proposed condition need to be developed using the best-fit formula.**

DPA Response: The average rate was originally used because the fit formula grossly overestimates the trip generation of small retail spaces especially during the AM peak hour. At the reviewer's request, the report was revised to reflect the best fit formula for all scenarios. To *minimize the overestimation of existing retail trips, both retail uses currently on-site were added together for this scenario.*

12. Trip Distribution – The percent assigned to Collins Avenue seems low. The same percentage is assigned to Hardin Avenue and Byron Avenue. In addition, the percentage assigned to 71st Street from the west seems high. Please provide justification or revise.

DPA Response: The cardinal distribution shows trips that approximately 19.7% of the trips will be coming to and from the east. The distribution shows 20% of the incoming trips from the east and 25% of the outgoing trips to the east. Inbound trips were distributed to Harding Avenue and Collins Avenue, while outbound trips were assigned to Collins Avenue. The distribution varies for inbound/outbound scenario because of the one-way nature of some roads in the area. However, it is generally consistent with the Cardinal Distribution for TAZ 622.

13. Trip Distribution and Assignment – A pass-by distribution figure should be provided.

DPA Response: The pass-by assignment has been included in Exhibit 11.

14. Site Plan - Please show the proposed bicycle racks on the site plan.

DPA Response: Please refer to the revised architect's site plan.

15. Valet - Please indicate whether valet services will be provided.

DPA Response: The applicant has indicated that the provision of valet parking will be determined at a later date.

New Comment: Valet - Please indicate whether valet services will be provided.

DPA 2nd Response: The applicant has indicated that valet services will not be provided at this site.

16. Circulation - Please indicate the type of loading vehicles that will be serving the project and provide a loading zone maneuverability analysis.

DPA Response: Per applicant, the project will provide five (5) 10 X 20 AND ONE (1) 12 X 35 loading berths.

New Comment: Maneuverability diagrams are necessary for a complete review.

DPA 2nd Response: The maneuverability diagram is attached.

17. Circulation - Please discuss the garbage pickup operations and provide maneuverability analysis diagrams for this operation.

DPA Response: As per applicant, garbage pick-up operations will be determined at a later date.

New Comment: Trash pick-up operations must be provided prior to approval.

DPA 2nd Response: As per applicant, garbage pick-up occurs once a day typically off-peak hours. The maneuverability diagram is attached.

18. Parking - Please discuss the type of gates that will be used at the garage, their location and how is the residential parking going to be differentiated from the retail parking. Please provide queue analysis if required.

DPA Response: Per applicant, this is to be determined at a later date.

New Comment: Parking - Please discuss the type of gates that will be used at the garage, their location and how is the residential parking going to be differentiated from the retail parking. Please provide queue analysis if required.

DPA 2nd Response: Per applicant, a gate will be installed inside the garage at the second level for access to residential parking. The gate will operate via key fab. Parking spaces located prior to the gate (first parking level) will be designated for the retail use. Since the proposed gate will be located inside the parking garage at a distance of approximately 350 feet from the property line, any anticipated queue will not affect the operations of Byron Avenue. Attached is a sketch showing the location of the proposed gates.

19. Parking - Please indicate the type of parking system (e.g. mechanical, tandem).

DPA Response: Per applicant, this is to be determined at a later date.

New Comment: Parking operation plan is essential for project.

DPA 2nd Response: Per applicant, all parking will be individual self-park with no mechanical lifts and/or tandem spaces.

20. TDM - The proposed development requires a TDM plan.

DPA Response: A TDM plan has been included in the report.

New Comment: Please provide the contact information for the TDM manager in order to coordinate proposed strategies.

DPA 2nd Response: The TDM plan will be managed by:
Jake Torres
Vice President of Development & Construction

Robert Finvarb Companies
305.866.7555

21. Synchro models –
- **Please code the heavy vehicle % for those intersections higher than 2%**
- **Please double check the peak hour factor inputs**

DPA Response: The synchro analysis has been revised to reflect the existing heavy vehicles and peak hour factors, as well as comments above.

22. Alley – Please provide counts at both ends of the alley. And reroute those volumes for the analysis if needed. In addition, please indicate whether the alley is proposed to remain as a two-way roadway, or if it will be limited to a one-way operation. Please provide dimensions on the site plan.

DPA Response: The scope of the intersection analysis in the traffic study methodology, which was reviewed and approved by the City, did not include collecting traffic counts at the alley. Alleys are intended to provide supporting services to the uses adjacent to it, and are not intended for through traffic. Even though the proposed alignment of the alley and the proposed adjacent uses will change for future conditions, it is anticipated the volumes will remain low throughout the day and will have no effect on the operations of the adjacent street network.

23. Additional Comments.

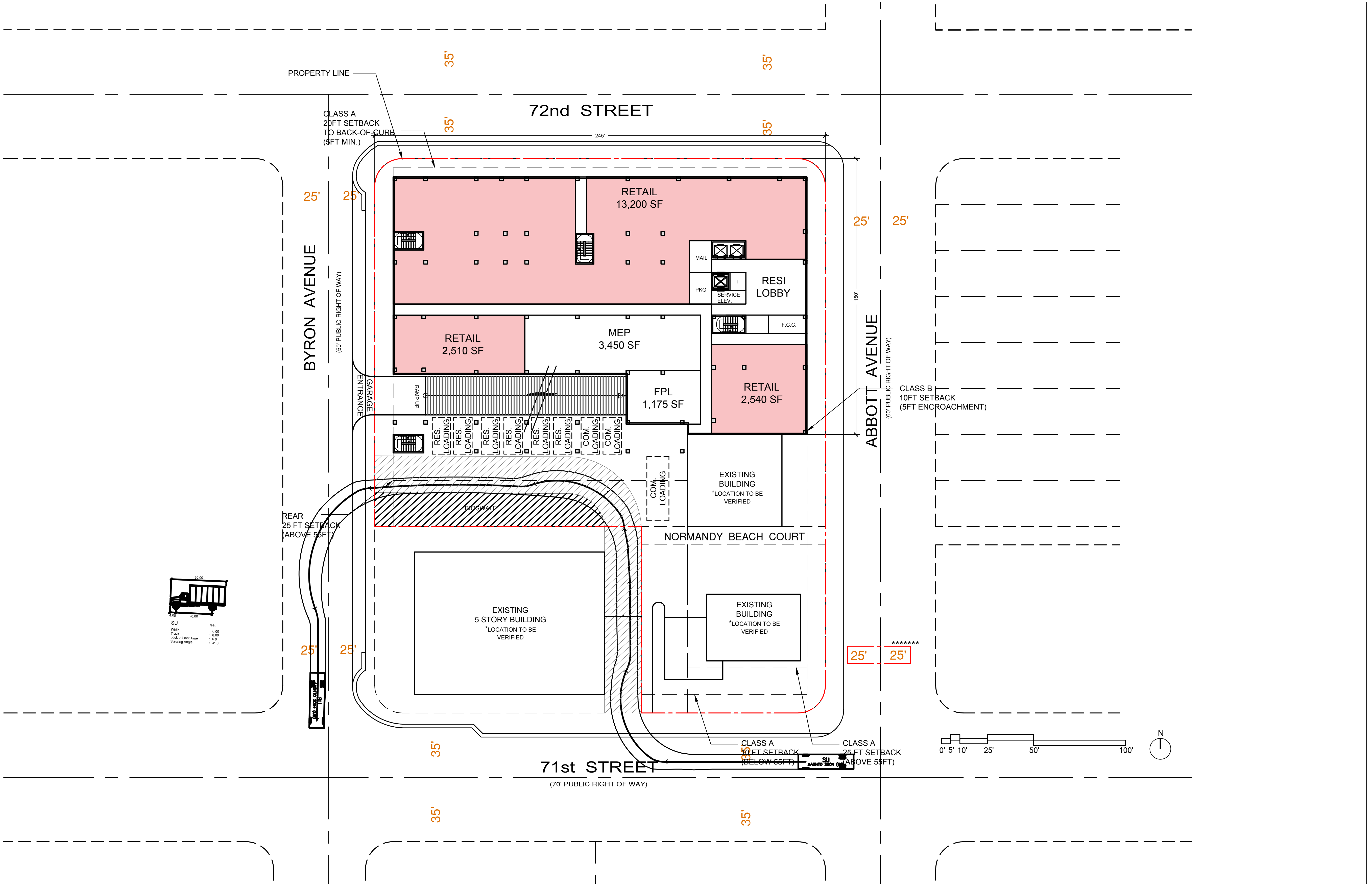
DPA Response: The City requested that the applicant assess the feasibility of constructing a rideshare drop-off / pickup lane on Abbott Avenue (SR A1A) adjacent to the project. There is an existing southbound right turn lane on Abbott Avenue at 71 Street (SR 934). The taper for this right turn lane starts approximately 30-feet from the crosswalk at 72 Street. FDOT Standards, based on the posted speed limit of 30 mph, requires a total deceleration distance of 145-ft for the southbound right turn lane. Furthermore, a queue length has to be added to the total deceleration distance. Based on the future with project scenario, the 95% queue is nine vehicles or approximately 200-ft. The distance between the southbound stop bar on Abbot Avenue at 71st Street to the crosswalk on Abbott Avenue at 72nd Street is approximately 300-ft. Therefore, based on FDOT Standards, the southbound right turn lane on Abbott Avenue at 71 Street cannot be reduced in order to construct a rideshare drop-off / pickup lane on Abbott Avenue adjacent to the project.

Attachments

Loading Maneuverability

Garbage Truck Maneuverability

Parking Garage Gates



ARQUITECTONICA

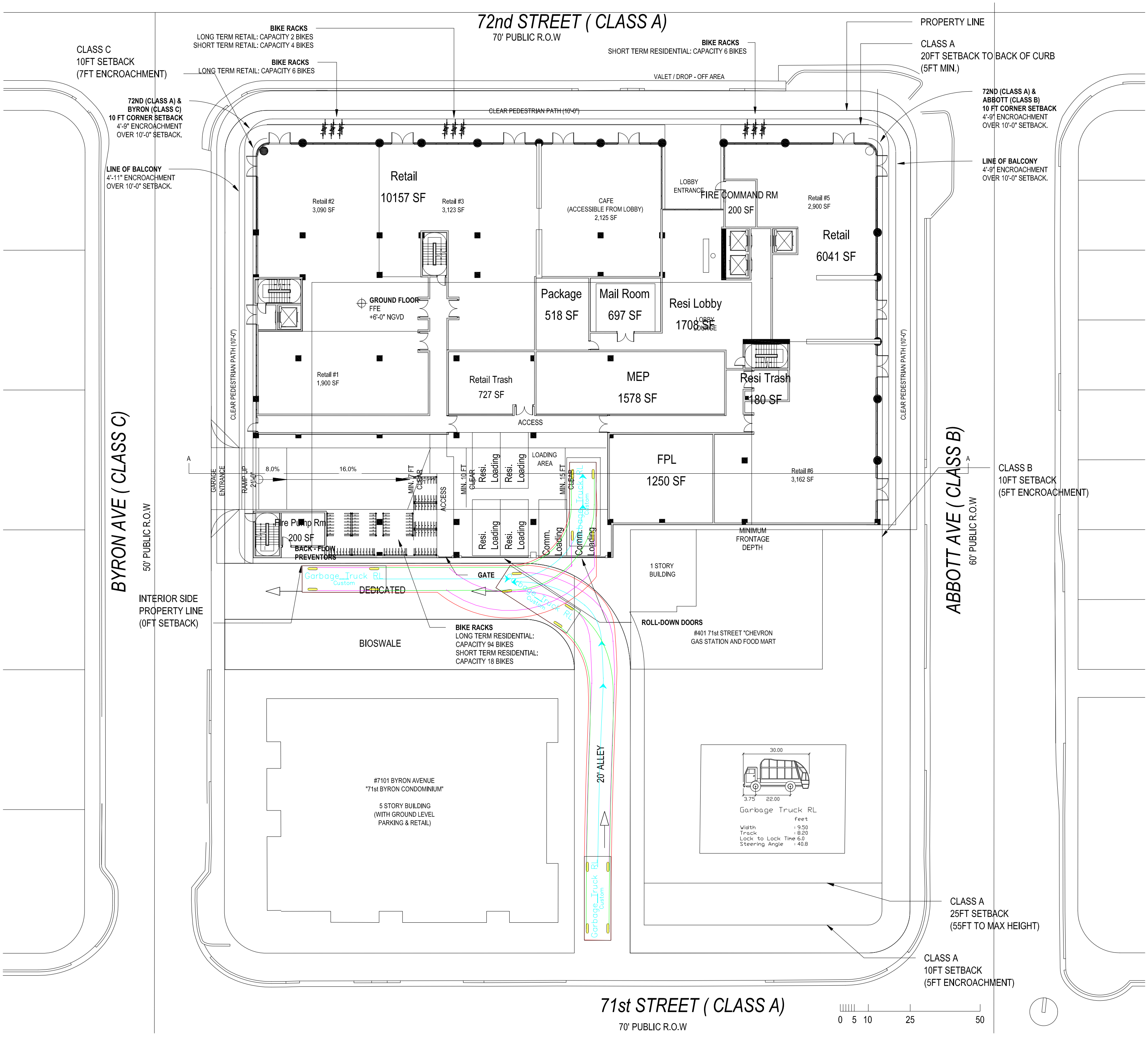
2900 Oak Avenue
Miami, FL 33133
305.372.1812 T
305.372.1175 F

PREPARED FOR:
PROJECT # 0000.00

NORTH BEACH - MULTI FAMILY RESIDENTIAL
7140 ABBOTT AVE, MIAMI BEACH, FL 33141

GROUND LEVEL

09/11/2019


72nd STREET (CLASS A)
70' PUBLIC R.O.W
71st STREET (CLASS A)
70' PUBLIC R.O.W
BYRON AVE (CLASS C)
50' PUBLIC R.O.W
ABBOTT AVE (CLASS B)
60' PUBLIC R.O.W
CLASS C
10FT SETBACK
(7FT ENCROACHMENT)
BIKE RACKS
LONG TERM RETAIL: CAPACITY 2 BIKES
SHORT TERM RETAIL: CAPACITY 4 BIKES
BIKE RACKS
LONG TERM RETAIL: CAPACITY 6 BIKES
BIKE RACKS
SHORT TERM RESIDENTIAL: CAPACITY 6 BIKES
VALET / DROP - OFF AREA
CLEAR PEDESTRIAN PATH (10'-0")
PROPERTY LINE
CLASS A
20FT SETBACK TO BACK OF CURB
(5FT MIN.)
72ND (CLASS A) &
BYRON (CLASS C)
10 FT CORNER SETBACK
4'-9" ENCROACHMENT
OVER 10'-0" SETBACK.
72ND (CLASS A) &
ABBOTT (CLASS B)
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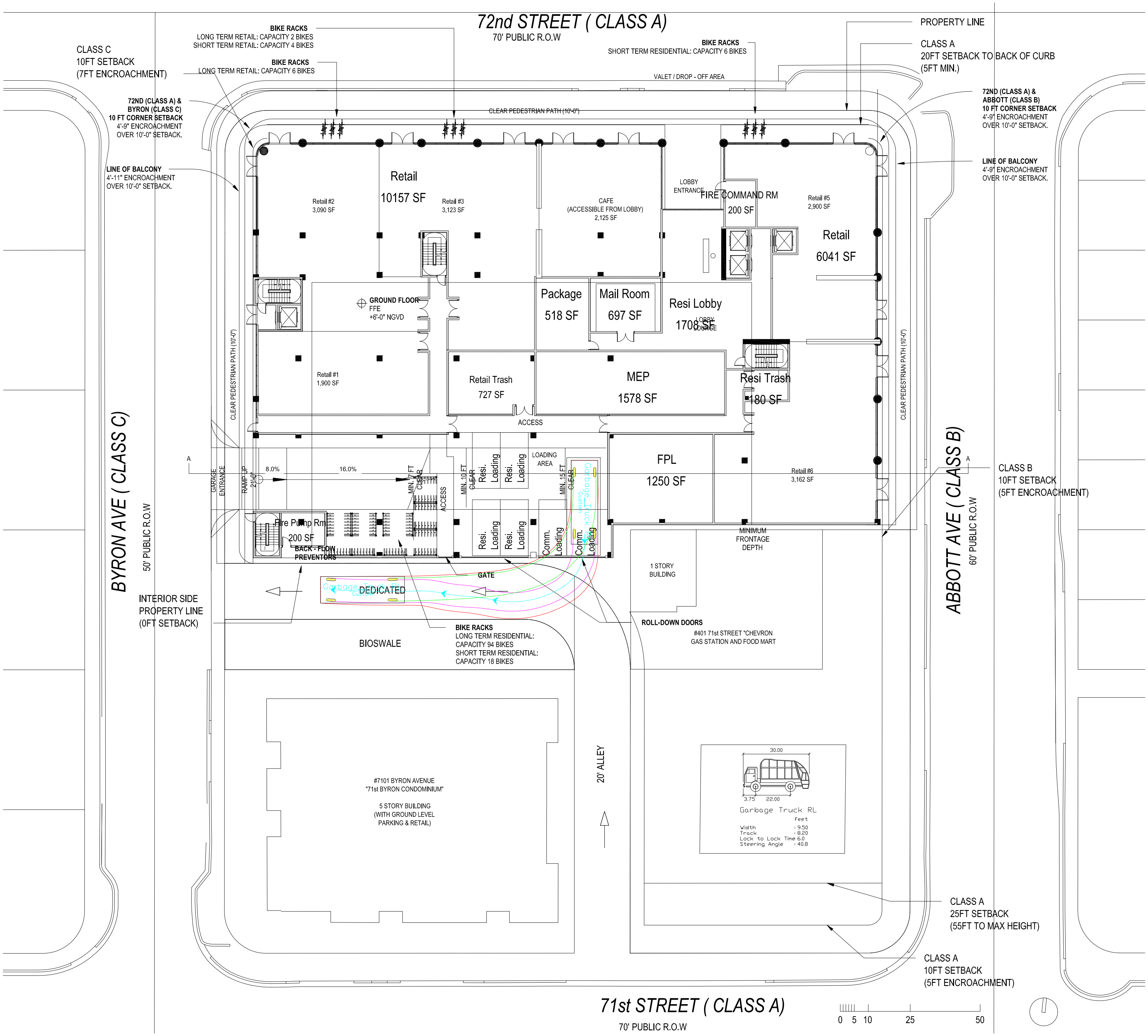
LINE OF BALCONY
4'-11" ENCROACHMENT
OVER 10'-0" SETBACK.
LINE OF BALCONY
4'-9" ENCROACHMENT
OVER 10'-0" SETBACK.
Retail
10157 SF
Retail #2
3,090 SF
Retail #3
3,123 SF
CAFE
(ACCESSIBLE FROM LOBBY)
2,125 SF
LOBBY
ENTRANCE
FIRE COMMAND RM
200 SF
Retail #5
2,900 SF
Retail
6041 SF
GROUND FLOOR
FFE
+6'-0" NGVD
Package
518 SF
Mail Room
697 SF
Resi Lobby
1708 SF
LOBBY
LOUNGE
Retail #1
1,900 SF
Retail Trash
727 SF
MEP
1578 SF
Resi Trash
180 SF
ACCESS
CLEAR PEDESTRIAN PATH (10'-0")
CLEAR PEDESTRIAN PATH (10'-0")
A
A
GARAGE
ENTRANCE
RAMP UP
21'-0"
8.0%
16.0%
MIN. 7 FT
CLEAR
ACCESS
MIN. 10 FT
CLEAR
Resi.
Loading
Resi.
Loading
LOADING
AREA
MIN. 15 FT
CLEAR
FPL
1250 SF
Retail #6
3,162 SF
Fire Pump Rm
200 SF
BACK - FLOW
PREVENTORS
Resi.
Loading
Resi.
Loading
Comm.
Loading
Comm.
Loading
Garbage_Truck RL
Custom
GATE
DEDICATED
MINIMUM
FRONTAGE
DEPTH
1 STORY
BUILDING
ROLL-DOWN DOORS
#401 71st STREET "CHEVRON
GAS STATION AND FOOD MART
CLASS B
10FT SETBACK
(5FT ENCROACHMENT)
INTERIOR SIDE
PROPERTY LINE
(0FT SETBACK)
BIOSWALE
BIKE RACKS
LONG TERM RESIDENTIAL:
CAPACITY 94 BIKES
SHORT TERM RESIDENTIAL:
CAPACITY 18 BIKES
#7101 BYRON AVENUE
"71st BYRON CONDOMINIUM"
5 STORY BUILDING
(WITH GROUND LEVEL
PARKING & RETAIL)
20' ALLEY
30.00
3.75
22.00
Garbage Truck RL
feet
Width : 9.50
Track : 8.20
Lock to Lock Time 6.0
Steering Angle : 40.8
CLASS A
25FT SETBACK
(55FT TO MAX HEIGHT)
CLASS A
10FT SETBACK
(5FT ENCROACHMENT)
0 5 10 25 50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+6'-0" NGVD
Package
518 SF
Mail Room
697 SF
Resi Lobby
1708 SF
LOBBY
LOUNGE
Retail #1
1,900 SF
Retail Trash
727 SF
MEP
1578 SF
Resi Trash
180 SF
ACCESS
CLEAR PEDESTRIAN PATH (10'-0")
CLEAR PEDESTRIAN PATH (10'-0")
A
A
GARAGE
ENTRANCE
RAMP UP
21'-0"
8.0%
16.0%
MIN. 7 FT
CLEAR
MIN. 10 FT
CLEAR
MIN. 15 FT
CLEAR
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Resi.
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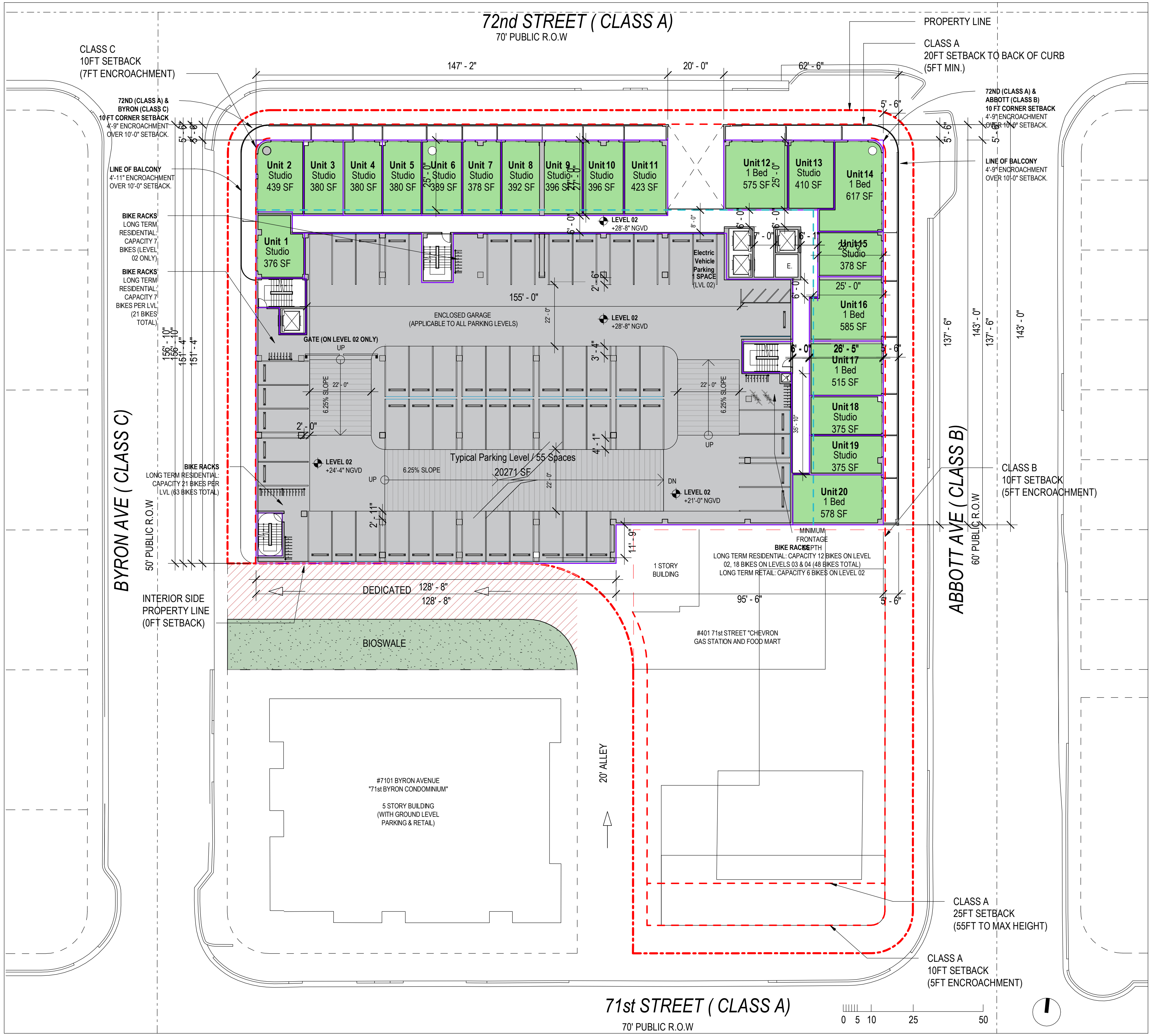
71st STREET (CLASS A)
70' PUBLIC R.O.W
0
5
10
25
50



LEVELS 02 - 04
FROM +28'-8" NGVD
TO +48'-0" NGVD

ARQUITECTONICA
2900 Oak Avenue, Miami, FL 33133
T 305.372.1812 F 305.372.1175

FINAL SUBMITTAL
7140 ABBOTT AVE, MIAMI
BEACH, FL 33141

LEVELS 02 - 04

SCALE: 1" = 40'-0"

DATE:
02/10/20

A1-04

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EXECUTIVE SUMMARY

The project is located on the west side of Abbott Avenue (A1A) between 71st and 72nd Streets in Miami Beach, Florida. The project proposes a new residential building with 252 residential units and 18,045 SF of ground floor retail space. The project will replace an existing 6,922 SF of office space, 15 units of multifamily housing (low-rise), and two retail spaces totaling 13,363 SF. Access to the site will be provided via Byron Avenue. Furthermore, the project is proposing to re-route an existing alley. Currently the (southbound) alley connects between 72nd Street and 71st Street. The proposed alley will connect on 71st Street, turn west and exit via Byron Avenue. For the purpose of this traffic study, project build-out is anticipated by 2021.

An assessment of the traffic impacts associated with the proposed Abbott Avenue project was performed in accordance with the requirements of the City of Miami Beach. The overall LOS for the following intersections will meet the City's LOS standards with the proposed project:

- Abbott Avenue / 71st Street (S)
- Abbott Avenue / 72nd Street (S)
- Byron Avenue / 71st Street (U)
- Harding Avenue / 71st Street (S)
- Collins Avenue / 71st Street (S)
- Harding Avenue / 69th Street (S)

As with future without project conditions, the eastbound and westbound approaches of the Collins Avenue / 71st Street intersection continue to experience delays during the morning and afternoon peak hours; this is an existing condition and the project represents less than a 1% of the total projected intersection volume during the morning and afternoon peak hours.

As with existing and future without project conditions, the un-signalized intersection of Byron Avenue and 71st Street continues to experience delay. This condition may be due to the software's tendency to overestimate delay measurements for the minor approaches at unsignalized intersections and not accounting for gaps in traffic created by the upstream signalized intersections. Furthermore, a delay study previously conducted at a similar intersection shows that the software was overestimating the delays at the minor approaches by approximately 80%. The project driveway was analyzed and the results show adequate operations.

As part of the study, a mobility and circulation plan was completed. The plan shows that the project area is currently served by five Miami-Dade Transit bus routes and two Miami Beach Trolleys. The project is located in an area that is conducive for pedestrian and bicycle activities providing ample sidewalks, clearly marked crosswalks, signalized intersections provide pedestrian signals, shared bike lanes, and Citi Bike stations within walking distance to the project. These conditions encourage the use other modes of transportation and reduce the vehicular impact on the roadway network.

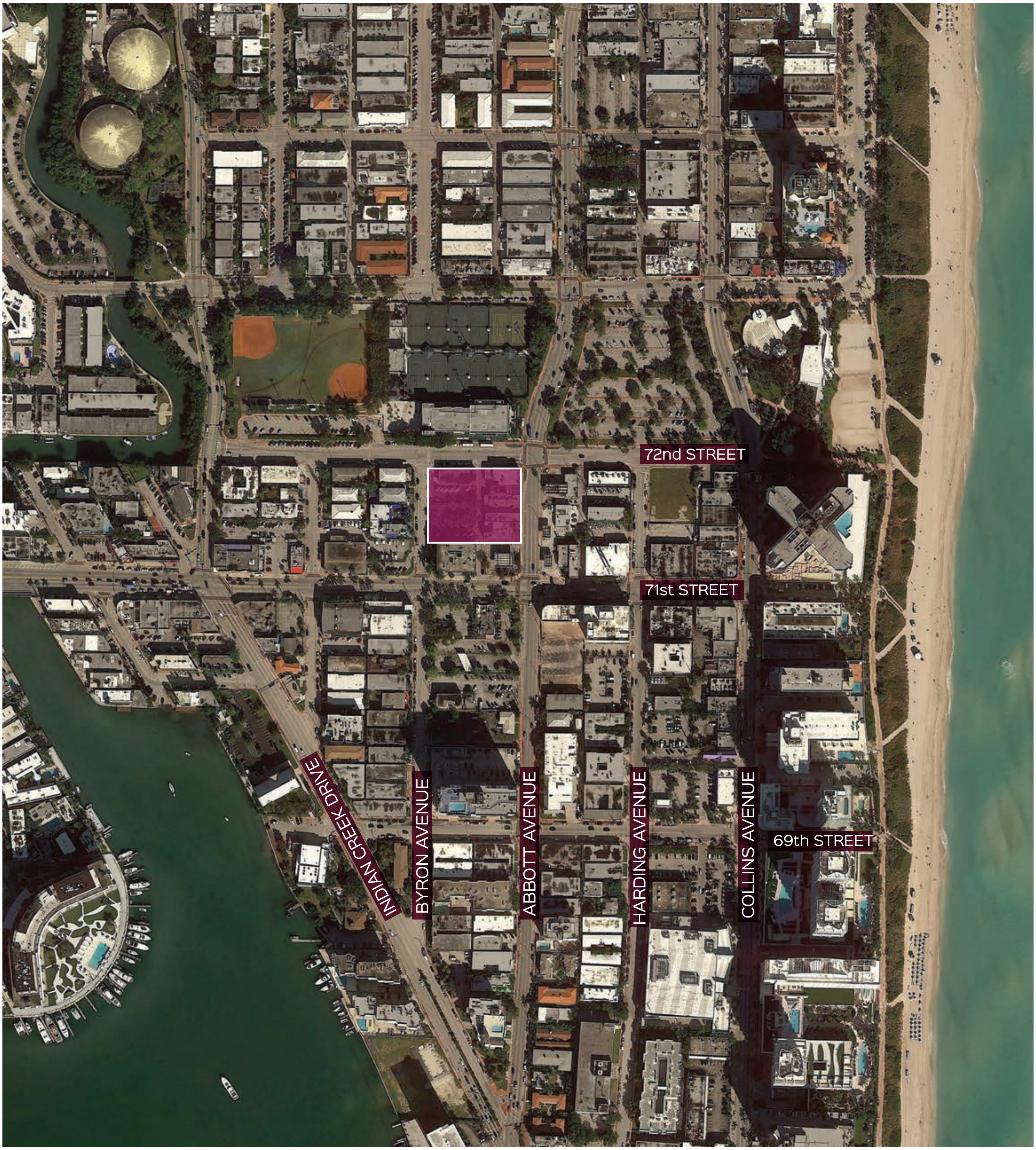
1.0 INTRODUCTION

1.1 Project Background

The project is located at on the west side of Abbott Avenue (A1A) between 71st and 72nd Streets in Miami Beach, Florida (see Exhibit 1). The project proposes a new residential building with 252 residential units and 18,045 SF of ground floor retail space. The project will replace an existing 6,922 SF of office space, 15 units of multifamily housing (low-rise), and two retail spaces totaling 13,363 SF. Access to the site will be provided via Byron Avenue. Furthermore, the project is proposing to re-route an existing alley. Currently the (southbound) alley connects between 72nd Street and 71st Street. The proposed alley will connect on 71st Street, turn west and exit via Byron Avenue. The proposed site plan is included in Appendix A. For the purpose of this traffic study, project build-out is anticipated by 2021.

1.2 Study Objective

The project will be applying for permits from the City. As part of this permit, the City of Miami Beach will require traffic related studies. The purpose of this study is to assess the traffic impacts associated with the proposed project and to conduct a mobility and circulation analysis.



🟪 Project Location

Exhibit 1

Location Map

NORTH
MAP NOT TO SCALE

1.3 Study Area and Methodology

The approved methodology is included in Appendix B. The following is a brief description of the study components and analysis undertaken:

- Traffic Counts (Intersections) – Two-hour turning movement counts were collected on Tuesday October 22, 2019 during the AM (7 – 9) and PM (4 – 6) peak hour conditions of a regular weekday at the following intersections:
    - Abbott Avenue / 71st Street (S)
    - Abbott Avenue / 72nd Street (S)
    - Byron Avenue / 71st Street (U)
    - Harding Avenue / 71st Street (S)
    - Collins Avenue / 71st Street (S)
    - Harding Avenue / 69th Street (S)

    S = Signalized
    U = Un-signalized

- Signal Location and Timing – Existing signal phasing and timing for the signalized intersections were obtained from Miami-Dade County. Signal timing plans are included in Appendix C.

- Future Transportation Projects – The 2019 *Transportation Improvement Program* (TIP) and the *2040 Long Range Transportation Plan* (LRTP) were reviewed to include future transportation projects which add capacity to the network.

- Background Traffic – Available Florida Department of Transportation (FDOT) and Miami-Dade County (MDC) traffic counts were consulted to determine a growth factor consistent with historical annual growth in the area. The growth factor was applied to the existing traffic volumes to establish background traffic.

- Committed Developments – Future traffic associated with the committed developments in the vicinity of the project site was considered in the analysis.

- Project Trip Generation – Trip generation for the project was estimated using trip generation information published by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition and site-specific data.

- Project Trip Distribution / Trip Assignment – Net new external project vehicular trips were assigned to the adjacent street network using the appropriate cardinal distribution from the *Miami-Dade 2040 Long Range Transportation Plan*, published by the Metropolitan Planning Organization. Area traffic patterns were considered when assigning project trips. A figure showing all of the assigned project trips to the adjacent transportation network was provided as part of the study.
- Future Traffic Conditions – Project traffic was combined with background traffic and committed development traffic to obtain future conditions with project. Intersection capacity analyses were performed for existing and future with project conditions.
- Circulation Analysis / Plan – A circulation plan is provided depicting the project site, driveways, location of street signs/signals, crosswalks, sidewalks, location of bus facilities, and bike facilities in the vicinity of this project.

1.4 Project Site Information

The project is located on the west side of Abbott Avenue (A1A) between 71st and 72nd Streets in Miami Beach, Florida. The project proposes a new residential building with 252 residential units and 18,045 SF of ground floor retail space. The project will replace an existing 6,922 SF of office space, 15 units of multifamily housing (low-rise), and two retail spaces totaling 13,363 SF. Access to the site will be provided via Byron Avenue. Furthermore, the project is proposing to re-route an existing alley. Currently the southbound alley connects 72nd Street to 71st Street. The proposed alley will connect on 71st Street turn, west and exit via Byron Avenue.

2.0 EXISTING CONDITIONS

Data collection for this study included roadway characteristics, intersection traffic counts, signal timing, and seasonal adjustment factors. The data collection effort is described in the following sections.

2.1 Roadway Characteristics

71st Street (SR 934)

Within the study area, 71st Street is a state principal arterial that provides east/west access all along the City of Miami Beach. West of Indian Creek Drive, 71st Street is a two-way, four-lane divided roadway. East of Indian Creek Drive, 71st Street is a two-way, two-lane divided roadway. There is on-street parking provided on portions of the roadway. Bike lanes are provided along the roadway. FDOT has jurisdiction over this portion of 71st Street. The posted speed limit is 30 mph.

72nd Street

72nd Street is a local roadway that runs east / west between Collins Avenue and Dickens Avenue. It is a two-way, two-lane, undivided road. There is on-street parking provided on both sides of the roadway. The City of Miami Beach has jurisdiction over 72nd Street. The speed limit is not posted on this segment of 72nd Street, however, if not posted, the City's speed limit is 30 mph.

Collins Avenue (SR A1A)

Collins Avenue is a state principal arterial that provides north / south access throughout the county. Within the study area, Collins Avenue is a one-way, three-lane northbound roadway. There is on-street parking provided on portions of the roadway. FDOT has jurisdiction over Collins Avenue. The posted speed limit is 30 mph.

Abbott Avenue (SR A1A)

Abbott Avenue is a principal arterial that provides southbound access along the City of Miami Beach. Within the study area, Abbott Avenue is one-way, three-lane southbound roadway that runs between Indian Creek Drive and 72nd Street. There is on-street parking provided on portion of the roadway. A southbound bike lane is provided along the roadway. FDOT has jurisdiction over this portion of Abbott Avenue. The posted speed limit is 30 mph.

Harding Avenue

Within the study area, Harding Avenue is a principal arterial that runs north/south between 67th Street and 72nd Street. North of 69th Street, Harding Avenue is a two-way, two-lane undivided road. South of 69th Street, Harding Avenue is a one-way, two-lane northbound roadway. There is on-street parking provided on both sides of the roadway. Miami-Dade County has jurisdiction over Harding Avenue. The speed limit is not posted on this segment of Harding Avenue, however, if not posted; the City's speed limit is 30 mph.

Byron Avenue

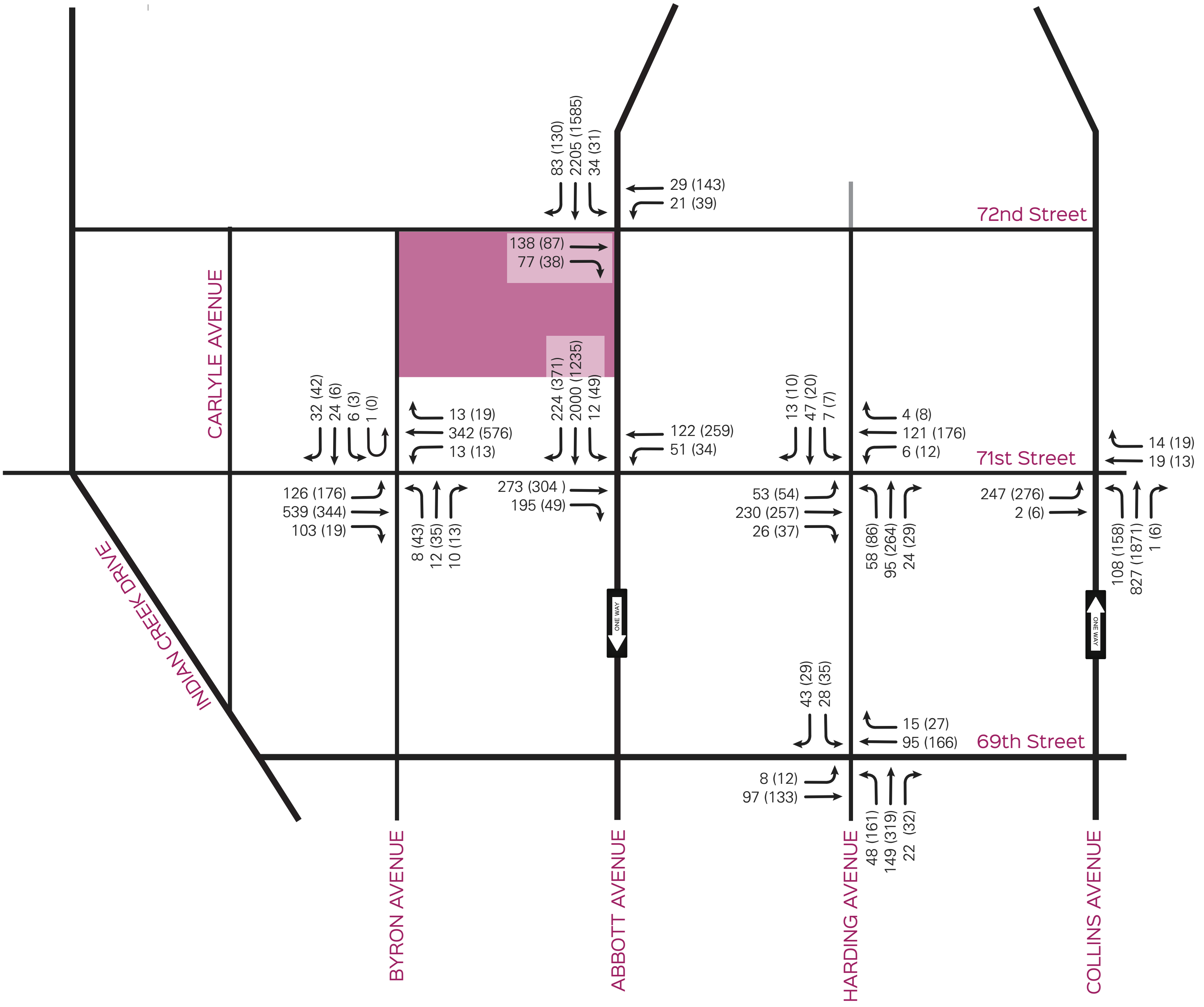
Within the study area, Byron Avenue is a local roadway that runs north / south between Indian Creek Drive and 72nd Street. Byron Avenue is a two-way, two-lane undivided road. There is on-street parking provided on both sides of the roadway. The City of Miami Beach has jurisdiction over Byron Avenue. The speed limit is not posted on this segment of Byron Avenue, however, if not posted; the City's speed limit is 30 mph.

2.2 Traffic Counts

Peak hour vehicle turning movement counts were collected on October 22, 2019 at the study intersections during the AM (7-9) and PM (4- 6) peak hours. The latest weekly volume adjustment factors were obtained from FDOT. A peak season conversion factor of 1.02 (for Miami-Dade County North) corresponding to the dates of the counts was used to adjust the raw traffic counts to peak season conditions. The counts are provided in Appendix C. Existing volumes at the intersection are graphically portrayed in Exhibit 2.

2.3 Intersection Data

Existing signal phasing and timing for all the intersections were obtained from Miami-Dade County. This information was used for the signal phasing and timing required for the intersection capacity analysis and can be seen in Appendix C. A field survey was conducted to obtain the intersection lane configurations to be used in the intersection analysis. Exhibit 3 shows the existing lane configurations at the analyzed intersections.



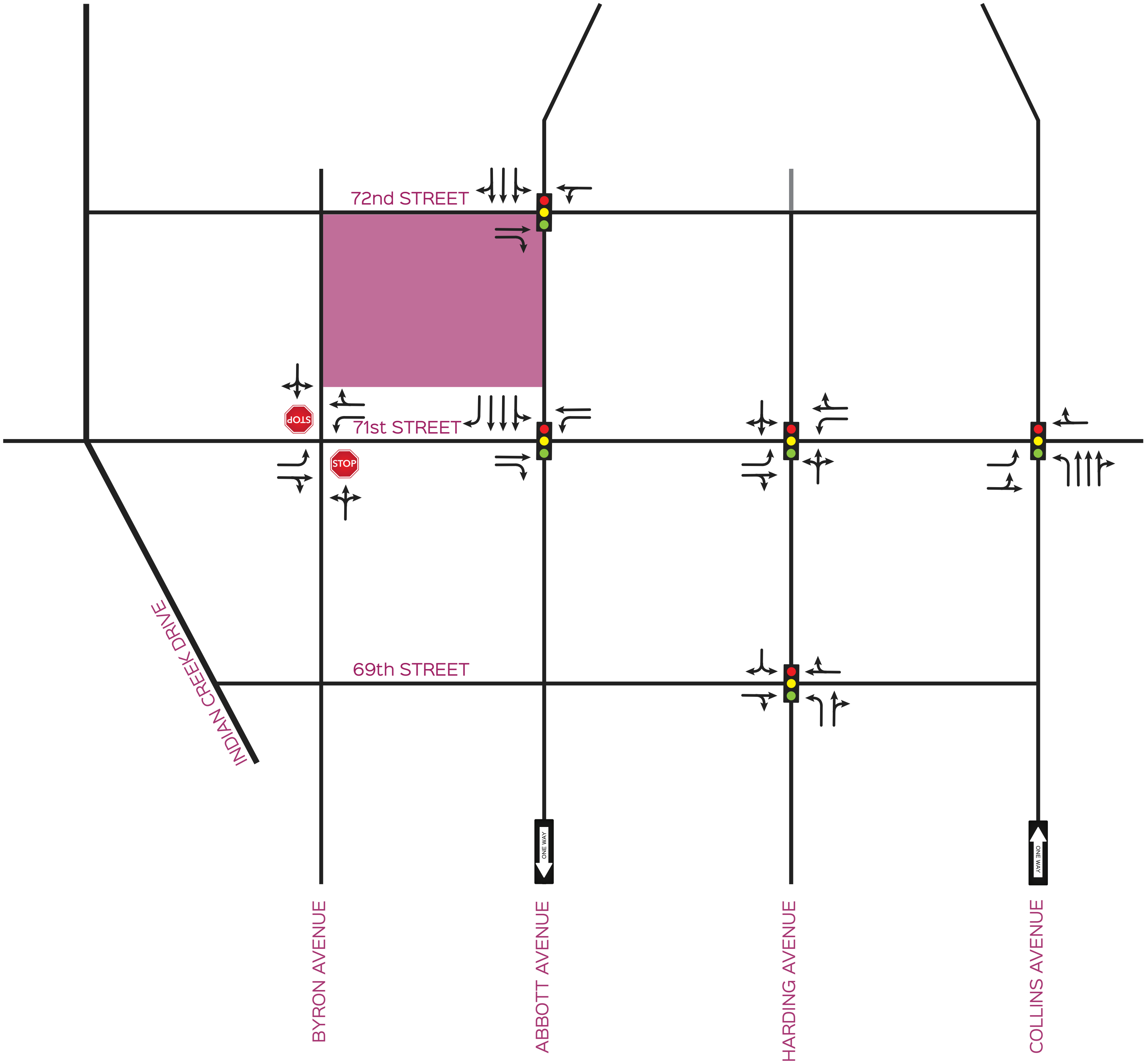
00 AM
(00) PM

▨ Project Location

Exhibit 2

Existing AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE



🟪 Project Location

Exhibit 3

Existing Lane Configurations

NORTH
MAP NOT TO SCALE

2.4 Intersection Capacity Analysis

The Synchro Software, based on procedures of the *Highway Capacity Manual 6th Edition*, was used to perform intersection capacity analysis at the analyzed intersections. Synchro is a macroscopic analysis and optimization software application that implements the intersection capacity utilization method for determining intersection capacity. Results for existing conditions intersection analysis show that the overall LOS for the following intersections currently operate within the overall LOS standards adopted by the City of Miami Beach:

- Abbott Avenue / 71st Street
- Harding Avenue / 71st Street
- Collins Avenue / 71st Street
- Abbott Avenue / 72nd Street
- Harding Avenue / 69th Street

The analysis shows that the un-signalized intersection of Byron Avenue and 71st Street is experiencing delays. This may be due to the fact that for un-signalized intersections, the software tends to overestimate delay measurements for the minor approaches and does not account for gaps in traffic created by the upstream signalized intersections to allow the minor street traffic flow. A delay study, previously conducted at a similar intersection, shows that the software was overestimating the delays at the minor approaches by approximately 80% (Appendix D). The eastbound and westbound approaches of the intersection of Collins Avenue and 71st Street also currently experience delays during the afternoon peak hour. This may be due to the fact that the county gives priority to vehicles travelling north through this area, therefore, accepting delays on minor cross-streets. Exhibit 4 shows the resulting LOS for the existing AM and PM peak hour conditions. Analysis worksheets are included in Appendix D.

Exhibit 4: Existing Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	**Signalized/ Un-signalized**	**Direction**	**AM Peak LOS**	**Delay (Sec)**	**PM Peak LOS**	**Delay (Sec)**	**LOS Standard**
Byron Avenue / 71st Street	U	NB	F	68.9	F	190.4	D+20
		SB	F	58.2	D	25	D+20
Abbott Avenue / 71st Street	S	SB	C	28.1	B	12.7	D+20
		EB	C	31.0	C	20.1	D+20
		WB	D	37.4	C	20.3	D+20
		Overall	***C***	***29.2***	***B***	***14.8***	***D+20***
Harding Avenue / 71st Street	S	NB	C	33.9	C	33.1	D+20
		SB	C	30.9	C	24.9	D+20
		EB	B	16.4	B	11.2	D+20
		WB	A	8.2	B	12.0	D+20
		Overall	***C***	***20.8***	***C***	***20.5***	***D+20***
Collins Avenue / 71st Street	S	NB	A	8.2	B	10.1	D+20
		EB	D	52.0	F	89.6	D+20
		WB	D	42.1	F	86.4	D+20
		Overall	***B***	***18.1***	***C***	***20.7***	***D+20***
Abbott Avenue / 72nd Street	S	SB	B	11.3	A	9.1	D+20
		EB	C	33.5	C	31.0	D+20
		WB	C	32.0	C	33.3	D+20
		Overall	***B***	***13.6***	***B***	***12.6***	***D+20***
Harding Avenue / 69th Street	S	NB	C	30.6	D	41.5	D+20
		SB	C	34.2	C	34.1	D+20
		EB	A	8.6	B	11.2	D+20
		WB	A	8.9	B	12.1	D+20
		Overall	***C***	***21.8***	***C***	***30.0***	***D+20***

Source: David Plummer & Associates

3.0 PLANNED AND PROGRAMMED ROADWAY IMPROVEMENTS

The 2019 Miami-Dade County *Transportation Improvement Program* (TIP) and the *2040 Long Range Transportation Program* (LRTP) were reviewed to identify any programmed project within the limits of the established study area. These documents show the following projects within the study area:

MDT150 – 79th Street Causeway (JFK Causeway) Enhanced Bus from Northside Metrorail Station to Miami Beach Convention Center
NM150 – Atlantic Trail improvements from North Shore Park to Haulover Park

These documents show no officially programmed or planned capacity improvement projects within the study area prior to completion of the proposed project. Roadway project documentation is included in Appendix E.

4.0 FUTURE TRAFFIC CONDITIONS

4.1 Background Traffic and Committed Developments

Average Daily Traffic (ADT) counts published by FDOT were reviewed to determine historic growth in the area. This analysis indicated that the annual growth rate is negative in the past five years. However, an annual growth rate of 0.86% was used at the request of the city. Historic growth rate documentation is included in Appendix C.

Two committed developments in the vicinity of the project site were considered for estimating future traffic volumes in this study: The 7140 Collins Hotel and 72 & Park. The Traffic Study for the 7140 Collins Hotel only considered the PM peak hour therefore, for the purpose of this analysis, a trip generation and trip distribution for the AM peak hour was completed. This trip generation analysis was completed using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. The project trip distribution / assignment included in the traffic study was used in order to determine the additional volumes distributed to the intersections of the study during the AM peak hour. Exhibit 5 provides a tabulation of AM and PM peak hour trips generated by the committed developments, along with the approved land uses. Committed development information is included in Appendix E.

Exhibit 5: Committed Development Trip Generation
(Net New External Trips)

Project	ITE Land Use	Size/Units	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
7140 Collins Hotel	Hotel *Land Use 310*	187 Rooms	47	29	76	48	48	96
	Multifamily housing (Mid-Rise) *Land Use 221*	24 DU	2	5	7	4	2	6
	Shopping Center *Land Use 820*	18,520 SF	86	55	141	48	45	93
72 & Park	Multifamily housing (High Rise) *Land Use 222*	282 DU	-84	-17	-101	54	34	87
	Shopping Center *Land Use 820*	12,603 SF						

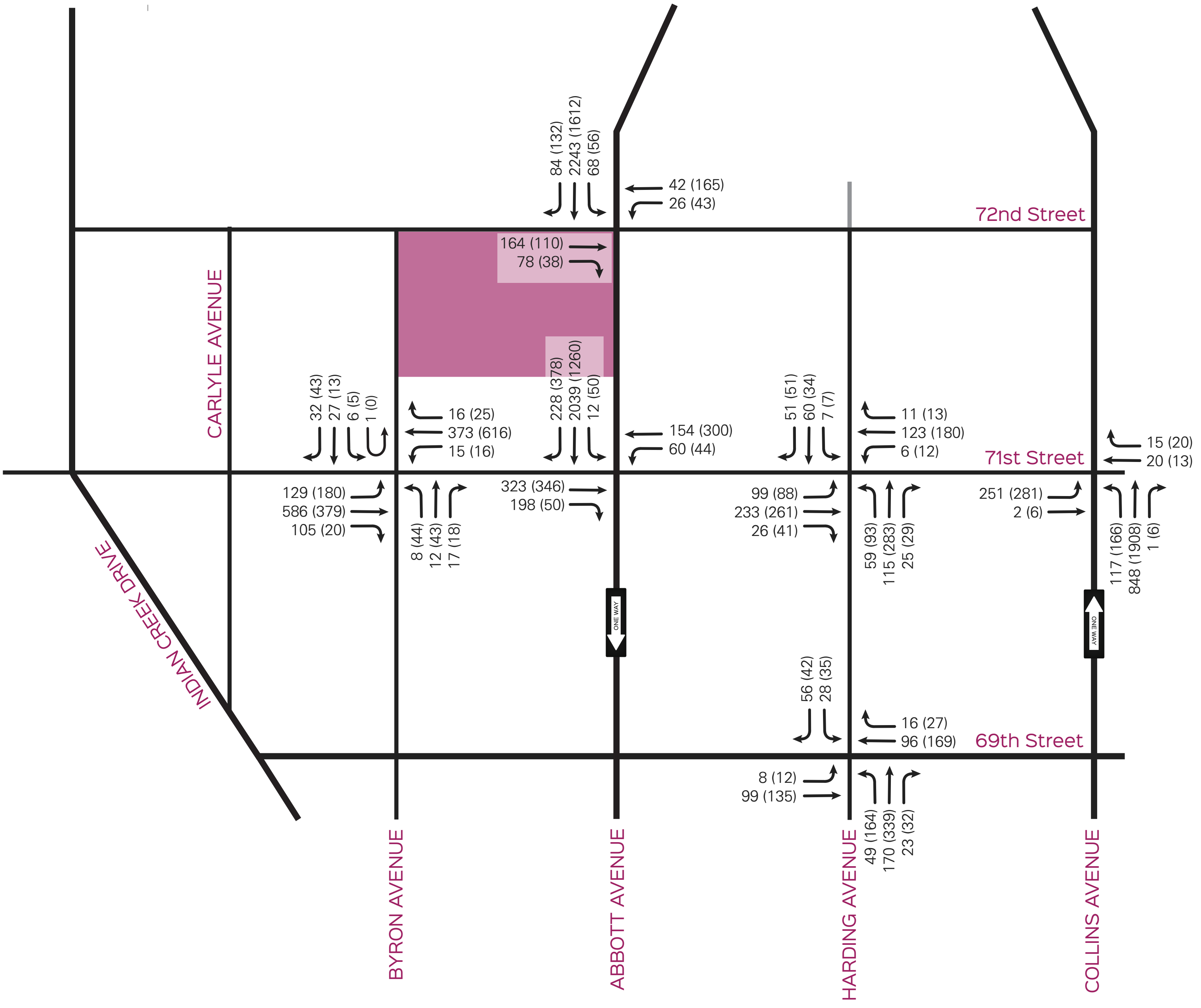
* Committed development documentation is included in Appendix E.

4.2 Future without Project Intersection Capacity Analysis

Future without project turning movement volumes were obtained by applying two additional years of background growth and committed development trips to the existing network. Exhibit 6 shows the projected AM and PM peak hour turning movement counts for future without project conditions. Results for intersection analysis for future without project conditions show that the overall LOS for the following intersections continue to operate within the overall LOS standards adopted by the City of Miami Beach:

- Abbott Avenue / 71st Street
- Harding Avenue / 71st Street
- Collins Avenue / 71st Street
- Abbott Avenue / 72nd Street
- Harding Avenue / 69th Street

As with existing conditions, the un-signalized intersection of Byron Avenue and 71st Street continues to experience delays during the AM and PM peak hours. The eastbound and westbound approaches of Collins Avenue / 71st Street intersection also continues to experience delays during the PM peak hour. Exhibit 7 shows the resulting LOS for the future without project conditions during the AM and PM peak hours. Analysis worksheets are included in Appendix D.



00 AM
(00) PM

▨ Project Location

Exhibit 6

Future Without Project AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE

Exhibit 7: Future without Project Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	**Signalized/ Un-signalized**	**Direction**	**AM Peak LOS**	**Delay (Sec)**	**PM Peak LOS**	**Delay (Sec)**	**LOS Standard**
Byron Avenue / 71st Street	U	NB	F	89.3	F	361.4	D+20
		SB	F	90.4	E	46.9	D+20
Abbott Avenue / 71st Street	S	SB	C	29.9	B	13.4	D+20
		EB	C	30.4	C	20.3	D+20
		WB	D	37.5	C	20.1	D+20
		Overall	***C***	***30.5***	***B***	***15.6***	***D+20***
Harding Avenue / 71st Street	S	NB	C	33.8	C	32.4	D+20
		SB	C	31.9	C	24.7	D+20
		EB	B	15.5	B	12.0	D+20
		WB	A	8.9	B	13.5	D+20
		Overall	***C***	***21.2***	***C***	***20.9***	***D+20***
Collins Avenue / 71st Street	S	NB	A	8.3	B	10.5	D+20
		EB	D	51.3	F	88.5	D+20
		WB	D	42.2	F	86.2	D+20
		Overall	***B***	***17.9***	***C***	***20.8***	***D+20***
Abbott Avenue / 72nd Street	S	SB	B	12.5	A	9.9	D+20
		EB	C	33.3	C	30.7	D+20
		WB	C	31.8	C	33.2	D+20
		Overall	***B***	***14.8***	***B***	***13.6***	***D+20***
Harding Avenue / 69th Street	S	NB	C	31.1	D	45.3	D+20
		SB	C	34.7	C	34.2	D+20
		EB	A	8.6	B	11.5	D+20
		WB	A	8.9	B	12.4	D+20
		Overall	***C***	***21.5***	***C***	***32.5***	***D+20***

Source: David Plummer & Associates

4.3 Project Trip Generation

Trip generation for the proposed project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, which provides gross trip generation rates and/or equations by land use type. These rates and equations estimate vehicle trip ends at a free-standing site's driveways. ITE trip generation worksheets are provided in Appendix F.

The proposed development plan incorporates residential and retail land uses, which can satisfy the retail needs for some residents, employees, and visitors without making a trip off-site. An internalization matrix was developed to establish the appropriate number of internal project trips. Internal capture rates used are also included in Appendix F.

ITE research shows that a certain percent of retail trips are "*pass-by*" trips. These are described as trips "attracted from the traffic passing the site on an adjacent street." These are not new trips, but trips already using the existing roadway network that stop at the proposed use and go back to their original path. Pass-by trips for this use were established based on guidelines provided in ITE's *Trip Generation Handbook* 3rd Edition. The average pass-by rate published by ITE for Shopping Center and the existing volume of the adjacent street were used to establish the pass-by component.

The study area is pedestrian friendly and mass transit is readily available (see Section 5 of this report for additional pedestrian and transit information). US Census data shows an existing 26.6% overall use of other modes of transportation in US Census Tract 39.13 where the project is located (see Appendix F). However, consistent with City, a 20% deduction was used for other modes of transportation. The project trip generation summary is provided in Exhibit 8.

Exhibit 8: Project Trip Generation Summary

Proposed Uses Trip Generation Summary

Proposed ITE Land Use Designation[1]	Number of Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Multifamily Housing (High-Rise) *Land Use Code: 222*	252 DU	1,204	20	63	83	57	37	94
Retail *Land Use Code:820*	18,045 SF	1,876	100	61	161	73	80	153
Total Gross Trips		**3,080**	**120**	**124**	**244**	**130**	**117**	**247**
Other Modes of Transportation[3]		-20%	-24	-25	-49	-26	-23	-49
Internalization [2]	AM PM	2.0% 14.7%	-1	-1	-2	-19	-19	-38
Pass-by (Retail)[2]		-34%	0	0	0	-18	-18	-36
Net Proposed Trips			**95**	**98**	**193**	**67**	**57**	**124**

Existing Uses Trip Generation Summary

Existing ITE Land Use Designation[1]	Number of Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Office *Land Use Code: 710*	6,922 SF	80	28	5	33	1	8	9
Multifamily Housing (Low-Rise) *Land Use Code: 220*	15 DU	72	2	6	8	7	4	11
Retail *Land Use Code: 820*	13,363 SF	1,530	98	60	158	59	64	123
Total Gross Trips		**1,682**	**128**	**71**	**199**	**67**	**76**	**143**
Other Modes of Transportation[3]		-20%	-26	-14	-40	-13	-15	-29
Pass-by (Retail)[2]		-34%	0	0	0	-16	-17	-33
Net Existing Trips			**102**	**57**	**159**	**38**	**44**	**81**

	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
		In	Out	Total	In	Out	Total
Proposed	**3,080**	**95**	**98**	**193**	**67**	**57**	**124**
Existing	**1,682**	**102**	**57**	**159**	**38**	**44**	**81**
Difference	**1,398**	**-7**	**41**	**34**	**29**	**13**	**42**

[1] Based on ITE Trip Generation Manual, Tenth Edition

[2] Based on ITE Trip Generation Manual User's Guide and Handbook, Tenth Edition

[3] Other modes deduction reduced from 26.6% (US Census tract 39.13)

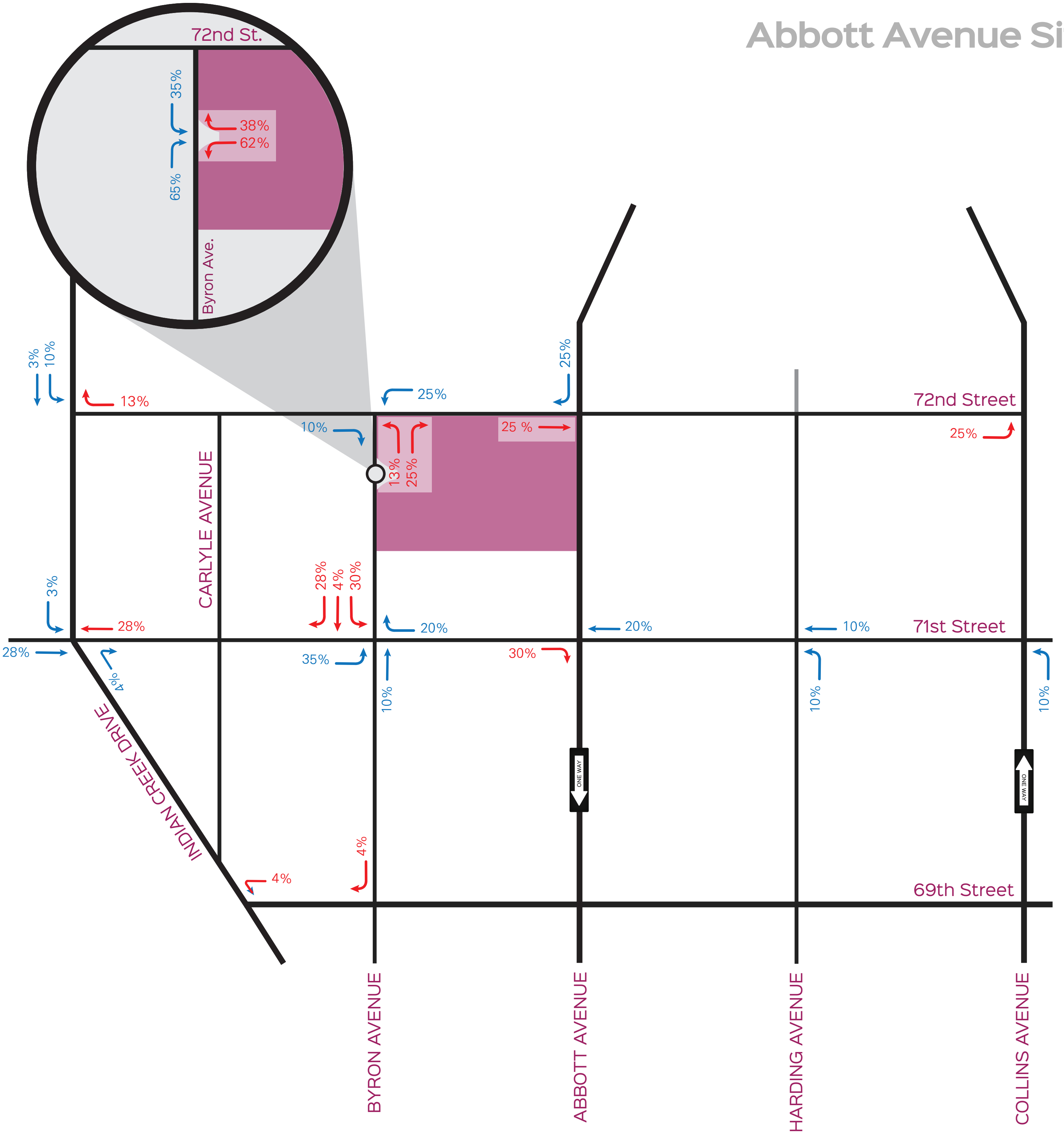
4.4 Project Trip Assignment

Project traffic was distributed and assigned to the study area using the Cardinal Distribution for TAZ 622 shown in Exhibit 9. The Cardinal Distribution gives a generalized distribution of trips from a TAZ to other parts of Miami-Dade County (see Appendix C). For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. Exhibit 10 and 11 shows the project trip distribution and project trip assignment for the project.

Exhibit 9: Cardinal Distribution
(TAZ 622)

Direction	Distribution
NNE	11.08%
ENE	0.00%
ESE	0.00%
SSE	8.62%
SSW	20.45%
WSW	27.47%
WNW	10.95%
NNW	21.59%
Total	100.00%

Source: Long Range *Transportation Plan*



🟦 % Inbound

🟥 % Outbound

🟪 Project Location

Exhibit 10

Project Trip Distribution

NORTH
MAP NOT TO SCALE

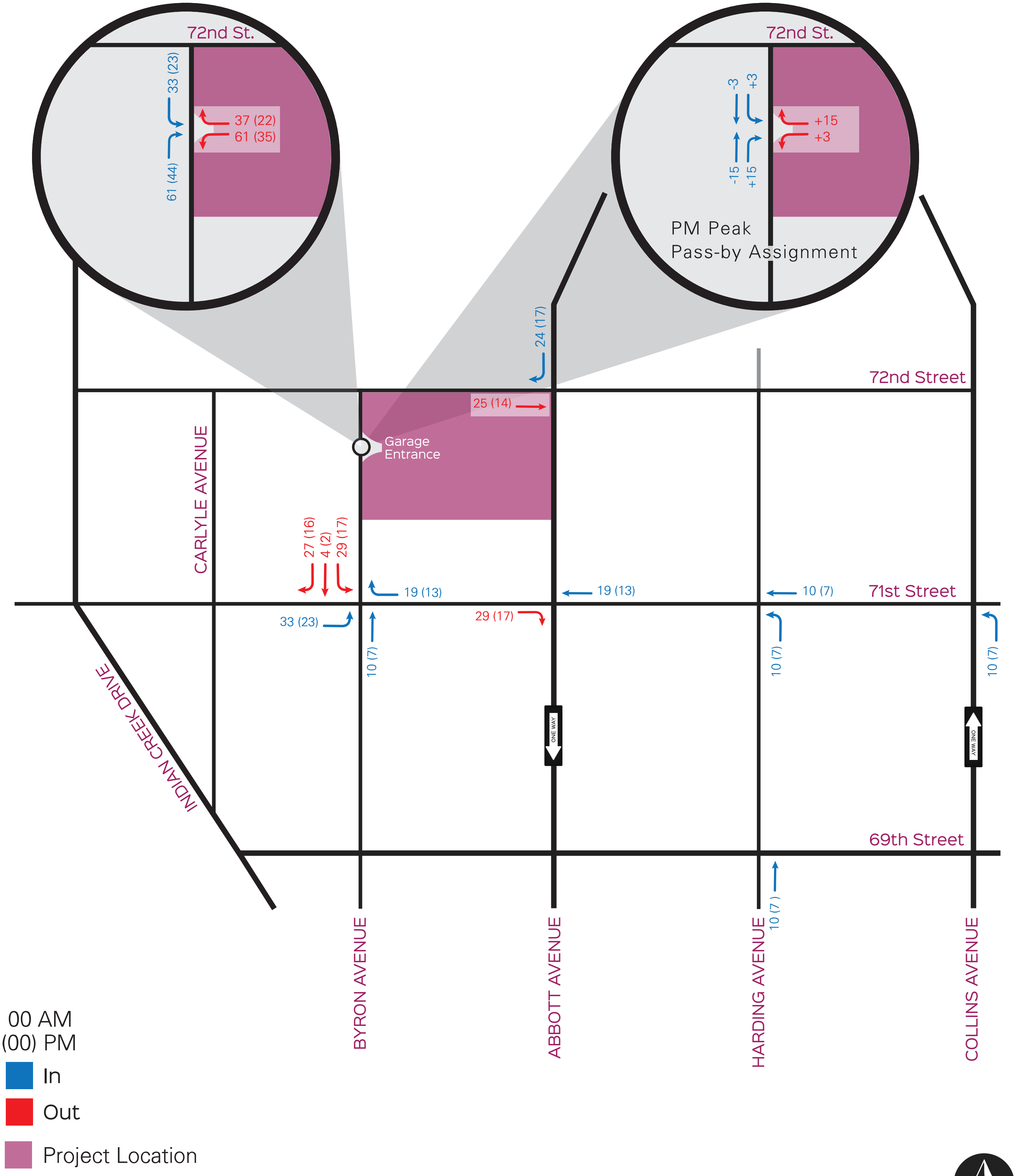


Exhibit 11

Project Trip Assignment

4.5 Future with Project Intersection Capacity Analysis

Future background traffic from the previous section and traffic projections for the project were combined to obtain future traffic with project at the analyzed intersections. Exhibit 12 shows the projected turning movement volumes for future with project conditions. Results of the future with the project conditions intersection analysis are displayed in Exhibit 13. The results show that the overall LOS for the following intersections are projected to operate within the overall LOS standards adopted by the City of Miami Beach:

- Abbott Avenue / 71st Street
- Harding Avenue / 71st Street
- Collins Avenue / 71st Street
- Abbott Avenue / 72nd Street
- Harding Avenue / 69th Street

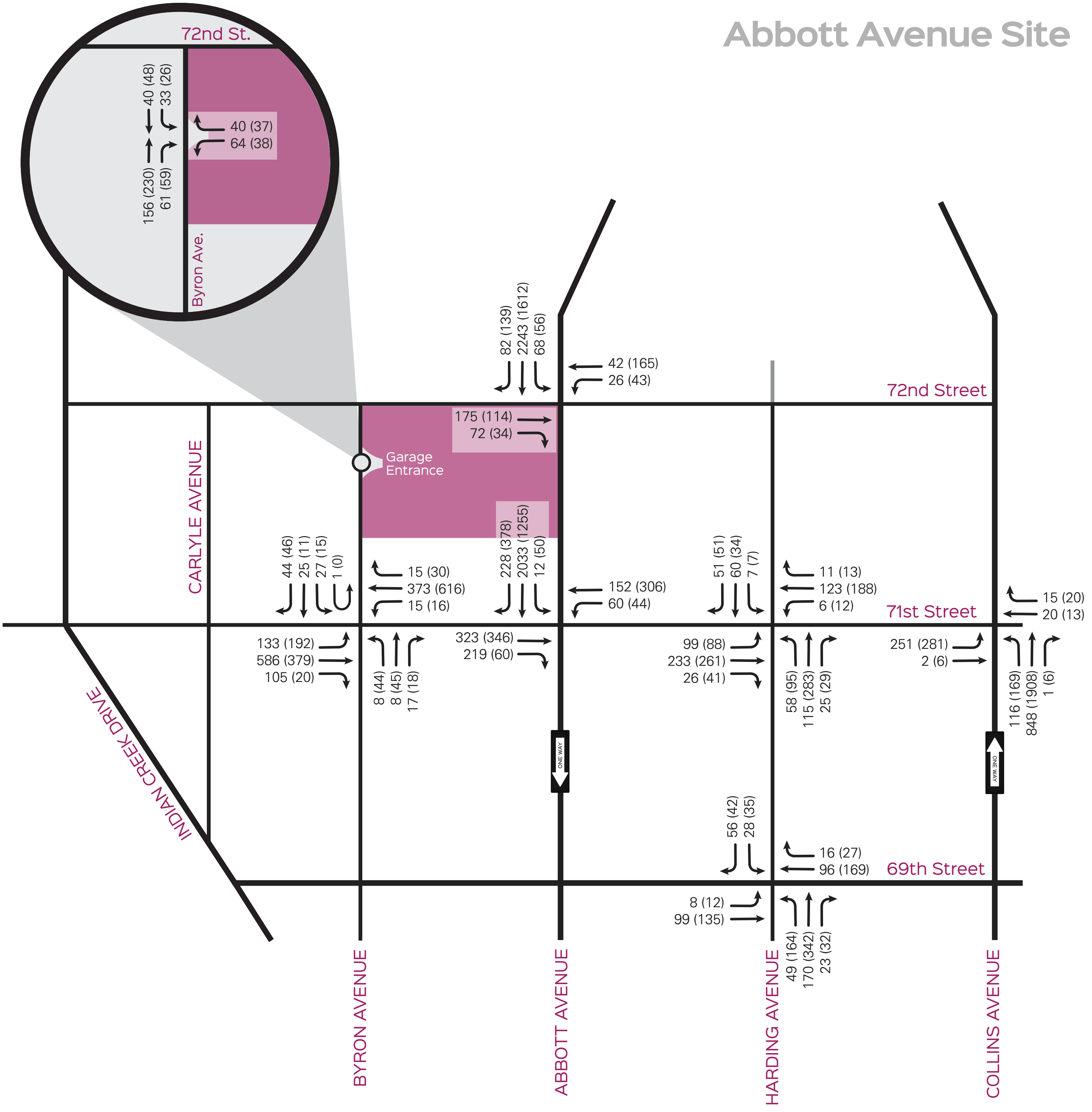
As with the existing and future without project conditions, the eastbound and westbound approaches of Collins Avenue / 71st Street intersection continue to experience delays during the afternoon peak hour. It should be noted that this is an existing condition and the project represents less than a 1% of the total projected intersection volume during the morning and afternoon peak hours.

The un-signalized intersection of Byron Avenue and 71st Street continues to experience delays. As previously mentioned, this condition may be due to the software's tendency to overestimate delay measurements for the minor approaches at unsignalized intersections and not accounting for gaps in traffic created by the upstream signalized intersections. Furthermore, a delay study previously conducted at a similar intersection shows that the software was overestimating the delays at the minor approaches by approximately 80% (Appendix D). The project driveway was analyzed and results show adequate operations. Intersection capacity worksheets with the recommended improvement are included in Appendix D.

The approximate existing storage length and the projected 95th percentile back of queue at all the exclusive turn lanes for the AM and PM peak hour conditions are displayed in Exhibit 14. The results show that the existing storage lengths for the following intersections have enough capacity to accommodate the projected 95th percentile back of queues:

- Byron Avenue / 71st Street
- Harding Avenue / 71st Street
- Abbott Avenue / 72nd Street

The projected 95th percentile back of queue for the eastbound right turn lane at the Abbott Avenue / 71st Street intersection is projected to exceed the storage length during the AM peak hour. This is an existing condition, project adds the equivalent of less than one vehicle to the projected 95th percentile back of queue. The 95th percentile back of queue for the westbound left turn lane will be exceeded prior to project traffic. Project traffic will not result in an increase in the projected queue. The 95th percentile back of queue for the southbound right turn lane currently exceeds and will continue to exceed the available storage for future conditions with project. Project traffic will not result in an increase in the projected queue. The projected 95th percentile back of queue for the eastbound left turn lane of the Collins Avenue / 71st Street intersection eastbound left turn lane is projected to exceed the existing storage length during the AM and PM peak hours. The Harding Avenue / 69th Street intersection northbound left turning lane's 95th percentile back of queue is also projected to exceed the existing northbound left turn storage length. It should be noted that these are existing conditions, the project adds no queue to the projected 95th percentile back of queue to the any of these movements.



00 AM
(00) PM

▨ Project Location

Exhibit 12

Future With Project AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE

Exhibit 123: Future with Project Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	Signalized/ Un-signalized	Direction	AM Peak LOS	Delay (Sec)	PM Peak LOS	Delay (Sec)	LOS Standard
Byron Avenue / 71st Street	U	NB SB	F F	82.2 217.4	F F	412.5 118.2	D+20 D+20
Abbott Avenue / 71st Street	S	SB EB WB ***Overall***	C C D ***C***	29.9 30.7 37.5 ***30.6***	B C C ***B***	13.4 20.3 20.5 ***15.6***	D+20 D+20 D+20 ***D+20***
Harding Avenue / 71st Street	S	NB SB EB WB ***Overall***	C C B A ***C***	33.8 31.9 15.4 8.9 ***21.2***	C C B B ***C***	32.3 24.6 12.1 13.6 ***20.9***	D+20 D+20 D+20 D+20 ***D+20***
Collins Avenue / 71st Street	S	NB EB WB ***Overall***	A D D ***B***	8.3 51.3 42.2 ***17.9***	B F F ***C***	10.4 88.3 86.2 ***20.8***	D+20 D+20 D+20 ***D+20***
Abbott Avenue / 72nd Street	S	SB EB WB ***Overall***	B C C ***B***	12.8 33.2 31.5 ***15.1***	A C C ***B***	9.9 30.8 33.2 ***13.6***	D+20 D+20 D+20 ***D+20***
Harding Avenue / 69th Street*	S	NB SB EB WB ***Overall***	C C A A ***C***	31.1 34.2 9.0 9.3 ***22.8***	D C B B ***C***	47.4 34.2 11.5 12.5 ***33.8***	D+20 D+20 D+20 D+20 ***D+20***
Project Driveway / Byron Avenue	U	WB	B	11.0	B	11.1	N/A

Source: David Plummer & Associates

Exhibit 13: Projected 95th Percentile Back of Queues and Existing Storage Length (Feet)

Intersection	Direction	Existing		Future without Project		Future with Project		Existing Storage Length
		AM	PM	AM	PM	AM	PM	
Byron Avenue / 71st Street	EBL WBL	11 2.2	17.6 0	13.2 2.2	19.8 0	13.2 2.2	22 0	75 70
Abbott Avenue / 71st Street	EBR WBL SBR	154.0 50.6 171.6	22 19.8 149.6	151.8 59.4 176	22 26.4 154	171.6 59.4 176	26.4 26.4 154	95 55 195
Harding Avenue / 71st Street	EBL WBL	13.2 2.2	17.6 4.4	28.6 2.2	33 4.4	28.6 2.2	33 2.2	56 45
Collins Avenue / 71st Street	EBL NBL	163 58	330 96	167 63	335 102	167 62	333 103	71 150
Abbott Avenue / 72nd Street	EBR	59.4	26.4	59.4	26.4	55	24.2	70
Harding Avenue / 69th Street	NBL	47	137	47	140	47	140	115

5.0 CIRCULATION PLAN

The project is located at on the west side of Abbott Avenue (A1A) between 71st and 72nd Streets in Miami Beach, Florida. Access to the site will be provided via a two-way driveway leading to a parking garage located on Byron Avenue. Furthermore, the project is proposing to re-route an existing alley. Currently the alley (southbound) connects between 72nd Street and 71st Street. The proposed alley will connect on 71st Street turn west and exit via Byron Avenue.

The project is located in an area that is conducive for pedestrian and bicycle activities. 72nd Street, 71st Street, Abbott Avenue, Harding Avenue, Collins Avenue, and 69 Street provide sidewalks on both sides of the road. All major intersections adjacent to the site, with the exception of Harding Avenue / 72nd Street intersection, have clearly marked crosswalks and signalized intersections provide pedestrian signals. 71st Street from Collins Avenue to Abbott Avenue provides a shared bike lane on both sides of the road, where it then has its own bike lane to Indian Creek Drive. There is a Citi bikes station located on Byron Avenue just south of 71st Street and one located on the northeast corner of the Harding Avenue and 69th Street intersection. A mobility plan was prepared for the site (see Exhibit 15). The plan shows the project location, bike lanes, shared bike lanes, sidewalk connections, and pedestrian crosswalks.

The area surrounding the project is served by transit. Two trolleys, the North Beach Loop and the Collins Express, are provided by the City of Miami Beach with stops close to the project site. There are five bus routes that traverse that area of Miami Beach (Routes: 79, 112, 115, 119, and 120). The closest bus stop to the project site is located on the northwest corner of the Byron Avenue / 71st Street intersection, approximately 200 feet south of the project. Exhibit 16 shows the available bus routes and bus stops in the area. Transit documentation is provided in Appendix G.

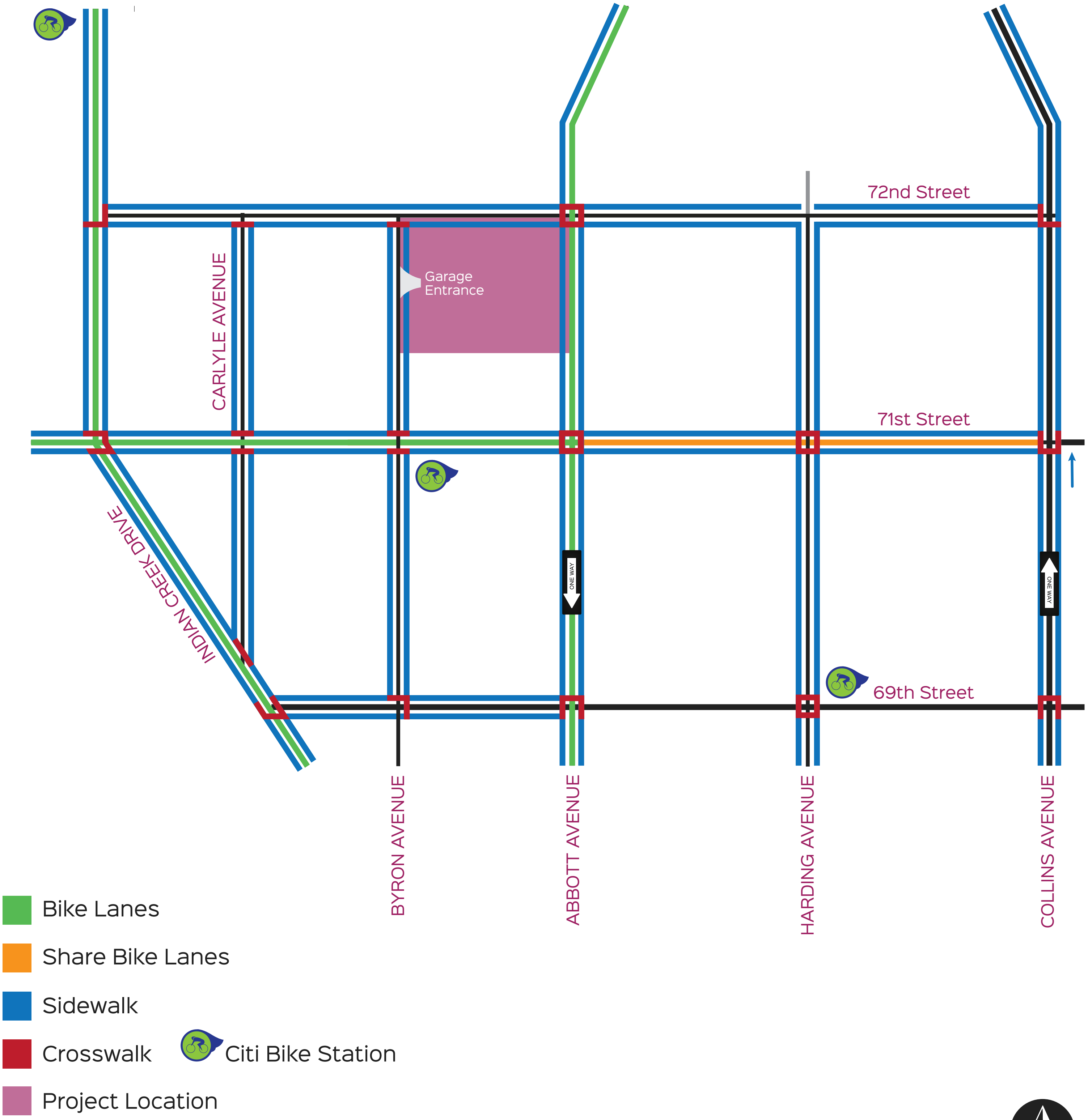
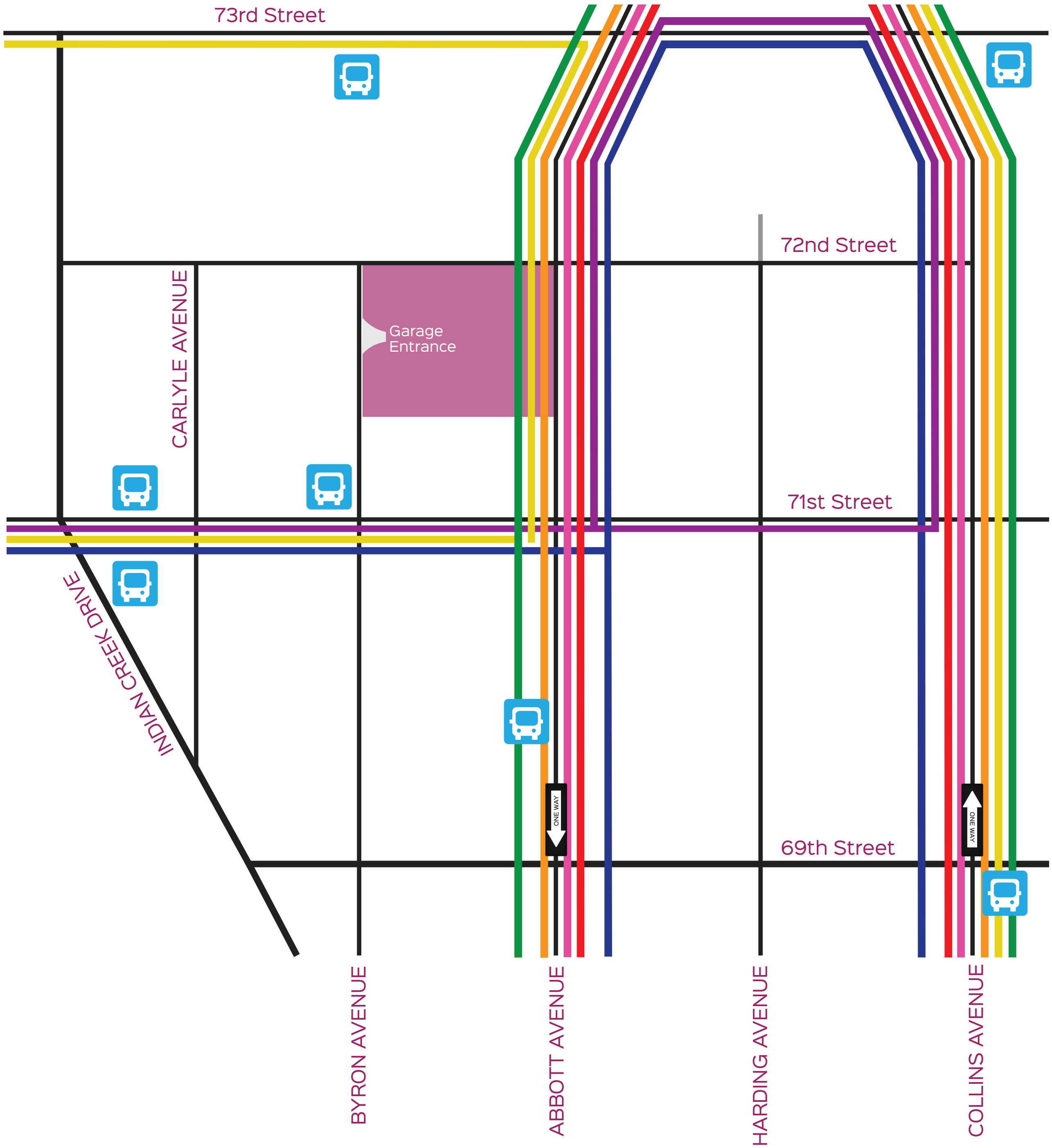


Exhibit 15

Mobility Plan - Pedestrians

NORTH
MAP NOT TO SCALE



Bus Routes

- 🟧 Bus Route 119 (S)
- 🟪 Bus Route 120
- 🟥 Bus Route 115
- 🟪 Bus Route 79
- 🟦 Bus Route 112 (L)

Miami Beach Trolley

- 🟨 Collins Express
- 🟩 North Beach Loop

🚌 Bus Stop

🟪 Project Location

NORTH
MAP NOT TO SCALE

Exhibit 16

Mobility Plan - Transportation

6.0 TRANSPORTATION MANAGEMENT PLAN

A Transportation Development Management is proposed as part of this project with the following goals:

- ***Reducing congestion* –** by encouraging patrons to shift from single occupancy vehicle trips to use other available modes of transportation.
- ***Conserving energy and reducing emissions*** - the damage caused by vehicle emissions and greenhouse gases is a major contributor to environmental degradation. Therefore, getting people to make better use of shared transportation options is one of the most important ways in which communities can do their part to encourage greener thinking.
- ***Improving community health and fitness levels*** - TDM can lead to better levels of health and fitness among community members by encouraging people to be more active as they move around town. Improving the walkability of cities and adding cycling features are two of the most important ways TDM strategies can be used to promote healthier and more active lifestyles.
- ***Boosting urban livability*** - Studies have shown that community-oriented modes of transportation can lead to significant improvements in personal satisfaction and happiness. People are more engaged when they are active stakeholders in the communities they live in. By improving social quality for residents, commuters, and visitors alike, TDM helps improve the overall livability of cities.

The development will promote the following strategies to further reduce vehicle trips:

- Bike racks will be provided for residents and employees in the parking garage.
- A cover for the sidewalk adjacent to the project is proposed to provide shade and encourage pedestrian activity.
- Encourage patrons to participate in ridesharing programs through South Florida Commuter Services. Available information will be obtained and distributed to residents and employees in the development.

- Miami-Dade County Transportation Agency current local and regional mass transit route and schedule information will be provided to potential transit users in a prominent public area of the development. The information provided and maintained on the premises will be updated, when necessary, at no less than six month intervals.
- Promote mass transit use by encouraging employers to purchase transit passes and make them available to employees at discounted prices or no charge, or in lieu of subsidized parking.
- Encourage employers to implement staggered work hours.

Implementation of these items will generate a shift from single vehicle drivers to use other modes of transportation and, thus, reducing the peak hour vehicle trips.

7.0 CONCLUSIONS

An assessment of the traffic impacts associated with the proposed Abbott Avenue project was performed in accordance with the requirements of the City of Miami Beach. The overall LOS for the following intersections will meet the City's LOS standards with the proposed project:

- Abbott Avenue / 71st Street
- Harding Avenue / 71st Street
- Collins Avenue / 71st Street
- Abbott Avenue / 72nd Street
- Harding Avenue / 69th Street

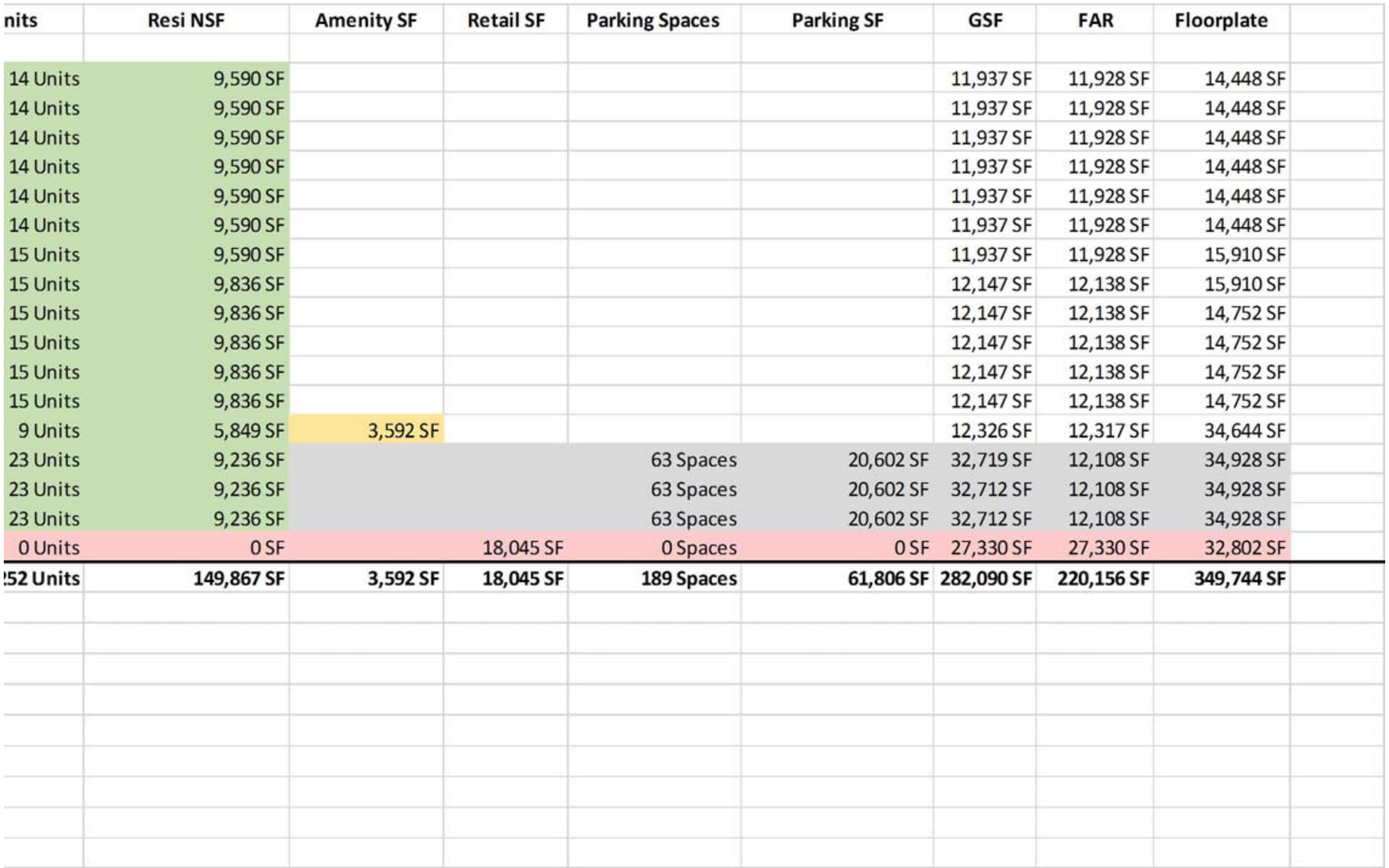
The eastbound and westbound approaches of the Collins Avenue / 71st Street intersection is projected to experience delays for future conditions with project during the afternoon peak hour; this is an existing condition and the project represents less than a 1% of the total projected intersection volume during the morning and afternoon peak hours.

As with existing and future without project conditions, the un-signalized intersection of Byron Avenue and 71st Street will continue to experience delays. This condition may be due to the software's tendency to overestimate delay measurements for the minor approaches at unsignalized intersections and not accounting for gaps in traffic created by the upstream signalized intersections. Furthermore, a delay study previously conducted at a similar intersection shows that the software was overestimating the delays at the minor approaches by approximately 80%. The project driveway was analyzed and the results show adequate operations.

As part of the study, a mobility and circulation plan was completed. The plan shows that the project area is currently served by five Miami-Dade Transit bus routes and two Miami Beach Trolleys. The project is located in an area that is conducive for pedestrian and bicycle activities providing ample sidewalks, clearly marked crosswalks, signalized intersections provide pedestrian signals, shared bike lanes, and Citi Bike stations within walking distance to the project. These conditions encourage the use other modes of transportation and reduce the vehicular impact on the roadway network.

w:\19\19218\abbott site traffic study_nov 2019\abbott site transportation impact study_nov 2019.docx

Appendix A
Site Plan

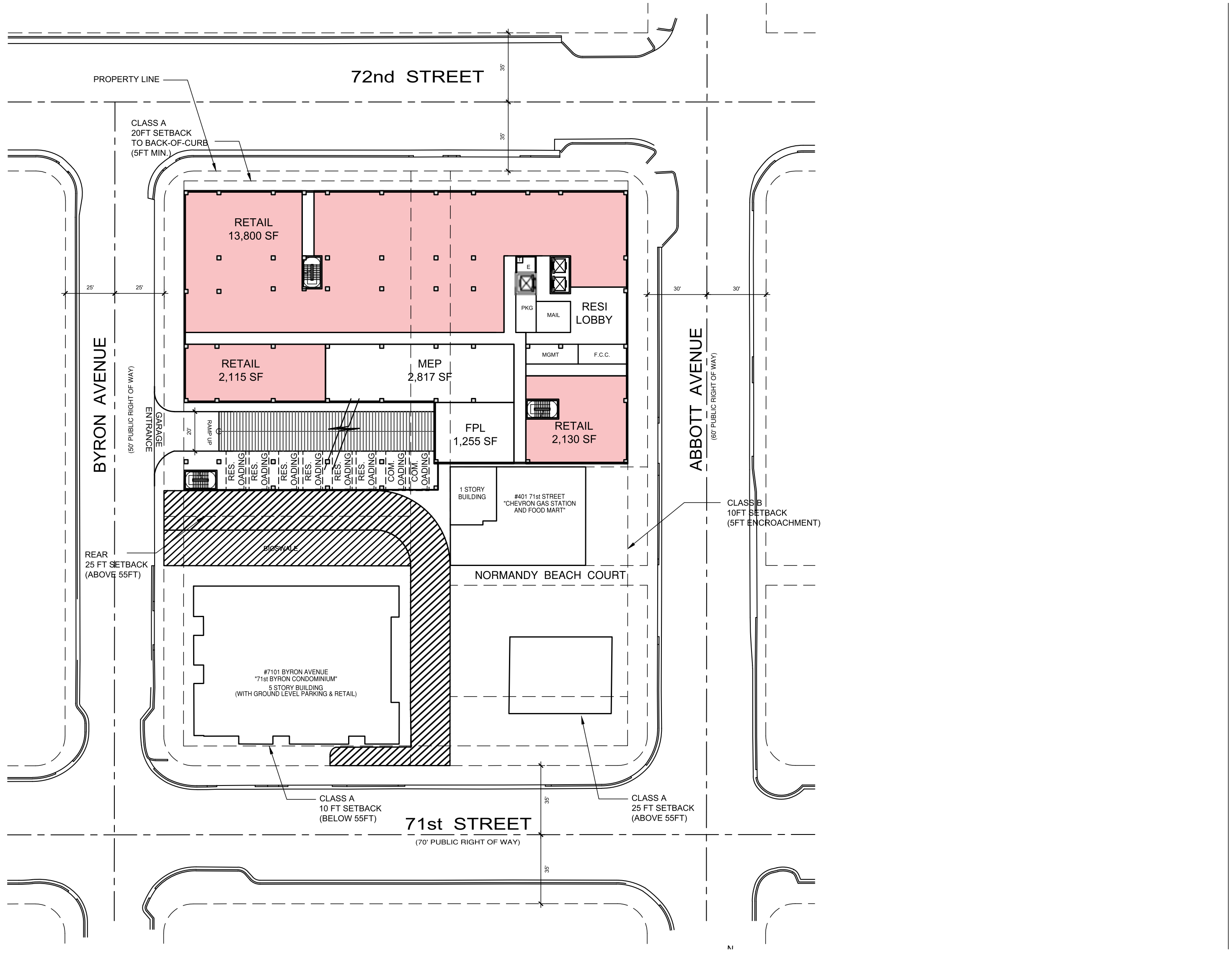


nits	Resi NSF	Amenity SF	Retail SF	Parking Spaces	Parking SF	GSF	FAR	Floorplate
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
14 Units	9,590 SF					11,937 SF	11,928 SF	14,448 SF
15 Units	9,590 SF					11,937 SF	11,928 SF	15,910 SF
15 Units	9,836 SF					12,147 SF	12,138 SF	15,910 SF
15 Units	9,836 SF					12,147 SF	12,138 SF	14,752 SF
15 Units	9,836 SF					12,147 SF	12,138 SF	14,752 SF
15 Units	9,836 SF					12,147 SF	12,138 SF	14,752 SF
15 Units	9,836 SF					12,147 SF	12,138 SF	14,752 SF
9 Units	5,849 SF	3,592 SF				12,326 SF	12,317 SF	34,644 SF
23 Units	9,236 SF			63 Spaces	20,602 SF	32,719 SF	12,108 SF	34,928 SF
23 Units	9,236 SF			63 Spaces	20,602 SF	32,712 SF	12,108 SF	34,928 SF
23 Units	9,236 SF			63 Spaces	20,602 SF	32,712 SF	12,108 SF	34,928 SF
0 Units	0 SF		18,045 SF	0 Spaces	0 SF	27,330 SF	27,330 SF	32,802 SF
52 Units	**149,867 SF**	**3,592 SF**	**18,045 SF**	**189 Spaces**	**61,806 SF**	**282,090 SF**	**220,156 SF**	**349,744 SF**

NORTH BEACH - MULTI FAMILY RESIDENTIAL
7140 ABBOTT AVE, MIAMI BEACH, FL 33141

PROJECT DATA

10/07/2019



NORTH BEACH - MULTI FAMILY RESIDENTIAL
7140 ABBOTT AVE, MIAMI BEACH, FL 33141

GROUND LEVEL

10/07/2019

Appendix B
Methodology

DAVID PLUMMER & ASSOCIATES
TRAFFIC ENGINEERING • CIVIL ENGINEERING • TRANSPORTATION PLANNING

1750 PONCE DE LEON BOULEVARD | CORAL GABLES, FLORIDA 33134
305•447•0900 | DPA@DPLUMMER.COM

Abbott Avenue Site
Traffic Study Methodology

October 16, 2019

PROJECT LOCATION

The project is located on the west side of Abbott Avenue (A1A) between 71st and 72nd Streets in Miami Beach, Florida. The project proposes a new residential building with 252 units and 18,045 SF of ground floor retail space. The project will replace an existing 6,922 SF of office space, 15 units of multifamily housing (low-rise), and two retail spaces totaling 13,363 SF. Access to the site will be provided via Byron Avenue. Furthermore the project is proposing to re-route an existing alley. Currently the alley (southbound) connects between 72nd Street and 71st Street. The proposed alley will connect on 71st Street turn west and exit via Byron Avenue.

PURPOSE

This methodology will provide the details of the Transportation Impact Study for the proposed development. This methodology is based on discussions from a methodology meeting held with city staff on September 20, 2019. Confirmation of this methodology will be requested from the city and/or its traffic consultant prior to performing the study.

TRAFFIC STUDY

- Traffic Counts (Intersections) – Two-hour turning movement counts (including pedestrians) will be collected during the AM (7 – 9) and PM (4 – 6) peak hour conditions of a regular weekday. The analysis will be conducted for the following intersections:
    - Abbott Avenue / 71st Street (S)
    - Abbott Avenue / 72nd Street (S)
    - Byron Avenue / 71st Street (U)
    - Harding Avenue / 71st Street (S)

- Collins Avenue / 71st Street (S)
- Harding Avenue / 69th Street (S)

S= Signalized
U=Un-signalized

Traffic counts used as part of this project will be included in the appendix of the Transportation Impact Study submitted to the city.

- Trip Generation – Trip generation for the project was estimated using trip generation information published by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th edition. Based on U.S. Census Bureau data, a 20% deduction was applied for other modes of transportation. Credit for vehicle trips generated by the existing uses was based on ITE Trip Generation Manual, 10th edition.

Proposed Trip Generation

Proposed ITE Land Use Designation[1]	Number of Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Multifamily Housing (High-Rise) *Land Use Code: 222*	252 DU	1,204	20	63	83	57	37	94
Retail *Land Use Code:820*	18,045 SF	682	11	6	17	33	36	69
Total Gross Trips		**1,886**	**31**	**69**	**100**	**90**	**73**	**163**
Internalization	AM PM	2.0% 14.7%	-1	-1	-2	-12	-12	-24
Pass-by (Retail)		-34%	-3	-3	-6	-10	-10	-20
Other Modes of Transportation[2]		-20%	-5	-13	-18	-14	-10	-24
Net Proposed Trips			**22**	**52**	**74**	**54**	**41**	**95**

[1] Based on ITE Trip Generation Manual, 10th Edition
[2] Based on US Census (Tract 39.13)

Existing Land Uses

Proposed ITE Land Use Designation[1]	Number of Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Office *Land Use Code: 710*	6,922 SF	80	28	5	33	1	8	9
Multifamily Housing (Low-Rise) *Land Use Code: 220*	15 DU	72	2	6	8	7	4	11
Retail *Land Use Code: 820*	3,496 SF	132	2	1	3	6	7	13
Retail *Land Use Code: 820*	9,867 SF	372	6	4	10	18	20	38
Total Gross Trips		**656**	**38**	**16**	**54**	**32**	**39**	**71**
Pass-by (Retail)		-34%	-3	-2	-4	-8	-9	-17
Other Modes of Transportation[2]		-20%	-7	-3	-10	-5	-6	-11
Net Existing Trips			**28**	**11**	**40**	**19**	**24**	**43**

	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
		In	Out	Total	In	Out	Total
Proposed	**1,886**	**22**	**52**	**74**	**54**	**41**	**95**
Existing	**656**	**28**	**11**	**40**	**19**	**24**	**43**
Difference	**1,230**	**-6**	**41**	**34**	**35**	**17**	**52**

[1] Based on ITE Trip Generation Manual, 10th Edition

[2] Based on US Census tract 39.13)

- Signal Location and Timing – Existing signal phasing and timing for the signalized intersections will be obtained from Miami-Dade County. Signal data collected from the county will be included in the appendix of this study.

- Trip Distribution / Trip Assignment – Net new external project traffic will be assigned to the adjacent street network using the appropriate cardinal distribution from the *Miami-Dade Long Range Transportation Plan Update,* published by the *Metropolitan Planning Organization*. Normal area traffic patterns will also be considered when assigning project trips. A figure showing all of the assigned trips to the adjacent transportation network will be provided as part of the study.

- Background Traffic – Available Florida Department of Transportation (FDOT) and Miami-Dade County (MDC) traffic counts will be consulted to determine a growth factor consistent with historical annual growth in the area. The growth factor will be applied to the existing traffic volumes to establish background traffic. This will be documented in the study.

- Committed Developments – The City will be consulted to determine committed developments in the area. Evidence of the data collected as part of the committed developments will be included in the appendix of the study.

- Future Transportation Projects – The 2019 TIP and the 2040 LRTP will be reviewed and considered in the analysis at project build-out.

- Intersection Capacity Analysis – The intersection capacity analyses will be conducted for the following conditions:
    - Existing conditions
    - Future conditions with Committed Developments
    - Future conditions with Project and Committed Development

  Intersection analysis will be done using the Synchro software based on the Highway Capacity Manual (HCM 6th Ed). Figures depicting trip distribution for each of these scenarios will be provided as part of this study. In addition to the intersections identified above, all projects driveways will be analyzed. If the results of the analysis show any intersection operating below the City's Level of Service standards, specific mitigation measures will be recommended.

- A Transportation Demand Management plan (TDM) will be included in the report.

CIRCULATION ANALYSIS/PLAN

The study will provide a circulation plan depicting the parking garage circulation. The plan will also include a clear site plan defining all of the various land use categories assigned to the project site, driveways, delivery areas, location of street signs/signals, crosswalks, sidewalks, location of bus facilities, bike facilities, adjacent streets configuration (travel lanes, etc.) including names, on-street parking and any other pertinent transportation feature in the vicinity of this project.

As part of the study, any proposed/existing driveways will be analyzed. This analysis will include sight distance for vehicles entering/exiting the proposed driveway. An Auto-turn analysis will be conducted for the proposed building loading area. If deficiencies are determined, mitigation measures will be recommended.

Multimodal – Pedestrian, bicycle and transit facilities will be defined in the Circulation Plan. Existing bus routes including schedule and bus stop locations will be discussed as part of the study. An effort will be made to include bicycle parking facilities within the project site to be utilized either by employees or tenants.

DOCUMENTATION

The applicant will submit one original, 13 hard copies and four CDs of the traffic study. The submittal will include a CD with the Synchro program output calculations for consideration/review by the consultant acting as the peer reviewer. Also included will be the latest version of the site plan, with an AutoCad version.

Other Considerations from the City

- As part of the intersection analysis, a table summarizing/comparing the existing storage length and the proposed queues for all turn lanes will be provided.
- The City reserves the right to request additional analyses including but not limited to, additional traffic counts and level of service analysis for any intersection City staff feels is necessary in order to complete the review process.
- Counts will be schedule not to coincide with any religious or government designated holidays.

If you have any questions you can contact me at (305) 447-0900.

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Appendix C
Traffic Data

Traffic Volumes

```
 2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: COUNTY
CATEGORY: 8700  MIAMI-DADE NORTH
                                                MOCF: 0.98
WEEK          DATES                 SF          PSCF
================================================================================
  1    01/01/2018 - 01/06/2018    1.03          1.05
  2    01/07/2018 - 01/13/2018    1.03          1.05
  3    01/14/2018 - 01/20/2018    1.04          1.06
  4    01/21/2018 - 01/27/2018    1.02          1.04
  5    01/28/2018 - 02/03/2018    1.01          1.03
* 6    02/04/2018 - 02/10/2018    0.99          1.01
* 7    02/11/2018 - 02/17/2018    0.98          1.00
* 8    02/18/2018 - 02/24/2018    0.98          1.00
* 9    02/25/2018 - 03/03/2018    0.98          1.00
*10    03/04/2018 - 03/10/2018    0.97          0.99
*11    03/11/2018 - 03/17/2018    0.97          0.99
*12    03/18/2018 - 03/24/2018    0.97          0.99
*13    03/25/2018 - 03/31/2018    0.97          0.99
*14    04/01/2018 - 04/07/2018    0.97          0.99
*15    04/08/2018 - 04/14/2018    0.97          0.99
*16    04/15/2018 - 04/21/2018    0.97          0.99
*17    04/22/2018 - 04/28/2018    0.98          1.00
*18    04/29/2018 - 05/05/2018    0.99          1.01
 19    05/06/2018 - 05/12/2018    1.00          1.02
 20    05/13/2018 - 05/19/2018    1.01          1.03
 21    05/20/2018 - 05/26/2018    1.01          1.03
 22    05/27/2018 - 06/02/2018    1.01          1.03
 23    06/03/2018 - 06/09/2018    1.01          1.03
 24    06/10/2018 - 06/16/2018    1.01          1.03
 25    06/17/2018 - 06/23/2018    1.01          1.03
 26    06/24/2018 - 06/30/2018    1.02          1.04
 27    07/01/2018 - 07/07/2018    1.02          1.04
 28    07/08/2018 - 07/14/2018    1.02          1.04
 29    07/15/2018 - 07/21/2018    1.02          1.04
 30    07/22/2018 - 07/28/2018    1.02          1.04
 31    07/29/2018 - 08/04/2018    1.01          1.03
 32    08/05/2018 - 08/11/2018    1.01          1.03
 33    08/12/2018 - 08/18/2018    1.00          1.02
 34    08/19/2018 - 08/25/2018    1.00          1.02
 35    08/26/2018 - 09/01/2018    1.00          1.02
 36    09/02/2018 - 09/08/2018    1.01          1.03
 37    09/09/2018 - 09/15/2018    1.01          1.03
 38    09/16/2018 - 09/22/2018    1.00          1.02
 39    09/23/2018 - 09/29/2018    1.00          1.02
 40    09/30/2018 - 10/06/2018    1.00          1.02
 41    10/07/2018 - 10/13/2018    0.99          1.01
 42    10/14/2018 - 10/20/2018    0.99          1.01
 43    10/21/2018 - 10/27/2018    1.00          1.02
 44    10/28/2018 - 11/03/2018    1.00          1.02
 45    11/04/2018 - 11/10/2018    1.01          1.03
 46    11/11/2018 - 11/17/2018    1.01          1.03
 47    11/18/2018 - 11/24/2018    1.02          1.04
 48    11/25/2018 - 12/01/2018    1.02          1.04
 49    12/02/2018 - 12/08/2018    1.02          1.04
 50    12/09/2018 - 12/15/2018    1.03          1.05
 51    12/16/2018 - 12/22/2018    1.03          1.05
 52    12/23/2018 - 12/29/2018    1.03          1.05
 53    12/30/2018 - 12/31/2018    1.04          1.06

* PEAK SEASON

28-FEB-2019 15:24:23                        830UPD             6_8700_PKSEASON.TXT
```

National Data & Surveying Services

Intersection Turning Movement Count

Signalized Abbott Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-001
Date: 10/22/2019

Total

NS/EW Streets:	Abbott Ave				Abbott Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	3	338	44	0	0	44	14	0	6	28	0	0	477
7:15 AM	0	0	0	0	3	424	69	0	0	49	17	0	10	28	0	0	600
7:30 AM	0	0	0	0	6	496	60	0	0	81	25	0	4	27	0	0	699
7:45 AM	0	0	0	0	5	526	53	0	0	50	24	0	9	33	0	0	700
8:00 AM	0	0	0	0	3	504	56	0	0	73	59	0	13	26	0	0	734
8:15 AM	0	0	0	0	3	482	53	0	0	62	45	0	12	24	0	0	681
8:30 AM	0	0	0	0	1	449	58	0	0	83	63	0	16	37	0	0	707
8:45 AM	0	0	0	0	4	411	51	0	0	74	81	0	9	47	0	0	677
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	28	3630	444	0	0	516	328	0	79	250	0	0	5275
APPROACH %'s :					0.68%	88.49%	10.82%	0.00%	0.00%	61.14%	38.86%	0.00%	24.01%	75.99%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	12	1961	220	0	0	268	191	0	50	120	0	0	2822
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.600	0.932	0.948	0.000	0.000	0.807	0.758	0.000	0.781	0.811	0.000	0.000	0.961
						0.939				0.786				0.802			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	301	113	0	0	64	7	0	5	54	0	0	548
4:15 PM	0	0	0	0	12	298	101	0	0	77	8	0	7	67	0	0	570
4:30 PM	0	0	0	0	12	295	98	0	0	54	13	0	8	54	0	0	534
4:45 PM	0	0	0	0	11	319	76	0	0	82	10	0	6	74	0	0	578
5:00 PM	0	0	0	0	13	299	89	0	0	85	17	0	12	59	0	0	574
5:15 PM	0	0	0	0	6	284	91	0	0	72	11	0	6	43	0	0	513
5:30 PM	0	0	0	0	16	304	97	0	0	71	8	0	6	57	0	0	559
5:45 PM	0	0	0	0	5	290	82	0	0	67	20	0	3	57	0	0	524
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	79	2390	747	0	0	572	94	0	53	465	0	0	4400
APPROACH %'s :					2.46%	74.32%	23.23%	0.00%	0.00%	85.89%	14.11%	0.00%	10.23%	89.77%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	48	1211	364	0	0	298	48	0	33	254	0	0	2256
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.923	0.949	0.901	0.000	0.000	0.876	0.706	0.000	0.688	0.858	0.000	0.000	0.976
						0.987				0.848				0.897			

AM		PM
0	NBU	0
0	NBL	0
0	NBT	0
0	NBR	0
0	SBU	0
12	SBL	48
1961	SBT	1211
220	SBR	364
0	EBL	0
268	EBT	298
191	EBR	48
50	WBL	33
120	WBT	254
0	WBR	0
2822		**2256**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-001
Date: 10/22/2019

Cars

NS/EW Streets:	Abbott Ave				Abbott Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	3	333	42	0	0	41	11	0	6	24	0	0	460
7:15 AM	0	0	0	0	3	420	63	0	0	44	14	0	10	27	0	0	581
7:30 AM	0	0	0	0	6	488	56	0	0	79	23	0	4	27	0	0	683
7:45 AM	0	0	0	0	5	517	50	0	0	47	19	0	9	29	0	0	676
8:00 AM	0	0	0	0	3	495	52	0	0	70	58	0	13	26	0	0	717
8:15 AM	0	0	0	0	3	475	48	0	0	61	38	0	12	24	0	0	661
8:30 AM	0	0	0	0	1	439	55	0	0	77	60	0	16	37	0	0	685
8:45 AM	0	0	0	0	3	400	50	0	0	70	78	0	9	45	0	0	655
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	27	3567	416	0	0	489	301	0	79	239	0	0	5118
APPROACH %'s :					0.67%	88.95%	10.37%	0.00%	0.00%	61.90%	38.10%	0.00%	24.84%	75.16%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	12	1926	205	0	0	255	175	0	50	116	0	0	2739
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.600	0.931	0.932	0.000	0.000	0.828	0.729	0.000	0.781	0.784	0.000	0.000	0.955
						0.937				0.785				0.783			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	294	109	0	0	62	5	0	5	52	0	0	531
4:15 PM	0	0	0	0	12	290	95	0	0	75	6	0	6	66	0	0	550
4:30 PM	0	0	0	0	12	289	96	0	0	53	11	0	8	53	0	0	522
4:45 PM	0	0	0	0	11	310	70	0	0	81	6	0	6	73	0	0	557
5:00 PM	0	0	0	0	13	294	85	0	0	84	16	0	12	59	0	0	563
5:15 PM	0	0	0	0	6	281	87	0	0	70	8	0	6	43	0	0	501
5:30 PM	0	0	0	0	16	299	93	0	0	71	6	0	6	57	0	0	548
5:45 PM	0	0	0	0	5	286	80	0	0	66	18	0	3	56	0	0	514
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	79	2343	715	0	0	562	76	0	52	459	0	0	4286
APPROACH %'s :					2.52%	74.69%	22.79%	0.00%	0.00%	88.09%	11.91%	0.00%	10.18%	89.82%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	48	1183	346	0	0	293	39	0	32	251	0	0	2192
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.923	0.954	0.901	0.000	0.000	0.872	0.609	0.000	0.667	0.860	0.000	0.000	0.973
						0.993				0.830				0.896			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-001
Date: 10/22/2019

HT

NS/EW Streets:	Abbott Ave				Abbott Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	5	2	0	0	3	3	0	0	4	0	0	17
7:15 AM	0	0	0	0	0	4	6	0	0	5	3	0	0	1	0	0	19
7:30 AM	0	0	0	0	0	8	4	0	0	2	2	0	0	0	0	0	16
7:45 AM	0	0	0	0	0	9	3	0	0	3	5	0	0	4	0	0	24
8:00 AM	0	0	0	0	0	9	4	0	0	3	1	0	0	0	0	0	17
8:15 AM	0	0	0	0	0	7	5	0	0	1	7	0	0	0	0	0	20
8:30 AM	0	0	0	0	0	10	3	0	0	6	3	0	0	0	0	0	22
8:45 AM	0	0	0	0	1	11	1	0	0	4	3	0	0	2	0	0	22
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	63	28	0	0	27	27	0	0	11	0	0	157
APPROACH %'s :					1.09%	68.48%	30.43%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	35	15	0	0	13	16	0	0	4	0	0	83
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.875	0.750	0.000	0.000	0.542	0.571	0.000	0.000	0.250	0.000	0.000	0.865
						0.962				0.806				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	7	4	0	0	2	2	0	0	2	0	0	17
4:15 PM	0	0	0	0	0	8	6	0	0	2	2	0	1	1	0	0	20
4:30 PM	0	0	0	0	0	6	2	0	0	1	2	0	0	1	0	0	12
4:45 PM	0	0	0	0	0	9	6	0	0	1	4	0	0	1	0	0	21
5:00 PM	0	0	0	0	0	5	4	0	0	1	1	0	0	0	0	0	11
5:15 PM	0	0	0	0	0	3	4	0	0	2	3	0	0	0	0	0	12
5:30 PM	0	0	0	0	0	5	4	0	0	0	2	0	0	0	0	0	11
5:45 PM	0	0	0	0	0	4	2	0	0	1	2	0	0	1	0	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	47	32	0	0	10	18	0	1	6	0	0	114
APPROACH %'s :					0.00%	59.49%	40.51%	0.00%	0.00%	35.71%	64.29%	0.00%	14.29%	85.71%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	28	18	0	0	5	9	0	1	3	0	0	64
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.778	0.750	0.000	0.000	0.625	0.563	0.000	0.250	0.750	0.000	0.000	0.762
						0.767				0.700				0.500			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-001
Date: 10/22/2019

Bikes

NS/EW Streets:	Abbott Ave				Abbott Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
8:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
8:45 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	1	3	0	0	9	2	0	0	5	0	0	21
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	25.00%	75.00%	0.00%	0.00%	81.82%	18.18%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**07:45 AM - 08:45 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	1	2	0	0	4	2	0	0	4	0	0	13
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.500	0.500	0.000	0.000	0.333	0.000	0.000	0.650
					0.250				0.750				0.333				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	3
4:30 PM	1	0	0	0	0	0	0	0	0	3	1	0	0	5	1	0	11
4:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	6
5:15 PM	0	1	0	0	0	0	0	0	0	2	1	0	0	2	0	0	6
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	3	0	0	0	12	2	0	1	20	1	0	41
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	85.71%	14.29%	0.00%	4.55%	90.91%	4.55%	0.00%	
PEAK HR :	**04:15 PM - 05:15 PM**																TOTAL
PEAK HR VOL :	1	0	0	0	0	1	0	0	0	7	1	0	1	12	1	0	24
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.583	0.250	0.000	0.250	0.600	0.250	0.000	0.545
	0.250				0.250				0.500				0.583				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 71st St **Project ID:** 19-03686-001

City: Miami Beach **Date:** 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Abbott Ave		Abbott Ave		71st St		71st St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	1	3	0	0	1	0	1	8
7:15 AM	5	0	3	2	1	0	1	0	12
7:30 AM	1	1	4	7	0	0	7	0	20
7:45 AM	6	1	2	0	0	1	1	1	12
8:00 AM	2	4	4	1	2	1	0	1	15
8:15 AM	8	2	5	2	1	0	3	0	21
8:30 AM	2	4	7	4	1	2	2	4	26
8:45 AM	2	2	7	2	0	0	3	3	19
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	28	15	35	18	5	5	17	10	133
APPROACH %'s :	65.12%	34.88%	66.04%	33.96%	50.00%	50.00%	62.96%	37.04%	
PEAK HR :	**07:45 AM - 08:45 AM**								TOTAL
PEAK HR VOL :	18	11	18	7	4	4	6	6	74
PEAK HR FACTOR :	0.563	0.688	0.643	0.438	0.500	0.500	0.500	0.375	0.712
	0.725		0.568		0.667		0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	4	1	1	5	0	1	4	1	17
4:15 PM	3	4	6	10	0	0	1	3	27
4:30 PM	2	5	4	7	6	2	4	2	32
4:45 PM	3	7	6	11	0	2	4	3	36
5:00 PM	2	8	9	6	1	1	2	4	33
5:15 PM	2	4	6	11	1	2	0	9	35
5:30 PM	1	6	3	2	2	1	1	2	18
5:45 PM	0	10	6	15	7	0	6	5	49
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	17	45	41	67	17	9	22	29	247
APPROACH %'s :	27.42%	72.58%	37.96%	62.04%	65.38%	34.62%	43.14%	56.86%	
PEAK HR :	**04:15 PM - 05:15 PM**								TOTAL
PEAK HR VOL :	10	24	25	34	7	5	11	12	128
PEAK HR FACTOR :	0.833	0.750	0.694	0.773	0.292	0.625	0.688	0.750	0.889
	0.850		0.868		0.375		0.821		

Prepared by National Data & Surveying Services

Abbott Ave & 71st St

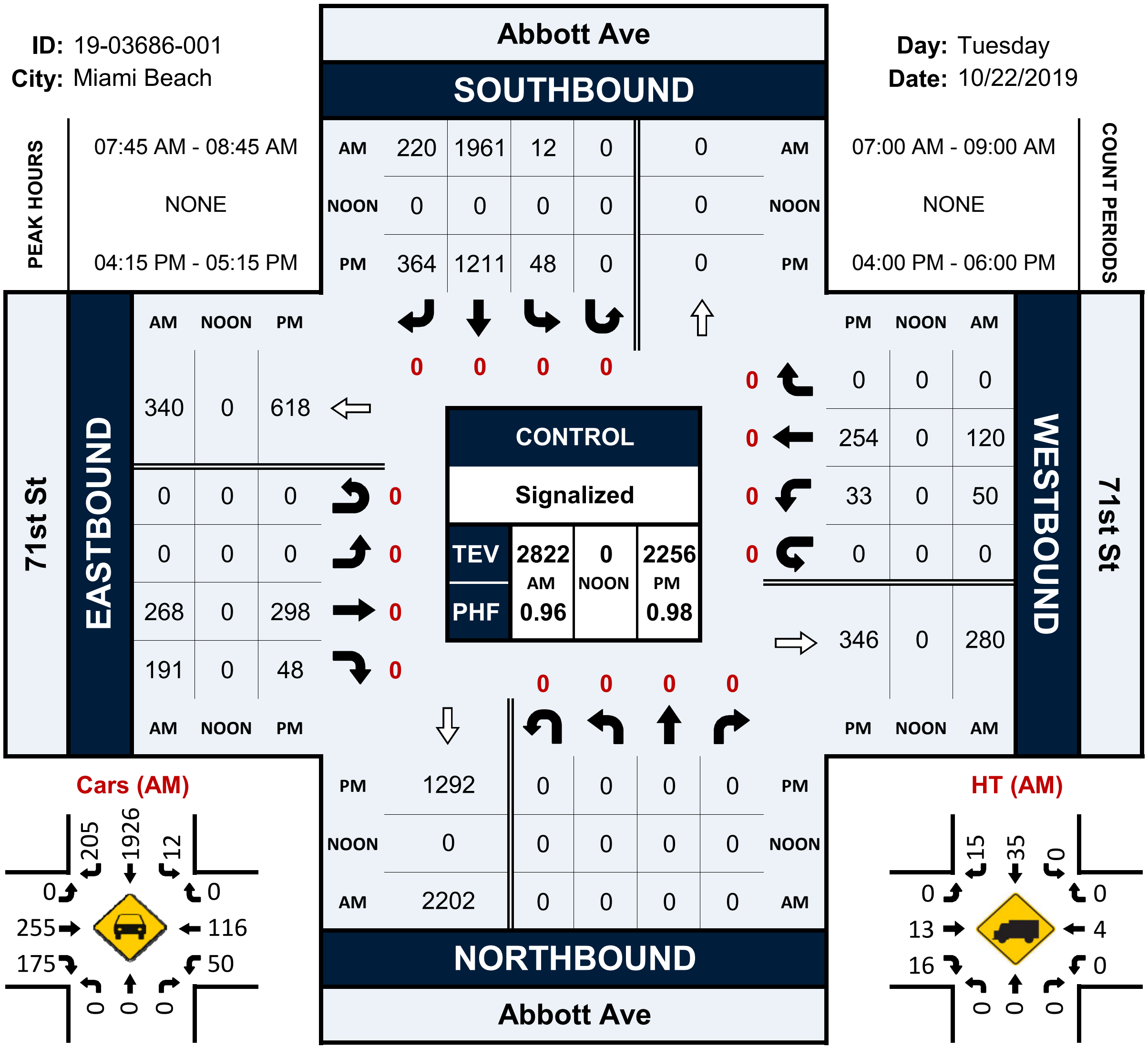
Peak Hour Turning Movement Count

ID: 19-03686-001
City: Miami Beach

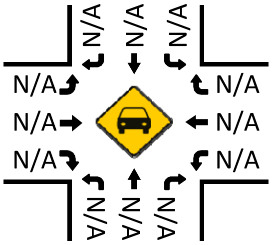
Day: Tuesday
Date: 10/22/2019

PEAK HOURS	
AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:15 PM - 05:15 PM

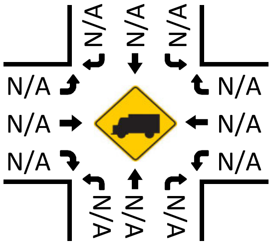
COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM



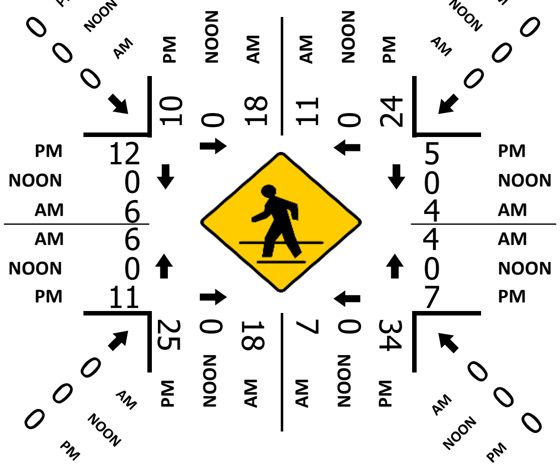
Cars (NOON)



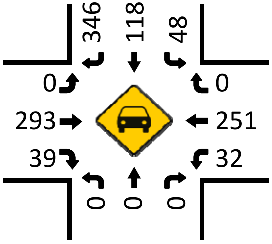
HT (NOON)



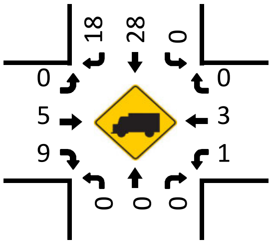
Pedestrians (Crosswalks)



Cars (PM)



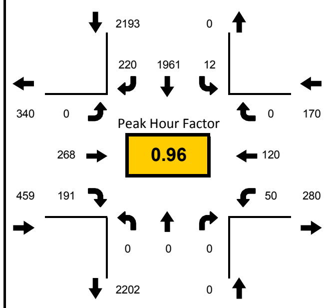
HT (PM)

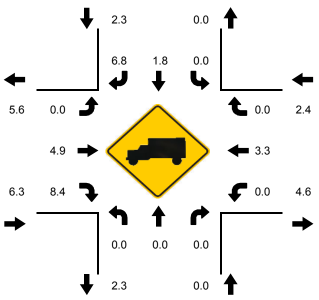


LOCATION: Abbott Ave & 71st St
CITY/STATE: Miami Beach, FL

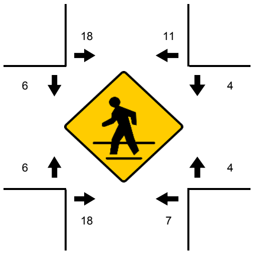
PROJECT ID: 19-03686-001
DATE: 10/22/2019

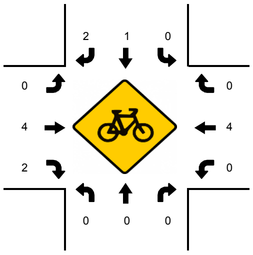
Peak-Hour: 07:45 AM - 08:45 AM
Peak 15-Minute: 08:00 AM - 08:15 AM

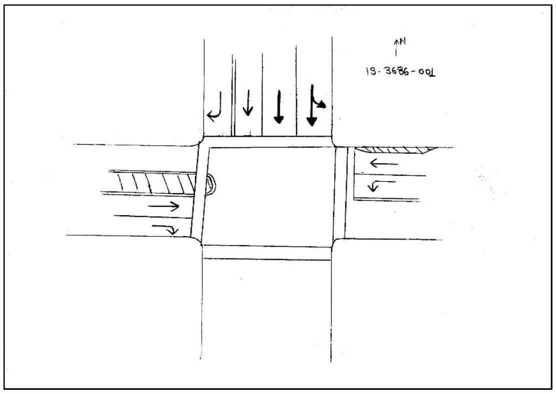


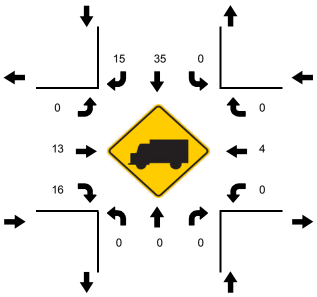


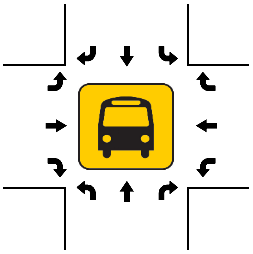
National Data & Surveying Services









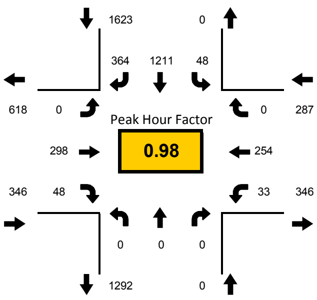


15-Min Count Period Beginning At	Abbott Ave Northbound					Abbott Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	0	0		3	338	44	0		0	44	14	0		6	28	0	0		477	2476
07:15 AM	0	0	0	0		3	424	69	0		0	49	17	0		10	28	0	0		600	2733
07:30 AM	0	0	0	0		6	496	60	0		0	81	25	0		4	27	0	0		699	2814
07:45 AM	0	0	0	0		5	526	53	0		0	50	24	0		9	33	0	0		700	2822
08:00 AM	0	0	0	0		3	504	56	0		0	73	59	0		13	26	0	0		734	2799
08:15 AM	0	0	0	0		3	482	53	0		0	62	45	0		12	24	0	0		681	2065
08:30 AM	0	0	0	0		1	449	58	0		0	83	63	0		16	37	0	0		707	1384
08:45 AM	0	0	0	0		4	411	51	0		0	74	81	0		9	47	0	0		677	677

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		20	2104	232	0		0	332	252	0		64	148	0	0		**3152**
Heavy Trucks	0	0	0			0	40	20			0	24	28			0	16	0			**128**
Pedestrians		44					40					24					12				**120**
Bicycles	0	0	0			0	4	8			0	8	4			0	12	0			**36**
Railroad																					
Stopped Buses																					

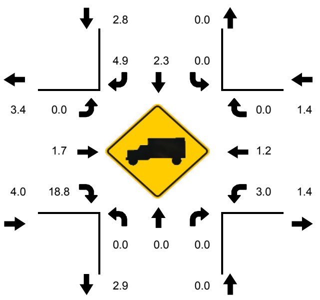
LOCATION: Abbott Ave & 71st St
CITY/STATE: Miami Beach, FL

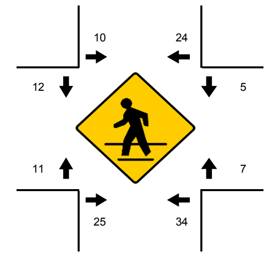
PROJECT ID: 19-03686-001
DATE: 10/22/2019

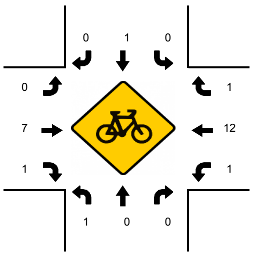


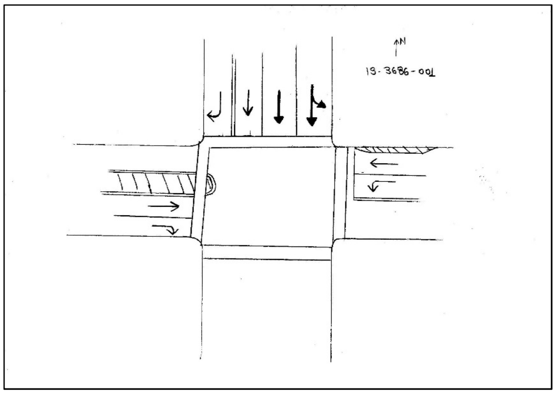
Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:45 PM - 05:00 PM

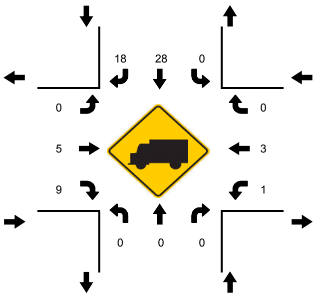
National Data & Surveying Services

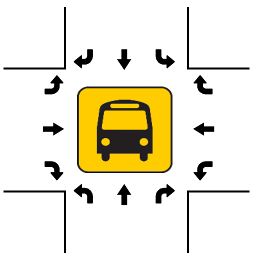












15-Min Count Period Beginning At	Abbott Ave Northbound					Abbott Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		4	301	113	0		0	64	7	0		5	54	0	0		548	2230
04:15 PM	0	0	0	0		12	298	101	0		0	77	8	0		7	67	0	0		570	2256
04:30 PM	0	0	0	0		12	295	98	0		0	54	13	0		8	54	0	0		534	2199
04:45 PM	0	0	0	0		11	319	76	0		0	82	10	0		6	74	0	0		578	2224
05:00 PM	0	0	0	0		13	299	89	0		0	85	17	0		12	59	0	0		574	2170
05:15 PM	0	0	0	0		6	284	91	0		0	72	11	0		6	43	0	0		513	1596
05:30 PM	0	0	0	0		16	304	97	0		0	71	8	0		6	57	0	0		559	1083
05:45 PM	0	0	0	0		5	290	82	0		0	67	20	0		3	57	0	0		524	524

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		52	1276	404	0		0	340	68	0		48	296	0	0		**2484**
Heavy Trucks	0	0	0			0	36	24			0	8	16			4	4	0			**92**
Pedestrians		68					40					28					32				**168**
Bicycles	4	0	0			0	4	0			0	12	4			4	20	4			**52**
Railroad																					
Stopped Buses																					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 72nd St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-002
Date: 10/22/2019

Total

NS/EW Streets:	Abbott Ave				Abbott Ave				72nd St				72nd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	1	398	3	0	0	15	10	0	5	3	0	0	435
7:15 AM	0	0	0	0	2	498	13	0	0	16	11	0	5	6	0	0	551
7:30 AM	0	0	0	0	10	541	16	0	0	22	14	0	6	4	0	0	613
7:45 AM	0	0	0	0	6	573	16	0	0	35	15	0	4	7	0	0	656
8:00 AM	0	0	0	0	10	528	24	0	0	38	22	0	7	7	0	0	636
8:15 AM	0	0	0	0	7	520	25	0	0	40	24	0	4	10	0	0	630
8:30 AM	0	0	0	0	14	448	20	0	0	43	29	0	7	13	0	0	574
8:45 AM	0	0	0	0	8	433	12	0	0	29	27	0	5	13	0	0	527
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	58	3939	129	0	0	238	152	0	43	63	0	0	4622
APPROACH %'s :					1.41%	95.47%	3.13%	0.00%	0.00%	61.03%	38.97%	0.00%	40.57%	59.43%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	33	2162	81	0	0	135	75	0	21	28	0	0	2535
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.825	0.943	0.810	0.000	0.000	0.844	0.781	0.000	0.750	0.700	0.000	0.000	0.966
					0.956				0.820				0.875				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	10	397	18	0	0	29	15	0	5	23	0	0	497
4:15 PM	0	0	0	0	9	394	36	0	0	19	10	0	6	31	0	0	505
4:30 PM	0	0	0	0	7	401	33	0	0	15	8	0	12	28	0	0	504
4:45 PM	0	0	0	0	7	380	31	0	0	21	12	0	12	39	0	0	502
5:00 PM	0	0	0	0	7	379	27	0	0	30	7	0	8	42	0	0	500
5:15 PM	0	0	0	0	6	371	25	0	0	23	9	0	9	40	0	0	483
5:30 PM	0	0	0	0	3	384	27	0	0	24	14	0	7	28	0	0	487
5:45 PM	0	0	0	0	9	363	27	0	0	29	10	0	9	34	0	0	481
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	58	3069	224	0	0	190	85	0	68	265	0	0	3959
APPROACH %'s :					1.73%	91.58%	6.68%	0.00%	0.00%	69.09%	30.91%	0.00%	20.42%	79.58%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	30	1554	127	0	0	85	37	0	38	140	0	0	2011
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.833	0.969	0.882	0.000	0.000	0.708	0.771	0.000	0.792	0.833	0.000	0.000	0.996
					0.970				0.824				0.873				

AM		**PM**
0	NBU	0
0	NBL	0
0	NBT	0
0	NBR	0
0	SBU	0
33	SBL	30
2162	SBT	1554
81	SBR	127
0	EBL	0
135	EBT	85
75	EBR	37
21	WBL	38
28	WBT	140
0	WBR	0
2535		**2011**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 72nd St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-002
Date: 10/22/2019

Cars

NS/EW Streets:	Abbott Ave				Abbott Ave				72nd St				72nd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	1	390	3	0	0	14	10	0	5	3	0	0	426
7:15 AM	0	0	0	0	2	489	13	0	0	16	10	0	5	6	0	0	541
7:30 AM	0	0	0	0	10	529	15	0	0	22	14	0	6	4	0	0	600
7:45 AM	0	0	0	0	6	561	16	0	0	35	15	0	4	7	0	0	644
8:00 AM	0	0	0	0	10	514	24	0	0	38	22	0	7	6	0	0	621
8:15 AM	0	0	0	0	7	510	24	0	0	38	24	0	4	10	0	0	617
8:30 AM	0	0	0	0	14	438	20	0	0	43	26	0	6	12	0	0	559
8:45 AM	0	0	0	0	8	419	12	0	0	29	27	0	5	13	0	0	513
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	58	3850	127	0	0	235	148	0	42	61	0	0	4521
APPROACH %'s :					1.44%	95.42%	3.15%	0.00%	0.00%	61.36%	38.64%	0.00%	40.78%	59.22%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	33	2114	79	0	0	133	75	0	21	27	0	0	2482
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.825	0.942	0.823	0.000	0.000	0.875	0.781	0.000	0.750	0.675	0.000	0.000	0.964
						0.955				0.839				0.857			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	10	386	18	0	0	29	15	0	5	23	0	0	486
4:15 PM	0	0	0	0	9	380	35	0	0	19	10	0	6	30	0	0	489
4:30 PM	0	0	0	0	7	393	33	0	0	15	8	0	11	28	0	0	495
4:45 PM	0	0	0	0	7	366	31	0	0	21	12	0	12	39	0	0	488
5:00 PM	0	0	0	0	7	370	27	0	0	30	6	0	8	42	0	0	490
5:15 PM	0	0	0	0	6	364	25	0	0	23	9	0	9	40	0	0	476
5:30 PM	0	0	0	0	3	376	27	0	0	24	14	0	7	28	0	0	479
5:45 PM	0	0	0	0	9	357	26	0	0	29	10	0	9	34	0	0	474
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	58	2992	222	0	0	190	84	0	67	264	0	0	3877
APPROACH %'s :					1.77%	91.44%	6.78%	0.00%	0.00%	69.34%	30.66%	0.00%	20.24%	79.76%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	30	1509	126	0	0	85	36	0	37	139	0	0	1962
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.833	0.960	0.900	0.000	0.000	0.708	0.750	0.000	0.771	0.827	0.000	0.000	0.991
						0.961				0.840				0.863			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 72nd St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-002
Date: 10/22/2019

HT

NS/EW Streets:	Abbott Ave				Abbott Ave				72nd St				72nd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	8	0	0	0	1	0	0	0	0	0	0	9
7:15 AM	0	0	0	0	0	9	0	0	0	0	1	0	0	0	0	0	10
7:30 AM	0	0	0	0	0	12	1	0	0	0	0	0	0	0	0	0	13
7:45 AM	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12
8:00 AM	0	0	0	0	0	14	0	0	0	0	0	0	0	1	0	0	15
8:15 AM	0	0	0	0	0	10	1	0	0	2	0	0	0	0	0	0	13
8:30 AM	0	0	0	0	0	10	0	0	0	0	3	0	1	1	0	0	15
8:45 AM	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	89	2	0	0	3	4	0	1	2	0	0	101
APPROACH %'s :					0.00%	97.80%	2.20%	0.00%	0.00%	42.86%	57.14%	0.00%	33.33%	66.67%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	48	2	0	0	2	0	0	0	1	0	0	53
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.857	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.883
					0.893				0.250				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
4:15 PM	0	0	0	0	0	14	1	0	0	0	0	0	0	1	0	0	16
4:30 PM	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	0	9
4:45 PM	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	0	0	0	0	0	9	0	0	0	0	1	0	0	0	0	0	10
5:15 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	77	2	0	0	0	1	0	1	1	0	0	82
APPROACH %'s :					0.00%	97.47%	2.53%	0.00%	0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	45	1	0	0	0	1	0	1	1	0	0	49
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.804	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.766
					0.767				0.250				0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 72nd St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-002
Date: 10/22/2019

Bikes

NS/EW Streets:	Abbott Ave				Abbott Ave				72nd St				72nd St				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
8:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	3
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	2	2	0	0	2	0	0	4	4	0	0	16
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	1	0	0	2	0	0	0	2	0	0	1	1	0	0	7
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.250	0.000	0.000	
	0.250				0.500				0.500				0.500				0.583

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	4
5:15 PM	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0	5
5:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	4	0	0	7
5:45 PM	0	0	0	0	0	3	0	0	0	2	0	0	0	1	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	1	0	0	0	6	1	0	1	7	1	0	0	8	0	0	27
APPROACH %'s :	66.67%	33.33%	0.00%	0.00%	0.00%	85.71%	14.29%	0.00%	11.11%	77.78%	11.11%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	0	0	0	0	1	1	0	0	2	1	0	0	2	0	0	8
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.500	0.250	0.000	0.000	0.500	0.000	0.000	
	0.250				0.500				0.375				0.500				0.500

National Data & Surveying Services

Intersection Turning Movement Count

Location: Abbott Ave & 72nd St
Project ID: 19-03686-002
City: Miami Beach
Date: 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Abbott Ave		Abbott Ave		72nd St		72nd St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	4	1	5	2	0	0	3	3	18
7:15 AM	3	2	1	4	1	0	1	0	12
7:30 AM	0	5	7	1	1	0	4	3	21
7:45 AM	1	2	4	4	0	1	0	2	14
8:00 AM	2	5	2	2	0	2	1	2	16
8:15 AM	0	5	0	1	0	0	0	0	6
8:30 AM	5	10	7	8	1	3	2	5	41
8:45 AM	3	5	2	6	1	3	0	0	20
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	18	35	28	28	4	9	11	15	148
APPROACH %'s :	33.96%	66.04%	50.00%	50.00%	30.77%	69.23%	42.31%	57.69%	
PEAK HR :	**07:30 AM - 08:30 AM**								TOTAL
PEAK HR VOL :	3	17	13	8	1	3	5	7	57
PEAK HR FACTOR :	0.375	0.850	0.464	0.500	0.250	0.375	0.313	0.583	0.679
	0.714		0.656		0.500		0.429		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	8	5	4	6	1	0	2	5	31
4:15 PM	0	5	2	6	0	0	2	5	20
4:30 PM	6	9	0	2	5	2	1	6	31
4:45 PM	6	3	7	2	1	3	3	8	33
5:00 PM	4	7	3	0	1	2	3	4	24
5:15 PM	8	6	4	4	0	0	8	7	37
5:30 PM	7	3	5	8	0	3	1	4	31
5:45 PM	0	11	2	5	3	1	7	4	33
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	39	49	27	33	11	11	27	43	240
APPROACH %'s :	44.32%	55.68%	45.00%	55.00%	50.00%	50.00%	38.57%	61.43%	
PEAK HR :	**04:15 PM - 05:15 PM**								TOTAL
PEAK HR VOL :	16	24	12	10	7	7	9	23	108
PEAK HR FACTOR :	0.667	0.667	0.429	0.417	0.350	0.583	0.750	0.719	0.818
	0.667		0.611		0.500		0.727		

Prepared by National Data & Surveying Services

Abbott Ave & 72nd St

Peak Hour Turning Movement Count

ID: 19-03686-002
City: Miami Beach

Day: Tuesday
Date: 10/22/2019

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:15 PM - 05:15 PM	04:00 PM - 06:00 PM

Abbott Ave
SOUTHBOUND

	↲	↓	↳	U	⇧
AM	81	2162	33	0	0
NOON	0	0	0	0	0
PM	127	1554	30	0	0
	0	0	0	0	

72nd St
EASTBOUND

	AM	NOON	PM	
⇦	109	0	267	
U	0	0	0	0
↱	0	0	0	0
→	135	0	85	0
↴	75	0	37	0

72nd St
WESTBOUND

		PM	NOON	AM
0	↰	0	0	0
0	←	140	0	28
0	↙	38	0	21
0	U	0	0	0
	⇨	115	0	168

CONTROL

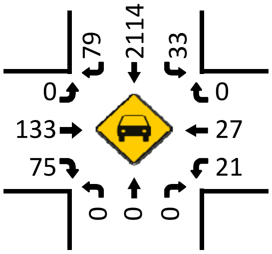
Signalized

	AM	NOON	PM
TEV	2535	0	2011
PHF	0.97		1.00

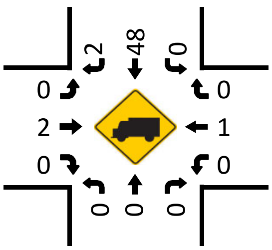
NORTHBOUND
Abbott Ave

	⇩	U	↰	↑	↱
		0	0	0	0
PM	1629	0	0	0	0
NOON	0	0	0	0	0
AM	2258	0	0	0	0

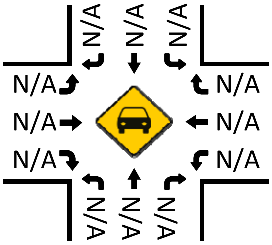
Cars (AM)



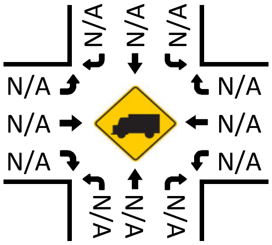
HT (AM)



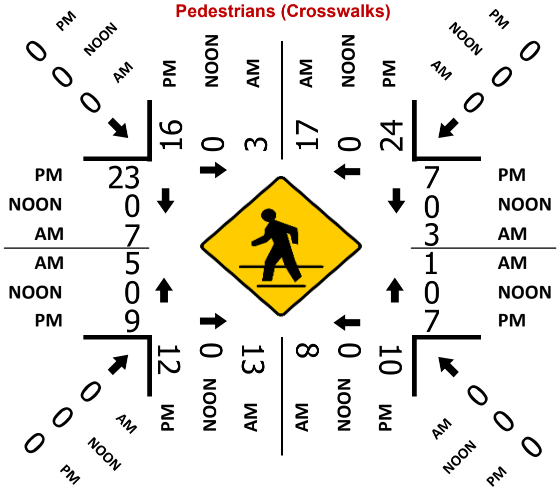
Cars (NOON)



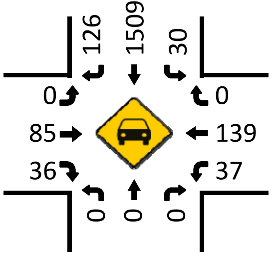
HT (NOON)



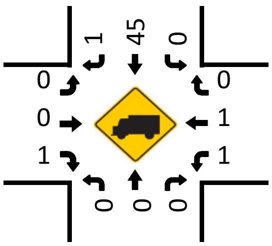
Pedestrians (Crosswalks)



Cars (PM)

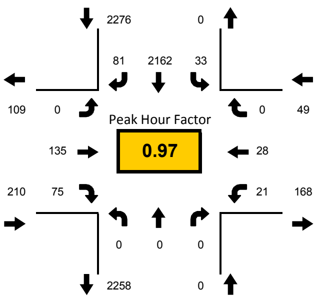


HT (PM)



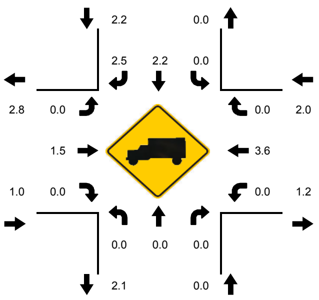
LOCATION: Abbott Ave & 72nd St
CITY/STATE: Miami Beach, FL

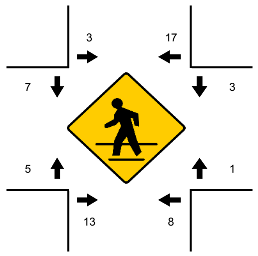
PROJECT ID: 19-03686-002
DATE: 10/22/2019

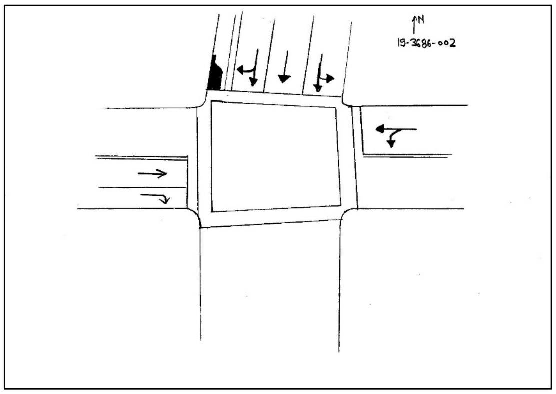


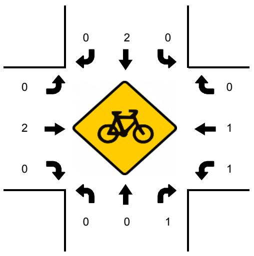
Peak-Hour: 07:30 AM - 08:30 AM
Peak 15-Minute: 07:45 AM - 08:00 AM

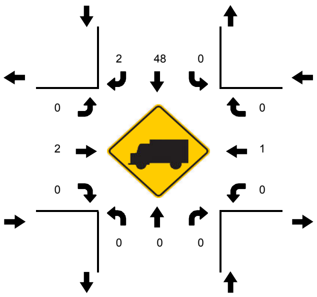
National Data & Surveying Services

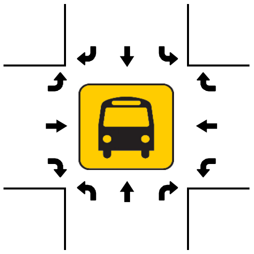








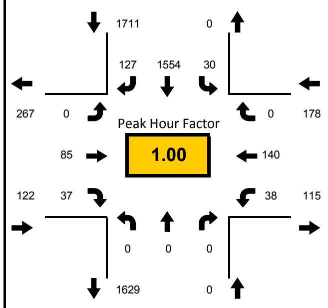




15-Min Count	Abbott Ave					Abbott Ave					72nd St					72nd St						
Period	Northbound					Southbound					Eastbound					Westbound						Hourly
Beginning At	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	Total
07:00 AM	0	0	0	0		1	398	3	0		0	15	10	0		5	3	0	0		435	2255
07:15 AM	0	0	0	0		2	498	13	0		0	16	11	0		5	6	0	0		551	2456
07:30 AM	0	0	0	0		10	541	16	0		0	22	14	0		6	4	0	0		613	2535
07:45 AM	0	0	0	0		6	573	16	0		0	35	15	0		4	7	0	0		656	2496
08:00 AM	0	0	0	0		10	528	24	0		0	38	22	0		7	7	0	0		636	2367
08:15 AM	0	0	0	0		7	520	25	0		0	40	24	0		4	10	0	0		630	1731
08:30 AM	0	0	0	0		14	448	20	0		0	43	29	0		7	13	0	0		574	1101
08:45 AM	0	0	0	0		8	433	12	0		0	29	27	0		5	13	0	0		527	527
Peak 15-Min	Northbound					Southbound					Eastbound					Westbound						
Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	0	0	0	0		40	2292	100	0		0	160	96	0		28	40	0	0		**2756**	
Heavy Trucks	0	0	0			0	56	4			0	8	0			0	4	0			**72**	
Pedestrians		32					28					28					8				**96**	
Bicycles	0	0	4			0	4	0			0	4	0			4	4	0			**20**	
Railroad																						
Stopped Buses																						

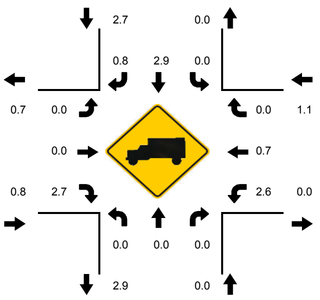
LOCATION: Abbott Ave & 72nd St
CITY/STATE: Miami Beach, FL

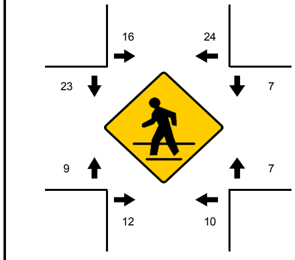
PROJECT ID: 19-03686-002
DATE: 10/22/2019

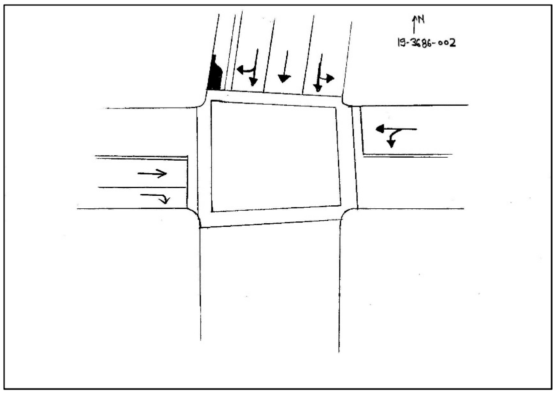


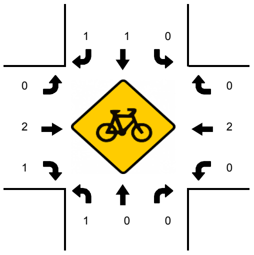
Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:15 PM - 04:30 PM

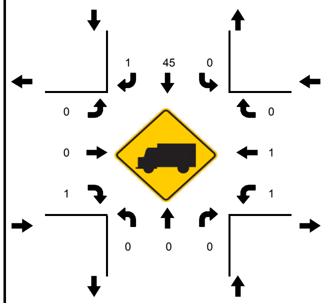
National Data & Surveying Services

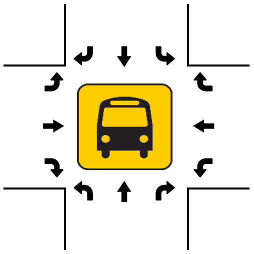












15-Min Count Period Beginning At	Abbott Ave Northbound					Abbott Ave Southbound					72nd St Eastbound					72nd St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		10	397	18	0		0	29	15	0		5	23	0	0		497	2008
04:15 PM	0	0	0	0		9	394	36	0		0	19	10	0		6	31	0	0		505	2011
04:30 PM	0	0	0	0		7	401	33	0		0	15	8	0		12	28	0	0		504	1989
04:45 PM	0	0	0	0		7	380	31	0		0	21	12	0		12	39	0	0		502	1972
05:00 PM	0	0	0	0		7	379	27	0		0	30	7	0		8	42	0	0		500	1951
05:15 PM	0	0	0	0		6	371	25	0		0	23	9	0		9	40	0	0		483	1451
05:30 PM	0	0	0	0		3	384	27	0		0	24	14	0		7	28	0	0		487	968
05:45 PM	0	0	0	0		9	363	27	0		0	29	10	0		9	34	0	0		481	481

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		36	1604	144	0		0	120	48	0		48	168	0	0		**2168**
Heavy Trucks	0	0	0			0	56	4			0	0	4			4	4	0			**72**
Pedestrians		36					60					44					28				**168**
Bicycles	4	0	0			0	4	4			0	4	4			0	4	0			**24**
Railroad																					
Stopped Buses																					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Byron Ave & 71st St
City: Miami Beach
Control: 2-Way Stop (NB/SB)

Project ID: 19-03686-003
Date: 10/22/2019

Total

NS/EW Streets:	Byron Ave				Byron Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	2	0	0	0	2	1	0	8	58	3	0	3	74	0	0	152
7:15 AM	4	3	0	0	3	5	5	0	9	65	3	0	2	95	0	1	195
7:30 AM	4	3	0	0	4	7	3	0	14	100	5	0	0	79	0	0	219
7:45 AM	2	4	1	0	3	3	0	0	32	69	6	0	3	76	2	0	201
8:00 AM	1	4	2	0	1	5	7	0	35	127	11	0	1	77	6	0	277
8:15 AM	2	1	1	0	0	7	7	0	35	113	26	0	4	75	2	0	273
8:30 AM	2	5	2	0	4	6	9	1	32	137	34	0	4	89	3	0	328
8:45 AM	3	2	5	0	1	6	8	0	22	151	30	0	4	94	2	0	328
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	24	11	0	16	41	40	1	187	820	118	0	21	659	15	1	1973
APPROACH %'s :	35.19%	44.44%	20.37%	0.00%	16.33%	41.84%	40.82%	1.02%	16.62%	72.89%	10.49%	0.00%	3.02%	94.68%	2.16%	0.14%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	8	12	10	0	6	24	31	1	124	528	101	0	13	335	13	0	1206
PEAK HR FACTOR :	0.667	0.600	0.500	0.000	0.375	0.857	0.861	0.250	0.886	0.874	0.743	0.000	0.813	0.891	0.542	0.000	0.919
	0.750				0.775				0.927				0.903				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	5	2	1	0	0	2	9	0	26	74	4	0	3	164	1	0	291
4:15 PM	5	10	4	0	0	0	5	0	24	80	5	0	3	162	3	0	301
4:30 PM	16	10	3	0	0	0	10	0	28	65	7	0	1	151	5	0	296
4:45 PM	13	7	3	0	1	1	12	0	45	93	2	0	1	137	6	0	321
5:00 PM	7	9	3	0	2	3	11	0	44	93	8	0	3	141	5	0	329
5:15 PM	6	8	4	0	0	2	8	0	56	86	2	0	8	136	3	0	319
5:30 PM	4	7	2	0	1	1	5	0	25	65	3	0	4	143	6	0	266
5:45 PM	3	9	6	0	4	0	6	0	47	87	4	0	4	138	4	0	312
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	62	26	0	8	9	66	0	295	643	35	0	27	1172	33	0	2435
APPROACH %'s :	40.14%	42.18%	17.69%	0.00%	9.64%	10.84%	79.52%	0.00%	30.32%	66.08%	3.60%	0.00%	2.19%	95.13%	2.68%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	42	34	13	0	3	6	41	0	173	337	19	0	13	565	19	0	1265
PEAK HR FACTOR :	0.656	0.850	0.813	0.000	0.375	0.500	0.854	0.000	0.772	0.906	0.594	0.000	0.406	0.935	0.792	0.000	0.961
	0.767				0.781				0.912				0.951				

AM		**PM**
0	NBU	0
8	NBL	42
12	NBT	34
10	NBR	13
1	SBU	0
6	SBL	3
24	SBT	6
31	SBR	41
124	EBL	173
528	EBT	337
101	EBR	19
13	WBL	13
335	WBT	565
13	WBR	19
1206		**1265**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Byron Ave & 71st St
City: Miami Beach
Control: 2-Way Stop (NB/SB)

Project ID: 19-03686-003
Date: 10/22/2019

Cars

NS/EW Streets:	Byron Ave				Byron Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	2	0	0	0	2	1	0	7	50	3	0	3	67	0	0	136
7:15 AM	4	3	0	0	3	5	5	0	9	58	3	0	2	89	0	1	182
7:30 AM	4	2	0	0	4	7	3	0	14	96	5	0	0	75	0	0	210
7:45 AM	2	4	1	0	3	3	0	0	32	63	6	0	2	70	2	0	188
8:00 AM	1	4	2	0	1	5	7	0	34	123	11	0	1	73	6	0	268
8:15 AM	2	1	1	0	0	7	7	0	35	104	26	0	4	71	1	0	259
8:30 AM	2	5	2	0	4	6	9	1	31	128	34	0	3	87	3	0	315
8:45 AM	3	2	5	0	1	6	8	0	22	144	30	0	4	91	2	0	318
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	23	11	0	16	41	40	1	184	766	118	0	19	623	14	1	1876
APPROACH %'s :	35.85%	43.40%	20.75%	0.00%	16.33%	41.84%	40.82%	1.02%	17.23%	71.72%	11.05%	0.00%	2.89%	94.82%	2.13%	0.15%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	8	12	10	0	6	24	31	1	122	499	101	0	12	322	12	0	1160
PEAK HR FACTOR :	0.67	0.600	0.500	0.000	0.375	0.857	0.861	0.250	0.871	0.866	0.743	0.000	0.750	0.885	0.500	0.000	0.912
	0.750				0.775				0.921				0.892				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	5	2	1	0	0	2	9	0	26	70	4	0	3	157	1	0	280
4:15 PM	5	10	3	0	0	0	5	0	23	77	5	0	3	156	3	0	290
4:30 PM	16	10	3	0	0	0	10	0	27	62	6	0	1	148	4	0	287
4:45 PM	13	7	3	0	1	1	12	0	45	88	2	0	1	130	6	0	309
5:00 PM	7	9	3	0	2	3	11	0	44	91	8	0	3	138	5	0	324
5:15 PM	6	8	4	0	0	2	8	0	56	81	2	0	8	131	3	0	309
5:30 PM	4	7	2	0	1	1	5	0	25	63	3	0	4	140	6	0	261
5:45 PM	3	8	6	0	4	0	6	0	47	84	4	0	4	135	4	0	305
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	61	25	0	8	9	66	0	293	616	34	0	27	1135	32	0	2365
APPROACH %'s :	40.69%	42.07%	17.24%	0.00%	9.64%	10.84%	79.52%	0.00%	31.07%	65.32%	3.61%	0.00%	2.26%	95.06%	2.68%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	42	34	13	0	3	6	41	0	172	322	18	0	13	547	18	0	1229
PEAK HR FACTOR :	0.66	0.850	0.813	0.000	0.375	0.500	0.854	0.000	0.768	0.885	0.563	0.000	0.406	0.924	0.750	0.000	0.948
	0.767				0.781				0.895				0.944				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Byron Ave & 71st St
City: Miami Beach
Control: 2-Way Stop (NB/SB)

Project ID: 19-03686-003
Date: 10/22/2019

HT

NS/EW Streets:	Byron Ave				Byron Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	1	8	0	0	0	7	0	0	16
7:15 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	0	13
7:30 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	4	0	0	9
7:45 AM	0	0	0	0	0	0	0	0	0	6	0	0	1	6	0	0	13
8:00 AM	0	0	0	0	0	0	0	0	1	4	0	0	0	4	0	0	9
8:15 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	4	1	0	14
8:30 AM	0	0	0	0	0	0	0	0	1	9	0	0	1	2	0	0	13
8:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	3	54	0	0	2	36	1	0	97
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					5.26%	94.74%	0.00%	0.00%	5.13%	92.31%	2.56%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	2	29	0	0	1	13	1	0	46
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.806	0.000	0.000	0.250	0.813	0.250	0.000	0.821
										0.775				0.750			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0	0	11
4:15 PM	0	0	1	0	0	0	0	0	1	3	0	0	0	6	0	0	11
4:30 PM	0	0	0	0	0	0	0	0	1	3	1	0	0	3	1	0	9
4:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0	0	12
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	10
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
5:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	3	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	0	0	0	2	27	1	0	0	37	1	0	70
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%					6.67%	90.00%	3.33%	0.00%	0.00%	97.37%	2.63%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	1	15	1	0	0	18	1	0	36
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.250	0.000	0.000	0.643	0.250	0.000	0.750
										0.850				0.679			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Byron Ave & 71st St
City: Miami Beach
Control: 2-Way Stop (NB/SB)

Project ID: 19-03686-003
Date: 10/22/2019

Bikes

NS/EW Streets:	Byron Ave				Byron Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3
7:15 AM	0	0	1	0	0	0	0	0	0	2	0	0	1	0	0	0	4
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
8:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
8:45 AM	1	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	1	0	0	3	1	0	0	10	1	0	1	8	0	0	28
APPROACH %'s :	25.00%	50.00%	25.00%	0.00%	0.00%	75.00%	25.00%	0.00%	0.00%	90.91%	9.09%	0.00%	11.11%	88.89%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	1	1	0	0	0	2	0	0	0	6	0	0	0	5	0	0	15
PEAK HR FACTOR :	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.625	0.000	0.000	0.625
	0.500				0.250				0.750				0.625				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	4	1	0	0	6	0	0	11
4:45 PM	0	0	0	0	0	0	0	0	1	2	0	0	1	2	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	5	0	0	7
5:15 PM	0	0	0	0	0	1	0	0	0	3	0	0	0	1	1	0	6
5:30 PM	0	1	0	0	0	0	0	0	2	1	1	0	0	4	0	0	9
5:45 PM	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	2	0	0	4	14	3	0	1	19	1	0	46
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	19.05%	66.67%	14.29%	0.00%	4.76%	90.48%	4.76%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	1	10	2	0	1	14	1	0	30
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.625	0.500	0.000	0.250	0.583	0.250	0.000	0.682
					0.250				0.650				0.667				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Byron Ave & 71st St
Project ID: 19-03686-003
City: Miami Beach
Date: 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Byron Ave		Byron Ave		71st St		71st St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	3	1	6	0	0	0	0	1	11
7:15 AM	6	1	6	1	0	0	1	0	15
7:30 AM	7	5	8	3	2	0	4	0	29
7:45 AM	9	5	4	2	0	1	5	0	26
8:00 AM	3	7	8	3	0	0	2	0	23
8:15 AM	7	4	6	5	1	0	5	0	28
8:30 AM	8	3	6	4	0	0	1	2	24
8:45 AM	3	2	5	1	0	1	6	4	22
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	46	28	49	19	3	2	24	7	178
APPROACH %'s :	62.16%	37.84%	72.06%	27.94%	60.00%	40.00%	77.42%	22.58%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	21	16	25	13	1	1	14	6	97
PEAK HR FACTOR :	0.656	0.571	0.781	0.650	0.250	0.250	0.583	0.375	0.866
	0.841		0.864		0.500		0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	5	2	5	4	0	0	0	1	17
4:15 PM	3	6	6	4	1	0	0	0	20
4:30 PM	6	9	5	7	0	0	0	2	29
4:45 PM	7	11	7	6	0	0	1	2	34
5:00 PM	5	6	4	1	2	0	5	2	25
5:15 PM	8	3	5	5	1	0	0	0	22
5:30 PM	2	5	2	2	0	0	1	2	14
5:45 PM	3	13	6	14	0	1	5	0	42
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	39	55	40	43	4	1	12	9	203
APPROACH %'s :	41.49%	58.51%	48.19%	51.81%	80.00%	20.00%	57.14%	42.86%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	26	29	21	19	3	0	6	6	110
PEAK HR FACTOR :	0.813	0.659	0.750	0.679	0.375		0.300	0.750	0.809
	0.764		0.769		0.375		0.429		

Prepared by National Data & Surveying Services

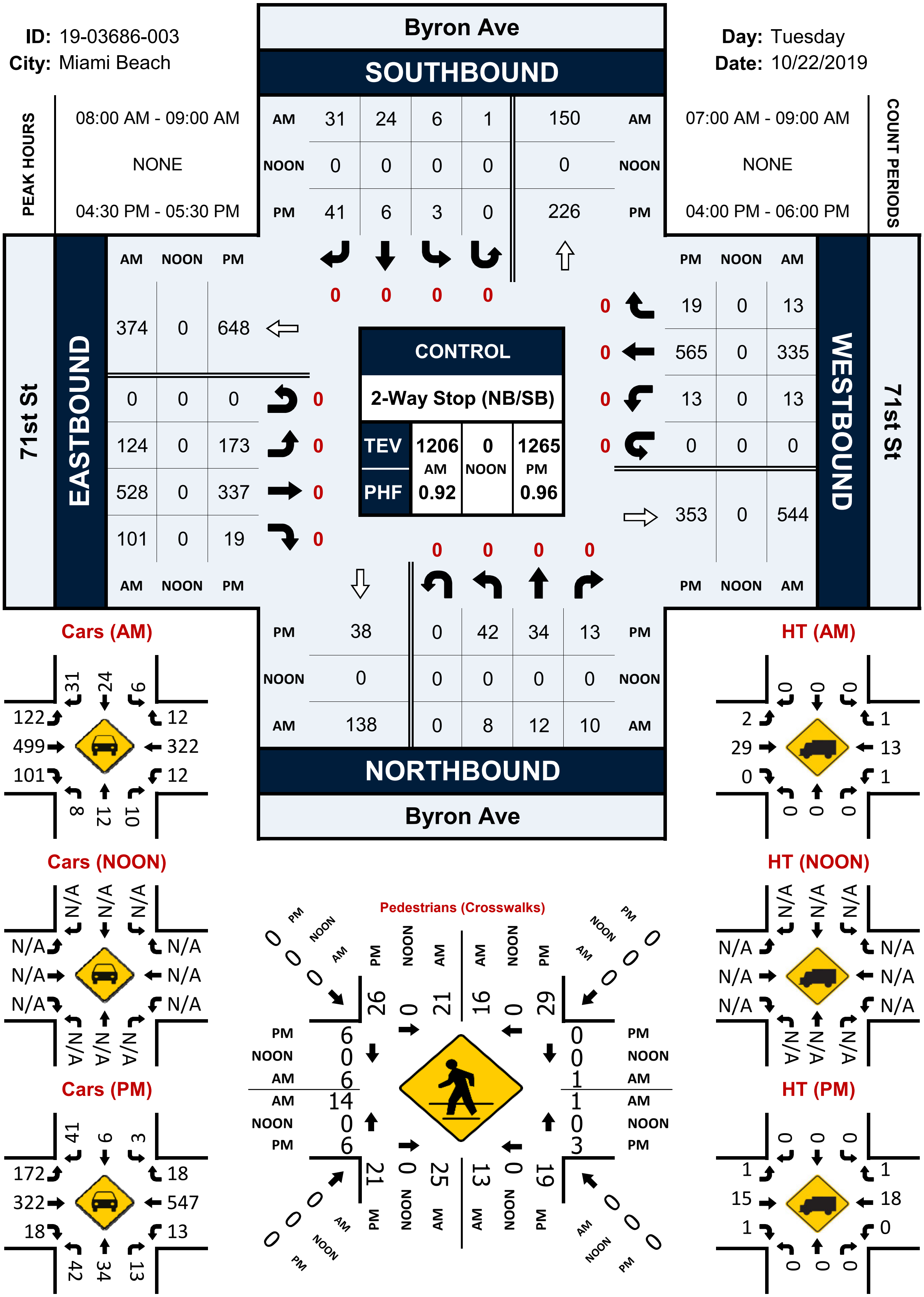
Byron Ave & 71st St

Peak Hour Turning Movement Count

ID: 19-03686-003
City: Miami Beach

Day: Tuesday
Date: 10/22/2019

	PEAK HOURS	COUNT PERIODS
AM	08:00 AM - 09:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM



Byron Ave
SOUTHBOUND

	↲	↓	↳	⤾	⇧
AM	31	24	6	1	150
NOON	0	0	0	0	0
PM	41	6	3	0	226
	0	0	0	0	

71st St
EASTBOUND

	AM	NOON	PM	
⇦	374	0	648	
⤾	0	0	0	0
↱	124	0	173	0
→	528	0	337	0
↴	101	0	19	0

71st St
WESTBOUND

		PM	NOON	AM
0	↰	19	0	13
0	←	565	0	335
0	↲	13	0	13
0	⤾	0	0	0
	⇨	353	0	544

Byron Ave
NORTHBOUND

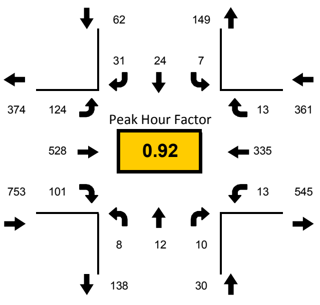
	⇩	⤾	↰	↑	↱
		0	0	0	0
PM	38	0	42	34	13
NOON	0	0	0	0	0
AM	138	0	8	12	10

CONTROL
2-Way Stop (NB/SB)

	AM	NOON	PM
TEV	1206	0	1265
PHF	0.92		0.96

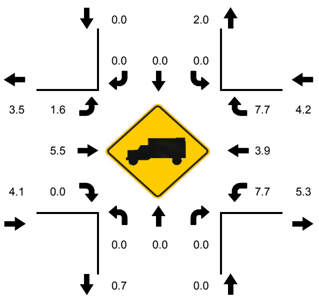
LOCATION: Byron Ave & 71st St
CITY/STATE: Miami Beach, FL

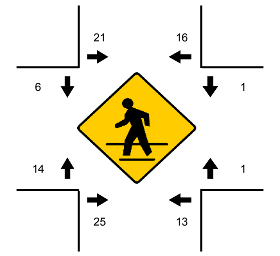
PROJECT ID: 19-03686-003
DATE: 10/22/2019

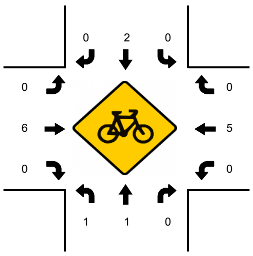


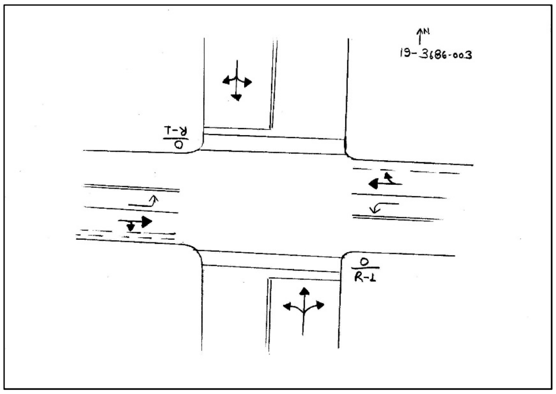
Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:30 AM - 08:45 AM

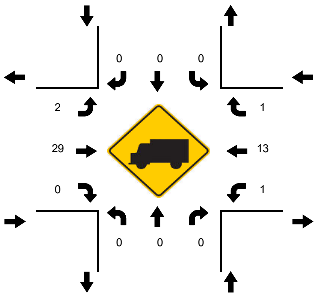
National Data & Surveying Services

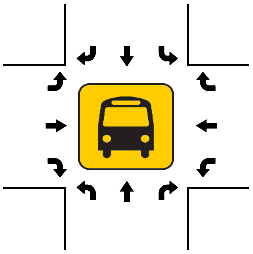










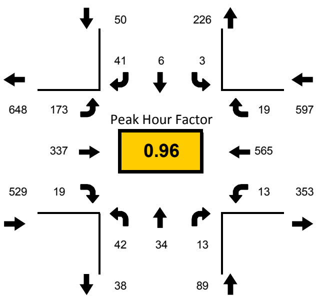


15-Min Count Period Beginning At	Byron Ave Northbound					Byron Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	2	0	0		0	2	1	0		8	58	3	0		3	74	0	0		152	767
07:15 AM	4	3	0	0		3	5	5	0		9	65	3	0		2	95	0	1		195	892
07:30 AM	4	3	0	0		4	7	3	0		14	100	5	0		0	79	0	0		219	970
07:45 AM	2	4	1	0		3	3	0	0		32	69	6	0		3	76	2	0		201	1079
08:00 AM	1	4	2	0		1	5	7	0		35	127	11	0		1	77	6	0		277	1206
08:15 AM	2	1	1	0		0	7	7	0		35	113	26	0		4	75	2	0		273	929
08:30 AM	2	5	2	0		4	6	9	1		32	137	34	0		4	89	3	0		328	656
08:45 AM	3	2	5	0		1	6	8	0		22	151	30	0		4	94	2	0		328	328

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	12	20	20	0		16	28	36	4		140	604	136	0		16	376	24	0		**1432**
Heavy Trucks	0	0	0			0	0	0			4	36	0			4	16	4			**64**
Pedestrians		44					44					40					4				**132**
Bicycles	4	4	0			0	8	0			0	8	0			0	8	0			**32**
Railroad																					
Stopped Buses																					

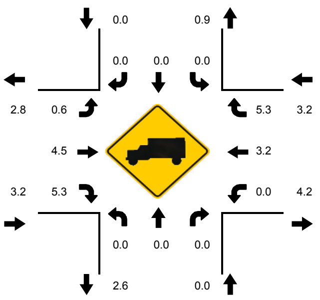
LOCATION: Byron Ave & 71st St
CITY/STATE: Miami Beach, FL

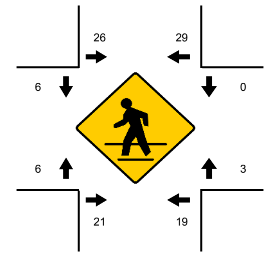
PROJECT ID: 19-03686-003
DATE: 10/22/2019

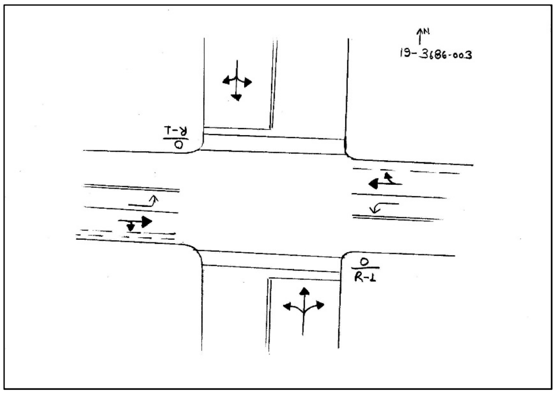


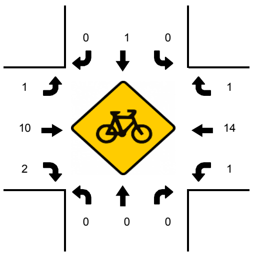
Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 05:00 PM - 05:15 PM

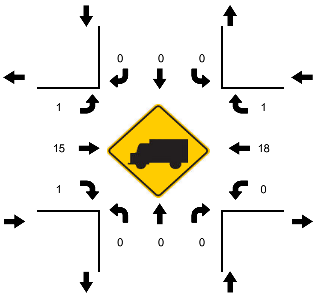
National Data & Surveying Services

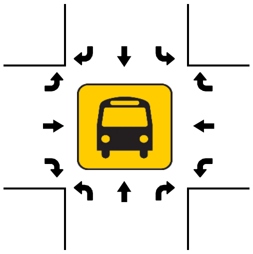












15-Min Count Period Beginning At	Byron Ave Northbound					Byron Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	5	2	1	0		0	2	9	0		26	74	4	0		3	164	1	0		291	1209
04:15 PM	5	10	4	0		0	0	5	0		24	80	5	0		3	162	3	0		301	1247
04:30 PM	16	10	3	0		0	0	10	0		28	65	7	0		1	151	5	0		296	1265
04:45 PM	13	7	3	0		1	1	12	0		45	93	2	0		1	137	6	0		321	1235
05:00 PM	7	9	3	0		2	3	11	0		44	93	8	0		3	141	5	0		329	1226
05:15 PM	6	8	4	0		0	2	8	0		56	86	2	0		8	136	3	0		319	897
05:30 PM	4	7	2	0		1	1	5	0		25	65	3	0		4	143	6	0		266	578
05:45 PM	3	9	6	0		4	0	6	0		47	87	4	0		4	138	4	0		312	312

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	64	40	16	0		8	12	48	0		224	372	32	0		32	604	24	0		**1476**
Heavy Trucks	0	0	0			0	0	0			4	20	4			0	28	4			**60**
Pedestrians		52					72					28					8				**160**
Bicycles	0	0	0			0	4	0			4	16	4			4	24	4			**60**
Railroad																					
Stopped Buses																					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-004
Date: 10/22/2019

Total

NS/EW Streets:	Harding Ave				Harding Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	5	4	0	2	2	1	0	1	39	2	0	0	22	1	0	88
7:15 AM	8	11	5	0	0	2	1	0	10	40	4	0	1	32	1	0	115
7:30 AM	9	16	6	0	3	4	2	0	11	61	7	0	2	24	1	0	146
7:45 AM	11	23	2	0	3	3	0	0	10	46	8	0	0	26	1	0	133
8:00 AM	14	20	5	0	1	5	2	0	15	50	5	0	0	28	0	0	145
8:15 AM	14	25	5	0	0	10	3	0	15	50	5	0	5	23	1	0	156
8:30 AM	19	20	7	0	3	17	4	0	13	56	8	0	1	29	2	0	179
8:45 AM	10	28	7	0	3	14	4	0	9	69	7	0	0	39	1	0	191
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	94	148	41	0	15	57	17	0	84	411	46	0	9	223	8	0	1153
APPROACH %'s :	33.22%	52.30%	14.49%	0.00%	16.85%	64.04%	19.10%	0.00%	15.53%	75.97%	8.50%	0.00%	3.75%	92.92%	3.33%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	57	93	24	0	7	46	13	0	52	225	25	0	6	119	4	0	671
PEAK HR FACTOR :	0.750	0.830	0.857	0.000	0.583	0.676	0.813	0.000	0.867	0.815	0.781	0.000	0.300	0.763	0.500	0.000	0.878
	0.946				0.688				0.888				0.806				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	20	59	3	0	1	7	3	0	10	51	4	0	6	46	0	0	210
4:15 PM	17	50	4	0	3	7	0	0	12	63	10	0	2	45	2	0	215
4:30 PM	24	55	13	0	2	2	3	0	11	48	12	0	5	47	4	0	226
4:45 PM	24	72	5	0	1	6	4	0	15	72	5	0	3	35	2	0	244
5:00 PM	19	82	6	0	1	5	3	0	15	69	9	0	2	46	0	0	257
5:15 PM	16	57	9	0	0	4	3	0	13	53	12	0	2	28	2	0	199
5:30 PM	13	55	12	0	0	3	3	0	11	61	17	0	1	39	3	0	218
5:45 PM	22	74	12	0	2	6	0	0	9	56	7	0	2	43	1	0	234
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	155	504	64	0	10	40	19	0	96	473	76	0	23	329	14	0	1803
APPROACH %'s :	21.44%	69.71%	8.85%	0.00%	14.49%	57.97%	27.54%	0.00%	14.88%	73.33%	11.78%	0.00%	6.28%	89.89%	3.83%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	84	259	28	0	7	20	10	0	53	252	36	0	12	173	8	0	942
PEAK HR FACTOR :	0.875	0.790	0.538	0.000	0.583	0.714	0.625	0.000	0.883	0.875	0.750	0.000	0.600	0.920	0.500	0.000	0.916
	0.867				0.841				0.917				0.862				

AM		**PM**
0	NBU	0
57	NBL	84
93	NBT	259
24	NBR	28
0	SBU	0
7	SBL	7
46	SBT	20
13	SBR	10
52	EBL	53
225	EBT	252
25	EBR	36
6	WBL	12
119	WBT	173
4	WBR	8
671		**942**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-004
Date: 10/22/2019

Cars

NS/EW Streets:	Harding Ave				Harding Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	5	4	0	2	2	1	0	1	36	2	0	0	20	1	0	81
7:15 AM	8	11	5	0	0	2	1	0	9	36	4	0	1	32	1	0	110
7:30 AM	7	16	5	0	3	4	2	0	11	59	7	0	2	24	1	0	141
7:45 AM	10	23	2	0	3	3	0	0	10	44	8	0	0	25	1	0	129
8:00 AM	14	18	5	0	1	5	2	0	15	47	5	0	0	28	0	0	140
8:15 AM	14	25	5	0	0	10	3	0	15	49	5	0	5	23	1	0	155
8:30 AM	19	19	7	0	2	17	4	0	12	50	8	0	1	29	2	0	170
8:45 AM	10	27	7	0	3	14	4	0	8	66	6	0	0	38	1	0	184
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	89	144	40	0	14	57	17	0	81	387	45	0	9	219	8	0	1110
APPROACH %'s :	32.60%	52.75%	14.65%	0.00%	15.91%	64.77%	19.32%	0.00%	15.79%	75.44%	8.77%	0.00%	3.81%	92.80%	3.39%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	57	89	24	0	6	46	13	0	50	212	24	0	6	118	4	0	649
PEAK HR FACTOR :	0.75	0.824	0.857	0.000	0.500	0.676	0.813	0.000	0.833	0.803	0.750	0.000	0.300	0.776	0.500	0.000	0.882
		0.944				0.707				0.894				0.821			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	20	56	3	0	1	7	3	0	10	50	4	0	6	44	0	0	204
4:15 PM	16	50	4	0	3	7	0	0	11	62	9	0	2	44	2	0	210
4:30 PM	24	55	13	0	2	2	2	0	11	47	12	0	5	47	4	0	224
4:45 PM	23	72	5	0	1	6	4	0	15	71	5	0	3	35	2	0	242
5:00 PM	19	82	6	0	1	5	3	0	15	68	9	0	2	46	0	0	256
5:15 PM	16	57	8	0	0	4	3	0	13	51	12	0	2	28	2	0	196
5:30 PM	13	55	12	0	0	3	3	0	11	61	17	0	1	39	3	0	218
5:45 PM	22	74	12	0	2	6	0	0	9	55	7	0	2	42	1	0	232
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	153	501	63	0	10	40	18	0	95	465	75	0	23	325	14	0	1782
APPROACH %'s :	21.34%	69.87%	8.79%	0.00%	14.71%	58.82%	26.47%	0.00%	14.96%	73.23%	11.81%	0.00%	6.35%	89.78%	3.87%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	82	259	28	0	7	20	9	0	52	248	35	0	12	172	8	0	932
PEAK HR FACTOR :	0.85	0.790	0.538	0.000	0.583	0.714	0.563	0.000	0.867	0.873	0.729	0.000	0.600	0.915	0.500	0.000	0.910
		0.862				0.818				0.910				0.857			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-004
Date: 10/22/2019

HT

NS/EW Streets:	Harding Ave				Harding Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	7
7:15 AM	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	5
7:30 AM	2	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	5
7:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	4
8:00 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	1	0	0	0	1	6	0	0	0	0	0	0	9
8:45 AM	0	1	0	0	0	0	0	0	1	3	1	0	0	1	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	4	1	0	1	0	0	0	3	24	1	0	0	4	0	0	43
APPROACH %'s :	50.00%	40.00%	10.00%	0.00%	100.00%	0.00%	0.00%	0.00%	10.71%	85.71%	3.57%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	4	0	0	1	0	0	0	2	13	1	0	0	1	0	0	22
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.542	0.250	0.000	0.000	0.250	0.000	0.000	0.611
	0.500				0.250				0.571				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	2	0	0	6
4:15 PM	1	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	5
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
4:45 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	3	1	0	0	0	1	0	1	8	1	0	0	4	0	0	21
APPROACH %'s :	33.33%	50.00%	16.67%	0.00%	0.00%	0.00%	100.00%	0.00%	10.00%	80.00%	10.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:15 PM - 05:15 PM**																TOTAL
PEAK HR VOL :	2	0	0	0	0	0	1	0	1	4	1	0	0	1	0	0	10
PEAK HR FACTOR :	0.50	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	1.000	0.250	0.000	0.000	0.250	0.000	0.000	0.500
	0.500				0.250				0.500				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-004
Date: 10/22/2019

Bikes

NS/EW Streets:	Harding Ave				Harding Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	3	0	0	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	0	0	0	1	0	0	0	9	0	0	1	4	1	0	19
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	16.67%	66.67%	16.67%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	1	2	0	0	0	0	0	0	0	2	0	0	1	1	0	0	7
PEAK HR FACTOR :	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.250	0.000	0.000	0.438
	0.750								0.500				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	3	0	0	6
4:30 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	4	0	0	8
4:45 PM	0	1	0	0	0	1	0	0	0	1	1	0	0	2	0	0	6
5:00 PM	4	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	7
5:15 PM	0	1	1	0	1	0	0	0	0	2	0	0	1	0	1	0	7
5:30 PM	0	2	0	0	0	0	0	0	0	1	1	0	0	4	0	0	8
5:45 PM	0	1	2	0	0	2	0	0	0	1	1	0	1	1	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	7	3	0	1	3	1	0	0	11	4	0	2	15	1	0	53
APPROACH %'s :	33.33%	46.67%	20.00%	0.00%	20.00%	60.00%	20.00%	0.00%	0.00%	73.33%	26.67%	0.00%	11.11%	83.33%	5.56%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	4	3	0	0	0	1	1	0	0	6	2	0	0	10	0	0	27
PEAK HR FACTOR :	0.25	0.750	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.500	0.500	0.000	0.000	0.625	0.000	0.000	0.844
	0.438				0.500				0.667				0.625				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 71st St
Project ID: 19-03686-004
City: Miami Beach
Date: 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Harding Ave		Harding Ave		71st St		71st St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	1	4	0	1	1	0	0	8
7:15 AM	5	0	1	0	0	0	3	0	9
7:30 AM	2	1	3	1	1	0	1	0	9
7:45 AM	4	1	2	0	0	1	0	0	8
8:00 AM	4	5	6	11	0	2	1	0	29
8:15 AM	7	1	6	6	1	3	5	0	29
8:30 AM	12	5	8	3	1	1	0	0	30
8:45 AM	2	3	5	2	8	6	0	0	26
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	37	17	35	23	12	14	10	0	148
APPROACH %'s :	68.52%	31.48%	60.34%	39.66%	46.15%	53.85%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	25	14	25	22	10	12	6	0	114
PEAK HR FACTOR :	0.521	0.700	0.781	0.500	0.313	0.500	0.300		0.950
	0.574		0.691		0.393		0.300		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	4	6	6	0	0	1	2	20
4:15 PM	2	7	3	8	3	1	5	4	33
4:30 PM	7	3	6	9	0	1	2	0	28
4:45 PM	0	6	10	9	6	2	1	3	37
5:00 PM	3	3	7	6	8	2	3	3	35
5:15 PM	5	3	10	8	2	2	6	3	39
5:30 PM	0	5	6	9	2	2	1	2	27
5:45 PM	0	9	6	12	2	3	2	2	36
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	18	40	54	67	23	13	21	19	255
APPROACH %'s :	31.03%	68.97%	44.63%	55.37%	63.89%	36.11%	52.50%	47.50%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	12	19	26	32	17	6	11	10	133
PEAK HR FACTOR :	0.429	0.679	0.650	0.889	0.531	0.750	0.550	0.625	0.899
	0.775		0.763		0.575		0.583		

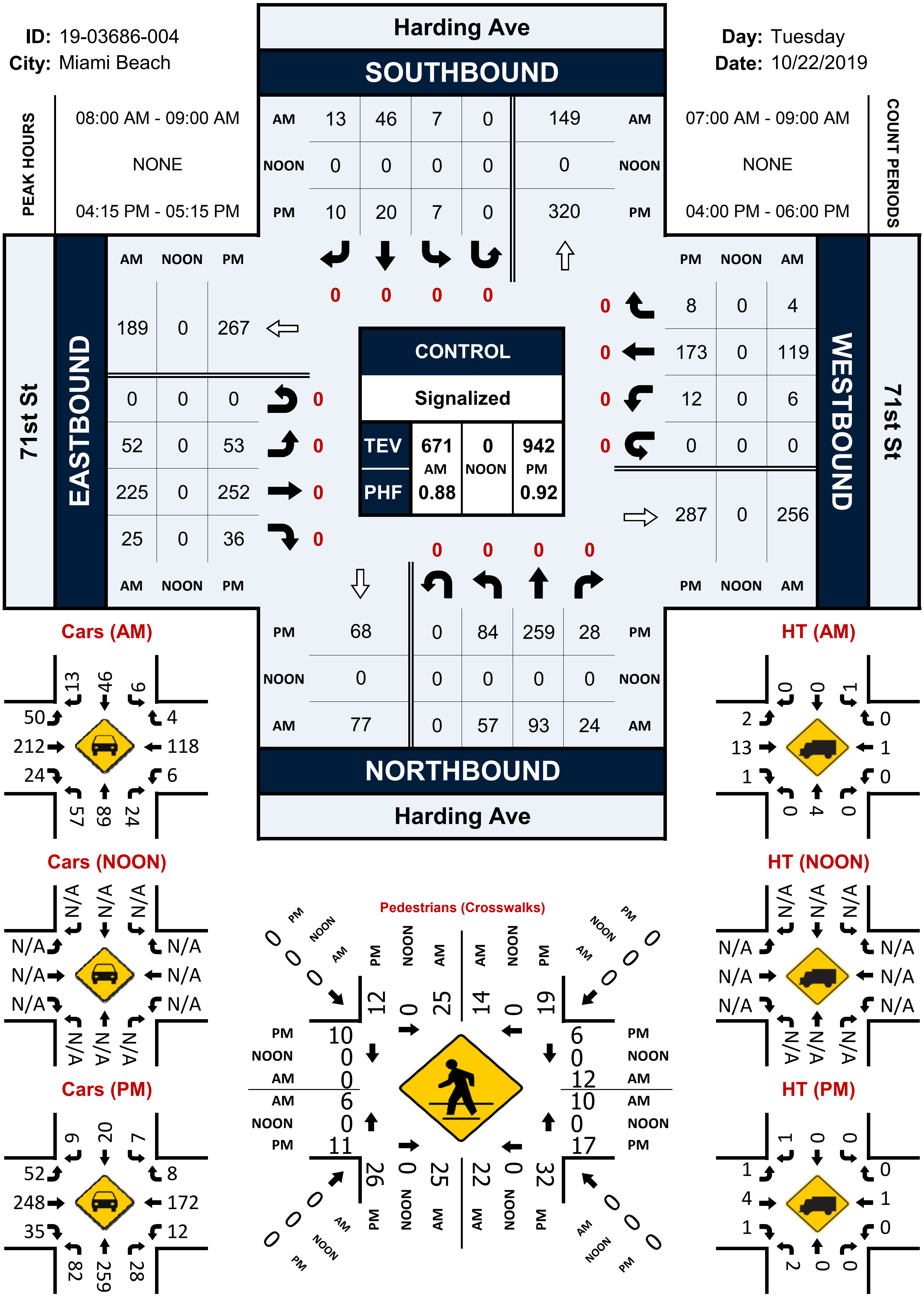
Prepared by National Data & Surveying Services

Harding Ave & 71st St

Peak Hour Turning Movement Count

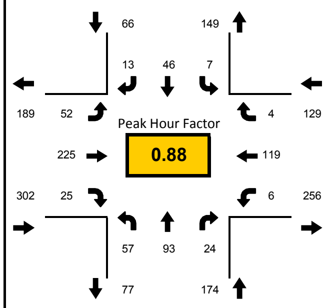
ID: 19-03686-004
City: Miami Beach

Day: Tuesday
Date: 10/22/2019



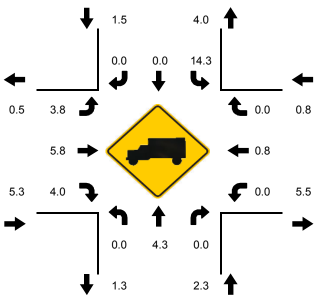
LOCATION: Harding Ave & 71st St
CITY/STATE: Miami Beach, FL

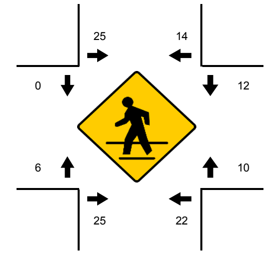
PROJECT ID: 19-03686-004
DATE: 10/22/2019

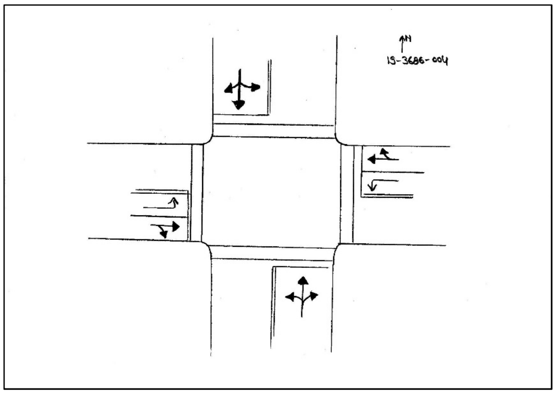


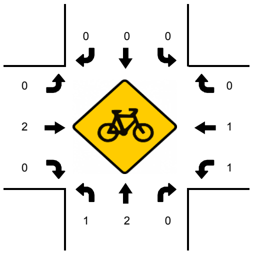
Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

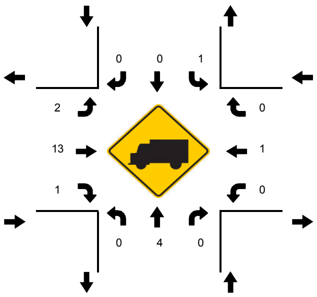
National Data & Surveying Services

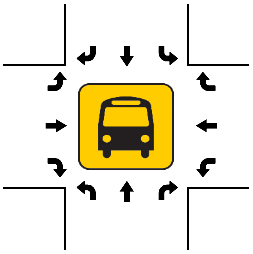










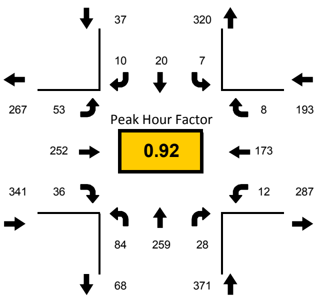


15-Min Count Period Beginning At	Harding Ave Northbound					Harding Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	9	5	4	0		2	2	1	0		1	39	2	0		0	22	1	0		88	482
07:15 AM	8	11	5	0		0	2	1	0		10	40	4	0		1	32	1	0		115	539
07:30 AM	9	16	6	0		3	4	2	0		11	61	7	0		2	24	1	0		146	580
07:45 AM	11	23	2	0		3	3	0	0		10	46	8	0		0	26	1	0		133	613
08:00 AM	14	20	5	0		1	5	2	0		15	50	5	0		0	28	0	0		145	671
08:15 AM	14	25	5	0		0	10	3	0		15	50	5	0		5	23	1	0		156	526
08:30 AM	19	20	7	0		3	17	4	0		13	56	8	0		1	29	2	0		179	370
08:45 AM	10	28	7	0		3	14	4	0		9	69	7	0		0	39	1	0		191	191

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	76	112	28	0		12	68	16	0		60	276	32	0		20	156	8	0		**864**
Heavy Trucks	0	8	0			4	0	0			4	24	4			0	4	0			**48**
Pedestrians		68					68					20					56				**212**
Bicycles	4	4	0			0	0	0			0	4	0			4	4	0			**20**
Railroad																					
Stopped Buses																					

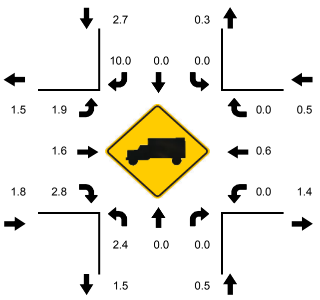
LOCATION: Harding Ave & 71st St
CITY/STATE: Miami Beach, FL

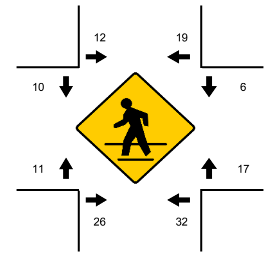
PROJECT ID: 19-03686-004
DATE: 10/22/2019

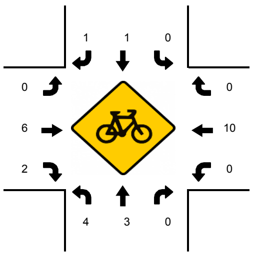


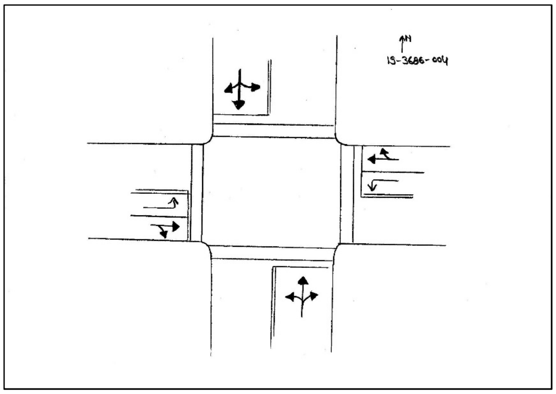
Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 05:00 PM - 05:15 PM

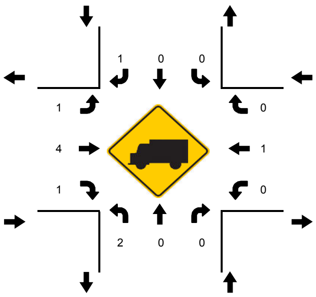
National Data & Surveying Services

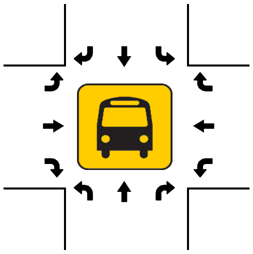












15-Min Count Period Beginning At	Harding Ave Northbound Left	Thru	Rgt	U	R*	Harding Ave Southbound Left	Thru	Rgt	U	R*	71st St Eastbound Left	Thru	Rgt	U	R*	71st St Westbound Left	Thru	Rgt	U	R*	Total	Hourly Total
04:00 PM	20	59	3	0		1	7	3	0		10	51	4	0		6	46	0	0		210	895
04:15 PM	17	50	4	0		3	7	0	0		12	63	10	0		2	45	2	0		215	942
04:30 PM	24	55	13	0		2	2	3	0		11	48	12	0		5	47	4	0		226	926
04:45 PM	24	72	5	0		1	6	4	0		15	72	5	0		3	35	2	0		244	918
05:00 PM	19	82	6	0		1	5	3	0		15	69	9	0		2	46	0	0		257	908
05:15 PM	16	57	9	0		0	4	3	0		13	53	12	0		2	28	2	0		199	651
05:30 PM	13	55	12	0		0	3	3	0		11	61	17	0		1	39	3	0		218	452
05:45 PM	22	74	12	0		2	6	0	0		9	56	7	0		2	43	1	0		234	234

Peak 15-Min Flowrates	Northbound Left	Thru	Rgt	U	R*	Southbound Left	Thru	Rgt	U	R*	Eastbound Left	Thru	Rgt	U	R*	Westbound Left	Thru	Rgt	U	R*	Total
All Vehicles	96	328	52	0		12	28	16	0		60	288	48	0		20	188	16	0		**1152**
Heavy Trucks	4	0	0			0	0	4			4	4	4			0	4	0			**24**
Pedestrians		76					40					36					40				**192**
Bicycles	16	4	0			0	4	4			0	12	4			0	16	0			**60**
Railroad																					
Stopped Buses																					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-005
Date: 10/22/2019

Total

NS/EW Streets:	Collins Ave				Collins Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	18	168	0	0	0	0	0	0	43	5	0	0	0	3	3	0	240
7:15 AM	24	161	1	0	0	0	0	0	43	1	0	0	0	8	2	0	240
7:30 AM	24	182	0	0	0	0	0	0	68	0	0	0	0	3	0	0	277
7:45 AM	24	191	1	0	0	0	0	0	58	1	0	0	0	6	3	0	284
8:00 AM	22	214	0	0	0	0	0	0	54	0	0	0	0	6	2	0	298
8:15 AM	21	207	1	0	0	0	0	0	58	1	0	0	0	5	6	0	299
8:30 AM	28	204	0	0	0	0	0	0	59	0	0	0	0	4	4	0	299
8:45 AM	35	186	0	0	0	0	0	0	71	1	0	0	0	4	2	0	299
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	196	1513	3	0	0	0	0	0	454	9	0	0	0	39	22	0	2236
APPROACH %'s :	11.45%	88.38%	0.18%	0.00%					98.06%	1.94%	0.00%	0.00%	0.00%	63.93%	36.07%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	106	811	1	0	0	0	0	0	242	2	0	0	0	19	14	0	1195
PEAK HR FACTOR :	0.757	0.947	0.250	0.000	0.000	0.000	0.000	0.000	0.852	0.500	0.000	0.000	0.000	0.792	0.583	0.000	0.999
		0.972								0.847				0.750			

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	47	373	1	0	0	0	0	0	57	1	0	0	0	2	1	0	482
4:15 PM	46	366	2	0	0	0	0	0	63	3	0	1	0	4	8	0	493
4:30 PM	46	353	4	0	0	0	0	0	63	1	0	0	0	10	8	0	485
4:45 PM	35	434	0	0	0	0	0	0	77	2	0	0	0	4	7	0	559
5:00 PM	48	424	1	0	0	0	0	0	73	1	0	0	0	2	6	0	555
5:15 PM	26	474	1	0	0	0	0	0	64	0	0	0	0	3	4	0	572
5:30 PM	41	466	3	0	0	0	0	0	67	4	0	0	0	3	7	0	591
5:45 PM	40	470	1	0	0	0	0	0	67	1	0	0	0	5	2	0	586
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	329	3360	13	0	0	0	0	0	531	13	0	1	0	33	43	0	4323
APPROACH %'s :	8.89%	90.76%	0.35%	0.00%					97.43%	2.39%	0.00%	0.18%	0.00%	43.42%	56.58%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	155	1834	6	0	0	0	0	0	271	6	0	0	0	13	19	0	2304
PEAK HR FACTOR :	0.807	0.967	0.500	0.000	0.000	0.000	0.000	0.000	0.928	0.375	0.000	0.000	0.000	0.650	0.679	0.000	0.975
		0.976								0.936				0.800			

AM		PM
0	NBU	0
106	NBL	155
811	NBT	1834
1	NBR	6
0	SBU	0
0	SBL	0
0	SBT	0
0	SBR	0
242	EBL	271
2	EBT	6
0	EBR	0
0	WBL	0
19	WBT	13
14	WBR	19
1195		**2304**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-005
Date: 10/22/2019

Cars

NS/EW Streets:	Collins Ave				Collins Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	156	0	0	0	0	0	0	41	5	0	0	0	3	3	0	225
7:15 AM	24	154	1	0	0	0	0	0	38	1	0	0	0	8	2	0	228
7:30 AM	24	174	0	0	0	0	0	0	66	0	0	0	0	3	0	0	267
7:45 AM	23	184	1	0	0	0	0	0	56	1	0	0	0	6	3	0	274
8:00 AM	22	200	0	0	0	0	0	0	50	0	0	0	0	6	2	0	280
8:15 AM	21	198	1	0	0	0	0	0	57	1	0	0	0	5	6	0	289
8:30 AM	28	190	0	0	0	0	0	0	53	0	0	0	0	4	4	0	279
8:45 AM	33	177	0	0	0	0	0	0	67	1	0	0	0	4	2	0	284
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	192	1433	3	0	0	0	0	0	428	9	0	0	0	39	22	0	2126
APPROACH %'s :	11.79%	88.02%	0.18%	0.00%					97.94%	2.06%	0.00%	0.00%	0.00%	63.93%	36.07%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	104	765	1	0	0	0	0	0	227	2	0	0	0	19	14	0	1132
PEAK HR FACTOR :	0.79	0.956	0.250	0.000	0.000	0.000	0.000	0.000	0.847	0.500	0.000	0.000	0.000	0.792	0.583	0.000	0.979
		0.980								0.842				0.750			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	46	358	1	0	0	0	0	0	56	1	0	0	0	2	1	0	465
4:15 PM	45	359	2	0	0	0	0	0	63	3	0	1	0	4	8	0	485
4:30 PM	46	341	4	0	0	0	0	0	61	1	0	0	0	10	8	0	471
4:45 PM	35	427	0	0	0	0	0	0	76	2	0	0	0	4	7	0	551
5:00 PM	48	415	1	0	0	0	0	0	72	1	0	0	0	2	6	0	545
5:15 PM	26	465	1	0	0	0	0	0	61	0	0	0	0	3	4	0	560
5:30 PM	41	460	3	0	0	0	0	0	67	4	0	0	0	3	7	0	585
5:45 PM	39	458	1	0	0	0	0	0	66	1	0	0	0	5	2	0	572
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	326	3283	13	0	0	0	0	0	522	13	0	1	0	33	43	0	4234
APPROACH %'s :	9.00%	90.64%	0.36%	0.00%					97.39%	2.43%	0.00%	0.19%	0.00%	43.42%	56.58%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	154	1798	6	0	0	0	0	0	266	6	0	0	0	13	19	0	2262
PEAK HR FACTOR :	0.80	0.967	0.500	0.000	0.000	0.000	0.000	0.000	0.924	0.375	0.000	0.000	0.000	0.650	0.679	0.000	0.967
		0.971								0.932				0.800			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-005
Date: 10/22/2019

HT

NS/EW Streets:	Collins Ave				Collins Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	12	0	0	0	0	0	0	2	0	0	0	0	0	0	0	15
7:15 AM	0	7	0	0	0	0	0	0	5	0	0	0	0	0	0	0	12
7:30 AM	0	8	0	0	0	0	0	0	2	0	0	0	0	0	0	0	10
7:45 AM	1	7	0	0	0	0	0	0	2	0	0	0	0	0	0	0	10
8:00 AM	0	14	0	0	0	0	0	0	4	0	0	0	0	0	0	0	18
8:15 AM	0	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
8:30 AM	0	14	0	0	0	0	0	0	6	0	0	0	0	0	0	0	20
8:45 AM	2	9	0	0	0	0	0	0	4	0	0	0	0	0	0	0	15
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	80	0	0	0	0	0	0	26	0	0	0	0	0	0	0	110
APPROACH %'s :	4.76%	95.24%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	2	46	0	0	0	0	0	0	15	0	0	0	0	0	0	0	63
PEAK HR FACTOR :	0.250	0.821	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.788
	0.857								0.625								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	17
4:15 PM	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	12	0	0	0	0	0	0	2	0	0	0	0	0	0	0	14
4:45 PM	0	7	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8
5:00 PM	0	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
5:15 PM	0	9	0	0	0	0	0	0	3	0	0	0	0	0	0	0	12
5:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:45 PM	1	12	0	0	0	0	0	0	1	0	0	0	0	0	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	77	0	0	0	0	0	0	9	0	0	0	0	0	0	0	89
APPROACH %'s :	3.75%	96.25%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%					
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	36	0	0	0	0	0	0	5	0	0	0	0	0	0	0	42
PEAK HR FACTOR :	0.25	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.712								0.417								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Ave & 71st St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-005
Date: 10/22/2019

Bikes

NS/EW Streets:	Collins Ave				Collins Ave				71st St				71st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	5
7:15 AM	0	9	0	0	0	0	0	0	0	2	0	0	0	0	1	0	12
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	4
8:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	15	0	0	0	2	0	0	0	8	0	0	0	4	1	0	31
APPROACH %'s :	6.25%	93.75%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	80.00%	20.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	4	0	0	0	1	0	0	0	2	0	0	0	2	0	0	9
PEAK HR FACTOR :	0.000	0.333	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.750
	0.333				0.250				0.500				0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	8	0	0	0	0	0	0	1	1	0	0	0	0	0	0	10
4:15 PM	1	0	0	0	0	1	2	0	1	0	0	0	0	2	0	0	7
4:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	3
4:45 PM	1	3	0	0	0	1	0	0	1	0	1	0	0	0	0	0	7
5:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
5:15 PM	1	0	1	0	0	1	2	0	1	1	1	0	1	2	0	0	11
5:30 PM	1	3	1	0	0	5	1	0	0	2	0	0	0	2	0	0	15
5:45 PM	0	3	0	0	0	0	1	0	2	0	0	0	0	1	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	17	2	0	0	8	6	0	7	6	2	0	1	8	0	0	62
APPROACH %'s :	20.83%	70.83%	8.33%	0.00%	0.00%	57.14%	42.86%	0.00%	46.67%	40.00%	13.33%	0.00%	11.11%	88.89%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	3	6	2	0	0	6	4	0	3	4	1	0	1	5	0	0	35
PEAK HR FACTOR :	0.75	0.500	0.500	0.000	0.000	0.300	0.500	0.000	0.375	0.500	0.250	0.000	0.250	0.625	0.000	0.000	0.583
	0.550				0.417				0.667				0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Ave & 71st St **Project ID:** 19-03686-005
City: Miami Beach **Date:** 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Collins Ave		Collins Ave		71st St		71st St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	1	4	0	0	1	0	2	10
7:15 AM	3	0	5	1	0	2	0	0	11
7:30 AM	1	0	0	3	0	2	2	1	9
7:45 AM	0	0	6	4	3	0	6	3	22
8:00 AM	0	3	1	11	5	2	9	1	32
8:15 AM	0	1	7	7	8	5	2	8	38
8:30 AM	0	0	9	2	5	3	5	5	29
8:45 AM	3	1	7	6	8	6	7	6	44
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	9	6	39	34	29	21	31	26	195
APPROACH %'s :	60.00%	40.00%	53.42%	46.58%	58.00%	42.00%	54.39%	45.61%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	3	5	24	26	26	16	23	20	143
PEAK HR FACTOR :	0.250	0.417	0.667	0.591	0.813	0.667	0.639	0.625	0.813
	0.500		0.893		0.750		0.827		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	2	3	2	10	3	12	14	7	53
4:15 PM	1	0	7	13	9	5	16	11	62
4:30 PM	1	1	5	5	2	7	16	10	47
4:45 PM	2	1	11	13	8	2	11	19	67
5:00 PM	1	2	12	2	9	1	9	19	55
5:15 PM	0	0	9	8	5	5	8	14	49
5:30 PM	1	2	8	14	4	8	11	9	57
5:45 PM	1	2	10	2	4	5	2	11	37
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	9	11	64	67	44	45	87	100	427
APPROACH %'s :	45.00%	55.00%	48.85%	51.15%	49.44%	50.56%	46.52%	53.48%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	3	6	39	26	22	19	30	53	198
PEAK HR FACTOR :	0.750	0.750	0.813	0.464	0.611	0.594	0.682	0.697	0.868
	0.750		0.739		0.854		0.741		

Prepared by National Data & Surveying Services

Collins Ave & 71st St

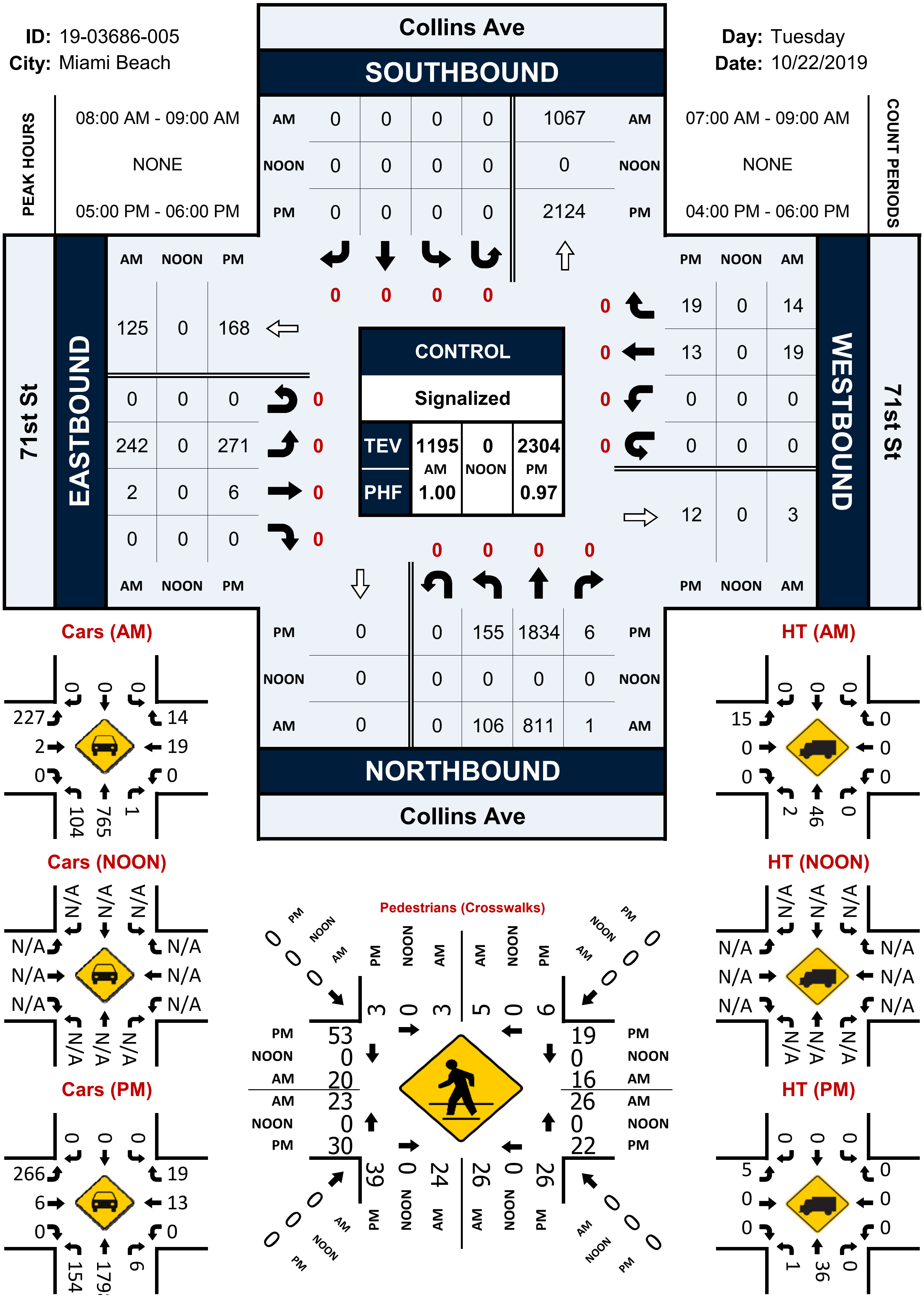
Peak Hour Turning Movement Count

ID: 19-03686-005
City: Miami Beach

Day: Tuesday
Date: 10/22/2019

PEAK HOURS
08:00 AM - 09:00 AM
NONE
05:00 PM - 06:00 PM

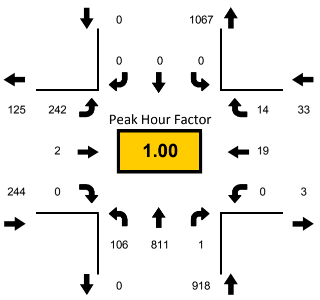
COUNT PERIODS
07:00 AM - 09:00 AM
NONE
04:00 PM - 06:00 PM

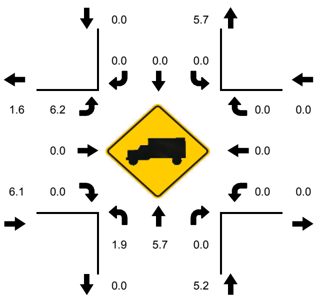


LOCATION: Collins Ave & 71st St
CITY/STATE: Miami Beach, FL

PROJECT ID: 19-03686-005
DATE: 10/22/2019

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





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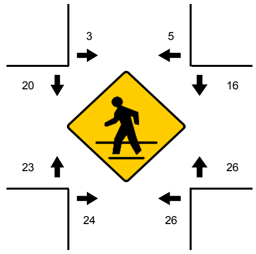
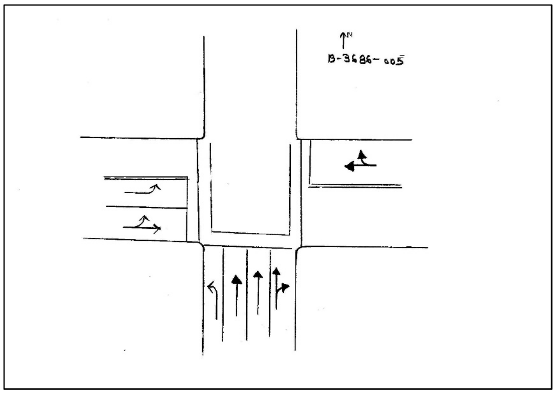
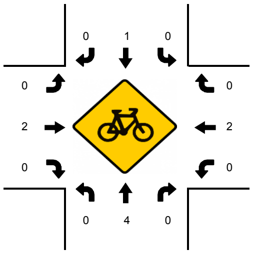
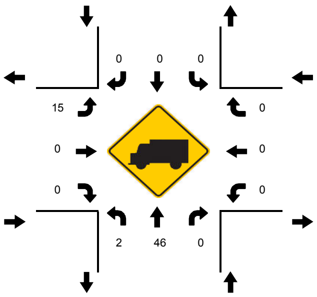
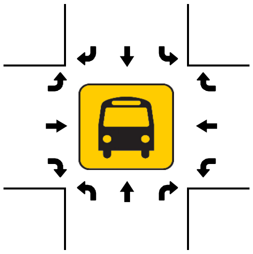








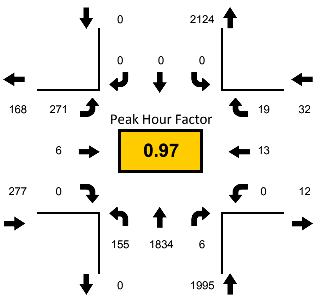


15-Min Count Period Beginning At	Collins Ave Northbound					Collins Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	18	168	0	0		0	0	0	0		43	5	0	0		0	3	3	0		240	1041
07:15 AM	24	161	1	0		0	0	0	0		43	1	0	0		0	8	2	0		240	1099
07:30 AM	24	182	0	0		0	0	0	0		68	0	0	0		0	3	0	0		277	1158
07:45 AM	24	191	1	0		0	0	0	0		58	1	0	0		0	6	3	0		284	1180
08:00 AM	22	214	0	0		0	0	0	0		54	0	0	0		0	6	2	0		298	1195
08:15 AM	21	207	1	0		0	0	0	0		58	1	0	0		0	5	6	0		299	897
08:30 AM	28	204	0	0		0	0	0	0		59	0	0	0		0	4	4	0		299	598
08:45 AM	35	186	0	0		0	0	0	0		71	1	0	0		0	4	2	0		299	299
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	140	856	4	0		0	0	0	0		284	4	0	0		0	24	24	0		**1336**	
Heavy Trucks	8	56	0			0	0	0			24	0	0			0	0	0			**88**	
Pedestrians		56					16					52					56				**180**	
Bicycles	0	12	0			0	4	0			0	4	0			0	4	0			**24**	
Railroad																						
Stopped Buses																						

LOCATION: Collins Ave & 71st St
CITY/STATE: Miami Beach, FL

PROJECT ID: 19-03686-005
DATE: 10/22/2019

Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:30 PM - 05:45 PM



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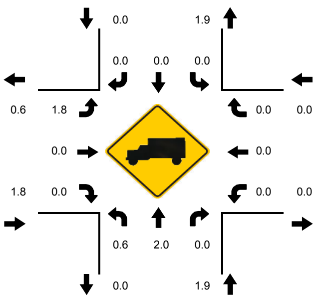
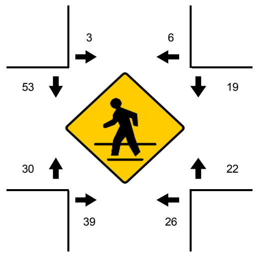
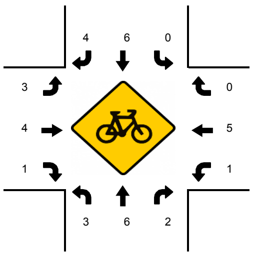
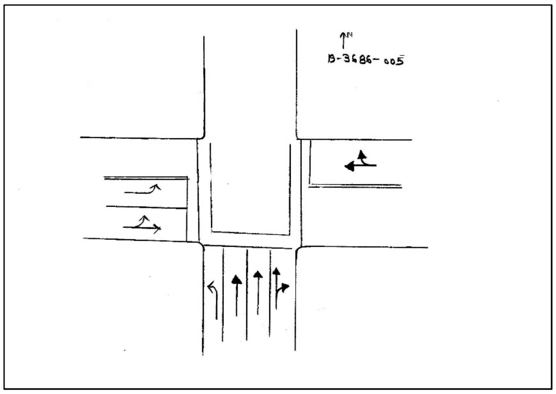
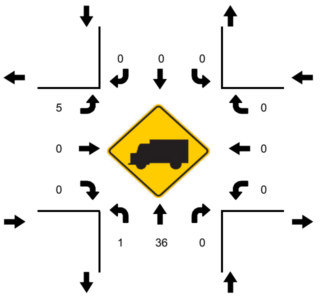
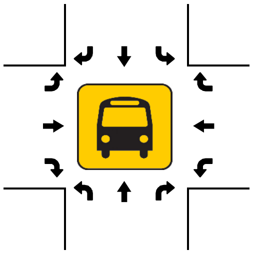












15-Min Count Period Beginning At	Collins Ave Northbound					Collins Ave Southbound					71st St Eastbound					71st St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	47	373	1	0		0	0	0	0		57	1	0	0		0	2	1	0		482	2019
04:15 PM	46	366	2	0		0	0	0	0		63	3	0	1		0	4	8	0		493	2092
04:30 PM	46	353	4	0		0	0	0	0		63	1	0	0		0	10	8	0		485	2171
04:45 PM	35	434	0	0		0	0	0	0		77	2	0	0		0	4	7	0		559	2277
05:00 PM	48	424	1	0		0	0	0	0		73	1	0	0		0	2	6	0		555	2304
05:15 PM	26	474	1	0		0	0	0	0		64	0	0	0		0	3	4	0		572	1749
05:30 PM	41	466	3	0		0	0	0	0		67	4	0	0		0	3	7	0		591	1177
05:45 PM	40	470	1	0		0	0	0	0		67	1	0	0		0	5	2	0		586	586

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	192	1896	12	0		0	0	0	0		292	16	0	0		0	20	28	0		**2456**
Heavy Trucks	4	48	0			0	0	0			12	0	0			0	0	0			**64**
Pedestrians		88					12					112					48				**260**
Bicycles	4	12	4			0	20	8			8	8	4			4	8	0			**80**
Railroad																					
Stopped Buses																					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 69th St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-006
Date: 10/22/2019

Total

NS/EW Streets:	Harding Ave				Harding Ave				69th St				69th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	14	2	0	1	0	8	0	0	15	0	0	0	12	4	0	65
7:15 AM	10	16	2	0	4	0	1	0	2	12	0	0	0	17	2	0	66
7:30 AM	10	21	5	0	7	0	5	0	0	13	0	0	0	19	3	0	83
7:45 AM	13	35	2	0	9	0	9	0	0	19	0	0	0	14	3	0	104
8:00 AM	10	26	9	0	4	0	6	0	3	28	0	0	0	22	3	0	111
8:15 AM	12	38	4	0	8	0	9	0	2	28	0	0	0	19	3	0	123
8:30 AM	7	35	5	0	8	0	14	0	2	17	0	0	0	22	5	0	115
8:45 AM	18	47	4	0	7	0	13	0	1	22	0	0	0	30	4	0	146
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	89	232	33	0	48	0	65	0	10	154	0	0	0	155	27	0	813
APPROACH %'s :	25.14%	65.54%	9.32%	0.00%	42.48%	0.00%	57.52%	0.00%	6.10%	93.90%	0.00%	0.00%	0.00%	85.16%	14.84%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	47	146	22	0	27	0	42	0	8	95	0	0	0	93	15	0	495
PEAK HR FACTOR :	0.653	0.777	0.611	0.000	0.844	0.000	0.750	0.000	0.667	0.848	0.000	0.000	0.000	0.775	0.750	0.000	0.848
		0.779				0.784				0.831				0.794			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	26	68	5	0	8	0	7	1	2	27	0	1	0	40	9	0	194
4:15 PM	37	66	7	0	8	0	9	0	5	35	0	0	0	28	7	0	202
4:30 PM	29	63	0	0	9	0	9	0	4	26	0	0	0	37	9	0	186
4:45 PM	30	79	8	0	4	0	6	0	8	32	0	0	0	34	14	0	215
5:00 PM	32	93	6	0	5	0	11	0	5	34	0	0	0	48	6	0	240
5:15 PM	43	68	9	0	9	0	6	0	4	32	0	0	0	35	5	0	211
5:30 PM	38	64	8	0	13	0	6	0	1	24	0	0	0	37	4	0	195
5:45 PM	45	88	8	0	7	0	5	0	2	40	0	0	0	43	11	0	249
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	280	589	51	0	63	0	59	1	31	250	0	1	0	302	65	0	1692
APPROACH %'s :	30.43%	64.02%	5.54%	0.00%	51.22%	0.00%	47.97%	0.81%	10.99%	88.65%	0.00%	0.35%	0.00%	82.29%	17.71%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	158	313	31	0	34	0	28	0	12	130	0	0	0	163	26	0	895
PEAK HR FACTOR :	0.878	0.841	0.861	0.000	0.654	0.000	0.636	0.000	0.600	0.813	0.000	0.000	0.000	0.849	0.591	0.000	0.899
		0.890				0.816				0.845				0.875			

AM		**PM**
0	NBU	0
47	NBL	158
146	NBT	313
22	NBR	31
0	SBU	0
27	SBL	34
0	SBT	0
42	SBR	28
8	EBL	12
95	EBT	130
0	EBR	0
0	WBL	0
93	WBT	163
15	WBR	26
495		**895**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 69th St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-006
Date: 10/22/2019

Cars

NS/EW Streets:	Harding Ave				Harding Ave				69th St				69th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	14	2	0	1	0	8	0	0	14	0	0	0	12	3	0	63
7:15 AM	10	16	2	0	4	0	1	0	2	12	0	0	0	17	2	0	66
7:30 AM	9	19	5	0	7	0	5	0	0	13	0	0	0	19	2	0	79
7:45 AM	13	34	2	0	9	0	9	0	0	18	0	0	0	14	3	0	102
8:00 AM	10	24	9	0	4	0	6	0	3	27	0	0	0	22	3	0	108
8:15 AM	12	38	4	0	8	0	9	0	2	28	0	0	0	19	3	0	123
8:30 AM	7	34	4	0	8	0	14	0	2	17	0	0	0	22	5	0	113
8:45 AM	18	46	4	0	7	0	12	0	1	22	0	0	0	28	4	0	142
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	88	225	32	0	48	0	64	0	10	151	0	0	0	153	25	0	796
APPROACH %'s :	25.51%	65.22%	9.28%	0.00%	42.86%	0.00%	57.14%	0.00%	6.21%	93.79%	0.00%	0.00%	0.00%	85.96%	14.04%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	47	142	21	0	27	0	41	0	8	94	0	0	0	91	15	0	486
PEAK HR FACTOR :	0.65	0.772	0.583	0.000	0.844	0.000	0.732	0.000	0.667	0.839	0.000	0.000	0.000	0.813	0.750	0.000	0.856
		0.772				0.773				0.850				0.828			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	26	66	5	0	8	0	7	1	2	27	0	1	0	38	9	0	190
4:15 PM	37	65	7	0	8	0	9	0	5	35	0	0	0	28	7	0	201
4:30 PM	29	63	0	0	8	0	9	0	4	26	0	0	0	36	9	0	184
4:45 PM	30	79	8	0	4	0	6	0	8	32	0	0	0	31	13	0	211
5:00 PM	30	93	6	0	5	0	11	0	5	34	0	0	0	47	6	0	237
5:15 PM	43	67	9	0	9	0	6	0	4	32	0	0	0	35	5	0	210
5:30 PM	38	64	8	0	13	0	6	0	1	24	0	0	0	37	4	0	195
5:45 PM	45	88	8	0	7	0	5	0	2	39	0	0	0	43	11	0	248
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	278	585	51	0	62	0	59	1	31	249	0	1	0	295	64	0	1676
APPROACH %'s :	30.42%	64.00%	5.58%	0.00%	50.82%	0.00%	48.36%	0.82%	11.03%	88.61%	0.00%	0.36%	0.00%	82.17%	17.83%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	156	312	31	0	34	0	28	0	12	129	0	0	0	162	26	0	890
PEAK HR FACTOR :	0.87	0.839	0.861	0.000	0.654	0.000	0.636	0.000	0.600	0.827	0.000	0.000	0.000	0.862	0.591	0.000	0.897
		0.885				0.816				0.860				0.870			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 69th St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-006
Date: 10/22/2019

HT

NS/EW Streets:	Harding Ave				Harding Ave				69th St				69th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
8:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	7	1	0	0	0	1	0	0	3	0	0	0	2	2	0	17
APPROACH %'s :	11.11%	77.78%	11.11%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	4	1	0	0	0	1	0	0	1	0	0	0	2	0	0	9
PEAK HR FACTOR :	0.000	0.500	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.563
		0.625				0.250				0.250				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4
5:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	4	0	0	1	0	0	0	0	1	0	0	0	7	1	0	16
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	87.50%	12.50%	0.00%	
PEAK HR :	**05:00 PM - 06:00 PM**																TOTAL
PEAK HR VOL :	2	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	5
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.417
		0.375								0.250				0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 69th St
City: Miami Beach
Control: Signalized

Project ID: 19-03686-006
Date: 10/22/2019

Bikes

NS/EW Streets:	Harding Ave				Harding Ave				69th St				69th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	2	1	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	1	0	0	1	2	0	0	5	1	0	0	2	1	0	15
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	0.00%	33.33%	66.67%	0.00%	0.00%	83.33%	16.67%	0.00%	0.00%	66.67%	33.33%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	2	0	0	0	1	1	0	0	3	1	0	0	2	1	0	11
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.375	0.250	0.000	0.000	0.250	0.250	0.000	0.550
	0.500				0.500				0.500				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
4:30 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	4
4:45 PM	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	4
5:45 PM	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	4	0	0	3	0	0	0	1	7	1	0	1	6	5	0	29
APPROACH %'s :	20.00%	80.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	11.11%	77.78%	11.11%	0.00%	8.33%	50.00%	41.67%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	2	0	0	0	0	2	0	0	0	4	3	0	14
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.333	0.375	0.000	0.700
	0.250				0.500				0.500				0.583				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harding Ave & 69th St
Project ID: 19-03686-006
City: Miami Beach
Date: 10/22/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Harding Ave		Harding Ave		69th St		69th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	4	2	5	3	1	2	0	0	17
7:15 AM	3	3	2	2	2	0	3	0	15
7:30 AM	3	8	10	0	7	0	0	0	28
7:45 AM	7	4	13	2	2	1	0	2	31
8:00 AM	1	2	5	7	1	2	2	1	21
8:15 AM	3	2	7	8	0	0	2	0	22
8:30 AM	6	2	5	6	0	0	0	0	19
8:45 AM	9	2	7	8	3	4	3	3	39
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	36	25	54	36	16	9	10	6	192
APPROACH %'s :	59.02%	40.98%	60.00%	40.00%	64.00%	36.00%	62.50%	37.50%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	19	8	24	29	4	6	7	4	101
PEAK HR FACTOR :	0.528	1.000	0.857	0.906	0.333	0.375	0.583	0.333	0.647
	0.614		0.883		0.357		0.458		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	4	7	9	12	2	3	3	3	43
4:15 PM	4	4	7	8	2	2	1	0	28
4:30 PM	7	7	4	10	4	3	2	2	39
4:45 PM	3	6	16	5	4	2	2	3	41
5:00 PM	5	7	10	7	6	2	1	2	40
5:15 PM	4	7	3	15	3	6	3	4	45
5:30 PM	12	4	17	7	3	1	3	9	56
5:45 PM	7	5	11	17	1	1	2	3	47
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	46	47	77	81	25	20	17	26	339
APPROACH %'s :	49.46%	50.54%	48.73%	51.27%	55.56%	44.44%	39.53%	60.47%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	28	23	41	46	13	10	9	18	188
PEAK HR FACTOR :	0.583	0.821	0.603	0.676	0.542	0.417	0.750	0.500	0.839
	0.797		0.777		0.639		0.563		

Prepared by National Data & Surveying Services

Harding Ave & 69th St

Peak Hour Turning Movement Count

ID: 19-03686-006
City: Miami Beach

Day: Tuesday
Date: 10/22/2019

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Harding Ave

SOUTHBOUND

AM	42	0	27	0	169	AM
NOON	0	0	0	0	0	NOON
PM	28	0	34	0	351	PM
	0	0	0	0		

69th St

EASTBOUND

	AM	NOON	PM	
	182	0	349	
	0	0	0	0
	8	0	12	0
	95	0	130	0
	0	0	0	0
	AM	NOON	PM	

69th St

WESTBOUND

	PM	NOON	AM
0	26	0	15
0	163	0	93
0	0	0	0
0	0	0	0
	195	0	144
	PM	NOON	AM

CONTROL

Signalized

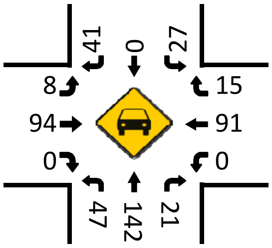
	AM	NOON	PM
TEV	495	0	895
PHF	0.85		0.90

NORTHBOUND

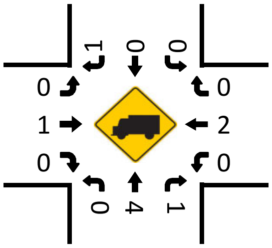
Harding Ave

		0	0	0	0	
PM	0	0	158	313	31	PM
NOON	0	0	0	0	0	NOON
AM	0	0	47	146	22	AM

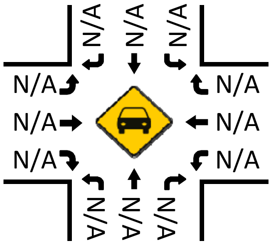
Cars (AM)



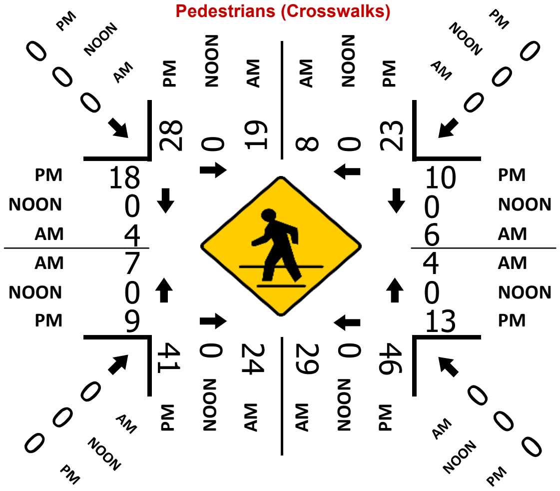
HT (AM)



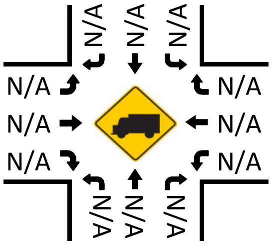
Cars (NOON)



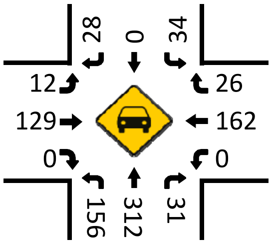
Pedestrians (Crosswalks)



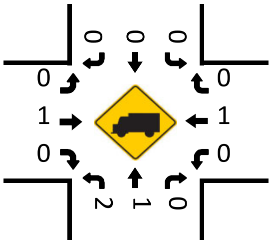
HT (NOON)



Cars (PM)

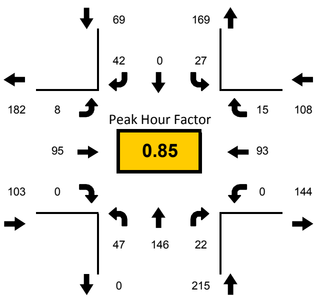


HT (PM)



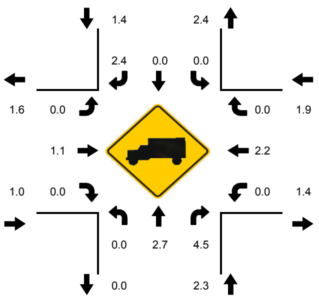
LOCATION: Harding Ave & 69th St
CITY/STATE: Miami Beach, FL

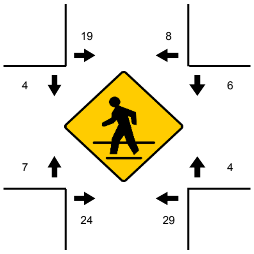
PROJECT ID: 19-03686-006
DATE: 10/22/2019

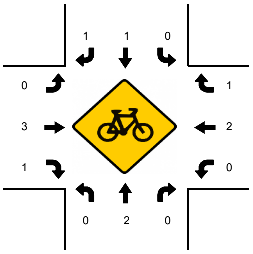


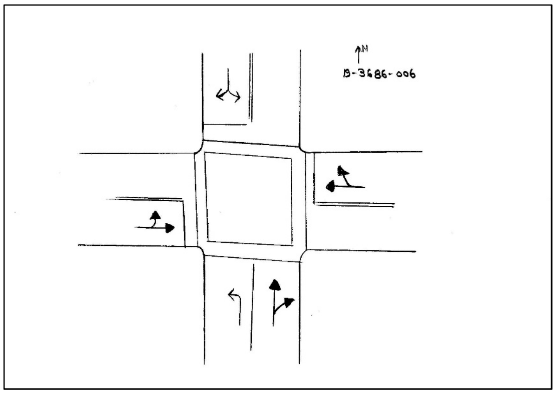
Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

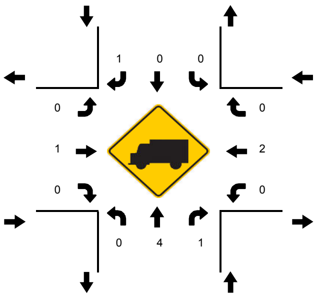
National Data & Surveying Services

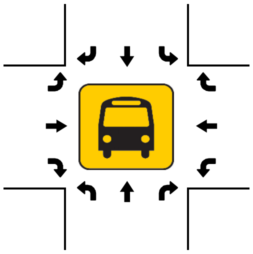








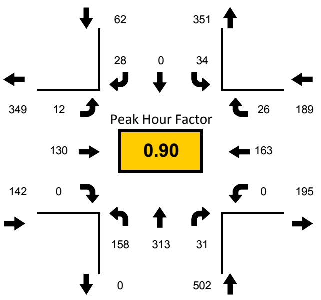




15-Min Count Period Beginning At	Harding Ave Northbound					Harding Ave Southbound					69th St Eastbound					69th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	9	14	2	0		1	0	8	0		0	15	0	0		0	12	4	0		65	318
07:15 AM	10	16	2	0		4	0	1	0		2	12	0	0		0	17	2	0		66	364
07:30 AM	10	21	5	0		7	0	5	0		0	13	0	0		0	19	3	0		83	421
07:45 AM	13	35	2	0		9	0	9	0		0	19	0	0		0	14	3	0		104	453
08:00 AM	10	26	9	0		4	0	6	0		3	28	0	0		0	22	3	0		111	495
08:15 AM	12	38	4	0		8	0	9	0		2	28	0	0		0	19	3	0		123	384
08:30 AM	7	35	5	0		8	0	14	0		2	17	0	0		0	22	5	0		115	261
08:45 AM	18	47	4	0		7	0	13	0		1	22	0	0		0	30	4	0		146	146
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	**Total**	
All Vehicles	72	188	36	0		32	0	56	0		12	112	0	0		0	120	20	0		**648**	
Heavy Trucks	0	8	4			0	0	4			0	4	0			0	8	0			**28**	
Pedestrians		60					44					24					28				**156**	
Bicycles	0	4	0			0	4	4			0	8	4			0	8	4			**36**	
Railroad																						
Stopped Buses																						

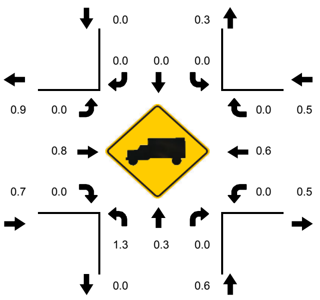
LOCATION: Harding Ave & 69th St
CITY/STATE: Miami Beach, FL

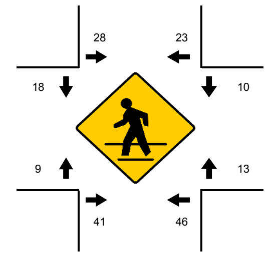
PROJECT ID: 19-03686-006
DATE: 10/22/2019

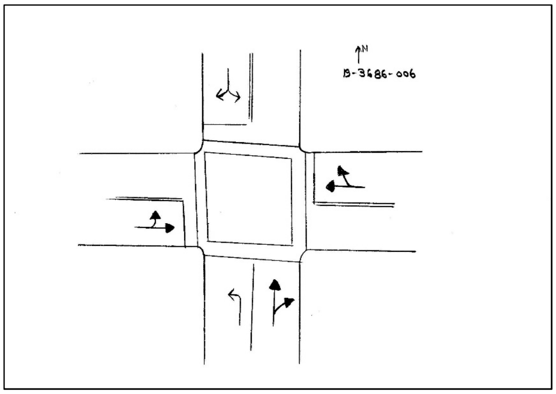


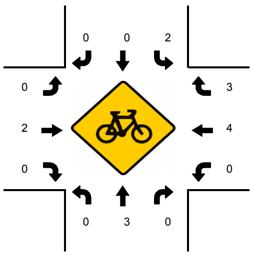
Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:45 PM - 06:00 PM

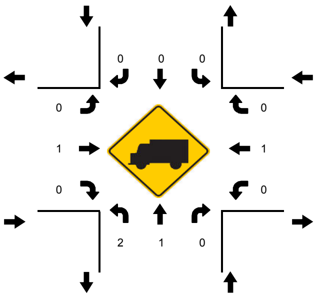
National Data & Surveying Services

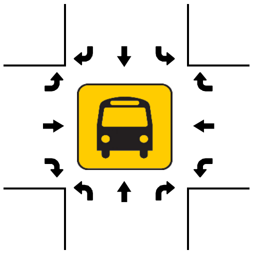












15-Min Count Period Beginning At	Harding Ave Northbound					Harding Ave Southbound					69th St Eastbound					69th St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	26	68	5	0		8	0	7	1		2	27	0	1		0	40	9	0		194	797
04:15 PM	37	66	7	0		8	0	9	0		5	35	0	0		0	28	7	0		202	843
04:30 PM	29	63	0	0		9	0	9	0		4	26	0	0		0	37	9	0		186	852
04:45 PM	30	79	8	0		4	0	6	0		8	32	0	0		0	34	14	0		215	861
05:00 PM	32	93	6	0		5	0	11	0		5	34	0	0		0	48	6	0		240	895
05:15 PM	43	68	9	0		9	0	6	0		4	32	0	0		0	35	5	0		211	655
05:30 PM	38	64	8	0		13	0	6	0		1	24	0	0		0	37	4	0		195	444
05:45 PM	45	88	8	0		7	0	5	0		2	40	0	0		0	43	11	0		249	249

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	180	372	36	0		52	0	44	0		20	160	0	0		0	192	44	0		**1100**
Heavy Trucks	8	4	0			0	0	0			0	4	0			0	4	0			**20**
Pedestrians		112					64					48					36				**260**
Bicycles	0	12	0			4	0	0			0	4	0			0	12	8			**40**
Railroad																					
Stopped Buses																					

Signal Timings

Miami-Dade, FL

2637 - SR A1A/Abbott Ave. & 71st. St. - 2070-1C - Econolite Type - Cobalt

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

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	38	00:00
2	40	06:00
3	1	07:00
4	40	19:30
5	43	21:00
7	2	15:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	38	00:00
2	40	08:00
3	14	10:00
4	12	16:30
5	40	18:30
6	43	21:00

Day Plan #3 - "3"

Event	Action Plan	Start Time
1	38	00:00
2	40	06:00
3	14	10:00
4	12	16:30
5	40	18:30
6	43	21:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

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

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

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

Schedule Number - 2

Day Plan No.: 2

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

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

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

Schedule Number - 3

Day Plan No.: 3

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

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

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

Miami-Dade, FL

2637 - SR A1A/Abbott Ave. & 71st. St. - 2070-1C - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	2	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 40 - "40"

Pattern	10	Override Sys	No
Timing Plan	0	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	2	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit							X									

Spec Func (1-8)								

Aux Func (1-3)			

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 43 - "43"

Pattern	13	Override Sys	No
Timing Plan	0	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	2	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit							X									

Spec Func (1-8)								

Aux Func (1-3)			

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Miami-Dade, FL

2637 - SR A1A/Abbott Ave. & 71st. St. - 2070-1C - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	47s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	S-T	N	W-T	N	N	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	0	53	0	37	0	0	0	37	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	37s	0s	0s

Misc. Data

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

Split Pattern

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

Coordinator Pattern # 10

Split Pattern	10	TS2 (Pat-Off)	3-1	Splits In	Seconds
Cycle	70	Std (COS)	105	Offsets In	Seconds
Offset Value	68s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	S-T	N	W-T	N	N	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 10)	0	38	0	32	0	0	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	70s	32s	0s	0s

Misc. Data

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

Split Pattern

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

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	70	Std (COS)	137	Offsets In	Seconds
Offset Value	20s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	S-T	N	W-T	N	N	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	0	36	0	34	0	0	0	34	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	70s	34s	0s	0s

Misc. Data

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

Split Pattern

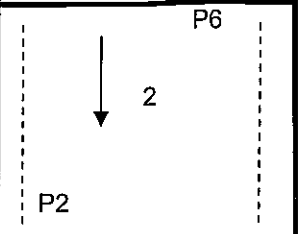
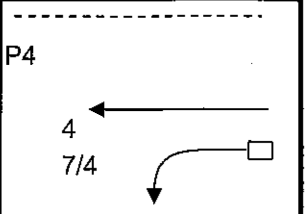
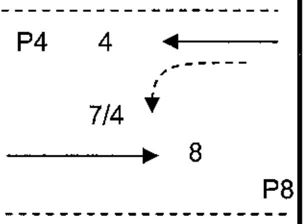
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X														
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Plan 3 - "Phase Bank 3"

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**N**	**S-T**	**N**	**W-T**	**N**	**N**	**W-L**	**E-T**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	0	7	0	7	0	0	0	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	0	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	18	0	0	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	1.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	35	0	17	0	0	0	17	0	0	0	0	0	0	0	0
Max2	0	48	0	48	0	0	0	48	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	4.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	0.0	2.3	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	1.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SIGNAL OPERATING PLAN

⇧ N

		Direction			SB		WB		EB		Ped Heads				
Timing Phases		Head No.				2		8	7/4	4	P6	P2	P4	P8	Movements/Display/Actuation
(2+6) SB ABBOTT AV (RECALL)		Dwell				G		R	R	R	W/F	W/F	DW	DW	
	Clear to	(7+4)				Y		R	R	R	DW	DW	DW	DW	
		(4+8)				Y		R	R	R	DW	DW	DW	DW	
		Dwell													
	Clear to														
(7+4) WB 71 STREET (ACTUATED)		Dwell				R		G	<G/G	R	DW	DW	DW	W/F	
	Clear to	(4+8)				R		Y	<Y/G	R	DW	DW	DW	DW	
		Dwell													
	Clear to														
(4+8) E/WB 71 STREET (RECALL)		Dwell				R		G	G	G	DW	DW	W/F	W/F	
	Clear to	(2+6)				R		R	Y	Y	DW	DW	DW	DW	
		Dwell													
	Clear to														
Flashing Operation						FY		FR	FR	FR					Page 1 of 1

Miami-Dade County Public Works Department

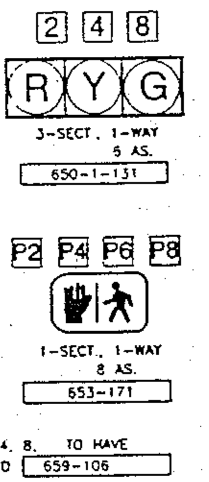
Drawn WILLIAM RIVERA-PAZ	Date 10/20/2011	ABBOTT AV & 71 STREET		
Checked H. HERNANDEZ	Date 10/20/11	Placed in Service Date 12/16/2011 By SGI	Phasing No. 5	Asset Number 2637

Blank12

✓

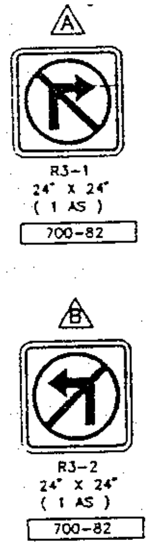
STATE PROJ. NO.	
87060-3509	81

SIGNAL HEAD DETAILS

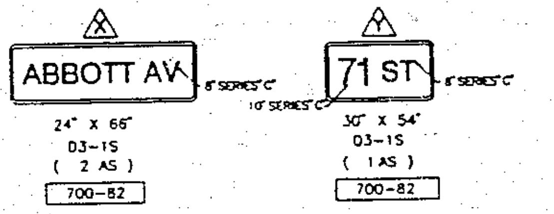


NOTE: SIGNAL HEADS 2, 4, 8, TO HAVE TUNNEL VISORS, 18 REQ'D 659-106

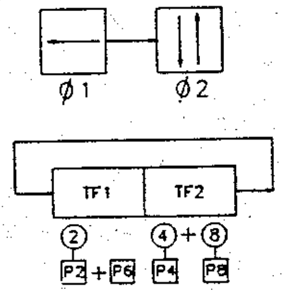
ROADWAY SIGNS



STREET NAME SIGNS



SIGNAL OPERATION



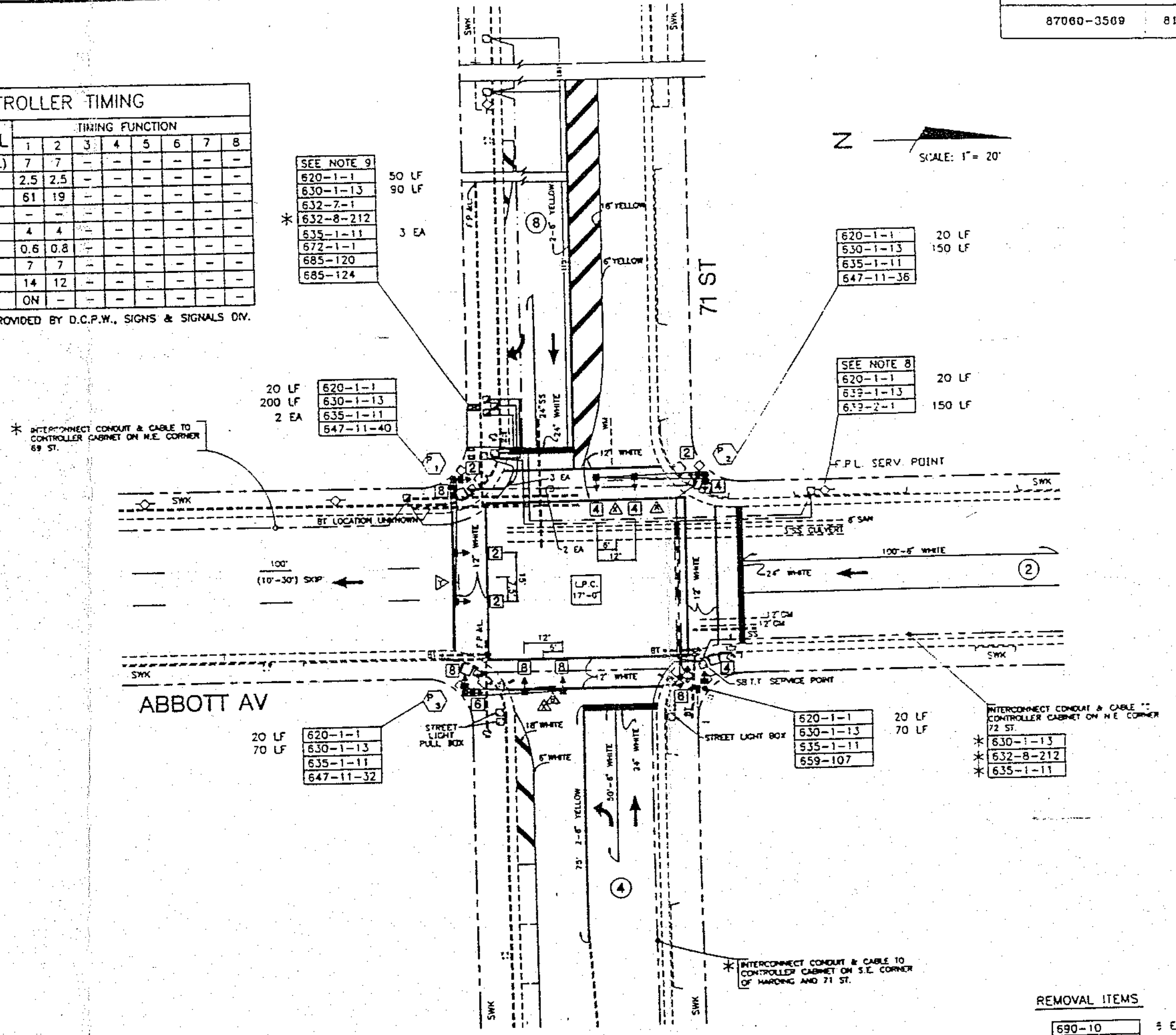
CONTROLLER TIMING

TIMING INTERVAL	TIMING FUNCTION							
	1	2	3	4	5	6	7	8
MINIMUM GREEN (INITIAL)	7	7	–	–	–	–	–	–
EXTENSION (PASSAGE)	2.5	2.5	–	–	–	–	–	–
MAXIMUM GREEN I	61	19	–	–	–	–	–	–
MAXIMUM GREEN II	–	–	–	–	–	–	–	–
YELLOW	4	4	–	–	–	–	–	–
ALL RED	0.6	0.8	–	–	–	–	–	–
PEDESTRIAN WALK	7	7	–	–	–	–	–	–
PEDESTRIAN CLEAR	14	12	–	–	–	–	–	–
RECALL	ON	–	–	–	–	–	–	–

FINAL TIMINGS WILL BE PROVIDED BY D.C.P.W., SIGNS & SIGNALS DIV.

	SUMMARY OF PAV. MARKINGS		
	ITEM NO.	UNIT	TOTAL
(1)	706-1-12	EA	30
(2)	706-1-12	EA	20
	711-2	LF	50
	711-3	EA	-
	711-4	EA	6
	711-5 Y	LF	-
	711-5	LF	-
	711-6-61 Y	LF	400
	711-6-61	LF	450
	711-6-81	LF	-
	711-6-121	LF	410
	711-6-181 Y	LF	150
	711-6-181	LF	40
	711-6-241	LF	90
	711-7	SF	-

ALL PAVEMENT MARKINGS, MESSAGES AND ARROWS SHALL BE THERMOPLASTIC. REFER TO STANDARDS INDEX 17352, 1 of 2 AND 2 of 2.
ALL PAVEMENT MARKINGS SHALL BE WHITE, UNLESS OTHERWISE INDICATED.
(1) - BI-DIRECTIONAL AMBER/AMBER
(2) - MONO-DIRECTIONAL COLORLESS



NOTES

1.- MAJOR STREET : ABBOTT AV.
MINOR STREET : 71 STREET.
2.- SIGNAL OPERATING PLAN NO. 1 AS PER F.D.O.T. INDEX 17870.
3.- CONTROLLER MICROPROCESSOR MODEL 170 TYPE, ITEM NUMBER 672-1-1, TO INCLUDE CABINET AND FOUNDATION. WHEN NO CONFLICT EXISTS WITH THE ADA GUIDELINES, THE CABINET SHALL BE INSTALLED WITH TELCO DOOR FACING THE ADJACENT ROADWAY.
4.- FLASHING OPERATION: ABBOTT AV. YELLOW.
71 STREET. RED.
5.- THE DEMAND WATTAGE FOR THIS INTERSECTION IS 995 WATTS.
8.- SOUTHERN BELL SERVICE POINT PER MR. DAVID WILCOX PHONE 795-1472.
9.- FP&L SERVICE POINT PER MR. TOM HODGDON PHONE 347-7872.
10.- REMOVE EXISTING FP&L SERVICE WIRE AND INSTALL NEW SERVICE CONNECTION. SBT&T SERVICE AND CONNECTION TO REMAIN.
11.- CONTRACTOR TO USE EXISTING PULL BOXES AND CONDUIT AS REQUIRED . OTHERWISE ABANDON OR REMOVE CONDUIT AND PULL BOXES IN CONFLICT WITH DESIGN.
12.- CONTRACTOR TO REMOVE EXISTING CABINET, CONCRETE BASE AND INSTALL NEW BASE AND CONTROLLER CABINET.

*NOT CONSIDERED PART OF BID:
PROPOSED INTERCONNECT CABLE,CONDUIT & PULL BOXES BETWEEN INTERSECTIONS WILL BE INSTALLED UNDER SEPARATE CONTRACT.

SUMMARY OF CONCRETE				
ITEM	SWK ONLY	PED RAMP	ISLAND	TOTAL
110-4	45 ST	4 EA	-	45 SY
520-1-8	-	-	-	-
522-1	45 ST	4 EA	-	45 SY
523-70	45 SY	-	-	45 SY

REMOVAL ITEMS

690-10	5 EA
690-20	3 EA
690-30	4 EA
690-50	1 EA
690-80	1 EA
690-90	1 PI
690-100	1 PI
700-46-15	2 AS

ABBOTT AV & 71 ST
ID No. 2637 Sect 21
CAT. No. II-D

INT
61

DATE	BY	DESCRIPTION		BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
	D.B.	9/92		D.R.	10/92
	F.R.A.	9/92		D.B.	10/92

SUPERVISED BY: F.R.A.

FLORIDA DEPARTMENT OF TRANSPORTATION
FRANK R. ALEMAN
11/92

FR ALEMAN & Associates, Inc.

SIGNALIZATION PLAN

Sect 21

Miami-Dade, FL

2638 -SR A1A/Abbott Ave. & 72nd St. - 2070-1C - Econolite Type - Cobalt

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

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	8	00:00
2	10	06:00
3	1	07:00
4	10	19:30
5	13	21:00
6	2	15:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	8	00:00
2	10	08:00
3	14	10:00
4	12	16:30
5	10	18:30
6	13	21:00

Day Plan #3 - "3"

Event	Action Plan	Start Time
1	8	00:00
2	10	06:00
3	14	10:00
4	12	16:30
5	10	18:30
6	13	21:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

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

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

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

Schedule Number - 2

Day Plan No.: 2

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

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

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

Schedule Number - 3

Day Plan No.: 3

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

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

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

Miami-Dade, FL

2638 -SR A1A/Abbott Ave. & 72nd St. - 2070-1C - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	2	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Miami-Dade, FL

2638 -SR A1A/Abbott Ave. & 72nd St. - 2070-1C - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	36s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	S-T	N	W-T	N	N	N	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	0	58	0	32	0	0	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	32s	0s	0s

Misc. Data

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

Split Pattern

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

Miami-Dade, FL

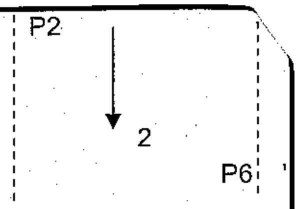
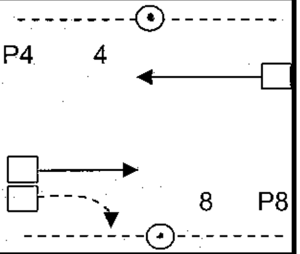
2638 -SR A1A/Abbott Ave. & 72nd St. - 2070-1C - Econolite Type - Cobalt

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

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**N**	**S-T**	**N**	**W-T**	**N**	**N**	**N**	**E-T**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	0	5	0	7	0	0	0	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	0	0	5	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	17	0	20	0	0	0	20	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	1.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	38	0	22	0	0	0	22	0	0	0	0	0	0	0	0
Max2	0	0	0	30	0	0	0	30	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	4.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	0.0	2.4	0.0	2.3	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	1.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SIGNAL OPERATING PLAN

N

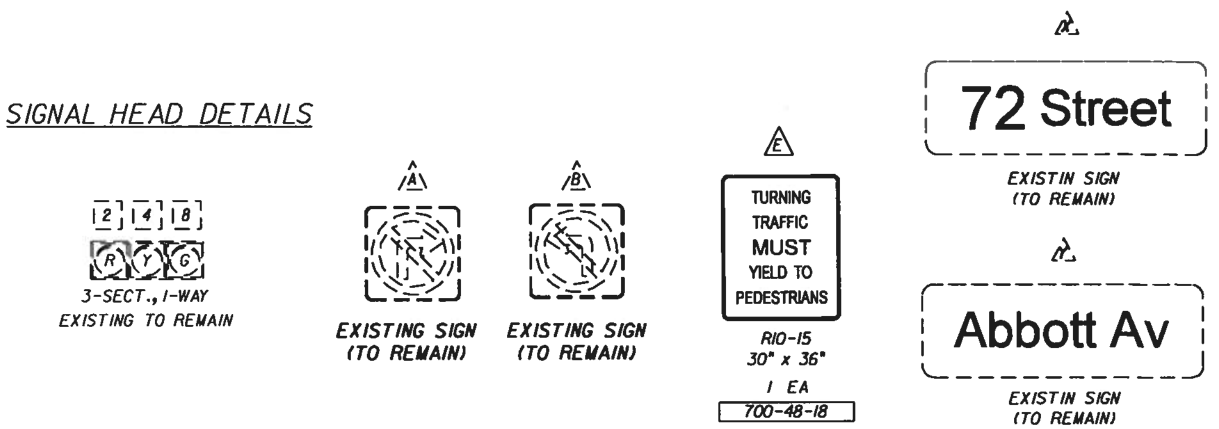
	Direction			SB	EB	WB	Ped Heads				
Timing Phases	Head No.			2	8	4	P6	P2	P8	P4	Movements/Display/Actu
(2) SB ABBOTT (RECALL)	Dwell			G	R	R	W/F	W/F	DW	DW	
	Clear to	(4+8)		Y	R	R	DW	DW	DW	DW	
	Dwell										
	Clear to										
(4+8) E/WB 72 STREET (ACTUATED)	Dwell			R	G	G	DW	DW	W/F	W/F	
	Clear to	(2)		R	Y	Y	DW	DW	DW	DW	
	Dwell										
	Clear to										
	Dwell										
	Clear to										
	Dwell										
	Clear to										
Flashing Operation				FY	FR	FR					Page 1 of 1

Miami-Dade County Public Works Department

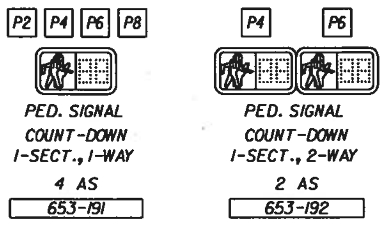
Drawn WILLIAM RIVERA PAZ	Date 9/19/2012	Abbott Av & 72nd ST		
		Placed in Service	Phasing No.	Asset Number
Checked H. HERNANDEZ	Date 9/27/12	Date 11/13/12 By ~~SLU~~ F.S.	5	2638

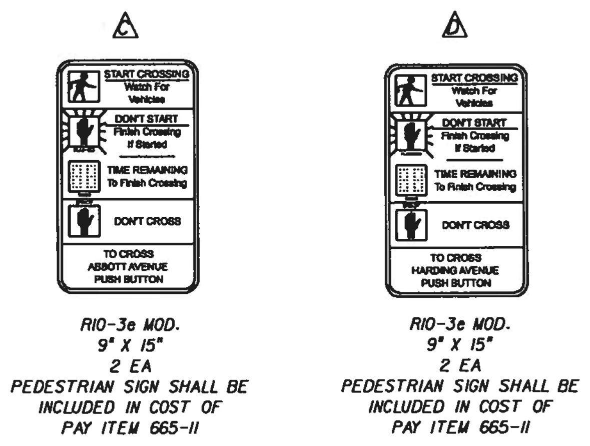
Blank12

SIGNAL HEAD DETAILS

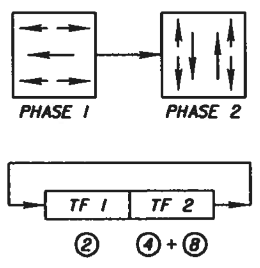


PEDESTRIAN SIGNAL DETAILS





S.O.P.



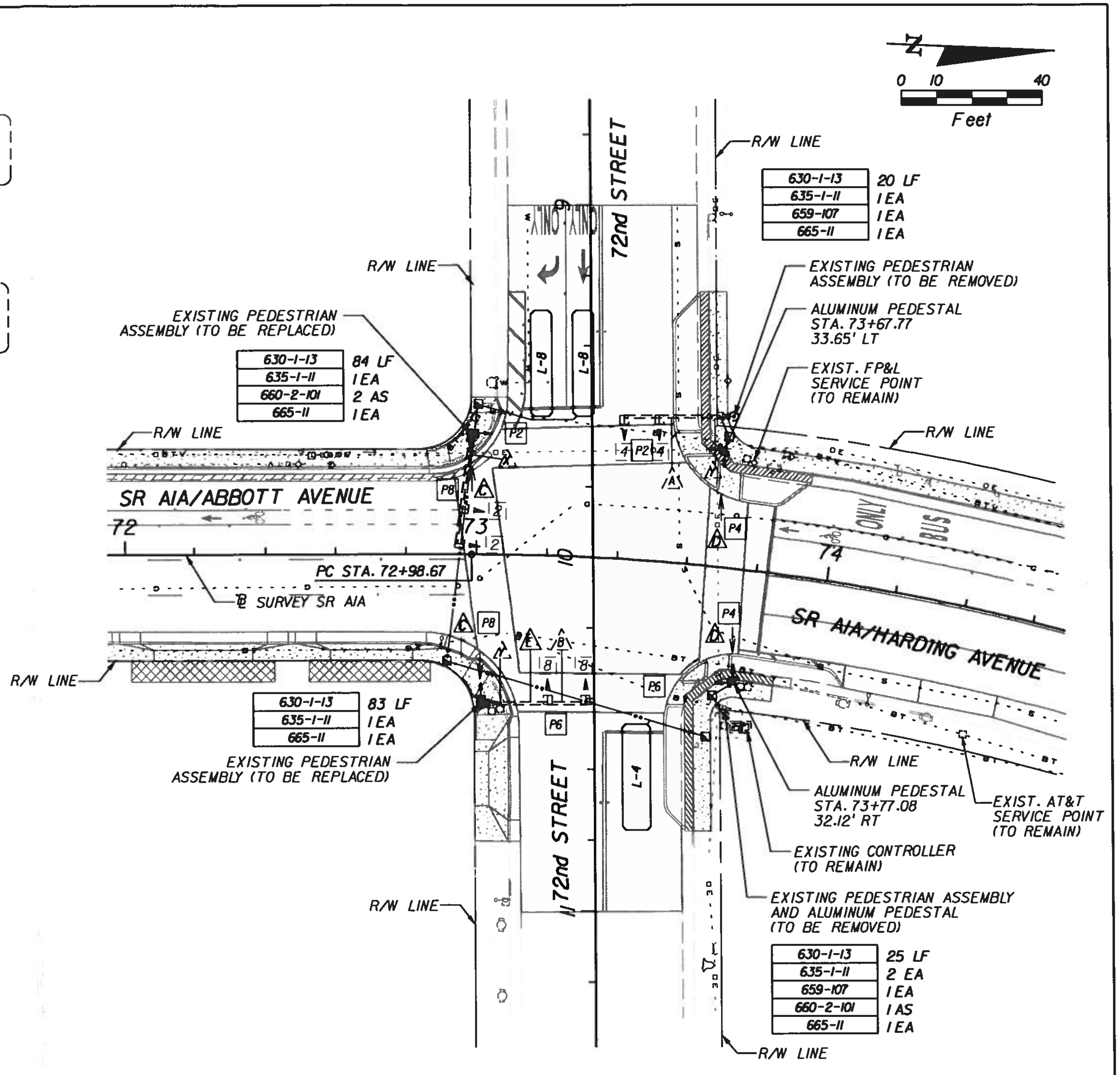
CONTROLLER OPERATIONS

1. MAJOR STREET: ABBOTT AVENUE
   MINOR STREET: 72 STREET
2. FLASHING OPERATION: 2 - YELLOW
   4 & 8 - RED

NOTES

1. SIGNAL TIMING TO BE PROVIDED BY MIAMI-DADE COUNTY SIGNAL DIVISION.
2. ALIGN PEDESTRIAN SIGNAL HEADS WITH THE BEGINNING OF THE CROSSWALKS THEY SERVE.
3. L-4 LOOP SIZE SHALL BE 8' X 30'

DETECTORS FOR LOOPS		
LOOP	NO. OF LOOPS	NO. OF NEW DETS.
L-4	1	1
L-8	2	1



CONTROLLER ITEMS

632-7-1	1 PI
660-1-109	2 EA
670-5-420	1 AS

REMOVAL ITEMS

690-20	8 EA
690-31	1 EA
690-100	1 PI

INTERSECTION I.D. #2638
ABBOT AVENUE & 72ND STREET

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CORRADINO
4055 N.W. 97th Avenue, Doral, Florida, 33178
Ph : (305) 594-0735 Fax : (305) 594-0755
Certificate Of Authorization No. 00007665
E.O.R. Favio A. Laverde, P.E. No. 63546

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	MIAMI-DADE	419860-1-52-01

SIGNALIZATION PLAN

SHEET NO.
T-5

USER: jsotero 9/27/2010 3:13:58 PM C:\41986015201\signals\PLANSG02.DGN

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

TOD Schedule Report

for 2692: Collins Av&71 St

Print Date: 6/19/2019

Print Time: 8:42 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2692	Collins Av&71 St	DOW-4	TOD	[05] POST-AM PEAK	90	73	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
PED	NBT	EBT	WBT	NBL	-	-	-
21	20	19	12	20	0	0	0
N/A	↑	→	←	↰			

Active Phase Bank: **Phase Bank 1**

Phase	Walk	Don't Walk	Min Initial	Veh Ext	Max Limit	Max 2	Yellow	Red
Phase Bank	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 PED	4 - 4 - 4	16 - 16 - 16	0 - 0 - 0	0 - 0 - 0	20 - 20 - 20	20 - 20 - 20	0	0
2 NBT	4 - 4 - 4	10 - 10 - 10	4 - 4 - 4	1 - 1 - 1	16 - 16 - 16	0 - 0 - 0	4	2
3 EBT	4 - 4 - 4	15 - 15 - 15	7 - 7 - 7	1 - 1 - 1	12 - 12 - 12	33 - 21 - 21	4	2
4 WBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	2.5 - 2.5 - 2.5	7 - 7 - 7	20 - 12 - 12	4	2
5 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	1 - 1 - 1	20 - 20 - 20	20 - 20 - 20	4	2
6 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12345---
External Permit 0	12345---
External Permit 1	12345---
External Permit 2	12345---

Current TOD Schedule	Plan	Cycle	Green Time 1 PED	2 NBT	3 EBT	4 WBT	5 NBL	6 -	7 -	8 -	Ring Offset	Offset
	1	90	23	16	19	14	16	0	0	0	0	15
	2	140	21	75	19	7	75	0	0	0	0	26
	3	180	24	89	31	18	89	0	0	0	0	83
	4	180	20	102	30	10	102	0	0	0	0	80
	5	90	21	20	19	12	20	0	0	0	0	73
	6	100	21	26	19	16	26	0	0	0	0	23
	12	90	20	26	19	7	26	0	0	0	0	60
	13	70	29	9	19	**	9	0	0	0	0	26
	14	90	19	20	19	14	20	0	0	0	0	78

Local TOD Schedule

Time	Plan	DOW
0000	13	Su S
0000	1	M T W Th F
0600	5	M T W Th F
1000	14	Su S
1600	3	M T W Th F
1630	6	Su S
1900	12	M T W Th F

TOD Schedule Report

for 2692: Collins Av&71 St

Print Date:
6/19/2019

Print Time:
8:42 AM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S
0000	TOD LOCAL MULTIFU	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFU	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S
0000	TOD LOCAL MULTIFUNCT	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFUNCT	--------	SuM T W ThF S

*** Settings**

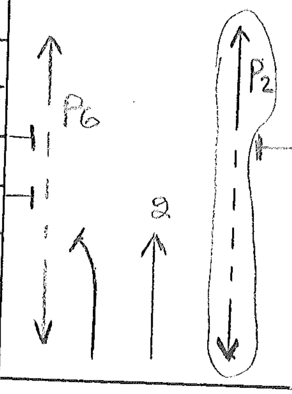
Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

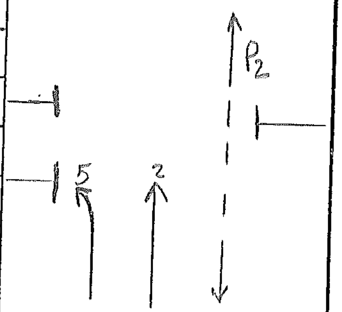
No Calendar Defined/Enabled

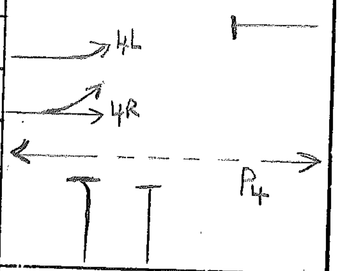
SIGNAL OPERATING PLAN

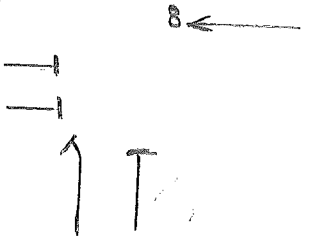
4N

PHASE	INT			2	4L	5	8	4R	P2	P4	P6
Φ~~2~~ 1 NBND RECALL	R/W			G	R	R	R	R	W	DW	W
	PED CLR			G	R	R	R	R	FDW	DW	FDW
	TO CLEAR Φ2+5			G	R	R	R	R	DW	DW	DW
Φ2+5 NBND & NBNDL RECALL	R/W			G	R	←	R	R	W	DW	DW
	PED CLR			G	R	←	R	R	FDW	DW	DW
	TO CLEAR Φ4			Y	R	~~←~~ Y	R	R	DW	DW	DW
Φ~~4~~ 3 EBND RECALL	R/W			R	←	R	R	G/←	DW	W	DW
	PED CLR			R	←	R	R	G/←	DW	FDW	DW
	TO CLEAR Φ8			R	Y	R	R	Y	DW	DW	DW
	Φ2										
Φ~~8~~ 4 WBND ACTUATED	R/W			R	R	R	G	R	DW	DW	DW
	PED CLR			R	R	R	G	R	DW	DW	DW
	TO CLEAR Φ2			R	R	R	Y	R	DW	DW	DW









Drawn	Date
H Francillon	9/2/94
Check	**Date**
F. Badrampour	9/2/94
Division Engineer	**Date**

METROPOLITAN DADE COUNTY
DEPARTMENT OF PUBLIC WORKS

ASSET NO: 2692

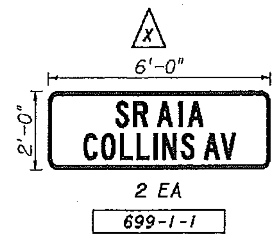
COLLINS AVE & 71 ST

Placed in Service

Date: -194 **By:** MITCHELL

Phasing Number 5

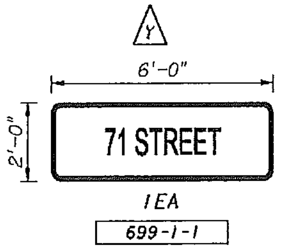
INTERNALLY ILLUMINATED LED SIGNS



SPECIAL SIGN NO. 1

2 EA

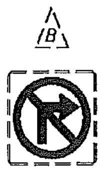
699-1-1



SPECIAL SIGN NO. 5

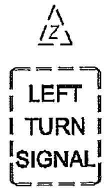
1 EA

699-1-1



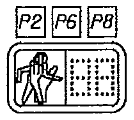
1 EA
(TO REMAIN)

1 EA
(TO REMAIN)

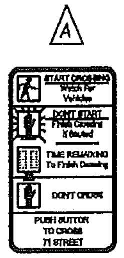


1 EA
(TO REMAIN)

PEDESTRIAN SIGNAL HEAD AND SIGN DETAILS

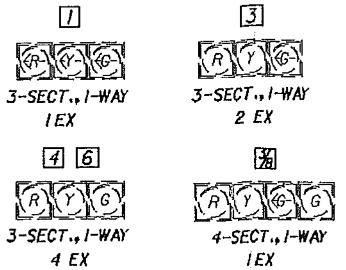


PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
6 AS
653-191



R10-3E (MODIFIED)
9" X 15"
2 EA
COST TO BE INCLUDED
IN PAY ITEM 665-11

SIGNAL HEAD DETAILS

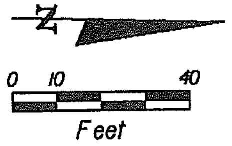


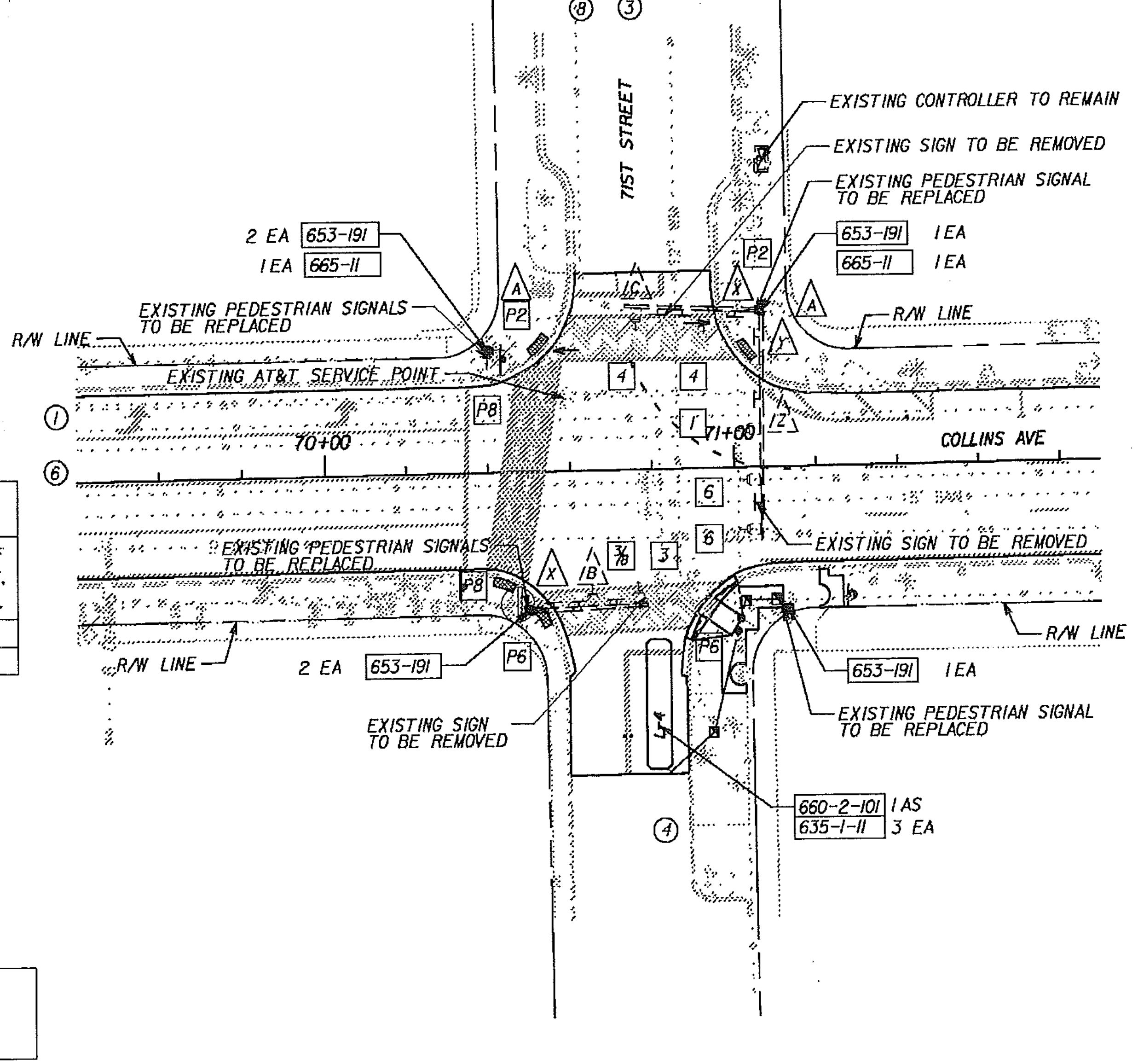
3-SECT., 1-WAY
1 EX

3-SECT., 1-WAY
2 EX

3-SECT., 1-WAY
4 EX

4-SECT., 1-WAY
1 EX





DETECTORS FOR LOOPS			
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST. DETS.
L-4	1		1

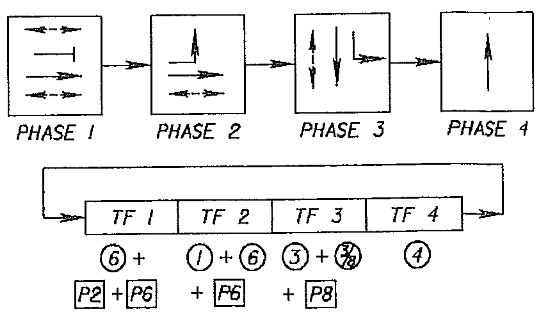
CONTROLLER OPERATIONS

1. TYPE OF CONTROLLER FOUR PHASE PARTIALLY PRE-TIMED, PARTIALLY ACTUATED CONTROLLER
2. MAJOR STREET: SR A1A (COLLINS AVENUE)
MINOR STREET: 71ST STREET
3. SOP: SOP AS SHOWN BELOW
4. PED. SIGNALS (P-2) UPON ACTUATION ONLY.

NOTES

1. SIGNAL TIMING TO BE PROVIDED BY MIAMI-DADE COUNTY SIGNAL DIVISION.
2. CENTER OF INTERNALLY ILLUMINATED SIGNS TO BE INSTALLED 5 FEET FROM FACE OF POLE.
3. ALL PEDESTRIAN SIGNAL HEADS SHALL BE ALIGNED TO THE CENTER OF THE FAR SIDE OF THE CROSSWALK THEY SERVE.

S.O.P.



REMOVAL ITEMS			
690-20	SIGNAL PEDESTRIAN ASSEMBLY REMOVAL	6	EA
690-70	DETECTOR PEDESTRIAN ASSEMBLY REMOVAL	2	EA
690-100	SIGNAL EQUIPMENT MISCELLANOUS REMOVE	1	PI
700-48-60	SIGN PANEL, REMOVE	3	EA

A1A/ COLLINS AVENUE & 71ST STREET

ID No.: 2692

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

S Z
& A

SANCHEZ, ZEINALI & ASSOCIATES
10305 NW 41st STREET SUITE 103
MIAMI, FLORIDA 33178
(305) 477-4467
CERTIFICATE OF AUTHORIZATION NO. 7840
ENGINEER OF RECORD:
FRANK PANELLAS, P.E.
P.E. LICENSE NO. 59448

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	MIAMI DADE	424579-1-52-01

SIGNALIZATION PLAN

SHEET NO.
T-7

minastrilla 1/27/2010 9:10:06 AM Z:\FDOT\42457915201\signals\PLANSG04.DGN

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

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

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	43	00:00
2	38	00:30
3	10	06:00
4	1	07:00
5	2	15:00
6	10	19:30
7	43	21:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	43	00:00
2	38	01:00
3	14	10:00
4	10	18:30
5	43	21:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

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

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

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

Schedule Number - 2

Day Plan No.: 2

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

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

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

Miami-Dade, FL

3544 - SR A1A/Harding Ave. & 71st St. - 2070-1C - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Miami-Dade, FL

3544 - SR A1A/Harding Ave. & 71st St. - 2070-1C - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	42s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N-T	W-L	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	12	37	0	41	12	37	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data

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

Split Pattern

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

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	90	Std (COS)	17	Offsets In	Seconds
Offset Value	66s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N-T	W-L	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	12	37	0	41	12	37	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data

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

Split Pattern

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

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	90	Std (COS)	25	Offsets In	Seconds
Offset Value	26s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N	N-T	W-L	E-T	N	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	10	34	0	46	10	34	0	46	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data

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

Split Pattern

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

Miami-Dade, FL

3544 - SR A1A/Harding Ave. & 71st St. - 2070-1C - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Miami-Dade, FL

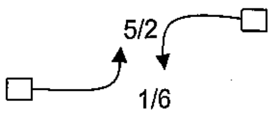
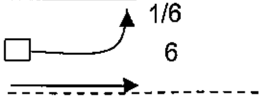
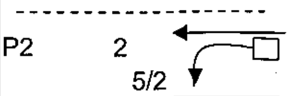
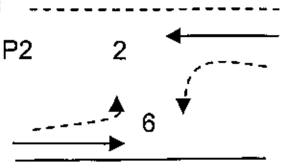
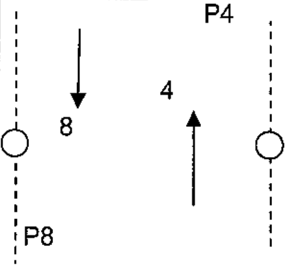
3544 - SR A1A/Harding Ave. & 71st St. - 2070-1C - Econolite Type - Cobalt

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

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**E-L**	**W-T**	**N**	**N-T**	**W-L**	**E-T**	**N**	**S-T**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	5	7	0	7	5	7	0	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	11	0	16	0	11	0	16	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.0	1.0	0.0	1.0	2.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	5	40	0	21	5	40	0	21	0	0	0	0	0	0	0	0
Max2	12	0	0	43	12	0	0	43	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	0.0	4.0	3.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	0.0	2.1	0.0	2.3	0.0	2.1	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	2.0	1.0	0.0	1.0	2.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SIGNAL OPERATING PLAN

N

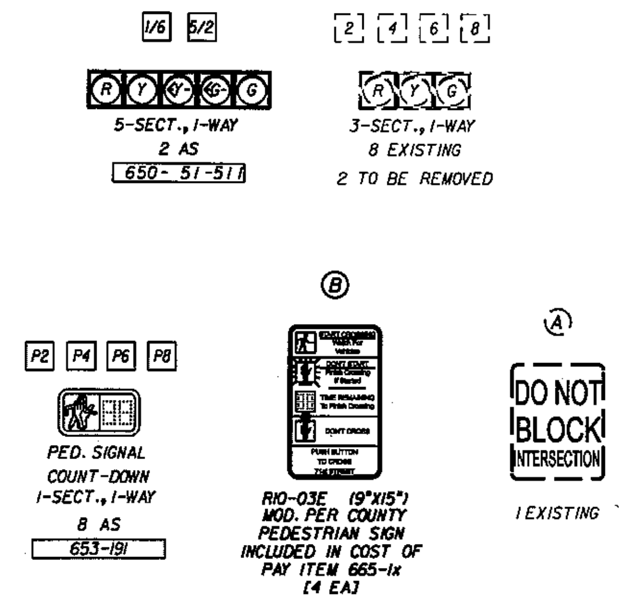
	Direction		EB		WB		SB		NB		Ped Heads				
Timing Phases	Head No.		1/6	6	5/2	2		8		4	P6	P2	P4	P8	Movements/Display/Actuation
(1+5)	Dwell		R/<G	R	R/<G	R		R		R	DW	DW	DW	DW	
E/WLT	a r	1+6	R/<G	R	R/<Y	R		R		R	DW	DW	DW	DW	
71 STREET	t	2+5	R/<Y	R	R/<G	R		R		R	DW	DW	DW	DW	
(ACTUATED)	o	2+6	R/<Y	R	R/<Y	R		R		R	DW	DW	DW	DW	
(1+6)	Dwell		G/<G	G	R	R		R		R	W/F	DW	DW	DW	
EB	e a	2+6	G/<Y	G	R	R		R		R	W/F	DW	DW	DW	
(ACTUATED)	r														
(2+5)	Dwell		R	R	G/<G	G		R		R	DW	W/F	DW	DW	
WB	t	2+6	R	R	G/<Y	G		R		R	DW	W/F	DW	DW	
(ACTUATED)	o										DW	DW	DW	DW	
(2+6)	Dwell		G	G	G	G		R		R	W/F	W/F	DW	DW	
E/WB	l e	4+8	Y	Y	Y	Y		R		R	DW	DW	DW	DW	
71 STREET	a														
	r														
(RECALL)	t														
(4+8)	Dwell		R	R	R	R		G		G	DW	DW	W/F	W/F	
		1+5	R	R	R	R		Y		Y	DW	DW	DW	DW	
N/SB	c l	1+6	R	R	R	R		Y		Y	DW	DW	DW	DW	
	e a	2+5	R	R	R	R		Y		Y	DW	DW	DW	DW	
HARDING AV	r	2+6	R	R	R	R		Y		Y	DW	DW	DW	DW	
	t o														
(ACTUATED)															
			FY	FY	FY	FY		FR		FR					

Miami-Dade County Public Works Department

Drawn William Rivera-Paz	Date 10/19/2011	Harding Av & 71 Street		
Checked H. HERNANDEZ	Date 10/20/11	Placed in Service Date 12/17/2011 By SGI	Phasing No. 4	Asset Number 3544

Blank12

SIGNAL HEAD DETAILS



5-SECT., 1-WAY
2 AS
650- 51-511

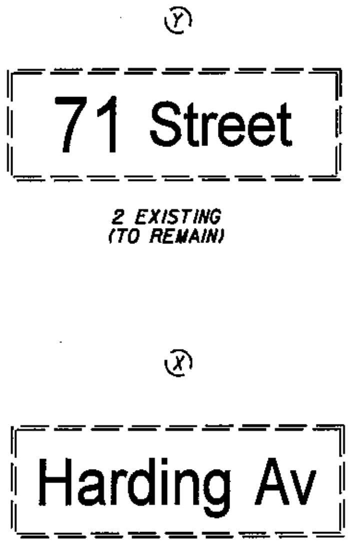
3-SECT., 1-WAY
8 EXISTING
2 TO BE REMOVED

PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
8 AS
653-191

R10-03E (9"X15")
MOD. PER COUNTY
PEDESTRIAN SIGN
INCLUDED IN COST OF
PAY ITEM 665-1x
[4 EA]

1 EXISTING

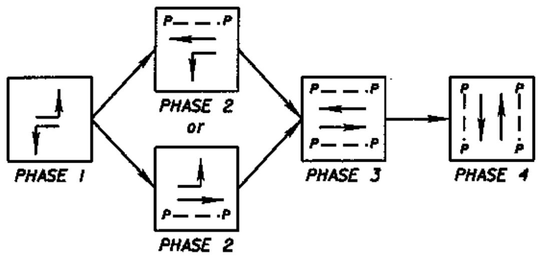
INTERNALLY ILLUMINATED LED STREET NAME SIGNS

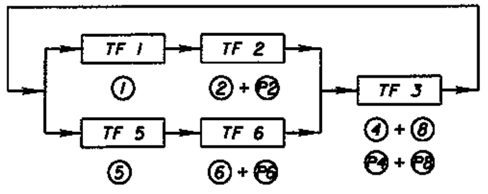


2 EXISTING
(TO REMAIN)

2 EXISTING
(TO REMAIN)

PROPOSED S.O.P.





DETECTORS FOR LOOPS			
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST. DETS.
L-1	1	1	
L-5	1	1	
L-			
L-			
L-			

CONTROLLER OPERATIONS

1. MAJOR STREET IS SR 934 / 71 ST.
   MINOR STREET IS HARDING AVE.
2. SIGNAL OPERATING PER PHASING DIAGRAM SHOWN.
3. FLASHING OPERATION IS
   YELLOW: MOVEMENT ② + ⑥
   RED: MOVEMENT ④ + ⑧

NOTES:

(1) ALIGN PROPOSED PEDESTRIAN SIGNALS WITH CENTER OF CROSSWALK.

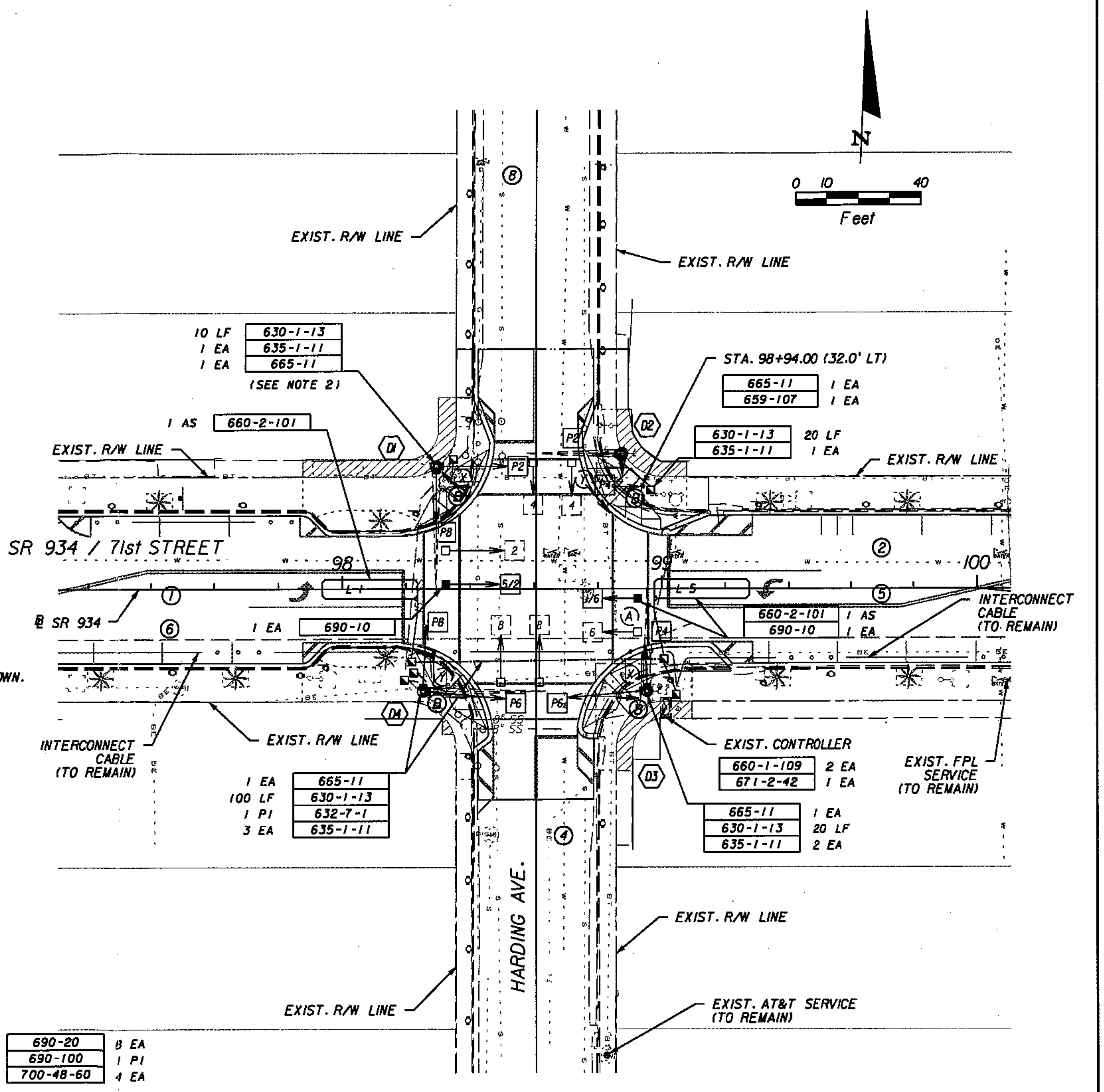
(2) FOR PULL BOXES THAT ARE REPLACED, INSTALL NEW CONDUIT SEGMENT BETWEEN THE PROPOSED PULL BOX AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTOR AND RUN NEW CONDUCTOR FROM PULL BOX TO CONTROLLER WITH NO SPLICING.

(3) ALL INTERCONNECT CABLE TO REMAIN.

(4) EXIST. OVERHEAD STREET NAME SIGNS TO REMAIN.

(5) REMOVE EXIST. PEDESTRIAN SIGNALS

(6) UTILIZE EXIST. EMPTY CONDUIT AT PULL BOX NEAR CONTROLLER TO CONNECT THE PROPOSED LOOPS.



SR 934 (NE 71 ST.) & HARDING AVE. (ID # 3544)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Alvarez Engineers, Inc.
FLORIDA CERTIFICATE OF AUTHORIZATION No. 7538
RAMON TESONE, PE No. 56070
10560 N.W. 27th Street, Suite 102
Miami, Florida 33172
Tel. (305) 640-1345 Fax (305) 640-1345
E-mail Alvarez@AlvarezEng.com

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
934	MIAMI-DADE	419825-1-52-01

SIGNALIZATION PLAN

SHEET NO.
T-7

ramon 2/21/2010 7:09:48 PM \\aes-dc-02\data\alvarez data\projects\41982515201\signals\PLANSG04.dgn

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

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	62	00:00

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 62 - "62"

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Miami-Dade, FL

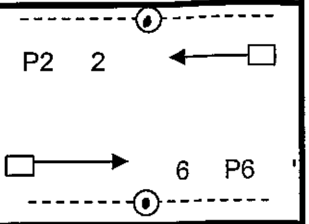
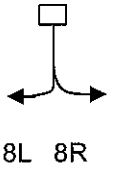
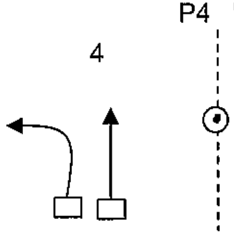
6573 - SR A1A/Harding Ave. & 69th St. - 2070-1C - Econolite Type - Cobalt

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

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**N**	**W-T**	**S-T**	**N-T**	**N**	**E-T**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	0	7	7	7	0	7	0	0	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	4	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	20	16	0	20	0	16	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	20	10	24	0	20	0	0	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	4.0	4.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	3.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SIGNAL OPERATING PLAN

↑ N

	Direction		EB		WB		SB		NB		Ped Heads				
Timing Phases	Head No.			6		2	8L	8R	7/4	4	P2	P4	P6	P8	Movements/Display/Actuation
(2+6)	Dwell			G		G	R	R	R	R	W/F	DW	W/F	DW	
E/WB	Clear to	1		Y		Y	R	R	R	R	DW	DW	DW	DW	
		3		Y		Y	R	R	R	R	DW	DW	DW	DW	
69 ST		4		Y		Y	R	R	R	R	DW	DW	DW	DW	
(ACTUATED)															
	Dwell														
	Clear to														
X-PED	Dwell			R		R	R	R	R	R	W/F	W/F	W/F	W/F	
(1)	Clear to	3		R		R	R	R	R	R	DW	DW	DW	DW	
		4		R		R	R	R	R	R	DW	DW	DW	DW	
		2+6		R		R	R	R	R	R	DW	DW	DW	DW	
(ACTUATED)															
(3)	Dwell			R		R	<G/<G	G>/G>	R	R	DW	DW	DW	DW	
	Clear to	4		R		R	Y	Y	R	R	DW	DW	DW	DW	
SB		2+6		R		R	Y	Y	R	R	DW	DW	DW	DW	
		1		R		R	Y	Y	R	R	DW	DW	DW	DW	
HARDING AV															
(ACTUATED)															
(4)	Dwell			R		R	R	R	<G/G	G	DW	W/F	DW	DW	
	Clear to	2+6		R		R	R	R	Y	Y	DW	DW	DW	DW	
NB		1		R		R	R	R	Y	Y	DW	DW	DW	DW	
		3		R		R	R	R	Y	Y	DW	DW	DW	DW	
HARDING AV															
(ACTUATED)															
	Dwell														
	Clear to														
Flashing Operation				FR		FR	FR	FR	FR	FR					Page 1 of 1

Miami-Dade County Public Works Department

Designed by:	Date			
WILLIAM RIVERA-PAZ	8/8/2008	HARDING AV & 69 ST		
Checked by:	Date	Placed in Service	Phasing No.	Asset Number
H. HERNANDEZ	8/12/08	Date 11/13/08 By CONST	1	6573

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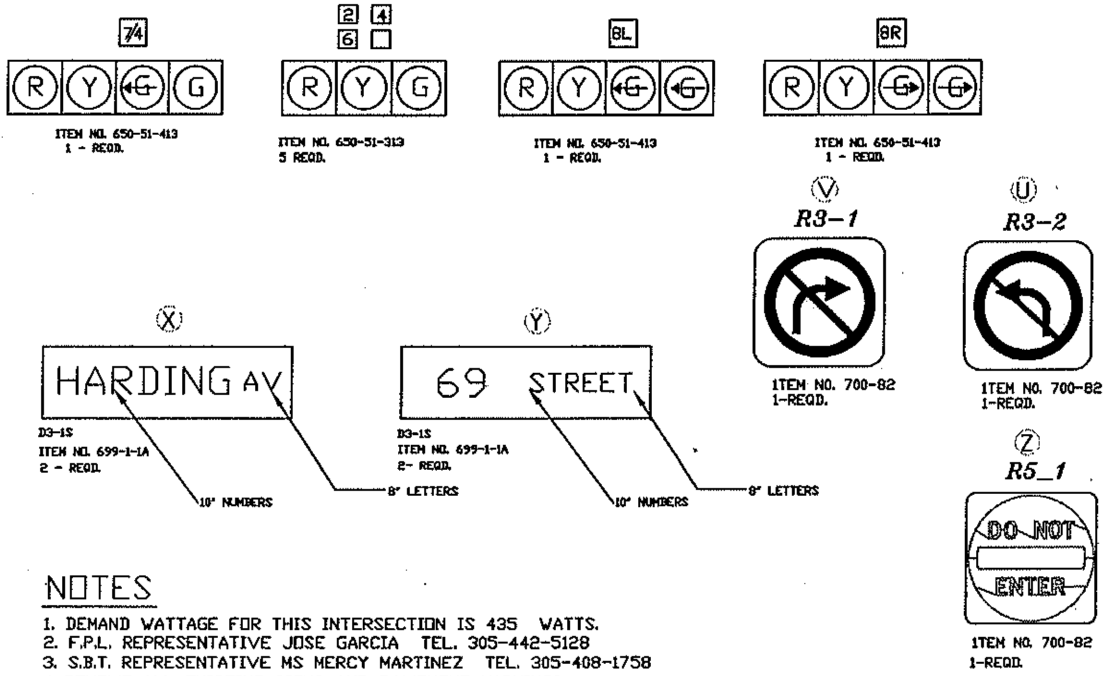
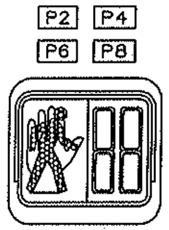
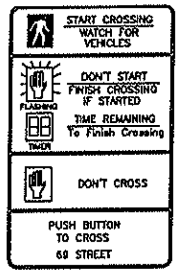
MAIMI-DADE COUNTY PUBLIC WORKD DEPT.
TRAFFIC ENGINEERING DIVISION
PROJECT NO. SHEET OF

SIGNAL HEAD & SIGN DETAILS

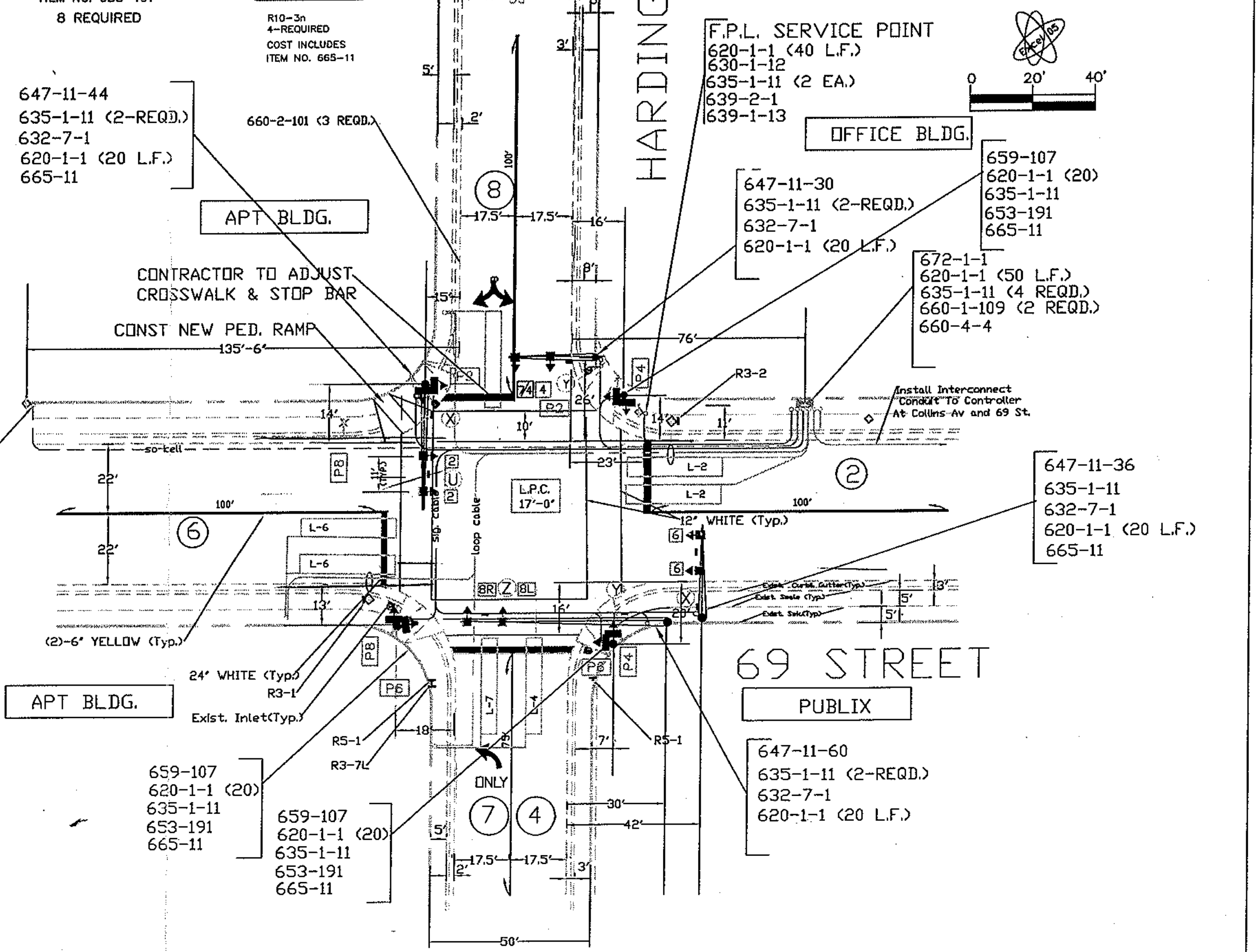




ITEM NO. 653-191
8 REQUIRED



R10-3n
4-REQUIRED
COST INCLUDES
ITEM NO. 665-11



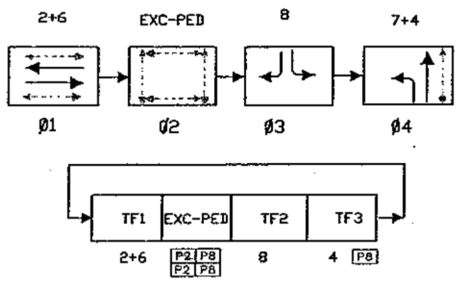
NOTES

1. DEMAND WATTAGE FOR THIS INTERSECTION IS 435 WATTS.
2. F.P.L. REPRESENTATIVE JOSE GARCIA TEL. 305-442-5128
3. S.B.T. REPRESENTATIVE MS MERCY MARTINEZ TEL. 305-408-1758
4 REMOVE ALL EXISTING SIGNS AND PAVEMENT MARKINGS CONFLICTING WITH THIS DESIGN
5 MEET AND MATCH EXISTING PAVEMENT MARKINGS WITH PROPOSE PAVEMENT MARKINGS INSTALL REFLECTIVE PAVMENT MARKERS AS PER M.D.C.P.W.D. STANDARD.
4. LOOPS SHALL BE 6' X 30' IN THRU LANES 5' X 30' IN THE LEFL TURN LANES

CONTROLLER OPERATIONS

1. MAJOR STREET IS 69 ST MINOR STREET IS HARDING AV
2. SIGNAL OPERATING PLAN ______ (AS SHOWN)
3. PHASE(S 01,02,03,04 ACTUATED, PHASE ______RECALL
4. MOVEMENT'S) ___--___IS (ARE) PROTECTED/PERMISSIVE
5. SIGNAL COORDINATION PHASE IS______
6. FLASHING OPERATION: 69 ST RED; HARDING AV RED
7. PEDESTRIAN SIGNAL SHOULD BE DISPLAYED UPON ACTUATION ONLY.

SIGNAL OPERATING PLAN



DETECTOR FOR LOOPS		
MVM'T NO.	NO. OF LOOPS	NO. OF DETS
2	2	1
4	1	1
6	2	1
7	1	0
8	1	1

REVISIONS		
DATE	DESCRIPTION	BY

SIGNALIZATION PLAN
HARDING AV AND 69 ST

DESIGNED BY	DRAWN BY	CHECKED BY	DATE	FILE NO.
CS	CS	V.R.	08-08-08	6573

Historic Background Growth

Historic Growth Trend
Abbott Site

Station	Location	2013	2014	2015	2016	2017	2018
5189	SR 934 /71 ST, 200' W SR A1A / HARDING AV	11,600	12,000	11,700	11,100	10,800	10,500
0115	SR 934 / NORMANDY DR. WB. 100' W RUE VERSAILLES	18,500	17,500	18,000	19,500	21,000	14,500
5191	SR 934 / NE 79TH ST / NORTH BAY CSWY / 71ST ST, 100' W OF RUE VERSAILLESE	20,500	16,500	19,000	18,500	17,000	17,500
0520	SR A1A/HARDING AV/ONE-WAY PAIR SB, 100' N 87 ST	25,500	26,000	26,500	27,000	24,500	25,500
0525	SR A1A/COLLINS AV/ONE-WAY PAIR NB, 100' N 87 ST	25,000	21,500	24,500	25,000	21,000	22,000
2541	SR A1A/COLLINS AVE, 500' S OF 63 ST (MIAMI BEACH)	21,000	21,500	20,000	2,100	18,000	19,000
TOTAL		122,100	115,000	119,700	103,200	112,300	109,000
Yearly Growth			-5.8%	4.1%	-13.8%	8.8%	-2.9%
Growth Trend							-1.9%

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0115 - SR 934/NORMANDY DR. WB. 100' W RUE VERSAILLES.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	14500 C	W 14500	0	9.00	99.90	8.50
2017	21000 C	W 21000	0	9.00	99.90	6.90
2016	19500 C	W 19500	0	9.00	99.90	7.20
2015	18000 C	W 18000	0	9.00	99.90	11.80
2014	17500 C	W 17500		9.00	99.90	10.40
2013	18500 C	W 18500	0	9.00	99.90	9.00
2012	21500 C	W 21500	0	9.00	99.90	10.50
2011	18000 C	W 18000	0	9.00	99.90	10.50
2010	18000 C	W 18000	0	8.98	99.99	9.50
2009	16000 C	W 16000	0	8.99	99.99	8.40
2008	16500 C	W 16500	0	9.09	99.99	9.60
2007	18000 C	W 18000	0	8.01	99.99	6.60
2006	17000 C	W 17000	0	7.97	99.99	8.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0520 - SR A1A/HARDING AV/ONE-WAY PAIR SB, 100' N 87 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	25500 C	S 25500	0	9.00	99.90	4.90
2017	24500 C	S 24500	0	9.00	99.90	7.50
2016	27000 C	S 27000	0	9.00	99.90	9.10
2015	26500 C	S 26500	0	9.00	99.90	7.60
2014	26000 C	S 26000		9.00	99.90	5.40
2013	25500 C	S 25500	0	9.00	99.90	3.00
2012	26000 C	S 26000	0	9.00	99.90	3.80
2011	23500 C	S 23500	0	9.00	99.90	7.50
2010	24000 C	S 24000	0	8.98	99.99	8.80
2009	23000 C	S 23000	0	8.99	99.99	8.40
2008	24000 C	S 24000	0	9.09	99.99	5.30
2007	24000 C	S 24000	0	8.01	99.99	4.90
2006	24000 C	S 24000	0	7.97	99.99	2.20
2005	27000 C	S 27000	0	8.80	99.90	5.50
2004	27500 C	S 27500	0	9.00	99.90	8.20
2003	26000 C	S 26000	0	8.80	99.90	4.90

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
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0525 - SR A1A/COLLINS AV/ONE-WAY PAIR NB, 100' N 87 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22000 C	N 22000	0	9.00	99.90	5.60
2017	21000 C	N 21000	0	9.00	99.90	5.30
2016	25000 C	N 25000	0	9.00	99.90	7.80
2015	24500 C	N 24500	0	9.00	99.90	4.60
2014	21500 C	N 21500		9.00	99.90	5.10
2013	25000 C	N 25000	0	9.00	99.90	6.10
2012	32500 C	N 32500	0	9.00	99.90	8.40
2011	22000 C	N 22000	0	9.00	99.90	7.50
2010	22500 C	N 22500	0	8.98	99.99	8.80
2009	22500 C	N 22500	0	8.99	99.99	8.40
2008	24500 C	N 24500	0	9.09	99.99	5.30
2007	26000 C	N 26000	0	8.01	99.99	4.90
2006	24000 C	N 24000	0	7.97	99.99	2.20
2005	25000 C	N 25000	S	8.80	99.90	5.50
2004	24000 C	N 24000	S	9.00	99.90	8.20
2003	26500 C	N 26500	S	8.80	99.90	4.90

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2541 - SR A1A/COLLINS AVE, 500' S OF 63 ST (MIAMI BEACH)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	19000 C	N 19000	0	9.00	99.90	5.60
2017	18000 C	N 18000	0	9.00	99.90	5.30
2016	21000 C	N 21000	0	9.00	99.90	7.80
2015	20000 C	N 20000	0	9.00	99.90	4.60
2014	21500 C	N 21500		9.00	99.90	5.10
2013	21000 C	N 21000	0	9.00	99.90	6.10
2012	19000 C	N 19000	0	9.00	99.90	8.40
2011	17000 C	N 17000	0	9.00	99.90	7.50
2010	15000 C	N 15000	0	8.98	99.99	8.80
2009	21000 C	N 21000	0	8.99	99.99	8.40
2008	18000 C	N 18000	0	9.09	99.99	5.30
2007	16000 S	0	0	8.01	99.99	4.90
2006	16000 F			7.97	99.99	2.20
2005	16000 C	N 16000		8.80	99.90	5.50
2004	17000 C	N 17000		9.00	99.90	8.20
2003	18000 C	N 18000		8.80	99.90	4.90

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5189 - SR 934/71 ST, 200' W SR A1A/HARDING AV

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	10500 C	E 5400	W 5100	9.00	54.30	4.30
2017	10800 C	E 5300	W 5500	9.00	55.00	4.30
2016	11100 C	E 5600	W 5500	9.00	54.50	4.30
2015	11700 C	E 5900	W 5800	9.00	54.70	3.80
2014	12000 C	E 6100	W 5900	9.00	54.50	3.80
2013	11600 C	E 5900	W 5700	9.00	52.40	3.70
2012	16600 C	E 7100	W 9500	9.00	55.70	10.50
2011	12000 C	E 5900	W 6100	9.00	55.10	10.50
2010	13800 C	E 5900	W 7900	8.98	54.08	9.50
2009	14400 C	E 6500	W 7900	8.99	53.24	8.40
2008	13800 C	E 6200	W 7600	9.09	55.75	9.60
2007	13800 C	E 5900	W 7900	8.01	54.34	6.60
2006	12700 C	E 5800	W 6900	7.97	54.22	8.80
2005	15800 C	E 8100	W 7700	8.80	53.80	5.50
2004	21000 C	E 9500	W 11500	9.00	53.30	12.00
2003	17200 C	E 8000	W 9200	8.80	53.40	7.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5191 - SR934/NE 79TH ST/NORTH BAY CSWY/71ST ST, 100' W OF RUE VERSAILLES

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	17500 C	E 17500	0	9.00	99.90	8.50
2017	17000 C	E 17000	0	9.00	99.90	6.90
2016	18500 C	E 18500	0	9.00	99.90	7.20
2015	19000 C	E 19000	0	9.00	99.90	11.80
2014	16500 C	E 16500		9.00	99.90	10.40
2013	20500 C	E 20500	0	9.00	99.90	9.00
2012	19500 C	E 19500	0	9.00	99.90	10.50
2011	18500 C	E 18500	0	9.00	99.90	10.50
2010	16500 C	E 16500	0	8.98	99.99	9.50
2009	17500 C	E 17500	0	8.99	99.99	8.40

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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

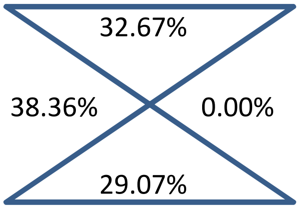
Cardinal Distribution

Abbott Site # 19218

TAZ 622

DIRECTION	2010	2040	2021
NNE	10.60%	11.90%	11.08%
ENE	0.00%	0.00%	0.00%
ESE	0.00%	0.00%	0.00%
SSE	6.90%	11.60%	8.62%
SSW	21.00%	19.50%	20.45%
WSW	28.10%	26.20%	27.40%
WNW	11.10%	10.70%	10.95%
NNW	22.40%	20.20%	21.59%

32.55%	11.08%
47.85%	8.62%



Miami-Dade 2010 Directional Distribution Summary

Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
616	3516	TRIPS	703	540	0	1,630	1,842	1,537	1,127	1,812	9,191
616	3516	PERCENT	7.7	5.9	0.0	17.7	20.0	16.7	12.3	19.7	
617	3517	TRIPS	0	10	0	0	10	0	0	20	40
617	3517	PERCENT	0.0	25.0	0.0	0.0	25.0	0.0	0.0	50.0	
618	3518	TRIPS	330	165	0	322	542	490	234	755	2,838
618	3518	PERCENT	11.6	5.8	0.0	11.4	19.1	17.3	8.3	26.6	
619	3519	TRIPS	158	0	0	588	1,822	1,431	915	2,017	6,931
619	3519	PERCENT	2.3	0.0	0.0	8.5	26.3	20.7	13.2	29.1	
620	3520	TRIPS	173	0	0	481	2,563	2,285	1,185	2,715	9,402
620	3520	PERCENT	1.8	0.0	0.0	5.1	27.3	24.3	12.6	28.9	
621	3521	TRIPS	750	0	271	730	1,325	1,008	570	1,178	5,832
621	3521	PERCENT	12.9	0.0	4.7	12.5	22.7	17.3	9.8	20.2	
622	3522	TRIPS	846	0	0	547	1,669	2,238	881	1,779	7,960
622	3522	PERCENT	10.6	0.0	0.0	6.9	21.0	28.1	11.1	22.4	
623	3523	TRIPS	865	314	362	1,036	918	2,053	953	915	7,416
623	3523	PERCENT	11.7	4.2	4.9	14.0	12.4	27.7	12.9	12.3	
624	3524	TRIPS	1,510	1,185	279	1,139	2,348	3,798	2,999	2,480	15,738
624	3524	PERCENT	9.6	7.5	1.8	7.2	14.9	24.1	19.1	15.8	
625	3525	TRIPS	904	151	0	713	469	1,573	902	1,029	5,741
625	3525	PERCENT	15.8	2.6	0.0	12.4	8.2	27.4	15.7	17.9	
626	3526	TRIPS	86	0	0	0	2,128	2,780	1,523	2,730	9,247
626	3526	PERCENT	0.9	0.0	0.0	0.0	23.0	30.1	16.5	29.5	
627	3527	TRIPS	268	0	0	0	2,782	2,384	1,028	1,982	8,444
627	3527	PERCENT	3.2	0.0	0.0	0.0	33.0	28.2	12.2	23.5	
628	3528	TRIPS	572	0	107	174	1,417	1,412	675	755	5,112
628	3528	PERCENT	11.2	0.0	2.1	3.4	27.7	27.6	13.2	14.8	
629	3529	TRIPS	2,040	549	224	1,939	1,885	5,257	2,755	2,552	17,201
629	3529	PERCENT	11.9	3.2	1.3	11.3	11.0	30.6	16.0	14.8	
630	3530	TRIPS	1,018	0	101	231	1,694	2,664	1,198	1,047	7,953
630	3530	PERCENT	12.8	0.0	1.3	2.9	21.3	33.5	15.1	13.2	
631	3531	TRIPS	422	0	0	0	1,119	1,636	433	741	4,351
631	3531	PERCENT	9.7	0.0	0.0	0.0	25.7	37.6	10.0	17.0	
632	3532	TRIPS	250	0	0	0	528	1,486	568	688	3,520
632	3532	PERCENT	7.1	0.0	0.0	0.0	15.0	42.2	16.1	19.6	
633	3533	TRIPS	330	0	0	0	1,045	1,375	758	776	4,284
633	3533	PERCENT	7.7	0.0	0.0	0.0	24.4	32.1	17.7	18.1	
634	3534	TRIPS	1,649	138	246	667	1,620	2,236	1,335	1,553	9,444
634	3534	PERCENT	17.5	1.5	2.6	7.1	17.2	23.7	14.1	16.4	
635	3535	TRIPS	768	0	0	0	1,106	1,912	1,284	1,253	6,323
635	3535	PERCENT	12.2	0.0	0.0	0.0	17.5	30.2	20.3	19.8	
636	3536	TRIPS	775	0	0	320	731	2,473	1,515	1,466	7,280

Miami-Dade 2040 Directional Distribution Summary

Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
616	3516	TRIPS	887	556	0	1,876	1,859	1,836	1,423	2,112	10,549
616	3516	PERCENT	8.4	5.3	0.0	17.8	17.6	17.4	13.5	20.0	
617	3517	TRIPS	81	36	8	61	50	65	48	56	405
617	3517	PERCENT	20.0	8.9	2.0	15.1	12.4	16.1	11.9	13.8	
618	3518	TRIPS	245	194	0	283	618	438	292	527	2,597
618	3518	PERCENT	9.4	7.5	0.0	10.9	23.8	16.9	11.2	20.3	
619	3519	TRIPS	297	0	0	1,202	2,738	1,949	1,188	3,411	10,785
619	3519	PERCENT	2.8	0.0	0.0	11.2	25.4	18.1	11.0	31.6	
620	3520	TRIPS	59	0	0	691	2,586	2,659	1,388	3,229	10,612
620	3520	PERCENT	0.6	0.0	0.0	6.5	24.4	25.1	13.1	30.4	
621	3521	TRIPS	641	0	207	652	1,069	897	507	931	4,904
621	3521	PERCENT	13.1	0.0	4.2	13.3	21.8	18.3	10.3	19.0	
622	3522	TRIPS	1,041	0	0	1,013	1,705	2,290	939	1,768	8,756
622	3522	PERCENT	11.9	0.0	0.0	11.6	19.5	26.2	10.7	20.2	
623	3523	TRIPS	660	379	254	1,131	910	1,892	857	961	7,044
623	3523	PERCENT	9.4	5.4	3.6	16.1	12.9	26.9	12.2	13.6	
624	3524	TRIPS	1,731	1,417	382	1,244	2,520	3,891	3,312	2,764	17,261
624	3524	PERCENT	10.0	8.2	2.2	7.2	14.6	22.5	19.2	16.0	
625	3525	TRIPS	919	266	0	846	669	1,872	1,085	1,165	6,822
625	3525	PERCENT	13.5	3.9	0.0	12.4	9.8	27.4	15.9	17.1	
626	3526	TRIPS	108	0	0	0	3,832	3,818	1,879	4,428	14,065
626	3526	PERCENT	0.8	0.0	0.0	0.0	27.2	27.2	13.4	31.5	
627	3527	TRIPS	667	0	0	0	4,525	3,711	1,836	3,520	14,259
627	3527	PERCENT	4.7	0.0	0.0	0.0	31.7	26.0	12.9	24.7	
628	3528	TRIPS	555	0	175	168	1,097	1,212	405	514	4,126
628	3528	PERCENT	13.5	0.0	4.2	4.1	26.6	29.4	9.8	12.5	
629	3529	TRIPS	1,948	557	335	1,556	1,577	4,662	2,347	1,892	14,874
629	3529	PERCENT	13.1	3.7	2.3	10.5	10.6	31.3	15.8	12.7	
630	3530	TRIPS	1,398	0	223	373	1,797	2,860	1,105	1,164	8,920
630	3530	PERCENT	15.7	0.0	2.5	4.2	20.2	32.1	12.4	13.1	
631	3531	TRIPS	802	0	0	0	2,347	2,348	855	1,454	7,806
631	3531	PERCENT	10.3	0.0	0.0	0.0	30.1	30.1	11.0	18.6	
632	3532	TRIPS	603	0	0	0	1,583	2,022	1,057	919	6,184
632	3532	PERCENT	9.8	0.0	0.0	0.0	25.6	32.7	17.1	14.9	
633	3533	TRIPS	573	0	0	0	1,534	1,830	876	1,027	5,840
633	3533	PERCENT	9.8	0.0	0.0	0.0	26.3	31.3	15.0	17.6	
634	3534	TRIPS	1,445	71	167	680	1,389	1,930	1,212	1,265	8,159
634	3534	PERCENT	17.7	0.9	2.1	8.3	17.0	23.7	14.9	15.5	
635	3535	TRIPS	1,380	0	0	0	1,833	2,491	1,518	1,720	8,942
635	3535	PERCENT	15.4	0.0	0.0	0.0	20.5	27.9	17.0	19.2	
636	3536	TRIPS	1,729	0	0	727	1,308	2,610	1,308	1,181	8,863

Appendix D
Intersection Capacity Analysis Worksheets

Abbott Site - AM Intersection Assignment

PSCF

10/21-11/03: 1.02 2019

2021

INTERSECTION	MOVEMENT	Existing Raw	Existing Conditions	BACKGROUND	7140 Collins Hotel Hot & Res			7140 Collins Comm			72 & Park			COMMITTED DEVELOPMENTS	FUTURE W/O PROJECT	EXISTING USES			PASS-BY TRIPS	PROJECT (Abbott Site			PASS-BY TRIPS	FUTURE WITH PROJECT
				Growth rate: ####	In	Out	Total	In	Out	Total	In	Out	Total			IN	OUT	Total		IN	OUT	Total		
		2019	2019	No. of years: 2	49	34		86	55		0	0				102	57	159		95	98	193		
1. Byron Avenue / 71st Street (U)	NBL	8	8	8			0			0	10%	0%	0	0	8			0				0		8
	NBT	12	12	12			0			0	0%	0%	0	0	12	14%		14		10%		10		8
	NBR	10	10	10	5%		2	5%		4	0%	0%	0	7	17			0				0		17
	SBU	1	1	1			0			0	0%	0%	0	0	1			0				0		1
	SBL	6	6	6			0			0	0%	0%	0	0	6		15%	9			30%	29		27
	SBT	24	24	25			0		3%	2	0%	0%	0	2	27		9%	5			4%	4		25
	SBR	31	32	32			0			0	0%	0%	0	0	32		28%	16			28%	27		44
	EBL	124	126	129			0			0	0%	0%	0	0	129	28%		29		35%		33		133
	EBT	528	539	548	28%		14	28%		24	0%	30%	0	38	586			0				0		586
	EBR	101	103	105			0			0	0%	0%	0	0	105			0				0		105
	WBL	13	13	13		5%	2			0	0%	0%	0	2	15			0				0		15
PHF =0.82	WBT	335	342	348		28%	10		28%	15	20%	0%	0	25	373			0				0		373
	WBR	13	13	13			0		5%	3	0%	0%	0	3	16	20%		20		20%		19		15
TOTAL				1251			27				30%	30%	0	76	1327	62%	52%	93		65%	62%	123	0	1357
2. Abbott Avenue / 71st Street (S)	NBL	0	0	0			0			0	0%	0%	0	0	0			0				0		0
	NBT	0	0	0			0			0	0%	0%	0	0	0			0				0		0
	NBR	0	0	0			0			0	0%	0%	0	0	0			0				0		0
	SBL	12	12	12			0			0	0%	0%	0	0	12			0				0		12
	SBT	1961	2000	2035			0		7%	4	0%	0%	0	4	2039		10%	6				0		2033
	SBR	220	224	228			0			0	0%	0%	0	0	228			0				0		228
	EBL	0	0	0			0			0	0%	0%	0	0	0			0				0		0
	EBT	268	273	278	33%		16	33%		28	0%	0%	0	45	323			0				0		323
	EBR	191	195	198			0			0	0%	30%	0	0	198		15%	9			30%	29		219
	WBL	50	51	52		15%	5		5%	3	0%	0%	0	8	60			0				0		60
PHF = 0.96	WBT	120	122	125		33%	11		33%	18	20%	0%	0	29	154	20%		20		20%		19		152
	WBR	0	0	0			0			0	0%	0%	0	0	0			0				0		0
TOTAL				2928			32				20%	30%	0	86	3014	20%	25%	35	0	20%	30%	48	0	3028
3. Harding Avenue / 71st Street (S)	NBL	57	58	59			0			0	10%	0%	0	0	59	10%		10		10%		10		58
	NBT	93	95	96	14%		7	14%		12	0%	0%	0	19	115			0				0		115
	NBR	24	24	25			0			0	0%	0%	0	0	25			0				0		25
	SBL	7	7	7			0			0	0%	0%	0	0	7			0				0		7
	SBT	46	47	48		14%	5		14%	8	0%	0%	0	12	60			0				0		60
	SBR	13	13	13		48%	16		38%	21	0%	0%	0	37	51			0				0		51
	EBL	52	53	54	33%		16	33%		28	0%	0%	0	45	99			0				0		99
	EBT	225	230	233			0			0	0%	0%	0	0	233			0				0		233
	EBR	25	26	26			0			0	0%	0%	0	0	26			0				0		26
	WBL	6	6	6			0			0	0%	0%	0	0	6			0				0		6
PHF = 0.88	WBT	119	121	123			0			0	10%	0%	0	0	123	10%		10		10%		10		123
	WBR	4	4	4	5%		2	5%		4	0%	0%	0	7	11			0				0		11
TOTAL				696			47				20%	0%	0	120	816	20%	0%	20		20%	0%	19	0	815

Abbott Site - AM Intersection Assignment

PSCF

10/21-11/03: 1.02 2019 2021

INTERSECTION	MOVE MENT	Existing Raw	Existing Conditions	BACKGROUND	7140 Collins Hotel Hot & Res			7140 Collins Comm			72 & Park			COMMITTED DEVELOPMENTS	FUTURE W/O PROJECT	EXISTING USES				PROJECT (Abbott Site			PASS-BY TRIPS	FUTURE WITH PROJECT
				Growth rate: ####	In	Out	Total	In	Out	Total	In	Out	Total			IN	OUT	Total	PASS-BY TRIPS	IN	OUT	Total		
		2019	2019	No. of years: 2	49	34		86	55		0	0				102	57	159		95	98	193		
4.Collins Avenue / 71st Street (S)	NBL	106	108	110	5%		2	5%		4			0	7	117	10%		10		10%		10		116
	NBT	811	827	842	5%		2	5%		4			0	7	848			0				0		848
	NBR	1	1	1			0			0			0	0	1			0				0		1
	SBL	0	0	0			0			0			0	0	0			0				0		0
	SBT	0	0	0			0			0			0	0	0			0				0		0
	SBR	0	0	0			0			0			0	0	0			0				0		0
	EBL	242	247	251			0			0			0	0	251			0				0		251
	EBT	2	2	2			0			0			0	0	2			0				0		2
	EBR	0	0	0			0			0			0	0	0			0				0		0
	WBL	0	0	0			0			0			0	0	0			0				0		0
PHF = 1.00	WBT	19	19	20			0			0			0	0	20			0				0		20
	WBR	14	14	15			0			0			0	0	15			0				0		15
TOTAL				1240			5						0	14	1253	10%	0%	10		10%	0%	10	0	1253
5. Abbott Avenue / 72nd Street (S)	NBL	0	0	0			0			0			0	0	0			0				0		0
	NBT	0	0	0			0			0			0	0	0			0				0		0
	NBR	0	0	0			0			0			0	0	0			0				0		0
	SBL	33	34	34	25%		12	25%		22			0	34	68			0				0		68
	SBT	2162	2205	2243			0			0			0	0	2243			0				0		2243
	SBR	81	83	84			0			0			0	0	84	25%		26		25%		24		82
	EBL	0	0	0			0			0			0	0	0			0				0		0
	EBT	135	138	140	18%		9	18%		15			0	24	164		25%	14			25%	25		175
	EBR	75	77	78			0			0			0	0	78		10%	6				0		72
	WBL	21	21	22			0		7%	4			0	4	26			0				0		26
PHF = 0.97	WBT	28	29	29		13%	4		16%	9			0	13	42			0				0		42
	WBR	0	0	0			0			0			0	0	0			0				0		0
TOTAL				2630			25						0	75	2705	25%	35%	45		25%	25%	48	0	2708
6. Harding Avenue / 69th Street (S)	NBL	47	48	49			0			0			0	0	49			0				0		49
	NBT	146	149	151	14%		7	14%		12			0	19	170	10%		10		10%		10		170
	NBR	22	22	23			0			0			0	0	23			0				0		23
	SBL	27	28	28			0			0			0	0	28			0				0		28
	SBT	0	0	0			0			0			0	0	0			0				0		0
	SBR	42	43	44		14%	5		14%	8			0	12	56			0				0		56
	EBL	8	8	8			0			0			0	0	8			0				0		8
	EBT	95	97	99			0			0			0	0	99			0				0		99
	EBR	0	0	0			0			0			0	0	0			0				0		0
	WBL	0	0	0			0			0			0	0	0			0				0		0
PHF = 0.85	WBT	93	95	96			0			0			0	0	96			0				0		96
	WBR	15	15	16			0			0			0	0	16			0				0		16
TOTAL				514			12							31	545	10%	0%	10		10%	0%	10	0	544
7. Project Driveway / Byron Avenue	NBL		0	0			0			0			0	0	0							0	0	0
	NBT	150	153	156			0			0			0	0	156			0				0	0	156
	NBR		0	0			0			0			0	0	0					65%		61	0	61
	SBL		0	0			0			0			0	0	0					35%		33	0	33
	SBT	62	63	64			0		3%	2			0	2	66			26				0	0	40
	SBR		0	0			0			0			0	0	0							0	0	0
	EBL		0	0			0			0			0	0	0							0	0	0
	EBT		0	0			0			0			0	0	0							0	0	0
	EBR		0	0			0			0			0	0	0							0	0	0
	WBL		0	0			0			0			0	0	0						62%	61	3	64
PHF = N/A	WBT		0	0			0			0			0	0	0							0	0	0
	WBR		0	0			0			0			0	0	0						38%	37	3	40
TOTAL				220			0						0	2	222	0%	0%	26		100%	100%	192	6	394

Abbott Site - PM Intersection Assignment

		PSCF 1.02	2019												2021										
INTERSECTION	OVEMEN	Existing Raw 2019	Existing Conditions 2019	BACKGROUND	7140 Collins Hotel Hot & Res			7140 Collins Comm			72 & Park			COMMITTED DEVELOPMENTS	FUTURE W/O PROJECT	EXISTING USES				ROJECT (Abbott Sit			PASS-BY TRIPS	FUTURE WITH PROJECT
				Growth rate: ####	In	Out	Total	In	Out	Total	In	Out	Total			IN	OUT	Total	PASS-BY TRIPS	IN	OUT	Total		
				No. of years: 2	52	50		48	45		54	34	Total			38	44	82		67	57	124		
1. Byron Avenue / 71st Street (U)	NBL	42	43	44	0%	0%	0	0%	0%	0			0	0	44	0%	0%	0		0%	0%	0		44
	NBT	34	35	35	0%	0%	0	0%	0%	0	15%		8	8	43	14%	0%	5		10%	0%	7		45
	NBR	13	13	13	5%	0%	2	5%	0%	2			0	5	18	0%	0%	0		0%	0%	0		18
	SBU	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBL	3	3	3	0%	0%	0	0%	0%	0		5%	2	2	5	0%	15%	7		0%	30%	17		15
	SBT	6	6	6	0%	0%	0	0%	3%	1		15%	5	6	13	0%	9%	4		0%	4%	2		11
	SBR	41	42	43	0%	0%	0	0%	0%	0			0	0	43	0%	28%	12		0%	28%	16		46
	EBL	173	176	180	0%	0%	0	0%	0%	0			0	0	180	28%	0%	11		35%	0%	23		192
	EBT	337	344	350	28%	0%	15	28%	0%	13		5%	2	30	379	0%	0%	0		0%	0%	0		379
	EBR	19	19	20	0%	0%	0	0%	0%	0			0	0	20	0%	0%	0		0%	0%	0		20
	WBL	13	13	13	0%	5%	3	0%	0%	0			0	3	16	0%	0%	0		0%	0%	0		16
PHF =0.96	WBT	565	576	586	0%	28%	14	0%	28%	13	5%		3	29	616	0%	0%	0		0%	0%	0		616
	WBR	19	19	20	0%	0%	0	0%	5%	2	5%		3	5	25	20%	0%	8		20%	0%	13		30
TOTAL				1313			33				25%	25%	22	87	1400	62%	52%	46		65%	62%	79		1432
2. Abbott Avenue / 71st Street (S)	NBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	NBT	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	NBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBL	48	49	50	0%	0%	0	0%	0%	0			0	0	50	0%	0%	0		0%	0%	0		50
	SBT	1211	1235	1257	0%	0%	0	0%	7%	3			0	3	1260	0%	10%	4		0%	0%	0		1255
	SBR	364	371	378	0%	0%	0	0%	0%	0			0	0	378	0%	0%	0		0%	0%	0		378
	EBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	EBT	298	304	309	33%	0%	17	33%	0%	16		10%	3	36	346	0%	0%	0		0%	0%	0		346
	EBR	48	49	50	0%	0%	0	0%	0%	0			0	0	50	0%	15%	7		0%	30%	17		60
	WBL	33	34	34	0%	15%	8	0%	5%	2			0	10	44	0%	0%	0		0%	0%	0		44
PHF = 0.98	WBT	254	259	264	0%	33%	17	0%	33%	15	10%		5	37	300	20%	0%	8		20%	0%	13		306
	WBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
TOTAL				2341			41				10%	10%	9	86	2427	20%	25%	19		20%	30%	31		2439
3. Harding Avenue / 71st Street (S)	NBL	84	86	87	0%	0%	0	0%	0%	0	10%		5	5	93	10%	0%	4		10%	0%	7		95
	NBT	259	264	269	14%	0%	7	14%	0%	7			0	14	283	0%	0%	0		0%	0%	0		283
	NBR	28	29	29	0%	0%	0	0%	0%	0			0	0	29	0%	0%	0		0%	0%	0		29
	SBL	7	7	7	0%	0%	0	0%	0%	0			0	0	7	0%	0%	0		0%	0%	0		7
	SBT	20	20	21	0%	14%	7	0%	14%	6			0	13	34	0%	0%	0		0%	0%	0		34
	SBR	10	10	10	0%	48%	24	0%	38%	17			0	41	51	0%	0%	0		0%	0%	0		51
	EBL	53	54	55	33%	0%	17	33%	0%	16			0	33	88	0%	0%	0		0%	0%	0		88
	EBT	252	257	261	0%	0%	0	0%	0%	0			0	0	261	0%	0%	0		0%	0%	0		261
	EBR	36	37	37	0%	0%	0	0%	0%	0		10%	3	3	41	0%	0%	0		0%	0%	0		41
	WBL	12	12	12	0%	0%	0	0%	0%	0			0	0	12	0%	0%	0		0%	0%	0		12
PHF = 0.92	WBT	173	176	180	0%	0%	0	0%	0%	0			0	0	180	10%	0%	4		10%	0%	7		182
	WBR	8	8	8	5%	0%	3	5%	0%	2			0	5	13	0%	0%	0		0%	0%	0		13
TOTAL				977			58				10%	10%	9	115	1093	20%	0%	8		20%	0%	13		1098
4.Collins Avenue / 71st Street (S)	NBL	155	158	161	5%	0%	3	5%	0%	2			0	5	166	10%	0%	4		10%	0%	7		169
	NBT	1834	1871	1903	5%	0%	3	5%	0%	2			0	5	1908	0%	0%	0		0%	0%	0		1908
	NBR	6	6	6	0%	0%	0	0%	0%	0			0	0	6	0%	0%	0		0%	0%	0		6
	SBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBT	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	EBL	271	276	281	0%	0%	0	0%	0%	0			0	0	281	0%	0%	0		0%	0%	0		281
	EBT	6	6	6	0%	0%	0	0%	0%	0			0	0	6	0%	0%	0		0%	0%	0		6
	EBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	WBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
PHF = 0.98	WBT	13	13	13	0%	0%	0	0%	0%	0			0	0	13	0%	0%	0		0%	0%	0		13
	WBR	19	19	20	0%	0%	0	0%	0%	0			0	0	20	0%	0%	0		0%	0%	0		20
TOTAL				2391			5				0%	0%	0	10	2401	10%	0%	4		10%	0%	7		2404

Abbott Site - PM Intersection Assignment

PSCF
1.02
2019
2021

INTERSECTION	OVEMEN	Existing Raw	Existing Conditions	BACKGROUND	7140 Collins Hotel Hot & Res			7140 Collins Comm			72 & Park			COMMITTED DEVELOPMENTS	FUTURE W/O PROJECT	EXISTING USES				ROJECT (Abbott Sit			PASS-BY TRIPS	FUTURE WITH PROJECT
				Growth rate: ####	In	Out	Total	In	Out	Total	In	Out	Total			IN	OUT	Total	PASS-BY TRIPS	IN	OUT	Total		
		2019	2019	No. of years: 2	52	50		48	45		54	34	Total			38	44	82		67	57	124		
5. Abbott Avenue / 72nd Street (S)	NBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	NBT	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	NBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBL	30	31	31	25%	0%	13	25%	0%	12			0	25	56	0%	0%	0		0%	0%	0		56
	SBT	1554	1585	1612	0%	0%	0	0%	0%	0			0	0	1612	0%	0%	0		0%	0%	0		1612
	SBR	127	130	132	0%	0%	0	0%	0%	0			0	0	132	25%	0%	10		25%	0%	17		139
	EBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	EBT	85	87	88	18%	0%	9	18%	0%	9		12%	4	22	110	0%	25%	11		0%	25%	14		114
	EBR	37	38	38	0%	0%	0	0%	0%	0			0	0	38	0%	10%	4		0%	0%	0		34
	WBL	38	39	39	0%	0%	0	0%	7%	3			0	3	43	0%	0%	0		0%	0%	0		43
PHF = 1.00	WBT	140	143	145	0%	13%	7	0%	16%	7	12%		6	20	165	0%	0%	0		0%	0%	0		165
	WBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
TOTAL				2087			29				12%	12%	11	70	2157	25%	35%	25		25%	25%	31		2163
6. Harding Avenue / 69th Street (S)	NBL	158	161	164	0%	0%	0	0%	0%	0			0	0	164	0%	0%	0		0%	0%	0		164
	NBT	313	319	325	14%	0%	7	14%	0%	7			0	14	339	10%	0%	4		10%	0%	7		342
	NBR	31	32	32	0%	0%	0	0%	0%	0			0	0	32	0%	0%	0		0%	0%	0		32
	SBL	34	35	35	0%	0%	0	0%	0%	0			0	0	35	0%	0%	0		0%	0%	0		35
	SBT	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	SBR	28	29	29	0%	14%	7	0%	14%	6			0	13	42	0%	0%	0		0%	0%	0		42
	EBL	12	12	12	0%	0%	0	0%	0%	0			0	0	12	0%	0%	0		0%	0%	0		12
	EBT	130	133	135	0%	0%	0	0%	0%	0			0	0	135	0%	0%	0		0%	0%	0		135
	EBR	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
	WBL	0	0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%	0		0%	0%	0		0
PHF = 0.90	WBT	163	166	169	0%	0%	0	0%	0%	0			0	0	169	0%	0%	0		0%	0%	0		169
	WBR	26	27	27	0%	0%	0	0%	0%	0			0	0	27	0%	0%	0		0%	0%	0		27
TOTAL				929			14				0%	0%		27	956	10%	0%	4		10%	0%	7	0	959
7. Project Driveway / Byron Avenue	NBL		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	NBT	226	231	235	0%	0%	0	0%	0%	0	20%		11	11	245	0%	0%	0		0%	0%	0	-15	230
	NBR		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			65%	0%	44	15	59
	SBL		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			35%	0%	23	3	26
	SBT	50	51	52	0%	0%	0	0%	3%	1		20%	7	8	60	0%	0%	10		0%	0%	0	-3	48
	SBR		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	EBL		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	EBT		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	EBR		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	WBL		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	62%	35	3	38
PHF = N/A	WBT		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	0%	0	0	0
	WBR		0	0	0%	0%	0	0%	0%	0			0	0	0	0%	0%			0%	38%	22	15	37
TOTAL				286	0%	0%	0				20%	20%	18	19	305	0%	0%	10		100%	100%	124	18	2,356

Existing Conditions

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↰	↑		↰	↑			↰				✥	
Traffic Vol, veh/h	126	539	103	13	342	13	8	12	10	1	6	24	32
Future Vol, veh/h	126	539	103	13	342	13	8	12	10	1	6	24	32
Conflicting Peds, #/hr	37	0	38	38	0	37	20	0	2	0	2	0	20
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	5	5	5	6	6	6	2	2	2	2	2	2	2
Mvmt Flow	154	657	126	16	417	16	10	15	12	1	7	29	39

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	470	0	0	821	0	0	1577	1568	760	0	1538	1623	482
Stage 1	-	-	-	-	-	-	1066	1066	-	0	494	494	-
Stage 2	-	-	-	-	-	-	511	502	-	0	1044	1129	-
Critical Hdwy	4.15	-	-	4.16	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.254	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1076	-	-	791	-	-	89	111	406	0	94	103	584
Stage 1	-	-	-	-	-	-	269	299	-	0	557	546	-
Stage 2	-	-	-	-	-	-	545	542	-	0	277	279	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1038	-	-	762	-	-	49	86	391	0	67	80	553
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	86	-	0	67	80	-
Stage 1	-	-	-	-	-	-	221	245	-	0	458	516	-
Stage 2	-	-	-	-	-	-	459	512	-	0	214	229	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.3	68.9	58.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	91	1038	-	-	762	-	-	139
HCM Lane V/C Ratio	0.402	0.148	-	-	0.021	-	-	0.544
HCM Control Delay (s)	68.9	9.1	-	-	9.8	-	-	58.2
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.6	0.5	-	-	0.1	-	-	2.7

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰	↑			↰↑			✥	
Traffic Vol, veh/h	176	344	19	13	576	19	43	35	13	3	6	42
Future Vol, veh/h	176	344	19	13	576	19	43	35	13	3	6	42
Conflicting Peds, #/hr	55	0	40	40	0	55	12	0	3	3	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	2	2	2
Mvmt Flow	183	358	20	14	600	20	45	36	14	3	6	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	675	0	0	418	0	0	1449	1477	411	1455	1477	677
Stage 1	-	-	-	-	-	-	774	774	-	693	693	-
Stage 2	-	-	-	-	-	-	675	703	-	762	784	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	907	-	-	1125	-	-	109	126	641	108	126	453
Stage 1	-	-	-	-	-	-	391	408	-	434	445	-
Stage 2	-	-	-	-	-	-	444	440	-	397	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	859	-	-	1082	-	-	73	89	615	57	89	424
Mov Cap-2 Maneuver	-	-	-	-	-	-	73	89	-	57	89	-
Stage 1	-	-	-	-	-	-	296	309	-	324	417	-
Stage 2	-	-	-	-	-	-	383	412	-	269	306	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0.2	190.4	25
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	91	859	-	-	1082	-	-	233
HCM Lane V/C Ratio	1.042	0.213	-	-	0.013	-	-	0.228
HCM Control Delay (s)	190.4	10.3	-	-	8.4	-	-	25
HCM Lane LOS	F	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	6.2	0.8	-	-	0	-	-	0.9

2: Abbott Avenue & 71st Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	273	195	51	122	0	0	0	0	12	2000	224
Future Volume (veh/h)	0	273	195	51	122	0	0	0	0	12	2000	224
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1767	1767	1781	1781	0				1856	1856	1856
Adj Flow Rate, veh/h	0	284	203	53	127	0				12	2083	233
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	9	9	8	8	0				3	3	3
Cap, veh/h	0	448	332	175	452	0				17	3155	922
Arrive On Green	0.00	0.25	0.25	0.08	0.08	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	1767	1308	856	1781	0				28	5203	1520
Grp Volume(v), veh/h	0	284	203	53	127	0				788	1307	233
Grp Sat Flow(s),veh/h/ln	0	1767	1308	856	1781	0				1854	1689	1520
Q Serve(g_s), s	0.0	12.9	12.3	5.5	6.0	0.0				35.6	31.9	11.6
Cycle Q Clear(g_c), s	0.0	12.9	12.3	18.3	6.0	0.0				35.6	31.9	11.6
Prop In Lane	0.00		1.00	1.00		0.00				0.02		1.00
Lane Grp Cap(c), veh/h	0	448	332	175	452	0				1124	2048	922
V/C Ratio(X)	0.00	0.63	0.61	0.30	0.28	0.00				0.70	0.64	0.25
Avail Cap(c_a), veh/h	0	603	446	250	608	0				1124	2048	922
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				0.70	0.70	0.70
Uniform Delay (d), s/veh	0.0	29.9	29.7	45.5	33.5	0.0				28.4	26.9	18.8
Incr Delay (d2), s/veh	0.0	1.1	1.4	0.7	0.2	0.0				2.6	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	9.3	7.0	2.3	4.9	0.0				24.2	19.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.0	31.0	46.2	33.8	0.0				31.0	28.0	19.3
LnGrp LOS	A	C	C	D	C	A				C	C	B
Approach Vol, veh/h		487			180						2328	
Approach Delay, s/veh		31.0			37.4						28.1	
Approach LOS		C			D						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		60.9		29.1				29.1				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 47		* 31				* 31				
Max Q Clear Time (g_c+I1), s		37.6		20.3				14.9				
Green Ext Time (p_c), s		4.8		0.5				1.7				

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

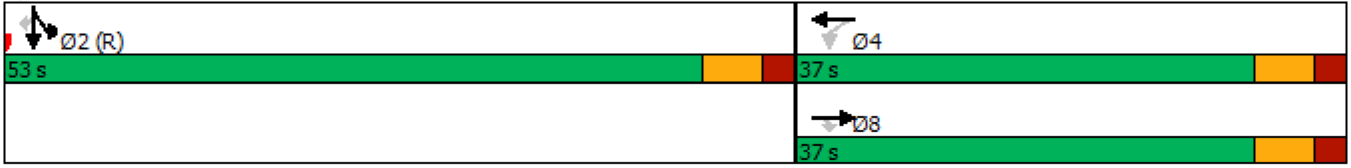
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (vph)	0	273	195	51	122	0	0	0	0	12	2000	224
Future Volume (vph)	0	273	195	51	122	0	0	0	0	12	2000	224
Confl. Peds. (#/hr)	29		25	25		29	12		8	8		12
Confl. Bikes (#/hr)						3			4			6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	9%	9%	8%	8%	8%	2%	2%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0							
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	Perm
Protected Phases		8			4					2	2	
Permitted Phases			8	4								2
Detector Phase		8	8	4	4					2	2	2
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					7.0	7.0	7.0
Minimum Split (s)		31.3	31.3	31.3	31.3					31.3	31.3	31.3
Total Split (s)		37.0	37.0	37.0	37.0					53.0	53.0	53.0
Total Split (%)		41.1%	41.1%	41.1%	41.1%					58.9%	58.9%	58.9%
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		2.3	2.3	2.3	2.3					2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		6.3	6.3	6.3	6.3						6.3	6.3
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	C-Max

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 47 (52%), Referenced to phase 2:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 2: Abbott Avenue & 71st Street



2: Abbott Avenue & 71st Street

01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	304	49	34	259	0	0	0	0	49	1235	371
Future Volume (veh/h)	0	304	49	34	259	0	0	0	0	49	1235	371
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.97		1.00				1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1870	1870	0				1856	1856	1856
Adj Flow Rate, veh/h	0	310	50	35	264	0				50	1260	379
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	6	6	2	2	0				3	3	3
Cap, veh/h	0	567	403	273	586	0				95	2552	759
Arrive On Green	0.00	0.31	0.31	0.31	0.31	0.00				0.51	0.51	0.51
Sat Flow, veh/h	0	1811	1287	994	1870	0				188	5035	1497
Grp Volume(v), veh/h	0	310	50	35	264	0				492	818	379
Grp Sat Flow(s),veh/h/ln	0	1811	1287	994	1870	0				1846	1689	1497
Q Serve(g_s), s	0.0	9.9	1.9	2.1	7.9	0.0				12.5	11.0	11.7
Cycle Q Clear(g_c), s	0.0	9.9	1.9	12.0	7.9	0.0				12.5	11.0	11.7
Prop In Lane	0.00		1.00	1.00		0.00				0.10		1.00
Lane Grp Cap(c), veh/h	0	567	403	273	586	0				936	1711	759
V/C Ratio(X)	0.00	0.55	0.12	0.13	0.45	0.00				0.53	0.48	0.50
Avail Cap(c_a), veh/h	0	665	473	327	687	0				936	1711	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.97	0.97	0.00				0.85	0.85	0.85
Uniform Delay (d), s/veh	0.0	19.9	17.2	24.9	19.2	0.0				11.6	11.2	11.4
Incr Delay (d2), s/veh	0.0	0.6	0.1	0.2	0.4	0.0				1.8	0.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.2	1.0	0.9	5.9	0.0				8.3	6.8	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.5	17.3	25.1	19.6	0.0				13.4	12.1	13.4
LnGrp LOS	A	C	B	C	B	A				B	B	B
Approach Vol, veh/h		360			299						1689	
Approach Delay, s/veh		20.1			20.3						12.7	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.8		28.2				28.2				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 32		* 26				* 26				
Max Q Clear Time (g_c+I1), s		14.5		14.0				11.9				
Green Ext Time (p_c), s		3.7		1.0				1.4				

Intersection Summary			
HCM 6th Ctrl Delay			14.8
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (vph)	0	304	49	34	259	0	0	0	0	49	1235	371
Future Volume (vph)	0	304	49	34	259	0	0	0	0	49	1235	371
Confl. Peds. (#/hr)	34		59	59		34	23		12	12		23
Confl. Bikes (#/hr)			1			1			14			8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0							
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	Perm
Protected Phases		8			4					2	2	
Permitted Phases			8	4								2
Detector Phase		8	8	4	4					2	2	2
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					7.0	7.0	7.0
Minimum Split (s)		31.3	31.3	31.3	31.3					31.3	31.3	31.3
Total Split (s)		32.0	32.0	32.0	32.0					38.0	38.0	38.0
Total Split (%)		45.7%	45.7%	45.7%	45.7%					54.3%	54.3%	54.3%
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		2.3	2.3	2.3	2.3					2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		6.3	6.3	6.3	6.3						6.3	6.3
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 70

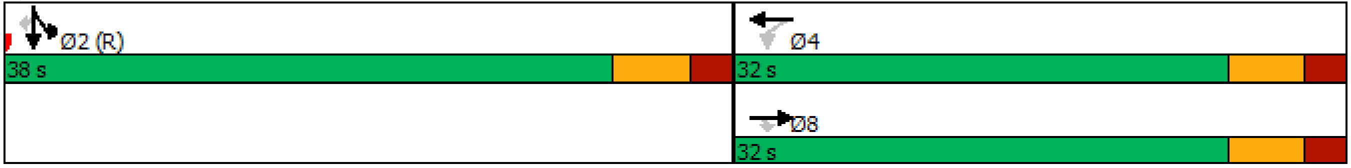
Actuated Cycle Length: 70

Offset: 68 (97%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 2: Abbott Avenue & 71st Street



HCM 6th Signalized Intersection Summary
3: Harding Avenue & 71st Street

19218 Existing AM
01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (veh/h)	53	230	26	6	121	4	58	95	24	7	47	13
Future Volume (veh/h)	53	230	26	6	121	4	58	95	24	7	47	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.99		0.94	0.95		0.91	0.97		0.91
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	1767	1767	1767	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	60	261	30	7	138	5	66	108	27	8	53	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	9	9	9	2	2	2	4	4	4	4	4	4
Cap, veh/h	799	971	112	620	1064	39	131	184	41	57	248	64
Arrive On Green	0.01	0.21	0.21	0.01	0.59	0.59	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1682	1544	177	1781	1789	65	409	962	213	68	1299	336
Grp Volume(v), veh/h	60	0	291	7	0	143	201	0	0	76	0	0
Grp Sat Flow(s),veh/h/ln	1682	0	1721	1781	0	1854	1584	0	0	1704	0	0
Q Serve(g_s), s	1.1	0.0	12.8	0.1	0.0	3.0	7.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	12.8	0.1	0.0	3.0	10.4	0.0	0.0	3.3	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.03	0.33		0.13	0.11		0.20
Lane Grp Cap(c), veh/h	799	0	1083	620	0	1103	355	0	0	369	0	0
V/C Ratio(X)	0.08	0.00	0.27	0.01	0.00	0.13	0.57	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	894	0	1083	783	0	1103	655	0	0	690	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.00	0.60	1.00	0.00	1.00	0.75	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.7	0.0	18.3	7.6	0.0	8.0	33.5	0.0	0.0	30.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.0	0.0	0.2	0.4	0.0	0.0	0.1	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	0.6	0.0	9.0	0.1	0.0	2.2	6.9	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	0.0	18.6	7.6	0.0	8.2	33.9	0.0	0.0	30.9	0.0	0.0
LnGrp LOS	A	A	B	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		351			150			201			76	
Approach Delay, s/veh		16.4			8.2			33.9			30.9	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	59.6		23.5	3.8	62.7		23.5				
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3				
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35				
Max Q Clear Time (g_c+I1), s	3.1	5.0		12.4	2.1	14.8		5.3				
Green Ext Time (p_c), s	0.0	0.3		0.4	0.0	0.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay			20.8
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (vph)	53	230	26	6	121	4	58	95	24	7	47	13
Future Volume (vph)	53	230	26	6	121	4	58	95	24	7	47	13
Confl. Peds. (#/hr)	39		47	47		39	6		22	22		6
Confl. Bikes (#/hr)			7			2			10			8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	9%	9%	2%	2%	2%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	8.0	24.1		8.0	24.1		29.3	29.3		29.3	29.3	
Total Split (s)	12.0	37.0		12.0	37.0		41.0	41.0		41.0	41.0	
Total Split (%)	13.3%	41.1%		13.3%	41.1%		45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	2.1		0.0	2.1		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.0	6.1		3.0	6.1			6.3			6.3	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary

Cycle Length: 90

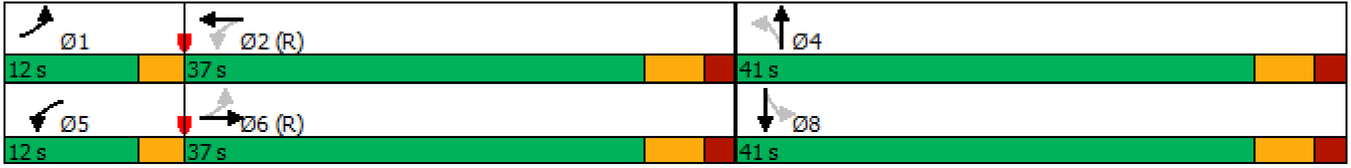
Actuated Cycle Length: 90

Offset: 42 (47%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	54	257	37	12	176	8	86	264	29	7	20	10
Future Volume (veh/h)	54	257	37	12	176	8	86	264	29	7	20	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.98		0.92	0.96		0.92	0.99		0.93
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	1870	1870	1870	1870	1870	1870	1796	1796	1796
Adj Flow Rate, veh/h	59	279	40	13	191	9	93	287	32	8	22	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	7	7	7
Cap, veh/h	685	860	123	575	919	43	135	330	35	96	236	104
Arrive On Green	0.04	0.55	0.55	0.02	0.52	0.52	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1767	1568	225	1781	1764	83	323	1245	132	180	888	392
Grp Volume(v), veh/h	59	0	319	13	0	200	412	0	0	41	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1793	1781	0	1847	1700	0	0	1460	0	0
Q Serve(g_s), s	1.3	0.0	8.8	0.3	0.0	5.2	17.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	8.8	0.3	0.0	5.2	21.1	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.05	0.23		0.08	0.20		0.27
Lane Grp Cap(c), veh/h	685	0	983	575	0	962	500	0	0	435	0	0
V/C Ratio(X)	0.09	0.00	0.32	0.02	0.00	0.21	0.82	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	786	0	983	725	0	962	702	0	0	611	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)	0.64	0.00	0.64	0.99	0.00	0.99	0.30	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	11.2	10.0	0.0	11.6	31.9	0.0	0.0	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.0	0.0	0.5	1.2	0.0	0.0	0.0	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	0.8	0.0	5.8	0.2	0.0	3.9	11.2	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.0	11.7	10.0	0.0	12.1	33.1	0.0	0.0	24.9	0.0	0.0
LnGrp LOS	A	A	B	A	A	B	C	A	A	C	A	A
Approach Vol, veh/h		378			213			412			41	
Approach Delay, s/veh		11.2			12.0			33.1			24.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	53.0		30.2	4.4	55.4		30.2				
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3				
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35				
Max Q Clear Time (g_c+I1), s	3.3	7.2		23.1	2.3	10.8		3.7				
Green Ext Time (p_c), s	0.0	0.4		0.8	0.0	0.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay			20.5
HCM 6th LOS			C

Notes

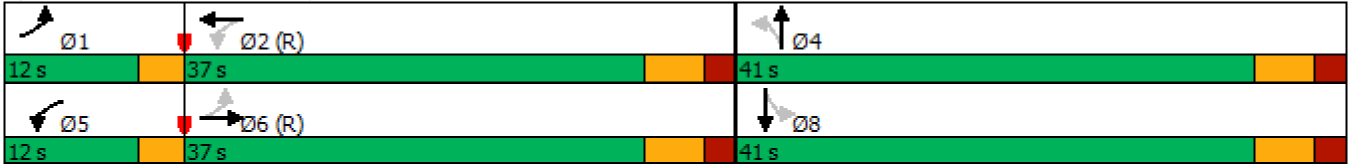
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Harding Avenue & 71st Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (vph)	54	257	37	12	176	8	86	264	29	7	20	10
Future Volume (vph)	54	257	37	12	176	8	86	264	29	7	20	10
Confl. Peds. (#/hr)	31		58	58		31	21		23	23		21
Confl. Bikes (#/hr)			7			2			10			8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	8.0	24.1		8.0	24.1		29.3	29.3		29.3	29.3	
Total Split (s)	12.0	37.0		12.0	37.0		41.0	41.0		41.0	41.0	
Total Split (%)	13.3%	41.1%		13.3%	41.1%		45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	2.1		0.0	2.1		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.0	6.1		3.0	6.1			6.3			6.3	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 66 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



4: Collins Avenue & 71st Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↱		↰	↑↑↱				
Traffic Volume (vph)	247	2	0	0	19	14	108	827	1	0	0	0
Future Volume (vph)	247	2	0	0	19	14	108	827	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	1.00				
Flt Protected	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (prot)	1759	1434			1709		1703	4892				
Flt Permitted	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (perm)	1759	1434			1709		1703	4892				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	247	2	0	0	19	14	108	827	1	0	0	0
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	0	0	0	0
Lane Group Flow (vph)	173	76	0	0	20	0	108	828	0	0	0	0
Confl. Peds. (#/hr)	8		50	50		8	43		42	42		43
Confl. Bikes (#/hr)			4			1			2			2
Heavy Vehicles (%)	8%	8%	8%	2%	2%	2%	6%	6%	6%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	12.3	12.3			4.5		55.2	55.2				
Effective Green, g (s)	12.3	12.3			4.5		55.2	55.2				
Actuated g/C Ratio	0.14	0.14			0.05		0.61	0.61				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	240	195			85		1044	3000				
v/s Ratio Prot	c0.10	0.05			c0.01		0.06	c0.17				
v/s Ratio Perm												
v/c Ratio	0.72	0.39			0.23		0.10	0.28				
Uniform Delay, d1	37.2	35.4			41.1		7.2	8.1				
Progression Factor	1.25	1.26			1.00		1.00	1.00				
Incremental Delay, d2	8.5	0.5			1.0		0.0	0.2				
Delay (s)	55.1	44.9			42.1		7.2	8.3				
Level of Service	E	D			D		A	A				
Approach Delay (s)		52.0			42.1			8.2			0.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

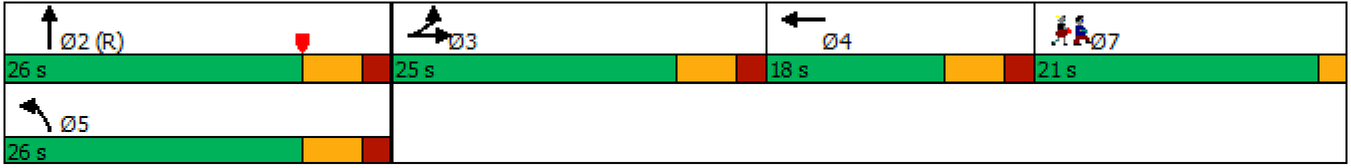
c Critical Lane Group

4: Collins Avenue & 71st Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	2	0	0	19	14	108	827	1	0	0	0
Future Volume (vph)	247	2	0	0	19	14	108	827	1	0	0	0
Confl. Peds. (#/hr)	8		50	50		8	43		42	42		43
Confl. Bikes (#/hr)			4			1			2			2
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	2%	2%	2%	6%	6%	6%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0										
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	30%											
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Detector Phase	3	3			4		5	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		5.0	4.0				
Minimum Split (s)	25.0	25.0			13.0		11.0	20.0				
Total Split (s)	25.0	25.0			18.0		26.0	26.0				
Total Split (%)	27.8%	27.8%			20.0%		28.9%	28.9%				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0				
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0				
Lead/Lag	Lead	Lead			Lag							
Lead-Lag Optimize?	Yes	Yes			Yes							
Recall Mode	None	None			None		None	C-Max				

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 73 (81%), Referenced to phase 2:NBT and 6:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Collins Avenue & 71st Street



Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None

Intersection Summary

Queues

4: Collins Avenue & 71st Street

	↗	→	←	↖	↑
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	173	76	33	108	828
v/c Ratio	0.72	0.39	0.22	0.10	0.26
Control Delay	62.3	48.3	29.9	9.1	8.8
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	62.4	48.3	29.9	9.1	8.8
Queue Length 50th (ft)	102	46	10	25	79
Queue Length 95th (ft)	163	91	38	58	123
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	371	302	243	1090	3133
Starvation Cap Reductn	7	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.25	0.14	0.10	0.26

Intersection Summary

HCM Signalized Intersection Capacity Analysis
4: Collins Avenue & 71st Street

19218 Existing PM
01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰			↱		↰	↑↑↱				
Traffic Volume (vph)	276	6	0	0	13	19	158	1871	6	0	0	0
Future Volume (vph)	276	6	0	0	13	19	158	1871	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.92		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.92		1.00	1.00				
Flt Protected	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (prot)	1827	1492			1568		1770	5078				
Flt Permitted	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (perm)	1827	1492			1568		1770	5078				
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	282	6	0	0	13	19	161	1909	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	0	0
Lane Group Flow (vph)	197	91	0	0	14	0	161	1915	0	0	0	0
Confl. Peds. (#/hr)	9		65	65		9	83		41	41		83
Confl. Bikes (#/hr)			11			10			6			8
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	22.8	22.8			6.3		132.9	132.9				
Effective Green, g (s)	22.8	22.8			6.3		132.9	132.9				
Actuated g/C Ratio	0.13	0.13			0.03		0.74	0.74				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	231	188			54		1306	3749				
v/s Ratio Prot	c0.11	0.06			c0.01		0.09	c0.38				
v/s Ratio Perm												
v/c Ratio	0.85	0.48			0.25		0.12	0.51				
Uniform Delay, d1	77.0	73.1			84.6		6.8	9.9				
Progression Factor	0.98	0.97			1.00		1.00	1.00				
Incremental Delay, d2	22.9	0.7			1.8		0.0	0.5				
Delay (s)	97.9	71.4			86.4		6.8	10.4				
Level of Service	F	E			F		A	B				
Approach Delay (s)		89.6			86.4			10.1			0.0	
Approach LOS		F			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

4: Collins Avenue & 71st Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↑↱		↰	↑↑↑↱				
Traffic Volume (vph)	276	6	0	0	13	19	158	1871	6	0	0	0
Future Volume (vph)	276	6	0	0	13	19	158	1871	6	0	0	0
Confl. Peds. (#/hr)	9		65	65		9	83		41	41		83
Confl. Bikes (#/hr)			11			10			6			8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0										
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	30%											
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Detector Phase	3	3			4		5	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		5.0	4.0				
Minimum Split (s)	25.0	25.0			13.0		11.0	32.0				
Total Split (s)	37.0	37.0			24.0		95.0	95.0				
Total Split (%)	20.6%	20.6%			13.3%		52.8%	52.8%				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0				
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0				
Lead/Lag	Lead	Lead			Lag							
Lead-Lag Optimize?	Yes	Yes			Yes							
Recall Mode	None	None			None		None	C-Max				

Intersection Summary

Cycle Length: 180

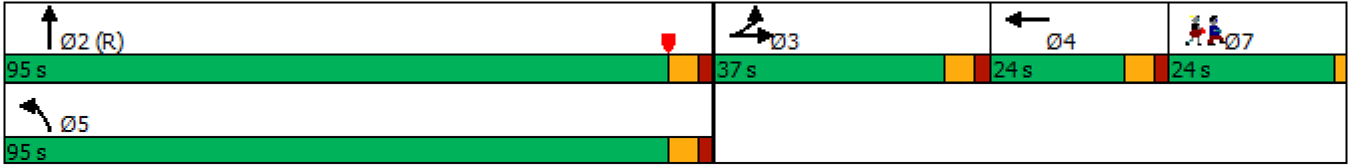
Actuated Cycle Length: 180

Offset: 83 (46%), Referenced to phase 2:NBT and 6:, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Splits and Phases: 4: Collins Avenue & 71st Street



Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	13%
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Intersection Summary	

4: Collins Avenue & 71st Street

01/17/2020

	↗	→	←	↖	↑
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	197	91	32	161	1915
v/c Ratio	0.85	0.48	0.36	0.12	0.51
Control Delay	103.4	77.5	54.8	7.9	11.0
Queue Delay	13.4	0.9	0.0	0.0	0.6
Total Delay	116.8	78.4	54.8	7.9	11.7
Queue Length 50th (ft)	241	112	15	52	327
Queue Length 95th (ft)	330	m181	56	96	444
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	314	256	182	1317	3783
Starvation Cap Reductn	95	49	0	0	1332
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.44	0.18	0.12	0.78

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
5: 72nd Street & Abbott Avenue

19218 Existing AM
01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (veh/h)	0	138	77	21	29	0	0	0	0	34	2205	83
Future Volume (veh/h)	0	138	77	21	29	0	0	0	0	34	2205	83
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.98		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1811	1811	0				1900	1870	1900
Adj Flow Rate, veh/h	0	142	79	22	30	0				35	2273	86
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	6	6	0				0	2	0
Cap, veh/h	0	319	231	119	139	0				49	3393	132
Arrive On Green	0.00	0.17	0.17	0.17	0.17	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1856	1346	361	807	0				72	4947	192
Grp Volume(v), veh/h	0	142	79	52	0	0				820	755	819
Grp Sat Flow(s),veh/h/ln	0	1856	1346	1169	0	0				1680	1702	1829
Q Serve(g_s), s	0.0	6.2	4.6	0.1	0.0	0.0				27.0	22.6	22.9
Cycle Q Clear(g_c), s	0.0	6.2	4.6	6.3	0.0	0.0				27.0	22.6	22.9
Prop In Lane	0.00		1.00	0.42		0.00				0.04		0.11
Lane Grp Cap(c), veh/h	0	319	231	258	0	0				1152	1167	1254
V/C Ratio(X)	0.00	0.45	0.34	0.20	0.00	0.00				0.71	0.65	0.65
Avail Cap(c_a), veh/h	0	528	383	419	0	0				1152	1167	1254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	33.4	32.8	31.8	0.0	0.0				8.7	8.0	8.0
Incr Delay (d2), s/veh	0.0	0.4	0.3	0.1	0.0	0.0				3.7	2.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	5.0	2.7	1.7	0.0	0.0				14.1	12.2	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.8	33.1	32.0	0.0	0.0				12.4	10.8	10.7
LnGrp LOS	A	C	C	C	A	A				B	B	B
Approach Vol, veh/h		221			52						2394	
Approach Delay, s/veh		33.5			32.0						11.3	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		68.1		21.9				21.9				
Change Period (Y+Rc), s		6.4		* 6.4				6.4				
Max Green Setting (Gmax), s		51.6		* 26				25.6				
Max Q Clear Time (g_c+I1), s		29.0		8.3				8.2				
Green Ext Time (p_c), s		7.6		0.1				0.6				

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

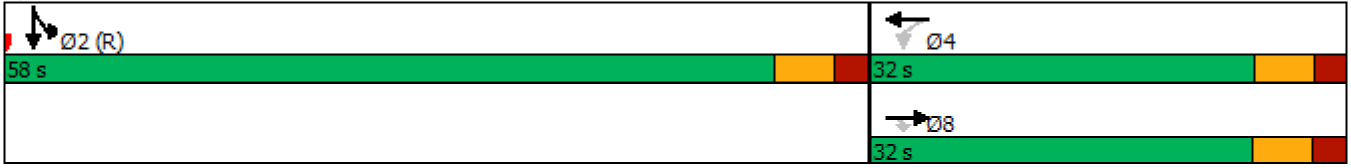
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (vph)	0	138	77	21	29	0	0	0	0	34	2205	83
Future Volume (vph)	0	138	77	21	29	0	0	0	0	34	2205	83
Confl. Peds. (#/hr)	20		21	21		20	12		4	4		12
Confl. Bikes (#/hr)			1			2			2			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0					0		
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		8			4					2	2	
Permitted Phases			8	4								
Detector Phase		8	8	4	4					2	2	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					5.0	5.0	
Minimum Split (s)		31.4	31.4	31.3	31.3					26.4	26.4	
Total Split (s)		32.0	32.0	32.0	32.0					58.0	58.0	
Total Split (%)		35.6%	35.6%	35.6%	35.6%					64.4%	64.4%	
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
All-Red Time (s)		2.4	2.4	2.3	2.3					2.4	2.4	
Lost Time Adjust (s)		0.0	0.0		0.0						0.0	
Total Lost Time (s)		6.4	6.4		6.3						6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: 72nd Street & Abbott Avenue



HCM 6th Signalized Intersection Summary
5: 72nd Street & Abbott Avenue

19218 Existing PM
01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (veh/h)	0	87	38	39	143	0	0	0	0	31	1585	130
Future Volume (veh/h)	0	87	38	39	143	0	0	0	0	31	1585	130
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.97		1.00				1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1841	1841	0				1900	1856	1900
Adj Flow Rate, veh/h	0	87	38	39	143	0				31	1585	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	4	4	0				0	3	0
Cap, veh/h	0	352	250	95	277	0				57	3101	263
Arrive On Green	0.00	0.19	0.19	0.19	0.19	0.00				0.67	0.67	0.67
Sat Flow, veh/h	0	1870	1326	245	1469	0				85	4632	392
Grp Volume(v), veh/h	0	87	38	182	0	0				606	559	582
Grp Sat Flow(s),veh/h/ln	0	1870	1326	1714	0	0				1666	1689	1755
Q Serve(g_s), s	0.0	3.6	2.2	3.1	0.0	0.0				17.0	14.7	14.8
Cycle Q Clear(g_c), s	0.0	3.6	2.2	8.4	0.0	0.0				17.0	14.7	14.8
Prop In Lane	0.00		1.00	0.21		0.00				0.05		0.22
Lane Grp Cap(c), veh/h	0	352	250	371	0	0				1115	1130	1175
V/C Ratio(X)	0.00	0.25	0.15	0.49	0.00	0.00				0.54	0.49	0.50
Avail Cap(c_a), veh/h	0	532	377	532	0	0				1115	1130	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.1	30.5	32.9	0.0	0.0				7.7	7.3	7.4
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.4	0.0	0.0				1.9	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.9	1.2	6.4	0.0	0.0				9.6	8.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.2	30.6	33.3	0.0	0.0				9.6	8.9	8.9
LnGrp LOS	A	C	C	C	A	A				A	A	A
Approach Vol, veh/h		125			182						1746	
Approach Delay, s/veh		31.0			33.3						9.1	
Approach LOS		C			C						A	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		66.6		23.4				23.4				
Change Period (Y+Rc), s		6.4		* 6.4				6.4				
Max Green Setting (Gmax), s		51.6		* 26				25.6				
Max Q Clear Time (g_c+I1), s		19.0		10.4				5.6				
Green Ext Time (p_c), s		4.9		0.5				0.3				

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (vph)	0	87	38	39	143	0	0	0	0	31	1585	130
Future Volume (vph)	0	87	38	39	143	0	0	0	0	31	1585	130
Confl. Peds. (#/hr)	40		22	22		40	32		14	14		32
Confl. Bikes (#/hr)			22			40			14			32
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0					0		
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		8			4					2	2	
Permitted Phases			8	4								
Detector Phase		8	8	4	4					2	2	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					5.0	5.0	
Minimum Split (s)		31.4	31.4	31.3	31.3					26.4	26.4	
Total Split (s)		32.0	32.0	32.0	32.0					58.0	58.0	
Total Split (%)		35.6%	35.6%	35.6%	35.6%					64.4%	64.4%	
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
All-Red Time (s)		2.4	2.4	2.3	2.3					2.4	2.4	
Lost Time Adjust (s)		0.0	0.0		0.0						0.0	
Total Lost Time (s)		6.4	6.4		6.3						6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	

Intersection Summary

Cycle Length: 90

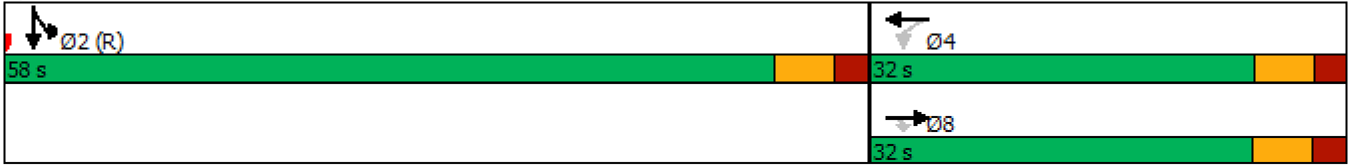
Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: 72nd Street & Abbott Avenue



6: Harding Avenue & 69th Street

01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✣	
Traffic Volume (vph)	8	97	0	0	95	15	48	149	22	28	0	43
Future Volume (vph)	8	97	0	0	95	15	48	149	22	28	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99			0.89	
Flpb, ped/bikes		1.00			1.00		0.98	1.00			0.99	
Frt		1.00			0.98		1.00	0.98			0.92	
Flt Protected		1.00			1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1830			1737		1701	1781			1448	
Flt Permitted		0.98			1.00		0.70	1.00			0.87	
Satd. Flow (perm)		1806			1737		1257	1781			1286	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	9	114	0	0	112	18	56	175	26	33	0	51
RTOR Reduction (vph)	0	0	0	0	5	0	0	8	0	0	80	0
Lane Group Flow (vph)	0	123	0	0	125	0	56	193	0	0	4	0
Confl. Peds. (#/hr)	27		53	53		27	11		10	10		11
Confl. Bikes (#/hr)			2			2			3			4
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	5%	5%	5%
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		39.7			39.7		13.1	13.1			3.2	
Effective Green, g (s)		39.7			39.7		13.1	13.1			3.2	
Actuated g/C Ratio		0.54			0.54		0.18	0.18			0.04	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		968			931		222	315			55	
v/s Ratio Prot					c0.07			c0.11				
v/s Ratio Perm		0.07					0.04				c0.00	
v/c Ratio		0.13			0.13		0.25	0.61			0.07	
Uniform Delay, d1		8.5			8.6		26.2	28.1			34.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.3		0.6	3.5			0.2	
Delay (s)		8.6			8.9		26.8	31.6			34.2	
Level of Service		A			A		C	C			C	
Approach Delay (s)		8.6			8.9			30.6			34.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✣	
Traffic Volume (vph)	8	97	0	0	95	15	48	149	22	28	0	43
Future Volume (vph)	8	97	0	0	95	15	48	149	22	28	0	43
Confl. Peds. (#/hr)	27		53	53		27	11		10	10		11
Confl. Bikes (#/hr)			2			2			3			4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Detector Phase	6	6			2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0		4.0	4.0	
Minimum Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (%)	27.0%	27.0%			27.0%		32.4%	32.4%		13.5%	13.5%	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0			6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None			C-Max		None	None		None	None	

Intersection Summary

Cycle Length: 74

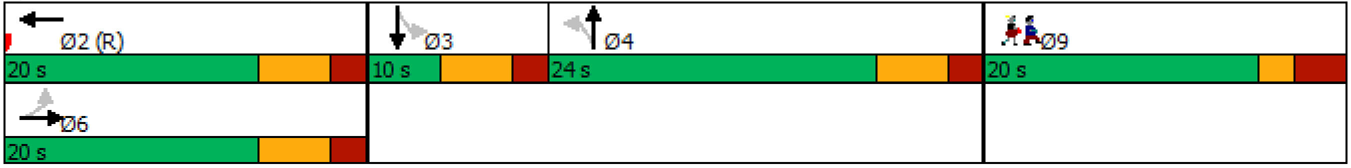
Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 6: Harding Avenue & 69th Street



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	27%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None

Intersection Summary

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	123	130	56	201	84
v/c Ratio	0.12	0.13	0.25	0.62	0.32
Control Delay	10.4	9.8	27.5	34.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	9.8	27.5	34.6	3.1
Queue Length 50th (ft)	27	26	22	81	0
Queue Length 95th (ft)	57	57	47	125	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	997	963	305	441	265
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.13	0.18	0.46	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✥	
Traffic Volume (vph)	12	133	0	0	166	27	161	319	32	35	0	29
Future Volume (vph)	12	133	0	0	166	27	161	319	32	35	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.98		1.00	0.99			0.85	
Flpb, ped/bikes		0.99			1.00		0.95	1.00			0.99	
Frt		1.00			0.98		1.00	0.99			0.94	
Flt Protected		1.00			1.00		0.95	1.00			0.97	
Satd. Flow (prot)		1840			1788		1681	1824			1424	
Flt Permitted		0.97			1.00		0.71	1.00			0.97	
Satd. Flow (perm)		1798			1788		1257	1824			1416	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	13	148	0	0	184	30	179	354	36	39	0	32
RTOR Reduction (vph)	0	0	0	0	5	0	0	5	0	0	68	0
Lane Group Flow (vph)	0	161	0	0	209	0	179	385	0	0	3	0
Confl. Peds. (#/hr)	51		87	87		51	27		23	23		27
Confl. Bikes (#/hr)			3			2			7			2
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		35.3			35.3		17.5	17.5			3.2	
Effective Green, g (s)		35.3			35.3		17.5	17.5			3.2	
Actuated g/C Ratio		0.48			0.48		0.24	0.24			0.04	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		857			852		297	431			61	
v/s Ratio Prot					c0.12			c0.21				
v/s Ratio Perm		0.09					0.14				c0.00	
v/c Ratio		0.19			0.25		0.60	0.89			0.05	
Uniform Delay, d1		11.1			11.5		25.2	27.3			33.9	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.7		3.4	20.2			0.1	
Delay (s)		11.2			12.1		28.6	47.5			34.1	
Level of Service		B			B		C	D			C	
Approach Delay (s)		11.2			12.1			41.5			34.1	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

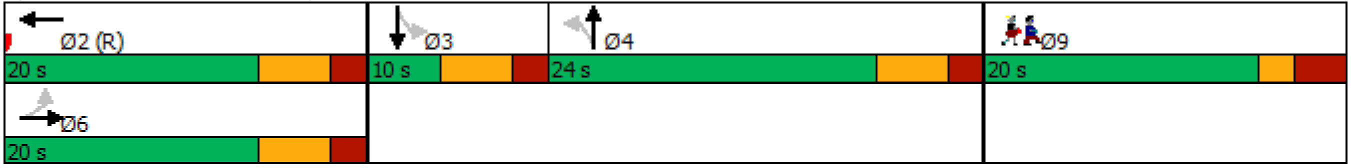
c Critical Lane Group

6: Harding Avenue & 69th Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✣	
Traffic Volume (vph)	12	133	0	0	166	27	161	319	32	35	0	29
Future Volume (vph)	12	133	0	0	166	27	161	319	32	35	0	29
Confl. Peds. (#/hr)	51		87	87		51	27		23	23		27
Confl. Bikes (#/hr)			3			2			7			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Detector Phase	6	6			2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0		4.0	4.0	
Minimum Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (%)	27.0%	27.0%			27.0%		32.4%	32.4%		13.5%	13.5%	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0			6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None			C-Max		None	None		None	None	

Intersection Summary
Cycle Length: 74
Actuated Cycle Length: 74
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 6: Harding Avenue & 69th Street



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	27%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None

Intersection Summary

Queues
6: Harding Avenue & 69th Street

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	161	214	179	390	71
v/c Ratio	0.18	0.24	0.60	0.90	0.26
Control Delay	12.3	12.2	34.6	52.5	2.3
Queue Delay	0.0	0.5	0.0	0.0	0.0
Total Delay	12.3	12.7	34.6	52.5	2.3
Queue Length 50th (ft)	42	54	72	169	0
Queue Length 95th (ft)	77	97	137	#322	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	887	887	306	448	273
Starvation Cap Reductn	0	369	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.41	0.58	0.87	0.26

Intersection Summary

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

Future without Project Conditions

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↰	↑		↰	↑			↰				✥	
Traffic Vol, veh/h	129	586	105	15	373	16	8	12	17	1	6	27	32
Future Vol, veh/h	129	586	105	15	373	16	8	12	17	1	6	27	32
Conflicting Peds, #/hr	37	0	38	38	0	37	20	0	2	0	2	0	20
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	5	5	5	6	6	6	2	2	2	2	2	2	2
Mvmt Flow	157	715	128	18	455	20	10	15	21	1	7	33	39

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	512	0	0	881	0	0	1688	1679	819	0	1651	1733	522
Stage 1	-	-	-	-	-	-	1131	1131	-	0	538	538	-
Stage 2	-	-	-	-	-	-	557	548	-	0	1113	1195	-
Critical Hdwy	4.15	-	-	4.16	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.254	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1038	-	-	751	-	-	74	95	375	0	79	88	555
Stage 1	-	-	-	-	-	-	247	278	-	0	527	522	-
Stage 2	-	-	-	-	-	-	515	517	-	0	253	260	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1001	-	-	724	-	-	35	73	361	0	53	67	525
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	73	-	0	53	67	-
Stage 1	-	-	-	-	-	-	201	226	-	0	428	491	-
Stage 2	-	-	-	-	-	-	425	486	-	0	188	211	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	89.3	90.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	1001	-	-	724	-	-	113
HCM Lane V/C Ratio	0.537	0.157	-	-	0.025	-	-	0.701
HCM Control Delay (s)	89.3	9.3	-	-	10.1	-	-	90.4
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.3	0.6	-	-	0.1	-	-	3.7

1: Byron Avenue & 71st Street

02/04/2020

Intersection	
Int Delay, s/veh	30.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑		↖	↑			↰			✥	
Traffic Vol, veh/h	180	379	20	16	616	25	44	43	18	5	13	43
Future Vol, veh/h	180	379	20	16	616	25	44	43	18	5	13	43
Conflicting Peds, #/hr	55	0	40	40	0	55	12	0	3	3	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	2	2	2
Mvmt Flow	188	395	21	17	642	26	46	45	19	5	14	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	723	0	0	456	0	0	1553	1579	449	1561	1576	722
Stage 1	-	-	-	-	-	-	822	822	-	744	744	-
Stage 2	-	-	-	-	-	-	731	757	-	817	832	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	870	-	-	1089	-	-	92	109	610	91	110	427
Stage 1	-	-	-	-	-	-	368	388	-	407	421	-
Stage 2	-	-	-	-	-	-	413	416	-	370	384	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	824	-	-	1048	-	-	55	76	585	37	76	400
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	76	-	37	76	-
Stage 1	-	-	-	-	-	-	273	288	-	298	393	-
Stage 2	-	-	-	-	-	-	344	388	-	233	285	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0.2	$ 361.4	46.9
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	75	824	-	-	1048	-	-	147
HCM Lane V/C Ratio	1.458	0.228	-	-	0.016	-	-	0.432
HCM Control Delay (s)	$ 361.4	10.7	-	-	8.5	-	-	46.9
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	8.9	0.9	-	-	0	-	-	1.9

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
2: Abbott Avenue & 71st Street

19218 Future without Project AM
01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	323	198	60	154	0	0	0	0	12	2039	228
Future Volume (veh/h)	0	323	198	60	154	0	0	0	0	12	2039	228
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1767	1767	1781	1781	0				1856	1856	1856
Adj Flow Rate, veh/h	0	336	206	62	160	0				12	2124	238
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	9	9	8	8	0				3	3	3
Cap, veh/h	0	487	361	166	491	0				16	3041	888
Arrive On Green	0.00	0.28	0.28	0.09	0.09	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1767	1311	816	1781	0				28	5204	1519
Grp Volume(v), veh/h	0	336	206	62	160	0				804	1332	238
Grp Sat Flow(s),veh/h/ln	0	1767	1311	816	1781	0				1854	1689	1519
Q Serve(g_s), s	0.0	15.3	12.2	6.8	7.6	0.0				36.8	32.9	12.0
Cycle Q Clear(g_c), s	0.0	15.3	12.2	22.1	7.6	0.0				36.8	32.9	12.0
Prop In Lane	0.00		1.00	1.00		0.00				0.01		1.00
Lane Grp Cap(c), veh/h	0	487	361	166	491	0				1084	1974	888
V/C Ratio(X)	0.00	0.69	0.57	0.37	0.33	0.00				0.74	0.67	0.27
Avail Cap(c_a), veh/h	0	603	447	219	608	0				1084	1974	888
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				0.69	0.69	0.69
Uniform Delay (d), s/veh	0.0	29.2	28.0	47.3	33.1	0.0				29.9	28.4	19.9
Incr Delay (d2), s/veh	0.0	2.1	1.1	1.0	0.3	0.0				3.2	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.8	6.9	2.7	6.3	0.0				24.9	20.4	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.3	29.1	48.3	33.4	0.0				33.1	29.7	20.4
LnGrp LOS	A	C	C	D	C	A				C	C	C
Approach Vol, veh/h		542			222						2374	
Approach Delay, s/veh		30.4			37.5						29.9	
Approach LOS		C			D						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		58.9		31.1				31.1				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 47		* 31				* 31				
Max Q Clear Time (g_c+I1), s		38.8		24.1				17.3				
Green Ext Time (p_c), s		4.5		0.5				1.9				

Intersection Summary			
HCM 6th Ctrl Delay			30.5
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

2: Abbott Avenue & 71st Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (vph)	0	323	198	60	154	0	0	0	0	12	2039	228
Future Volume (vph)	0	323	198	60	154	0	0	0	0	12	2039	228
Confl. Peds. (#/hr)	29		25	25		29	12		8	8		12
Confl. Bikes (#/hr)						3			4			6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	9%	9%	8%	8%	8%	2%	2%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0							
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	Perm
Protected Phases		8			4					2	2	
Permitted Phases			8	4								2
Detector Phase		8	8	4	4					2	2	2
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					7.0	7.0	7.0
Minimum Split (s)		31.3	31.3	31.3	31.3					31.3	31.3	31.3
Total Split (s)		37.0	37.0	37.0	37.0					53.0	53.0	53.0
Total Split (%)		41.1%	41.1%	41.1%	41.1%					58.9%	58.9%	58.9%
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		2.3	2.3	2.3	2.3					2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		6.3	6.3	6.3	6.3						6.3	6.3
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 90

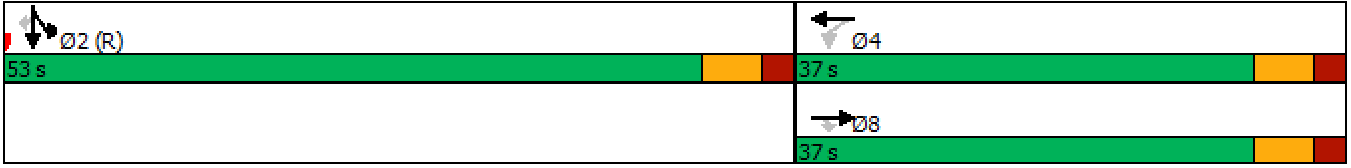
Actuated Cycle Length: 90

Offset: 47 (52%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 2: Abbott Avenue & 71st Street



HCM 6th Signalized Intersection Summary
2: Abbott Avenue & 71st Street

19218 Future without Project PM

02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	346	50	44	300	0	0	0	0	50	1260	378
Future Volume (veh/h)	0	346	50	44	300	0	0	0	0	50	1260	378
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.98		1.00				1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1870	1870	0				1856	1856	1856
Adj Flow Rate, veh/h	0	353	51	45	306	0				51	1286	386
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	6	6	2	2	0				3	3	3
Cap, veh/h	0	587	418	256	606	0				93	2498	742
Arrive On Green	0.00	0.32	0.32	0.32	0.32	0.00				0.50	0.50	0.50
Sat Flow, veh/h	0	1811	1290	958	1870	0				188	5036	1496
Grp Volume(v), veh/h	0	353	51	45	306	0				502	835	386
Grp Sat Flow(s),veh/h/ln	0	1811	1290	958	1870	0				1846	1689	1496
Q Serve(g_s), s	0.0	11.5	1.9	2.9	9.3	0.0				13.2	11.6	12.3
Cycle Q Clear(g_c), s	0.0	11.5	1.9	14.4	9.3	0.0				13.2	11.6	12.3
Prop In Lane	0.00		1.00	1.00		0.00				0.10		1.00
Lane Grp Cap(c), veh/h	0	587	418	256	606	0				916	1676	742
V/C Ratio(X)	0.00	0.60	0.12	0.18	0.51	0.00				0.55	0.50	0.52
Avail Cap(c_a), veh/h	0	665	474	298	687	0				916	1676	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.97	0.97	0.00				0.83	0.83	0.83
Uniform Delay (d), s/veh	0.0	19.9	16.7	25.9	19.1	0.0				12.2	11.8	12.0
Incr Delay (d2), s/veh	0.0	1.0	0.1	0.2	0.5	0.0				2.0	0.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.2	1.0	1.2	6.9	0.0				8.7	7.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.9	16.8	26.1	19.6	0.0				14.2	12.7	14.1
LnGrp LOS	A	C	B	C	B	A				B	B	B
Approach Vol, veh/h		404			351						1723	
Approach Delay, s/veh		20.3			20.4						13.4	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.0		29.0				29.0				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 32		* 26				* 26				
Max Q Clear Time (g_c+I1), s		15.2		16.4				13.5				
Green Ext Time (p_c), s		3.8		1.1				1.5				

Intersection Summary		
HCM 6th Ctrl Delay		15.6
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

2: Abbott Avenue & 71st Street

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑	↱	↰	↑	↰↑↑	↱
Traffic Volume (vph)	346	50	44	300	1260	378
Future Volume (vph)	346	50	44	300	1260	378
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	8			4	2	
Permitted Phases		8	4			2
Detector Phase	8	8	4	4	2	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	32.0	32.0	32.0	32.0	38.0	38.0
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 70

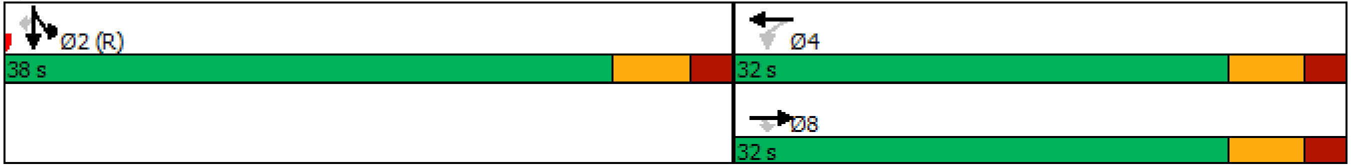
Actuated Cycle Length: 70

Offset: 68 (97%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 2: Abbott Avenue & 71st Street



	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	99	233	26	6	123	11	59	115	25	7	60	51
Future Volume (veh/h)	99	233	26	6	123	11	59	115	25	7	60	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.99		0.94	0.96		0.91	0.97		0.91
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	1767	1767	1767	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	112	265	30	7	140	12	67	131	28	8	68	58
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	9	9	9	2	2	2	4	4	4	4	4	4
Cap, veh/h	787	964	109	609	979	84	127	205	40	50	173	138
Arrive On Green	0.02	0.21	0.21	0.01	0.58	0.58	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1682	1547	175	1781	1688	145	382	1044	202	36	881	700
Grp Volume(v), veh/h	112	0	295	7	0	152	226	0	0	134	0	0
Grp Sat Flow(s),veh/h/ln	1682	0	1722	1781	0	1833	1628	0	0	1618	0	0
Q Serve(g_s), s	2.2	0.0	13.0	0.1	0.0	3.4	4.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	13.0	0.1	0.0	3.4	11.2	0.0	0.0	6.5	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.30		0.12	0.06		0.43
Lane Grp Cap(c), veh/h	787	0	1073	609	0	1063	372	0	0	361	0	0
V/C Ratio(X)	0.14	0.00	0.27	0.01	0.00	0.14	0.61	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	867	0	1073	771	0	1063	663	0	0	660	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.00	0.56	1.00	0.00	1.00	0.70	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	18.6	8.1	0.0	8.7	33.4	0.0	0.0	31.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.0	0.0	0.3	0.4	0.0	0.0	0.2	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	1.3	0.0	9.0	0.1	0.0	2.4	7.4	0.0	0.0	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	19.0	8.1	0.0	8.9	33.8	0.0	0.0	31.9	0.0	0.0
LnGrp LOS	A	A	B	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		407			159			226			134	
Approach Delay, s/veh		15.5			8.9			33.8			31.9	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	58.3		24.0	3.8	62.2		24.0				
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3				
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35				
Max Q Clear Time (g_c+I1), s	4.2	5.4		13.2	2.1	15.0		8.5				
Green Ext Time (p_c), s	0.1	0.3		0.5	0.0	0.6		0.3				

Intersection Summary			
HCM 6th Ctrl Delay			21.2
HCM 6th LOS			C

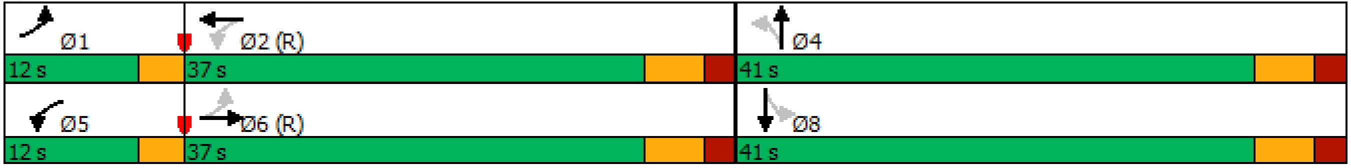
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (vph)	99	233	26	6	123	11	59	115	25	7	60	51
Future Volume (vph)	99	233	26	6	123	11	59	115	25	7	60	51
Confl. Peds. (#/hr)	39		47	47		39	6		22	22		6
Confl. Bikes (#/hr)			7			2			10			8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	9%	9%	2%	2%	2%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	8.0	24.1		8.0	24.1		29.3	29.3		29.3	29.3	
Total Split (s)	12.0	37.0		12.0	37.0		41.0	41.0		41.0	41.0	
Total Split (%)	13.3%	41.1%		13.3%	41.1%		45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	2.1		0.0	2.1		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.0	6.1		3.0	6.1			6.3			6.3	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (veh/h)	88	261	37	12	185	13	93	283	29	7	34	51
Future Volume (veh/h)	88	261	37	12	185	13	93	283	29	7	34	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.98		0.92	0.97		0.93	1.00		0.93
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	1870	1870	1870	1870	1870	1870	1796	1796	1796
Adj Flow Rate, veh/h	96	284	40	13	201	14	101	308	32	8	37	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	7	7	7
Cap, veh/h	653	832	117	546	849	59	143	351	35	58	188	249
Arrive On Green	0.05	0.53	0.53	0.02	0.49	0.49	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1767	1572	221	1781	1717	120	329	1235	122	53	662	875
Grp Volume(v), veh/h	96	0	324	13	0	215	441	0	0	100	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1793	1781	0	1837	1686	0	0	1591	0	0
Q Serve(g_s), s	2.2	0.0	9.3	0.3	0.0	6.0	18.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	9.3	0.3	0.0	6.0	22.7	0.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.07	0.23		0.07	0.08		0.55
Lane Grp Cap(c), veh/h	653	0	950	546	0	908	528	0	0	495	0	0
V/C Ratio(X)	0.15	0.00	0.34	0.02	0.00	0.24	0.83	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	740	0	950	697	0	908	696	0	0	646	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)	0.60	0.00	0.60	0.99	0.00	0.99	0.24	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.3	0.0	12.2	11.1	0.0	13.0	31.0	0.0	0.0	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.0	0.0	0.6	1.3	0.0	0.0	0.1	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	1.5	0.0	6.1	0.2	0.0	4.6	11.6	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	12.8	11.1	0.0	13.6	32.4	0.0	0.0	24.7	0.0	0.0
LnGrp LOS	A	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		420			228			441			100	
Approach Delay, s/veh		12.0			13.5			32.4			24.7	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	50.6		31.9	4.4	53.7		31.9				
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3				
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35				
Max Q Clear Time (g_c+I1), s	4.2	8.0		24.7	2.3	11.3		6.4				
Green Ext Time (p_c), s	0.0	0.4		0.8	0.0	0.7		0.2				

Intersection Summary			
HCM 6th Ctrl Delay			20.9
HCM 6th LOS			C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (vph)	88	261	37	12	185	13	93	283	29	7	34	51
Future Volume (vph)	88	261	37	12	185	13	93	283	29	7	34	51
Confl. Peds. (#/hr)	31		58	58		31	21		23	23		21
Confl. Bikes (#/hr)			7			2			10			8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	8.0	24.1		8.0	24.1		29.3	29.3		29.3	29.3	
Total Split (s)	12.0	37.0		12.0	37.0		41.0	41.0		41.0	41.0	
Total Split (%)	13.3%	41.1%		13.3%	41.1%		45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	2.1		0.0	2.1		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.0	6.1		3.0	6.1			6.3			6.3	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary

Cycle Length: 90

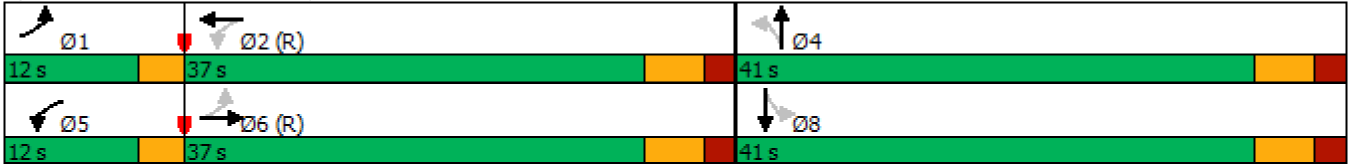
Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↑↱		↰	↑↑↑↱				
Traffic Volume (vph)	251	2	0	0	20	15	117	848	1	0	0	0
Future Volume (vph)	251	2	0	0	20	15	117	848	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	1.00				
Flt Protected	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (prot)	1759	1434			1707		1703	4892				
Flt Permitted	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (perm)	1759	1434			1707		1703	4892				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	251	2	0	0	20	15	117	848	1	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	0	0	0	0	0
Lane Group Flow (vph)	176	77	0	0	21	0	117	849	0	0	0	0
Confl. Peds. (#/hr)	8		50	50		8	43		42	42		43
Confl. Bikes (#/hr)			4			1			2			2
Heavy Vehicles (%)	8%	8%	8%	2%	2%	2%	6%	6%	6%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	12.4	12.4			4.5		55.1	55.1				
Effective Green, g (s)	12.4	12.4			4.5		55.1	55.1				
Actuated g/C Ratio	0.14	0.14			0.05		0.61	0.61				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	242	197			85		1042	2994				
v/s Ratio Prot	c0.10	0.05			c0.01		0.07	c0.17				
v/s Ratio Perm												
v/c Ratio	0.73	0.39			0.24		0.11	0.28				
Uniform Delay, d1	37.2	35.4			41.1		7.3	8.2				
Progression Factor	1.24	1.23			1.00		1.00	1.00				
Incremental Delay, d2	8.6	0.5			1.1		0.0	0.2				
Delay (s)	54.5	43.9			42.2		7.3	8.4				
Level of Service	D	D			D		A	A				
Approach Delay (s)		51.3			42.2			8.3			0.0	
Approach LOS		D			D			A			A	

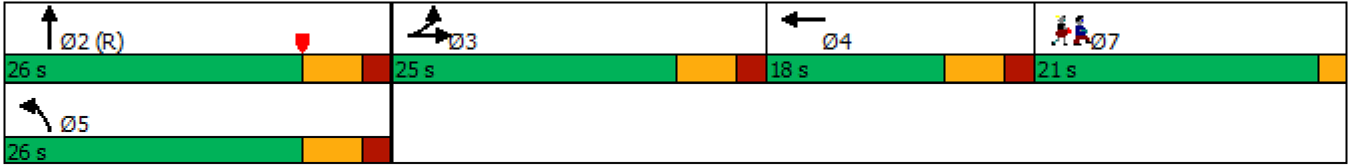
Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBL	NBT	Ø7
Lane Configurations	↰	↰↑	↑↱	↰	↑↑↑↱	
Traffic Volume (vph)	251	2	20	117	848	
Future Volume (vph)	251	2	20	117	848	
Turn Type	Split	NA	NA	Prot	NA	
Protected Phases	3	3	4	5	2	7
Permitted Phases						
Detector Phase	3	3	4	5	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	5.0	4.0	1.0
Minimum Split (s)	25.0	25.0	13.0	11.0	20.0	21.0
Total Split (s)	25.0	25.0	18.0	26.0	26.0	21.0
Total Split (%)	27.8%	27.8%	20.0%	28.9%	28.9%	23%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 73 (81%), Referenced to phase 2:NBT and 6:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Collins Avenue & 71st Street



4: Collins Avenue & 71st Street

	↗	→	←	↖	↑
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	176	77	35	117	849
v/c Ratio	0.72	0.39	0.23	0.11	0.27
Control Delay	61.6	47.2	29.8	9.2	9.0
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	61.7	47.2	29.8	9.2	9.0
Queue Length 50th (ft)	105	47	11	27	82
Queue Length 95th (ft)	167	92	39	63	128
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	371	302	243	1087	3125
Starvation Cap Reductn	9	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.25	0.14	0.11	0.27

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↱		↰	↑↑↱				
Traffic Volume (vph)	281	6	0	0	13	20	166	1908	6	0	0	0
Future Volume (vph)	281	6	0	0	13	20	166	1908	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.91		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.92		1.00	1.00				
Flt Protected	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (prot)	1827	1492			1564		1770	5079				
Flt Permitted	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (perm)	1827	1492			1564		1770	5079				
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	287	6	0	0	13	20	169	1947	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	0	0
Lane Group Flow (vph)	201	92	0	0	14	0	169	1953	0	0	0	0
Confl. Peds. (#/hr)	9		65	65		9	83		41	41		83
Confl. Bikes (#/hr)			11			10			6			8
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	23.2	23.2			6.4		132.4	132.4				
Effective Green, g (s)	23.2	23.2			6.4		132.4	132.4				
Actuated g/C Ratio	0.13	0.13			0.04		0.74	0.74				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	235	192			55		1301	3735				
v/s Ratio Prot	c0.11	0.06			c0.01		0.10	c0.38				
v/s Ratio Perm												
v/c Ratio	0.86	0.48			0.25		0.13	0.52				
Uniform Delay, d1	76.8	72.8			84.5		7.0	10.2				
Progression Factor	0.97	0.96			1.00		1.00	1.00				
Incremental Delay, d2	22.5	0.6			1.7		0.0	0.5				
Delay (s)	96.7	70.5			86.2		7.0	10.8				
Level of Service	F	E			F		A	B				
Approach Delay (s)		88.5			86.2			10.5			0.0	
Approach LOS		F			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↱		↰	↑↑↱				
Traffic Volume (vph)	281	6	0	0	13	20	166	1908	6	0	0	0
Future Volume (vph)	281	6	0	0	13	20	166	1908	6	0	0	0
Confl. Peds. (#/hr)	9		65	65		9	83		41	41		83
Confl. Bikes (#/hr)			11			10			6			8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0										
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	30%											
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Detector Phase	3	3			4		5	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		5.0	4.0				
Minimum Split (s)	25.0	25.0			13.0		11.0	32.0				
Total Split (s)	37.0	37.0			24.0		95.0	95.0				
Total Split (%)	20.6%	20.6%			13.3%		52.8%	52.8%				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0				
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0				
Lead/Lag	Lead	Lead			Lag							
Lead-Lag Optimize?	Yes	Yes			Yes							
Recall Mode	None	None			None		None	C-Max				

Intersection Summary

Cycle Length: 180

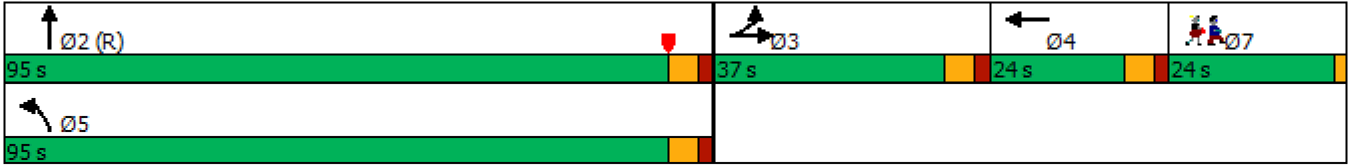
Actuated Cycle Length: 180

Offset: 83 (46%), Referenced to phase 2:NBT and 6:, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Splits and Phases: 4: Collins Avenue & 71st Street



Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	13%
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None

Intersection Summary

Queues

4: Collins Avenue & 71st Street

	↗	→	←	↖	↑
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	201	92	33	169	1953
v/c Ratio	0.86	0.48	0.37	0.13	0.52
Control Delay	102.1	76.3	54.0	8.1	11.4
Queue Delay	18.0	1.0	0.0	0.0	0.7
Total Delay	120.1	77.3	54.0	8.1	12.1
Queue Length 50th (ft)	248	113	15	55	341
Queue Length 95th (ft)	m335	m183	56	102	463
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	314	256	182	1313	3771
Starvation Cap Reductn	99	53	0	0	1307
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.45	0.18	0.13	0.79

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

5: 72nd Street & Abbott Avenue

01/17/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (veh/h)	0	164	78	26	42	0	0	0	0	68	2243	84
Future Volume (veh/h)	0	164	78	26	42	0	0	0	0	68	2243	84
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.98		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1811	1811	0				1900	1870	1900
Adj Flow Rate, veh/h	0	169	80	27	43	0				70	2312	87
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	6	6	0				0	2	0
Cap, veh/h	0	335	243	110	149	0				94	3306	127
Arrive On Green	0.00	0.18	0.18	0.18	0.18	0.00				0.68	0.68	0.68
Sat Flow, veh/h	0	1856	1348	301	828	0				139	4881	188
Grp Volume(v), veh/h	0	169	80	70	0	0				844	779	846
Grp Sat Flow(s),veh/h/ln	0	1856	1348	1129	0	0				1676	1702	1830
Q Serve(g_s), s	0.0	7.4	4.7	0.2	0.0	0.0				29.5	24.5	25.0
Cycle Q Clear(g_c), s	0.0	7.4	4.7	7.6	0.0	0.0				29.5	24.5	25.0
Prop In Lane	0.00		1.00	0.39		0.00				0.08		0.10
Lane Grp Cap(c), veh/h	0	335	243	259	0	0				1135	1153	1239
V/C Ratio(X)	0.00	0.50	0.33	0.27	0.00	0.00				0.74	0.68	0.68
Avail Cap(c_a), veh/h	0	528	383	410	0	0				1135	1153	1239
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	33.3	32.1	31.5	0.0	0.0				9.4	8.6	8.7
Incr Delay (d2), s/veh	0.0	0.4	0.3	0.2	0.0	0.0				4.4	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.0	2.7	2.3	0.0	0.0				15.5	13.2	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.7	32.4	31.8	0.0	0.0				13.9	11.8	11.8
LnGrp LOS	A	C	C	C	A	A				B	B	B
Approach Vol, veh/h		249			70						2469	
Approach Delay, s/veh		33.3			31.8						12.5	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		67.4		22.6				22.6				
Change Period (Y+Rc), s		6.4		* 6.4				6.4				
Max Green Setting (Gmax), s		51.6		* 26				25.6				
Max Q Clear Time (g_c+I1), s		31.5		9.6				9.4				
Green Ext Time (p_c), s		7.7		0.2				0.7				

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

5: 72nd Street & Abbott Avenue

01/17/2020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (vph)	0	164	78	26	42	0	0	0	0	68	2243	84
Future Volume (vph)	0	164	78	26	42	0	0	0	0	68	2243	84
Confl. Peds. (#/hr)	20		21	21		20	12		4	4		12
Confl. Bikes (#/hr)			1			2			2			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0					0		
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		8			4					2	2	
Permitted Phases			8	4								
Detector Phase		8	8	4	4					2	2	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					5.0	5.0	
Minimum Split (s)		31.4	31.4	31.3	31.3					26.4	26.4	
Total Split (s)		32.0	32.0	32.0	32.0					58.0	58.0	
Total Split (%)		35.6%	35.6%	35.6%	35.6%					64.4%	64.4%	
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
All-Red Time (s)		2.4	2.4	2.3	2.3					2.4	2.4	
Lost Time Adjust (s)		0.0	0.0		0.0						0.0	
Total Lost Time (s)		6.4	6.4		6.3						6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	

Intersection Summary

Cycle Length: 90

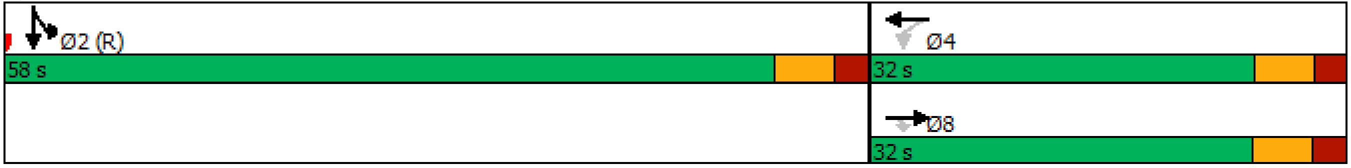
Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: 72nd Street & Abbott Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (veh/h)	0	110	38	43	165	0	0	0	0	56	1612	132
Future Volume (veh/h)	0	110	38	43	165	0	0	0	0	56	1612	132
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.98		1.00				1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1841	1841	0				1900	1856	1900
Adj Flow Rate, veh/h	0	110	38	43	165	0				56	1612	132
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	4	4	0				0	3	0
Cap, veh/h	0	369	263	96	290	0				99	3019	255
Arrive On Green	0.00	0.20	0.20	0.20	0.20	0.00				0.66	0.66	0.66
Sat Flow, veh/h	0	1870	1329	241	1468	0				149	4572	386
Grp Volume(v), veh/h	0	110	38	208	0	0				623	576	601
Grp Sat Flow(s),veh/h/ln	0	1870	1329	1709	0	0				1663	1689	1756
Q Serve(g_s), s	0.0	4.5	2.1	4.5	0.0	0.0				18.3	15.8	15.9
Cycle Q Clear(g_c), s	0.0	4.5	2.1	9.7	0.0	0.0				18.3	15.8	15.9
Prop In Lane	0.00		1.00	0.21		0.00				0.09		0.22
Lane Grp Cap(c), veh/h	0	369	263	386	0	0				1098	1115	1160
V/C Ratio(X)	0.00	0.30	0.14	0.54	0.00	0.00				0.57	0.52	0.52
Avail Cap(c_a), veh/h	0	532	378	531	0	0				1098	1115	1160
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.8	29.8	32.8	0.0	0.0				8.3	7.9	7.9
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.4	0.0	0.0				2.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.6	1.2	7.4	0.0	0.0				10.3	9.2	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.0	29.9	33.2	0.0	0.0				10.4	9.6	9.5
LnGrp LOS	A	C	C	C	A	A				B	A	A
Approach Vol, veh/h		148			208						1800	
Approach Delay, s/veh		30.7			33.2						9.9	
Approach LOS		C			C						A	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		65.8		24.2				24.2				
Change Period (Y+Rc), s		6.4		* 6.4				6.4				
Max Green Setting (Gmax), s		51.6		* 26				25.6				
Max Q Clear Time (g_c+I1), s		20.3		11.7				6.5				
Green Ext Time (p_c), s		5.1		0.6				0.4				

Intersection Summary			
HCM 6th Ctrl Delay			13.6
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (vph)	0	110	38	43	165	0	0	0	0	56	1612	132
Future Volume (vph)	0	110	38	43	165	0	0	0	0	56	1612	132
Confl. Peds. (#/hr)	40		22	22		40	32		14	14		32
Confl. Bikes (#/hr)			22			40			14			32
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0		0					0		
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		8			4					2	2	
Permitted Phases			8	4								
Detector Phase		8	8	4	4					2	2	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					5.0	5.0	
Minimum Split (s)		31.4	31.4	31.3	31.3					26.4	26.4	
Total Split (s)		32.0	32.0	32.0	32.0					58.0	58.0	
Total Split (%)		35.6%	35.6%	35.6%	35.6%					64.4%	64.4%	
Yellow Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
All-Red Time (s)		2.4	2.4	2.3	2.3					2.4	2.4	
Lost Time Adjust (s)		0.0	0.0		0.0						0.0	
Total Lost Time (s)		6.4	6.4		6.3						6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Max	C-Max	

Intersection Summary

Cycle Length: 90

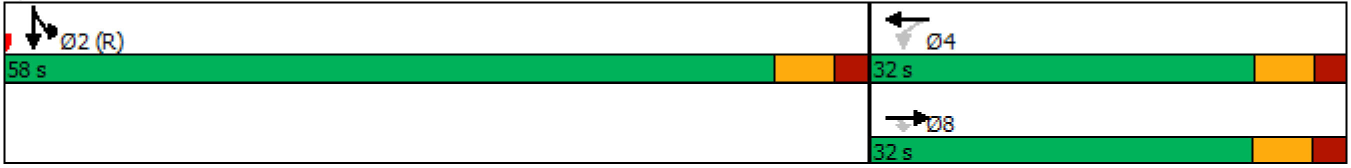
Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: 72nd Street & Abbott Avenue



6: Harding Avenue & 69th Street

02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	99	0	0	96	16	49	170	23	28	0	6
Future Volume (vph)	8	99	0	0	96	16	49	170	23	28	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99			0.96	
Flpb, ped/bikes		1.00			1.00		0.98	1.00			0.99	
Frt		1.00			0.98		1.00	0.98			0.98	
Flt Protected		1.00			1.00		0.95	1.00			0.96	
Satd. Flow (prot)		1830			1735		1698	1785			1611	
Flt Permitted		0.98			1.00		0.73	1.00			1.00	
Satd. Flow (perm)		1807			1735		1307	1785			1678	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	9	116	0	0	113	19	58	200	27	33	0	7
RTOR Reduction (vph)	0	0	0	0	5	0	0	7	0	0	39	0
Lane Group Flow (vph)	0	125	0	0	127	0	58	220	0	0	1	0
Confl. Peds. (#/hr)	27		53	53		27	11		10	10		11
Confl. Bikes (#/hr)			2			2			3			4
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	5%	5%	5%
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		39.7			39.7		13.9	13.9			2.4	
Effective Green, g (s)		39.7			39.7		13.9	13.9			2.4	
Actuated g/C Ratio		0.54			0.54		0.19	0.19			0.03	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		969			930		245	335			54	
v/s Ratio Prot					c0.07			c0.12				
v/s Ratio Perm		0.07					0.04				c0.00	
v/c Ratio		0.13			0.14		0.24	0.66			0.02	
Uniform Delay, d1		8.5			8.6		25.5	27.8			34.7	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.3		0.5	4.6			0.1	
Delay (s)		8.6			8.9		26.0	32.4			34.7	
Level of Service		A			A		C	C			C	
Approach Delay (s)		8.6			8.9			31.1			34.7	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

6: Harding Avenue & 69th Street

02/04/2020

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations								
Traffic Volume (vph)	8	99	96	49	170	28	0	
Future Volume (vph)	8	99	96	49	170	28	0	
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	
Protected Phases		6	2		4		3	9
Permitted Phases	6			4		3		
Detector Phase	6	6	2	4	4	3	3	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	4.0	4.0	5.0
Minimum Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (%)	27.0%	27.0%	27.0%	32.4%	32.4%	13.5%	13.5%	27%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0		6.0	
Lead/Lag				Lag	Lag	Lead	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 74

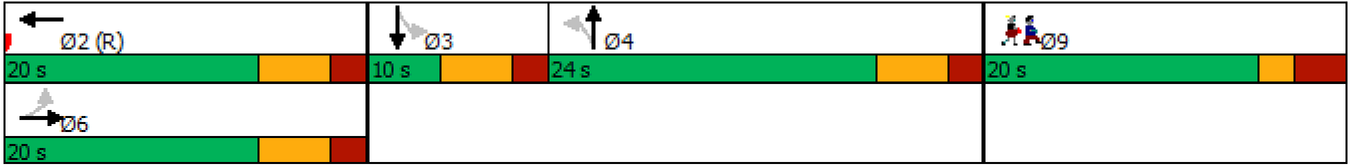
Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 6: Harding Avenue & 69th Street



Queues

6: Harding Avenue & 69th Street

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	125	132	58	227	40
v/c Ratio	0.12	0.13	0.24	0.66	0.14
Control Delay	10.2	9.6	26.5	35.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	9.6	26.5	35.9	1.0
Queue Length 50th (ft)	28	28	23	93	0
Queue Length 95th (ft)	58	58	47	142	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	1028	991	318	441	286
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.13	0.18	0.51	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✥	
Traffic Volume (vph)	12	135	0	0	169	27	164	339	32	35	0	42
Future Volume (vph)	12	135	0	0	169	27	164	339	32	35	0	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.98		1.00	0.99			0.82	
Flpb, ped/bikes		0.99			1.00		0.95	1.00			0.99	
Frt		1.00			0.98		1.00	0.99			0.93	
Flt Protected		1.00			1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1841			1790		1682	1826			1361	
Flt Permitted		0.97			1.00		0.70	1.00			0.91	
Satd. Flow (perm)		1799			1790		1242	1826			1264	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	13	150	0	0	188	30	182	377	36	39	0	47
RTOR Reduction (vph)	0	0	0	0	5	0	0	5	0	0	82	0
Lane Group Flow (vph)	0	163	0	0	213	0	182	408	0	0	4	0
Confl. Peds. (#/hr)	51		87	87		51	27		23	23		27
Confl. Bikes (#/hr)			3			2			7			2
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		34.9			34.9		17.9	17.9			3.2	
Effective Green, g (s)		34.9			34.9		17.9	17.9			3.2	
Actuated g/C Ratio		0.47			0.47		0.24	0.24			0.04	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		848			844		300	441			54	
v/s Ratio Prot					c0.12			c0.22				
v/s Ratio Perm		0.09					0.15				c0.00	
v/c Ratio		0.19			0.25		0.61	0.93			0.07	
Uniform Delay, d1		11.4			11.7		24.9	27.4			34.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.7		3.4	25.3			0.2	
Delay (s)		11.5			12.4		28.4	52.7			34.2	
Level of Service		B			B		C	D			C	
Approach Delay (s)		11.5			12.4			45.3			34.2	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✣	
Traffic Volume (vph)	12	135	0	0	169	27	164	339	32	35	0	42
Future Volume (vph)	12	135	0	0	169	27	164	339	32	35	0	42
Confl. Peds. (#/hr)	51		87	87		51	27		23	23		27
Confl. Bikes (#/hr)			3			2			7			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Detector Phase	6	6			2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0		4.0	4.0	
Minimum Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (s)	20.0	20.0			20.0		24.0	24.0		10.0	10.0	
Total Split (%)	27.0%	27.0%			27.0%		32.4%	32.4%		13.5%	13.5%	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0			6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None			C-Max		None	None		None	None	

Intersection Summary

Cycle Length: 74

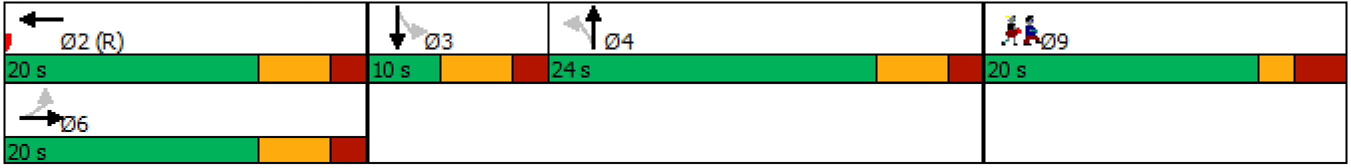
Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 6: Harding Avenue & 69th Street



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	27%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None

Intersection Summary

Queues

6: Harding Avenue & 69th Street

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	163	218	182	413	86
v/c Ratio	0.19	0.25	0.61	0.93	0.32
Control Delay	12.3	12.3	34.9	57.8	3.2
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	12.3	12.9	34.9	57.8	3.2
Queue Length 50th (ft)	42	56	74	183	0
Queue Length 95th (ft)	78	99	#140	#348	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	878	878	301	448	266
Starvation Cap Reductn	0	368	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.43	0.60	0.92	0.32

Intersection Summary

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

Future with Project Conditions

Intersection	
Int Delay, s/veh	18.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↰	↑		↰	↑			↰↑				↰↑↱	
Traffic Vol, veh/h	133	586	105	15	373	15	8	8	17	1	27	25	44
Future Vol, veh/h	133	586	105	15	373	15	8	8	17	1	27	25	44
Conflicting Peds, #/hr	37	0	38	38	0	37	20	0	2	0	2	0	20
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	5	5	5	6	6	6	2	2	2	2	2	2	2
Mvmt Flow	162	715	128	18	455	18	10	10	21	1	33	30	54

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	510	0	0	881	0	0	1703	1687	819	0	1658	1742	521
Stage 1	-	-	-	-	-	-	1141	1141	-	0	537	537	-
Stage 2	-	-	-	-	-	-	562	546	-	0	1121	1205	-
Critical Hdwy	4.15	-	-	4.16	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.254	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1040	-	-	751	-	-	72	94	375	0	78	87	555
Stage 1	-	-	-	-	-	-	244	275	-	0	528	523	-
Stage 2	-	-	-	-	-	-	512	518	-	0	250	257	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1003	-	-	724	-	-	34	71	361	0	55	66	525
Mov Cap-2 Maneuver	-	-	-	-	-	-	34	71	-	0	55	66	-
Stage 1	-	-	-	-	-	-	197	222	-	0	427	492	-
Stage 2	-	-	-	-	-	-	412	487	-	0	189	208	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	82.2	217.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	1003	-	-	724	-	-	101
HCM Lane V/C Ratio	0.479	0.162	-	-	0.025	-	-	1.159
HCM Control Delay (s)	82.2	9.3	-	-	10.1	-	-	217.4
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2	0.6	-	-	0.1	-	-	7.7

Intersection	
Int Delay, s/veh	38.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰	↑			↰↑			✥	
Traffic Vol, veh/h	192	379	20	16	616	30	44	45	18	15	11	46
Future Vol, veh/h	192	379	20	16	616	30	44	45	18	15	11	46
Conflicting Peds, #/hr	55	0	40	40	0	55	12	0	3	3	0	12
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	2	2	2
Mvmt Flow	200	395	21	17	642	31	46	47	19	16	11	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	456	0	0	1579	1608	449	1589	1603	725
Stage 1	-	-	-	-	-	-	846	846	-	747	747	-
Stage 2	-	-	-	-	-	-	733	762	-	842	856	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	866	-	-	1089	-	-	88	105	610	87	106	425
Stage 1	-	-	-	-	-	-	357	378	-	405	420	-
Stage 2	-	-	-	-	-	-	412	414	-	359	374	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	821	-	-	1048	-	-	52	71	585	31	72	398
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	71	-	31	72	-
Stage 1	-	-	-	-	-	-	260	275	-	290	392	-
Stage 2	-	-	-	-	-	-	342	386	-	217	272	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.5	0.2	$ 412.5	118.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	71	821	-	-	1048	-	-	96
HCM Lane V/C Ratio	1.57	0.244	-	-	0.016	-	-	0.781
HCM Control Delay (s)	$ 412.5	10.8	-	-	8.5	-	-	118.2
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	9.5	1	-	-	0	-	-	4.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

HCM 6th Signalized Intersection Summary
2: Abbott Avenue & 71st Street

02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	323	219	60	152	0	0	0	0	12	2033	228
Future Volume (veh/h)	0	323	219	60	152	0	0	0	0	12	2033	228
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1767	1767	1781	1781	0				1856	1856	1856
Adj Flow Rate, veh/h	0	336	228	62	158	0				12	2118	238
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	9	9	8	8	0				3	3	3
Cap, veh/h	0	488	362	165	492	0				16	3038	887
Arrive On Green	0.00	0.28	0.28	0.09	0.09	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1767	1311	799	1781	0				28	5203	1519
Grp Volume(v), veh/h	0	336	228	62	158	0				802	1328	238
Grp Sat Flow(s),veh/h/ln	0	1767	1311	799	1781	0				1854	1689	1519
Q Serve(g_s), s	0.0	15.3	13.7	6.9	7.5	0.0				36.6	32.8	12.0
Cycle Q Clear(g_c), s	0.0	15.3	13.7	22.2	7.5	0.0				36.6	32.8	12.0
Prop In Lane	0.00		1.00	1.00		0.00				0.01		1.00
Lane Grp Cap(c), veh/h	0	488	362	165	492	0				1082	1972	887
V/C Ratio(X)	0.00	0.69	0.63	0.38	0.32	0.00				0.74	0.67	0.27
Avail Cap(c_a), veh/h	0	603	447	217	608	0				1082	1972	887
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				0.68	0.68	0.68
Uniform Delay (d), s/veh	0.0	29.1	28.5	47.3	33.0	0.0				29.9	28.4	20.0
Incr Delay (d2), s/veh	0.0	2.1	1.5	1.0	0.3	0.0				3.1	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.8	7.8	2.7	6.2	0.0				24.8	20.3	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.2	30.0	48.3	33.3	0.0				33.1	29.6	20.5
LnGrp LOS	A	C	C	D	C	A				C	C	C
Approach Vol, veh/h		564			220						2368	
Approach Delay, s/veh		30.7			37.5						29.9	
Approach LOS		C			D						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		58.8		31.2				31.2				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 47		* 31				* 31				
Max Q Clear Time (g_c+I1), s		38.6		24.2				17.3				
Green Ext Time (p_c), s		4.5		0.5				2.0				

Intersection Summary	
HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Timings
2: Abbott Avenue & 71st Street

02/04/2020

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑	↱	↰	↑	↰↑↑	↱
Traffic Volume (vph)	323	219	60	152	2033	228
Future Volume (vph)	323	219	60	152	2033	228
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	8			4	2	
Permitted Phases		8	4			2
Detector Phase	8	8	4	4	2	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	37.0	37.0	37.0	37.0	53.0	53.0
Total Split (%)	41.1%	41.1%	41.1%	41.1%	58.9%	58.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.7	22.7	22.7	22.7	54.7	54.7
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.61	0.61
v/c Ratio	0.76	0.65	0.43	0.40	0.70	0.24
Control Delay	42.2	32.3	41.1	33.0	7.3	0.9
Queue Delay	0.8	0.0	0.0	0.6	0.2	0.0
Total Delay	43.0	32.3	41.1	33.6	7.5	0.9
LOS	D	C	D	C	A	A
Approach Delay	38.7			35.7	6.8	
Approach LOS	D			D	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 47 (52%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

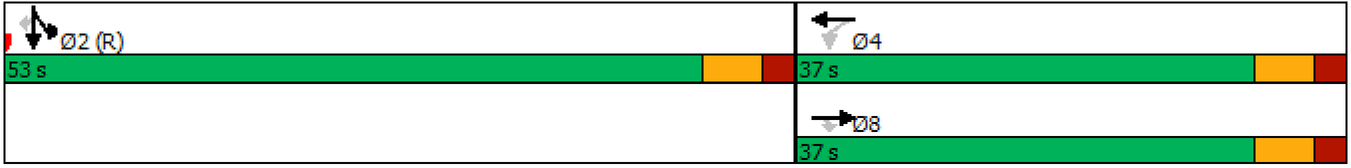
Maximum v/c Ratio: 0.76

Intersection Signal Delay: 14.6 Intersection LOS: B

Intersection Capacity Utilization 82.5% ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 2: Abbott Avenue & 71st Street



2: Abbott Avenue & 71st Street

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑↑	↱
Traffic Volume (veh/h)	0	346	60	44	306	0	0	0	0	50	1255	378
Future Volume (veh/h)	0	346	60	44	306	0	0	0	0	50	1255	378
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.98		1.00				1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1870	1870	0				1856	1856	1856
Adj Flow Rate, veh/h	0	353	61	45	312	0				51	1281	386
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	6	6	2	2	0				3	3	3
Cap, veh/h	0	587	418	255	606	0				93	2497	742
Arrive On Green	0.00	0.32	0.32	0.32	0.32	0.00				0.50	0.50	0.50
Sat Flow, veh/h	0	1811	1290	950	1870	0				188	5035	1496
Grp Volume(v), veh/h	0	353	61	45	312	0				500	832	386
Grp Sat Flow(s),veh/h/ln	0	1811	1290	950	1870	0				1846	1689	1496
Q Serve(g_s), s	0.0	11.5	2.3	2.9	9.5	0.0				13.1	11.5	12.3
Cycle Q Clear(g_c), s	0.0	11.5	2.3	14.4	9.5	0.0				13.1	11.5	12.3
Prop In Lane	0.00		1.00	1.00		0.00				0.10		1.00
Lane Grp Cap(c), veh/h	0	587	418	255	606	0				916	1675	742
V/C Ratio(X)	0.00	0.60	0.15	0.18	0.51	0.00				0.55	0.50	0.52
Avail Cap(c_a), veh/h	0	665	474	296	687	0				916	1675	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.96	0.96	0.00				0.83	0.83	0.83
Uniform Delay (d), s/veh	0.0	19.9	16.8	25.9	19.2	0.0				12.2	11.8	12.0
Incr Delay (d2), s/veh	0.0	1.0	0.1	0.2	0.5	0.0				1.9	0.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.2	1.2	1.2	7.1	0.0				8.6	7.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.8	16.9	26.1	19.7	0.0				14.1	12.7	14.1
LnGrp LOS	A	C	B	C	B	A				B	B	B
Approach Vol, veh/h		414			357						1718	
Approach Delay, s/veh		20.3			20.5						13.4	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.0		29.0				29.0				
Change Period (Y+Rc), s		* 6.3		* 6.3				* 6.3				
Max Green Setting (Gmax), s		* 32		* 26				* 26				
Max Q Clear Time (g_c+I1), s		15.1		16.4				13.5				
Green Ext Time (p_c), s		3.8		1.2				1.5				

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

2: Abbott Avenue & 71st Street

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑	↱	↰	↑	↰↑↑	↱
Traffic Volume (vph)	346	60	44	306	1255	378
Future Volume (vph)	346	60	44	306	1255	378
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	8			4	2	
Permitted Phases		8	4			2
Detector Phase	8	8	4	4	2	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	32.0	32.0	32.0	32.0	38.0	38.0
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 70

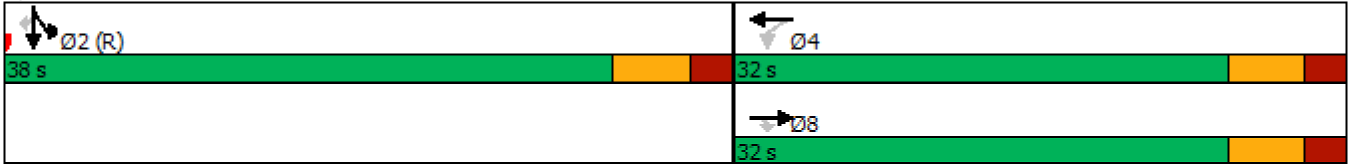
Actuated Cycle Length: 70

Offset: 68 (97%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 2: Abbott Avenue & 71st Street



HCM 6th Signalized Intersection Summary
3: Harding Avenue & 71st Street

19218 Future with Project AM
01/20/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (veh/h)	99	233	26	6	123	11	58	115	25	7	60	51
Future Volume (veh/h)	99	233	26	6	123	11	58	115	25	7	60	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.99		0.94	0.96		0.91	0.97		0.91
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	1767	1767	1767	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	112	265	30	7	140	12	66	131	28	8	68	58
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	9	9	9	2	2	2	4	4	4	4	4	4
Cap, veh/h	787	964	109	609	980	84	126	206	40	50	173	137
Arrive On Green	0.02	0.21	0.21	0.01	0.58	0.58	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1682	1547	175	1781	1689	145	377	1050	203	36	881	700
Grp Volume(v), veh/h	112	0	295	7	0	152	225	0	0	134	0	0
Grp Sat Flow(s),veh/h/ln	1682	0	1722	1781	0	1833	1629	0	0	1617	0	0
Q Serve(g_s), s	2.2	0.0	13.0	0.1	0.0	3.4	4.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	13.0	0.1	0.0	3.4	11.2	0.0	0.0	6.5	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.29		0.12	0.06		0.43
Lane Grp Cap(c), veh/h	787	0	1074	609	0	1064	372	0	0	360	0	0
V/C Ratio(X)	0.14	0.00	0.27	0.01	0.00	0.14	0.61	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	868	0	1074	772	0	1064	663	0	0	660	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.00	0.56	1.00	0.00	1.00	0.70	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	18.6	8.1	0.0	8.6	33.4	0.0	0.0	31.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.0	0.0	0.3	0.4	0.0	0.0	0.2	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	1.3	0.0	9.0	0.1	0.0	2.4	7.4	0.0	0.0	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	19.0	8.1	0.0	8.9	33.8	0.0	0.0	31.9	0.0	0.0
LnGrp LOS	A	A	B	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		407			159			225			134	
Approach Delay, s/veh		15.4			8.9			33.8			31.9	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	58.3		24.0	3.8	62.2		24.0
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35
Max Q Clear Time (g_c+I1), s	4.2	5.4		13.2	2.1	15.0		8.5
Green Ext Time (p_c), s	0.1	0.3		0.5	0.0	0.6		0.3

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

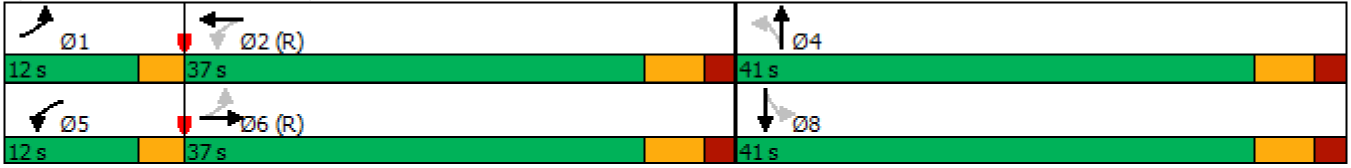
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (vph)	99	233	26	6	123	11	58	115	25	7	60	51
Future Volume (vph)	99	233	26	6	123	11	58	115	25	7	60	51
Confl. Peds. (#/hr)	39		47	47		39	6		22	22		6
Confl. Bikes (#/hr)			7			2			10			8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	9%	9%	2%	2%	2%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	8.0	24.1		8.0	24.1		29.3	29.3		29.3	29.3	
Total Split (s)	12.0	37.0		12.0	37.0		41.0	41.0		41.0	41.0	
Total Split (%)	13.3%	41.1%		13.3%	41.1%		45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	2.1		0.0	2.1		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.0	6.1		3.0	6.1			6.3			6.3	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (veh/h)	88	261	41	12	188	13	95	283	29	7	34	51
Future Volume (veh/h)	88	261	41	12	188	13	95	283	29	7	34	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.98		0.92	0.97		0.93	1.00		0.93
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	1870	1870	1870	1870	1870	1870	1796	1796	1796
Adj Flow Rate, veh/h	96	284	45	13	204	14	103	308	32	8	37	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	7	7	7
Cap, veh/h	649	814	129	540	847	58	145	350	35	58	189	250
Arrive On Green	0.05	0.53	0.53	0.02	0.49	0.49	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1767	1543	244	1781	1719	118	335	1227	122	54	662	875
Grp Volume(v), veh/h	96	0	329	13	0	218	443	0	0	100	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1787	1781	0	1837	1684	0	0	1591	0	0
Q Serve(g_s), s	2.2	0.0	9.6	0.3	0.0	6.1	18.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	9.6	0.3	0.0	6.1	22.9	0.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		0.14	1.00		0.06	0.23		0.07	0.08		0.55
Lane Grp Cap(c), veh/h	649	0	943	540	0	905	530	0	0	497	0	0
V/C Ratio(X)	0.15	0.00	0.35	0.02	0.00	0.24	0.84	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	736	0	943	691	0	905	696	0	0	646	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)	0.60	0.00	0.60	0.99	0.00	0.99	0.23	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.4	0.0	12.3	11.2	0.0	13.1	31.0	0.0	0.0	24.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.0	0.0	0.6	1.3	0.0	0.0	0.1	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	1.5	0.0	6.2	0.2	0.0	4.6	11.6	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	12.9	11.2	0.0	13.8	32.3	0.0	0.0	24.6	0.0	0.0
LnGrp LOS	A	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		425			231			443			100	
Approach Delay, s/veh		12.1			13.6			32.3			24.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	50.5		32.0	4.4	53.6		32.0
Change Period (Y+Rc), s	3.0	6.1		* 6.3	3.0	6.1		* 6.3
Max Green Setting (Gmax), s	9.0	30.9		* 35	9.0	30.9		* 35
Max Q Clear Time (g_c+I1), s	4.2	8.1		24.9	2.3	11.6		6.4
Green Ext Time (p_c), s	0.0	0.4		0.8	0.0	0.7		0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

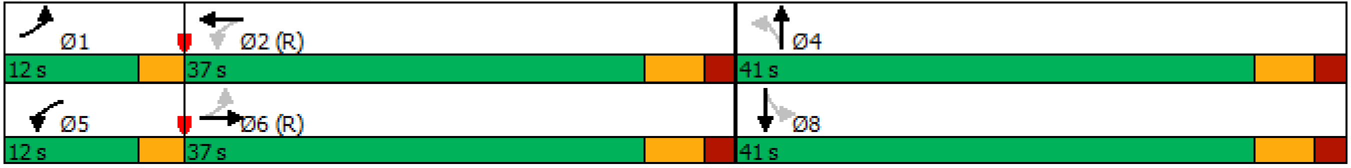
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Harding Avenue & 71st Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↰	↱	↰	↱		✥		✥
Traffic Volume (vph)	88	261	12	188	95	283	7	34
Future Volume (vph)	88	261	12	188	95	283	7	34
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0	24.1	8.0	24.1	29.3	29.3	29.3	29.3
Total Split (s)	12.0	37.0	12.0	37.0	41.0	41.0	41.0	41.0
Total Split (%)	13.3%	41.1%	13.3%	41.1%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.1	0.0	2.1	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	3.0	6.1	3.0	6.1		6.3		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 66 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Harding Avenue & 71st Street



HCM Signalized Intersection Capacity Analysis
4: Collins Avenue & 71st Street

19218 Future with Project AM
02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↱		↰	↑↑↱				
Traffic Volume (vph)	251	2	0	0	20	15	116	848	1	0	0	0
Future Volume (vph)	251	2	0	0	20	15	116	848	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	1.00				
Flt Protected	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (prot)	1759	1434			1707		1703	4892				
Flt Permitted	1.00	0.95			1.00		0.95	1.00				
Satd. Flow (perm)	1759	1434			1707		1703	4892				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	251	2	0	0	20	15	116	848	1	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	0	0	0	0	0
Lane Group Flow (vph)	176	77	0	0	21	0	116	849	0	0	0	0
Confl. Peds. (#/hr)	8		50	50		8	43		42	42		43
Confl. Bikes (#/hr)			4			1			2			2
Heavy Vehicles (%)	8%	8%	8%	2%	2%	2%	6%	6%	6%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	12.4	12.4			4.5		55.1	55.1				
Effective Green, g (s)	12.4	12.4			4.5		55.1	55.1				
Actuated g/C Ratio	0.14	0.14			0.05		0.61	0.61				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	242	197			85		1042	2994				
v/s Ratio Prot	c0.10	0.05			c0.01		0.07	c0.17				
v/s Ratio Perm												
v/c Ratio	0.73	0.39			0.24		0.11	0.28				
Uniform Delay, d1	37.2	35.4			41.1		7.3	8.2				
Progression Factor	1.24	1.23			1.00		1.00	1.00				
Incremental Delay, d2	8.6	0.5			1.1		0.0	0.2				
Delay (s)	54.6	43.9			42.2		7.3	8.4				
Level of Service	D	D			D		A	A				
Approach Delay (s)		51.3			42.2			8.3			0.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

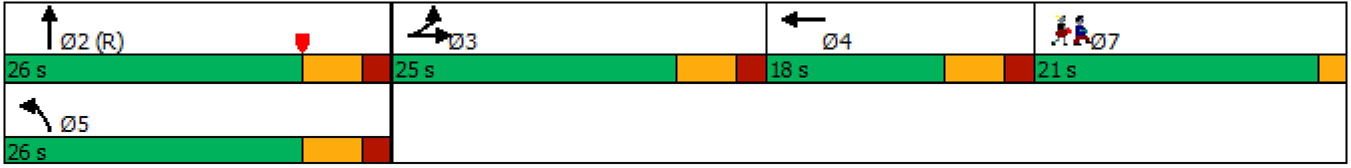
Timings
4: Collins Avenue & 71st Street
02/04/2020

Lane Group	EBL	EBT	WBT	NBL	NBT	Ø7
Lane Configurations	↰	↰↑	↑↱	↰	↑↑↑↱	
Traffic Volume (vph)	251	2	20	116	848	
Future Volume (vph)	251	2	20	116	848	
Turn Type	Split	NA	NA	Prot	NA	
Protected Phases	3	3	4	5	2	7
Permitted Phases						
Detector Phase	3	3	4	5	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	5.0	4.0	1.0
Minimum Split (s)	25.0	25.0	13.0	11.0	20.0	21.0
Total Split (s)	25.0	25.0	18.0	26.0	26.0	21.0
Total Split (%)	27.8%	27.8%	20.0%	28.9%	28.9%	23%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	None
Act Effct Green (s)	12.4	12.4	7.3	57.5	57.5	
Actuated g/C Ratio	0.14	0.14	0.08	0.64	0.64	
v/c Ratio	0.72	0.39	0.23	0.11	0.27	
Control Delay	61.6	47.3	29.8	9.2	9.0	
Queue Delay	0.1	0.0	0.0	0.0	0.0	
Total Delay	61.7	47.3	29.8	9.2	9.0	
LOS	E	D	C	A	A	
Approach Delay		57.3	29.8		9.0	
Approach LOS		E	C		A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 73 (81%), Referenced to phase 2:NBT and 6:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 41.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Collins Avenue & 71st Street



Queues
4: Collins Avenue & 71st Street

02/04/2020

	↗	→	←	↖	↑
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	176	77	35	116	849
v/c Ratio	0.72	0.39	0.23	0.11	0.27
Control Delay	61.6	47.3	29.8	9.2	9.0
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	61.7	47.3	29.8	9.2	9.0
Queue Length 50th (ft)	104	47	11	27	82
Queue Length 95th (ft)	167	92	39	62	128
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	371	302	243	1087	3125
Starvation Cap Reductn	9	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.25	0.14	0.11	0.27

Intersection Summary

HCM Signalized Intersection Capacity Analysis
19218 Future with Project PM

4: Collins Avenue & 71st Street
02/04/2020

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑			↑↱		↰	↑↑↑↱				
Traffic Volume (vph)	281	6	0	0	13	20	169	1908	6	0	0	0
Future Volume (vph)	281	6	0	0	13	20	169	1908	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0				
Lane Util. Factor	*1.00	0.95			1.00		1.00	0.91				
Frpb, ped/bikes	1.00	1.00			0.91		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.92		1.00	1.00				
Flt Protected	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (prot)	1827	1492			1564		1770	5079				
Flt Permitted	1.00	0.96			1.00		0.95	1.00				
Satd. Flow (perm)	1827	1492			1564		1770	5079				
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	287	6	0	0	13	20	172	1947	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	0	0
Lane Group Flow (vph)	201	92	0	0	14	0	172	1953	0	0	0	0
Confl. Peds. (#/hr)	9		65	65		9	83		41	41		83
Confl. Bikes (#/hr)			11			10			6			8
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0										
Turn Type	Split	NA			NA		Prot	NA				
Protected Phases	3	3			4		5	2				
Permitted Phases												
Actuated Green, G (s)	23.2	23.2			6.4		132.4	132.4				
Effective Green, g (s)	23.2	23.2			6.4		132.4	132.4				
Actuated g/C Ratio	0.13	0.13			0.04		0.74	0.74				
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			2.5		1.0	1.0				
Lane Grp Cap (vph)	235	192			55		1301	3735				
v/s Ratio Prot	c0.11	0.06			c0.01		0.10	c0.38				
v/s Ratio Perm												
v/c Ratio	0.86	0.48			0.25		0.13	0.52				
Uniform Delay, d1	76.8	72.8			84.5		7.0	10.2				
Progression Factor	0.96	0.96			1.00		1.00	1.00				
Incremental Delay, d2	22.5	0.6			1.7		0.0	0.5				
Delay (s)	96.5	70.5			86.2		7.0	10.8				
Level of Service	F	E			F		A	B				
Approach Delay (s)		88.3			86.2			10.4			0.0	
Approach LOS		F			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings
4: Collins Avenue & 71st Street

Lane Group	EBL	EBT	WBT	NBL	NBT	Ø7
Lane Configurations						
Traffic Volume (vph)	281	6	13	169	1908	
Future Volume (vph)	281	6	13	169	1908	
Turn Type	Split	NA	NA	Prot	NA	
Protected Phases	3	3	4	5	2	7
Permitted Phases						
Detector Phase	3	3	4	5	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	5.0	4.0	1.0
Minimum Split (s)	25.0	25.0	13.0	11.0	32.0	24.0
Total Split (s)	37.0	37.0	24.0	95.0	95.0	24.0
Total Split (%)	20.6%	20.6%	13.3%	52.8%	52.8%	13%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	None

Intersection Summary

Cycle Length: 180

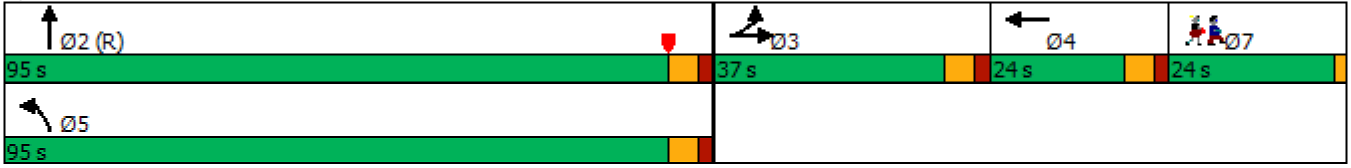
Actuated Cycle Length: 180

Offset: 83 (46%), Referenced to phase 2:NBT and 6:, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

Splits and Phases: 4: Collins Avenue & 71st Street



Queues
4: Collins Avenue & 71st Street

Lane Group	EBL	EBT	WBT	NBL	NBT
	↗	→	←	↖	↑
Lane Group Flow (vph)	201	92	33	172	1953
v/c Ratio	0.86	0.48	0.37	0.13	0.52
Control Delay	101.9	76.3	54.0	8.1	11.4
Queue Delay	18.0	1.0	0.0	0.0	0.7
Total Delay	119.9	77.3	54.0	8.1	12.1
Queue Length 50th (ft)	248	113	15	56	341
Queue Length 95th (ft)	m333	m183	56	103	463
Internal Link Dist (ft)		204	194		604
Turn Bay Length (ft)	100			200	
Base Capacity (vph)	314	256	182	1313	3771
Starvation Cap Reductn	99	53	0	0	1307
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.45	0.18	0.13	0.79

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
5: 72nd Street & Abbott Avenue

19218 Future with Project AM
02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	175	72	26	42	0	0	0	0	68	2243	82
Future Volume (veh/h)	0	175	72	26	42	0	0	0	0	68	2243	82
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.98		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1811	1811	0				1900	1870	1900
Adj Flow Rate, veh/h	0	180	74	27	43	0				70	2312	85
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	6	6	0				0	2	0
Cap, veh/h	0	341	248	108	147	0				94	3293	124
Arrive On Green	0.00	0.18	0.18	0.18	0.18	0.00				0.67	0.67	0.67
Sat Flow, veh/h	0	1856	1349	288	802	0				139	4886	184
Grp Volume(v), veh/h	0	180	74	70	0	0				844	778	845
Grp Sat Flow(s),veh/h/ln	0	1856	1349	1090	0	0				1676	1702	1831
Q Serve(g_s), s	0.0	7.9	4.3	0.2	0.0	0.0				29.7	24.7	25.2
Cycle Q Clear(g_c), s	0.0	7.9	4.3	8.1	0.0	0.0				29.7	24.7	25.2
Prop In Lane	0.00		1.00	0.39		0.00				0.08		0.10
Lane Grp Cap(c), veh/h	0	341	248	256	0	0				1130	1147	1234
V/C Ratio(X)	0.00	0.53	0.30	0.27	0.00	0.00				0.75	0.68	0.69
Avail Cap(c_a), veh/h	0	528	384	401	0	0				1130	1147	1234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	33.2	31.7	31.3	0.0	0.0				9.6	8.8	8.9
Incr Delay (d2), s/veh	0.0	0.5	0.2	0.2	0.0	0.0				4.5	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.4	2.5	2.3	0.0	0.0				15.7	13.4	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.7	32.0	31.5	0.0	0.0				14.2	12.0	12.0
LnGrp LOS	A	C	C	C	A	A				B	B	B
Approach Vol, veh/h		254			70						2467	
Approach Delay, s/veh		33.2			31.5						12.8	
Approach LOS		C			C						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		67.1		22.9				22.9				
Change Period (Y+Rc), s		6.4		* 6.4				6.4				
Max Green Setting (Gmax), s		51.6		* 26				25.6				
Max Q Clear Time (g_c+I1), s		31.7		10.1				9.9				
Green Ext Time (p_c), s		7.7		0.2				0.7				

Intersection Summary			
HCM 6th Ctrl Delay			15.1
HCM 6th LOS			B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

2: Abbott Avenue & 71st Street

02/04/2020

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑	↱	↰	↑	↰↑↑	↱
Traffic Volume (vph)	323	219	60	152	2033	228
Future Volume (vph)	323	219	60	152	2033	228
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	8			4	2	
Permitted Phases		8	4			2
Detector Phase	8	8	4	4	2	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	37.0	37.0	37.0	37.0	53.0	53.0
Total Split (%)	41.1%	41.1%	41.1%	41.1%	58.9%	58.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.7	22.7	22.7	22.7	54.7	54.7
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.61	0.61
v/c Ratio	0.76	0.65	0.43	0.40	0.70	0.24
Control Delay	42.2	32.3	41.1	33.0	7.3	0.9
Queue Delay	0.8	0.0	0.0	0.6	0.2	0.0
Total Delay	43.0	32.3	41.1	33.6	7.5	0.9
LOS	D	C	D	C	A	A
Approach Delay	38.7			35.7	6.8	
Approach LOS	D			D	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 47 (52%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

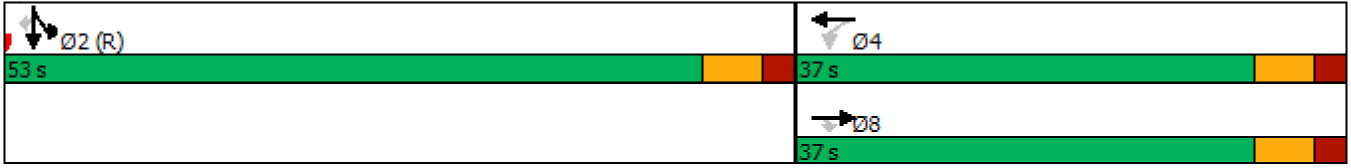
Maximum v/c Ratio: 0.76

Intersection Signal Delay: 14.6 Intersection LOS: B

Intersection Capacity Utilization 82.5% ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 2: Abbott Avenue & 71st Street



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↰	↱	↰	↱		✥		✥
Traffic Volume (vph)	99	233	6	123	58	115	7	60
Future Volume (vph)	99	233	6	123	58	115	7	60
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2		4		8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	4	4	8	8
Switch Phase								
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0	24.1	8.0	24.1	29.3	29.3	29.3	29.3
Total Split (s)	12.0	37.0	12.0	37.0	41.0	41.0	41.0	41.0
Total Split (%)	13.3%	41.1%	13.3%	41.1%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.1	0.0	2.1	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	3.0	6.1	3.0	6.1		6.3		6.3
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	62.8	58.1	58.6	51.5		17.9		17.9
Actuated g/C Ratio	0.70	0.65	0.65	0.57		0.20		0.20
v/c Ratio	0.15	0.30	0.01	0.16		0.82		0.40
Control Delay	1.7	5.4	2.2	5.9		54.4		21.7
Queue Delay	0.0	1.7	0.0	0.0		0.0		0.0
Total Delay	1.7	7.1	2.2	5.9		54.4		21.7
LOS	A	A	A	A		D		C
Approach Delay		5.6		5.7		54.4		21.7
Approach LOS		A		A		D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 42 (47%), Referenced to phase 2:WBTL and 6:EBTL, Start of 1st Green

Natural Cycle: 65

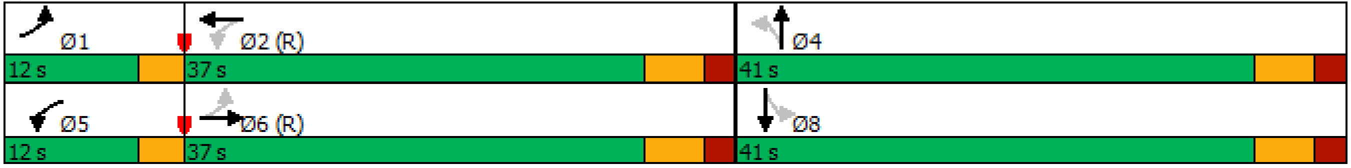
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 52.6%	ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Harding Avenue & 71st Street



4: Collins Avenue & 71st Street

Lane Group	EBL	EBT	WBT	NBL	NBT	Ø7
Lane Configurations						
Traffic Volume (vph)	251	2	20	116	848	
Future Volume (vph)	251	2	20	116	848	
Turn Type	Split	NA	NA	Prot	NA	
Protected Phases	3	3	4	5	2	7
Permitted Phases						
Detector Phase	3	3	4	5	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	5.0	4.0	1.0
Minimum Split (s)	25.0	25.0	13.0	11.0	20.0	21.0
Total Split (s)	25.0	25.0	18.0	26.0	26.0	21.0
Total Split (%)	27.8%	27.8%	20.0%	28.9%	28.9%	23%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	None
Act Effct Green (s)	12.4	12.4	7.3	57.5	57.5	
Actuated g/C Ratio	0.14	0.14	0.08	0.64	0.64	
v/c Ratio	0.72	0.39	0.23	0.11	0.27	
Control Delay	61.6	47.3	29.8	9.2	9.0	
Queue Delay	0.1	0.0	0.0	0.0	0.0	
Total Delay	61.7	47.3	29.8	9.2	9.0	
LOS	E	D	C	A	A	
Approach Delay		57.3	29.8		9.0	
Approach LOS		E	C		A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 73 (81%), Referenced to phase 2:NBT and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

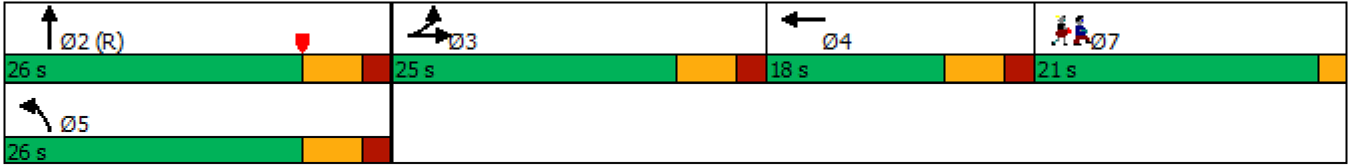
Maximum v/c Ratio: 0.72

Intersection Signal Delay: 19.4 Intersection LOS: B

Intersection Capacity Utilization 41.8% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Collins Avenue & 71st Street



Timings
5: 72nd Street & Abbott Avenue

02/04/2020

Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations	↑	↱		↰	↰↑↱
Traffic Volume (vph)	175	72	26	42	2243
Future Volume (vph)	175	72	26	42	2243
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0
Minimum Split (s)	31.4	31.4	31.3	31.3	26.4
Total Split (s)	32.0	32.0	32.0	32.0	58.0
Total Split (%)	35.6%	35.6%	35.6%	35.6%	64.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.3	2.3	2.4
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.4	6.4		6.3	6.4
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	13.2	13.2		13.3	64.0
Actuated g/C Ratio	0.15	0.15		0.15	0.71
v/c Ratio	0.67	0.32		0.42	0.69
Control Delay	47.9	20.9		41.2	9.2
Queue Delay	0.0	0.0		0.0	0.2
Total Delay	47.9	20.9		41.2	9.3
LOS	D	C		D	A
Approach Delay	40.0			41.3	9.3
Approach LOS	D			D	A

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

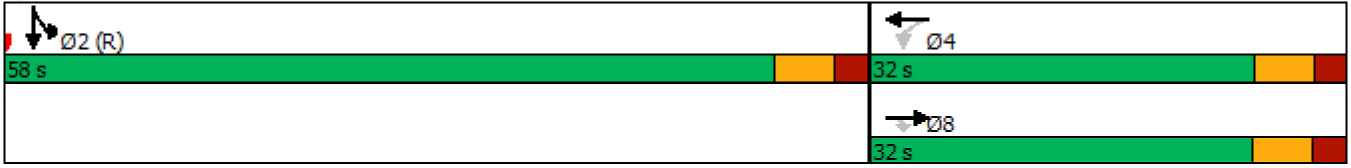
Maximum v/c Ratio: 0.69

Intersection Signal Delay: 12.9 Intersection LOS: B

Intersection Capacity Utilization 89.3% ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 5: 72nd Street & Abbott Avenue



	↗	→	←	↖	↑	↘	↓	
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations		↰↑	↑↱	↰	↑↱		↰↑↱	
Traffic Volume (vph)	8	99	96	49	170	28	0	
Future Volume (vph)	8	99	96	49	170	28	0	
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	
Protected Phases		6	2		4		3	9
Permitted Phases	6			4		3		
Detector Phase	6	6	2	4	4	3	3	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	4.0	4.0	5.0
Minimum Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (%)	27.0%	27.0%	27.0%	32.4%	32.4%	13.5%	13.5%	27%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0		6.0	
Lead/Lag				Lag	Lag	Lead	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)		40.1	40.1	13.9	13.9		4.0	
Actuated g/C Ratio		0.54	0.54	0.19	0.19		0.05	
v/c Ratio		0.13	0.14	0.25	0.66		0.38	
Control Delay		10.7	10.1	26.9	35.9		4.2	
Queue Delay		0.0	0.0	0.0	0.0		0.0	
Total Delay		10.7	10.1	26.9	35.9		4.2	
LOS		B	B	C	D		A	
Approach Delay		10.7	10.1		34.0		4.2	
Approach LOS		B	B		C		A	

Intersection Summary

Cycle Length: 74

Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

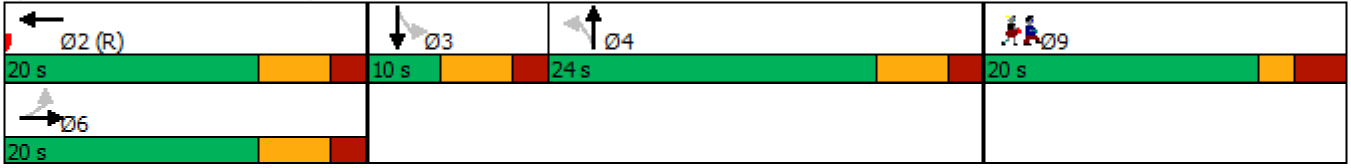
Maximum v/c Ratio: 0.66

Intersection Signal Delay: 20.0 Intersection LOS: B

Intersection Capacity Utilization 44.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Harding Avenue & 69th Street



40: 72nd Street & Collins Avenue

Lane Group	Ø2	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Turn Type		
Protected Phases	2	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	7.0
Minimum Split (s)	26.0	26.0
Total Split (s)	150.0	30.0
Total Split (%)	83%	17%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	C-Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 125 (69%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.00

Intersection Signal Delay: 0.0 Intersection LOS: A

Intersection Capacity Utilization 19.8% ICU Level of Service A

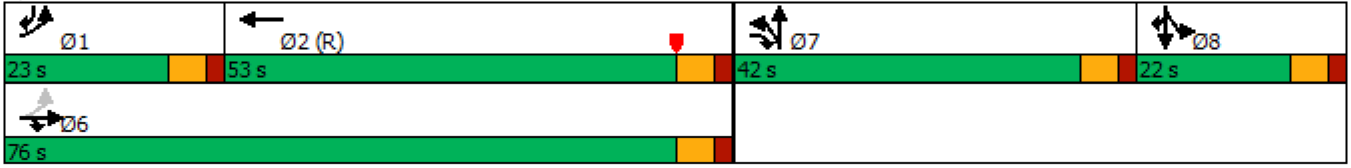
Analysis Period (min) 15

Splits and Phases: 40: 72nd Street & Collins Avenue

Lane Group	Ø1	Ø2	Ø6	Ø7	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Turn Type					
Protected Phases	1	2	6	7	8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	4.0	4.0	7.0	7.0
Minimum Split (s)	20.0	40.0	40.0	35.0	22.0
Total Split (s)	23.0	53.0	76.0	42.0	22.0
Total Split (%)	16%	38%	54%	30%	16%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes
Recall Mode	Max	C-Max	Max	Max	Max
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 7 (5%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

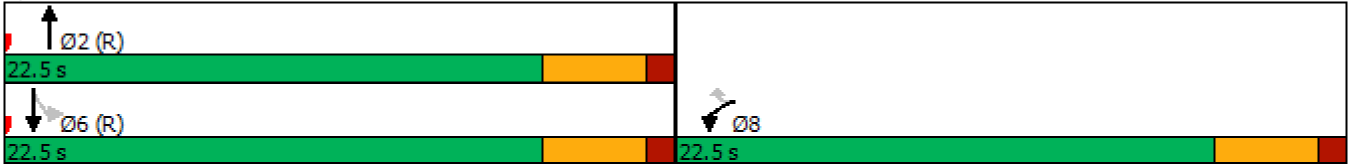
Splits and Phases: 50: Indian Creek Drive & 71st Street



Lane Group	Ø2	Ø6	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	6	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	50%	50%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 20 (44%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 60: 72nd Street

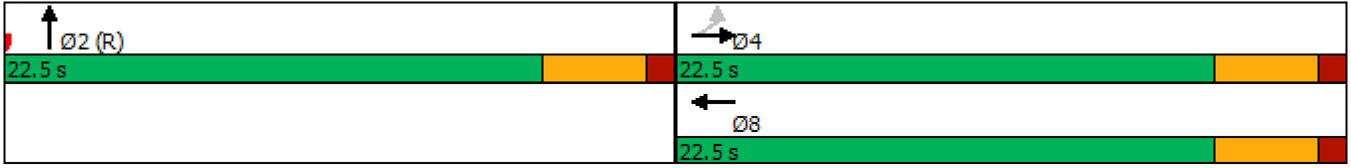


Lane Group	Ø2	Ø4	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	50%	50%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green
Natural Cycle: 45
Control Type: Pretimed
Maximum v/c Ratio: 0.00
Intersection Signal Delay: 0.0 Intersection LOS: A
Intersection Capacity Utilization 0.0% ICU Level of Service A
Analysis Period (min) 15

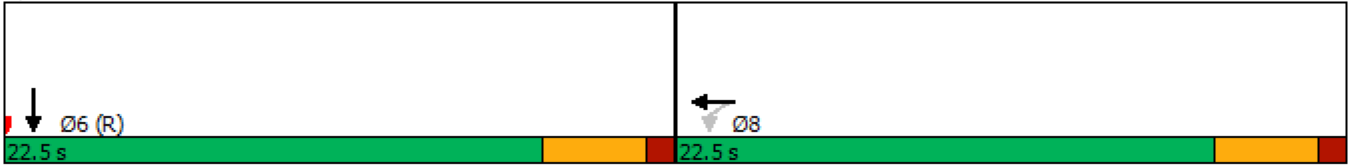
Splits and Phases: 70: Collins Avenue & 69th Street



Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	22.5	22.5
Total Split (s)	22.5	22.5
Total Split (%)	50%	50%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 45	
Control Type: Pretimed	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Abbott Avenue & 69th Street/69th Street



Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	22.5	22.5
Total Split (s)	22.5	22.5
Total Split (%)	100%	100%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

Cycle Length: 22.5
Actuated Cycle Length: 22.5
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.00
Intersection Signal Delay: 0.0 Intersection LOS: A
Intersection Capacity Utilization 0.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 90: 69th Street & Byron Avenue

HCM 6th Signalized Intersection Summary
5: 72nd Street & Abbott Avenue

19218 Future with Project PM
02/04/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↰						↰↑↱	
Traffic Volume (veh/h)	0	114	34	43	165	0	0	0	0	56	1612	139
Future Volume (veh/h)	0	114	34	43	165	0	0	0	0	56	1612	139
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.98		1.00				1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00				0.90	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1841	1841	0				1900	1856	1900
Adj Flow Rate, veh/h	0	114	34	43	165	0				56	1612	139
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	4	4	0				0	3	0
Cap, veh/h	0	369	263	96	290	0				98	3004	267
Arrive On Green	0.00	0.20	0.20	0.20	0.20	0.00				0.66	0.66	0.66
Sat Flow, veh/h	0	1870	1329	241	1468	0				149	4550	404
Grp Volume(v), veh/h	0	114	34	208	0	0				626	579	602
Grp Sat Flow(s),veh/h/ln	0	1870	1329	1709	0	0				1663	1689	1752
Q Serve(g_s), s	0.0	4.7	1.9	4.5	0.0	0.0				18.5	15.9	16.0
Cycle Q Clear(g_c), s	0.0	4.7	1.9	9.7	0.0	0.0				18.5	15.9	16.0
Prop In Lane	0.00		1.00	0.21		0.00				0.09		0.23
Lane Grp Cap(c), veh/h	0	369	263	386	0	0				1098	1115	1157
V/C Ratio(X)	0.00	0.31	0.13	0.54	0.00	0.00				0.57	0.52	0.52
Avail Cap(c_a), veh/h	0	532	378	531	0	0				1098	1115	1157
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.9	29.7	32.8	0.0	0.0				8.3	7.9	7.9
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.4	0.0	0.0				2.2	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.8	1.1	7.4	0.0	0.0				10.4	9.3	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.0	29.8	33.2	0.0	0.0				10.5	9.6	9.6
LnGrp LOS	A	C	C	C	A	A				B	A	A
Approach Vol, veh/h		148			208						1807	
Approach Delay, s/veh		30.8			33.2						9.9	
Approach LOS		C			C						A	

Timer - Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		65.8		24.2				24.2
Change Period (Y+Rc), s		6.4		* 6.4				6.4
Max Green Setting (Gmax), s		51.6		* 26				25.6
Max Q Clear Time (g_c+I1), s		20.5		11.7				6.7
Green Ext Time (p_c), s		5.1		0.6				0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	→	↘	↙	←	↓
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations	↑	↱		↰	↰↑↱
Traffic Volume (vph)	114	34	43	165	1612
Future Volume (vph)	114	34	43	165	1612
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0
Minimum Split (s)	31.4	31.4	31.3	31.3	26.4
Total Split (s)	32.0	32.0	32.0	32.0	58.0
Total Split (%)	35.6%	35.6%	35.6%	35.6%	64.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.3	2.3	2.4
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.4	6.4		6.3	6.4
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max

Intersection Summary

Cycle Length: 90

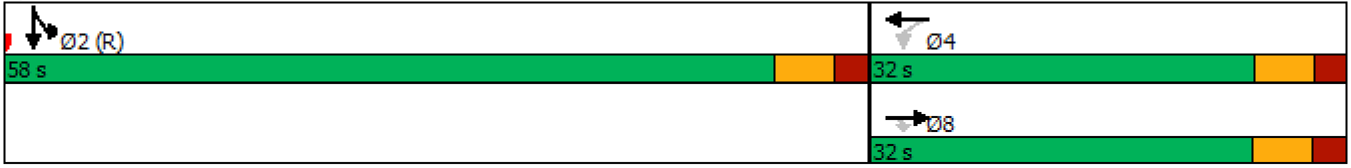
Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:SBTL, Start of 1st Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: 72nd Street & Abbott Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✢	
Traffic Volume (vph)	8	99	0	0	96	16	49	170	23	28	0	56
Future Volume (vph)	8	99	0	0	96	16	49	170	23	28	0	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.99		1.00	0.99			0.88	
Flpb, ped/bikes		1.00			1.00		0.98	1.00			1.00	
Frt		1.00			0.98		1.00	0.98			0.91	
Flt Protected		1.00			1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1830			1735		1701	1785			1425	
Flt Permitted		0.98			1.00		0.69	1.00			0.83	
Satd. Flow (perm)		1806			1735		1241	1785			1207	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	9	116	0	0	113	19	58	200	27	33	0	66
RTOR Reduction (vph)	0	0	0	0	5	0	0	7	0	0	95	0
Lane Group Flow (vph)	0	125	0	0	127	0	58	220	0	0	4	0
Confl. Peds. (#/hr)	27		53	53		27	11		10	10		11
Confl. Bikes (#/hr)			2			2			3			4
Heavy Vehicles (%)	3%	3%	3%	6%	6%	6%	4%	4%	4%	5%	5%	5%
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		38.9			38.9		13.9	13.9			3.2	
Effective Green, g (s)		38.9			38.9		13.9	13.9			3.2	
Actuated g/C Ratio		0.53			0.53		0.19	0.19			0.04	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		949			912		233	335			52	
v/s Ratio Prot					c0.07			c0.12				
v/s Ratio Perm		0.07					0.05				c0.00	
v/c Ratio		0.13			0.14		0.25	0.66			0.08	
Uniform Delay, d1		8.9			9.0		25.6	27.8			34.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.3		0.6	4.6			0.2	
Delay (s)		9.0			9.3		26.2	32.4			34.2	
Level of Service		A			A		C	C			C	
Approach Delay (s)		9.0			9.3			31.1			34.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø9
Lane Configurations		↰	↱	↰	↱		✥	
Traffic Volume (vph)	8	99	96	49	170	28	0	
Future Volume (vph)	8	99	96	49	170	28	0	
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	
Protected Phases		6	2		4		3	9
Permitted Phases	6			4		3		
Detector Phase	6	6	2	4	4	3	3	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	4.0	4.0	5.0
Minimum Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (%)	27.0%	27.0%	27.0%	32.4%	32.4%	13.5%	13.5%	27%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0		6.0	
Lead/Lag				Lag	Lag	Lead	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)		40.1	40.1	13.9	13.9		4.0	
Actuated g/C Ratio		0.54	0.54	0.19	0.19		0.05	
v/c Ratio		0.13	0.14	0.25	0.66		0.38	
Control Delay		10.7	10.1	26.9	35.9		4.2	
Queue Delay		0.0	0.0	0.0	0.0		0.0	
Total Delay		10.7	10.1	26.9	35.9		4.2	
LOS		B	B	C	D		A	
Approach Delay		10.7	10.1		34.0		4.2	
Approach LOS		B	B		C		A	

Intersection Summary

Cycle Length: 74

Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

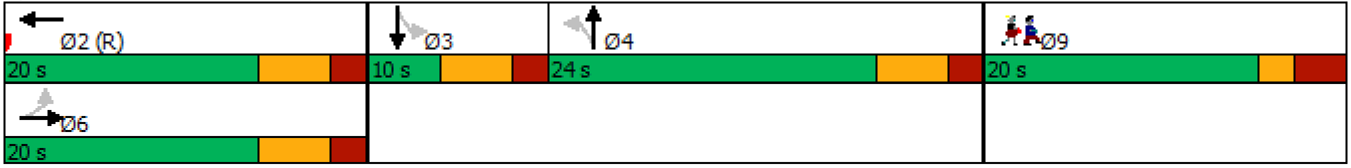
Maximum v/c Ratio: 0.66

Intersection Signal Delay: 20.0 Intersection LOS: B

Intersection Capacity Utilization 44.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Harding Avenue & 69th Street



Queues
6: Harding Avenue & 69th Street

02/04/2020

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	125	132	58	227	99
v/c Ratio	0.13	0.14	0.25	0.66	0.38
Control Delay	10.7	10.1	26.9	35.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	10.1	26.9	35.9	4.2
Queue Length 50th (ft)	28	28	23	93	0
Queue Length 95th (ft)	58	58	47	142	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	978	944	301	441	261
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	0.14	0.19	0.51	0.38

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱		↰	↱			✥	
Traffic Volume (vph)	12	135	0	0	169	27	164	347	32	35	0	42
Future Volume (vph)	12	135	0	0	169	27	164	347	32	35	0	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00			0.98		1.00	0.99			0.82	
Flpb, ped/bikes		0.99			1.00		0.95	1.00			0.99	
Frt		1.00			0.98		1.00	0.99			0.93	
Flt Protected		1.00			1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1841			1790		1682	1827			1361	
Flt Permitted		0.97			1.00		0.70	1.00			0.91	
Satd. Flow (perm)		1799			1790		1242	1827			1264	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	13	150	0	0	188	30	182	386	36	39	0	47
RTOR Reduction (vph)	0	0	0	0	5	0	0	5	0	0	82	0
Lane Group Flow (vph)	0	163	0	0	213	0	182	417	0	0	4	0
Confl. Peds. (#/hr)	51		87	87		51	27		23	23		27
Confl. Bikes (#/hr)			3			2			7			2
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			3	
Permitted Phases	6						4			3		
Actuated Green, G (s)		34.8			34.8		18.0	18.0			3.2	
Effective Green, g (s)		34.8			34.8		18.0	18.0			3.2	
Actuated g/C Ratio		0.47			0.47		0.24	0.24			0.04	
Clearance Time (s)		6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			1.0	
Lane Grp Cap (vph)		846			841		302	444			54	
v/s Ratio Prot					c0.12			c0.23				
v/s Ratio Perm		0.09					0.15				c0.00	
v/c Ratio		0.19			0.25		0.60	0.94			0.07	
Uniform Delay, d1		11.4			11.8		24.8	27.5			34.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			0.7		3.4	28.2			0.2	
Delay (s)		11.5			12.5		28.2	55.6			34.2	
Level of Service		B			B		C	E			C	
Approach Delay (s)		11.5			12.5			47.4			34.2	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø9
	↗	→	←	↖	↑	↘	↓	
Lane Configurations		↰	↱	↰	↱		✣	
Traffic Volume (vph)	12	135	169	164	347	35	0	
Future Volume (vph)	12	135	169	164	347	35	0	
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	
Protected Phases		6	2		4		3	9
Permitted Phases	6			4		3		
Detector Phase	6	6	2	4	4	3	3	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	4.0	4.0	5.0
Minimum Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (s)	20.0	20.0	20.0	24.0	24.0	10.0	10.0	20.0
Total Split (%)	27.0%	27.0%	27.0%	32.4%	32.4%	13.5%	13.5%	27%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0		6.0	
Lead/Lag				Lag	Lag	Lead	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 74

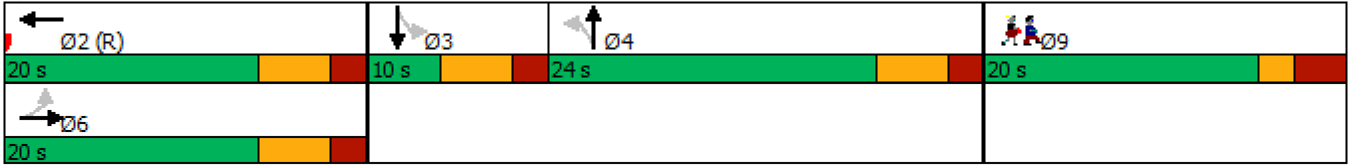
Actuated Cycle Length: 74

Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 6: Harding Avenue & 69th Street



Queues
6: Harding Avenue & 69th Street

	→	←	↰	↑	↓
Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	163	218	182	422	86
v/c Ratio	0.19	0.25	0.60	0.94	0.32
Control Delay	12.4	12.3	34.5	59.7	3.2
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	12.4	12.9	34.5	59.7	3.2
Queue Length 50th (ft)	42	56	74	187	0
Queue Length 95th (ft)	78	99	#140	#359	0
Internal Link Dist (ft)	200	202		426	598
Turn Bay Length (ft)					
Base Capacity (vph)	874	873	302	449	266
Starvation Cap Reductn	0	368	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.43	0.60	0.94	0.32

Intersection Summary

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

Delay Study Documentation

Paseo de la Riviera

DPA Project #14196

July 2015

As requested by the city, the following additional traffic analyses were conducted for the Paseo de la Riviera Traffic Study:

Roundabout Analysis

A roundabout is being proposed at the Caballero Boulevard / Hardee Road intersection. Synchro Software was used to perform intersection capacity analysis for this proposed roundabout during the AM and PM peak periods. Intersection volumes were taken from data previously collected and grown to future with project conditions. The results show that the proposed roundabout at the Caballero Boulevard / Hardee Road intersection will operate at LOS A, which is within the city's LOS standards. The proposed lane configuration and analysis worksheets are included in Attachment A.

Intersection Delay Study

A delay study was conducted on July 15th 2015 for the Caballero Boulevard approach at US-1 during the AM peak hour (7:30-8:30 AM) and PM peak hour (4:00-5:00 PM). A weekly volume seasonal adjustment factor of 1.04 (for Miami-Dade County South) was used, corresponding to the date of the counts, to adjust the raw traffic counts to seasonal conditions. The study was conducted based on the procedures outlined in the FDOT's Manual of Uniform Traffic Studies (MUTS).

Vehicles stopped (queue) at the Caballero Boulevard approach were counted at 15 second intervals and the total approach volume by counting vehicles as stopped or not stopping. Data collection and delay calculation information are included in Attachment B. The data shows an average delay per stopped vehicle of 51 seconds during the morning peak hour and 47 seconds during the afternoon peak hour. The average delay per approach vehicle was calculated to be 46 seconds during the morning peak hour and 43 seconds during the afternoon peak hour, which is within the city's LOS standards. The percentage of vehicle stopped at the approach is 89% and 90% during the morning and afternoon peak hour respectively.

In order to compare delays collected in the field to those estimated by the intersection analysis software, intersection volumes were factored proportionally to counts collected for the delay study. Intersection capacity analysis was performed for the US-1 and Caballero Boulevard intersection during the AM and PM peak periods (see Attachment B). The software estimated the northbound approach delay to be 218 seconds during the morning peak hour and exceeds 300 seconds during the afternoon peak hour. When compared to estimated delays, the field calculated approach delay is substantially lower. As previously stated in the report, this is due to the fact that for un-signalized intersections the software tends to overestimate delay measurements for the minor approaches and does not account for gaps in traffic created by the upstream signalized intersections to allow the minor street traffic flow.

Intersection Analysis

The northbound approach at the US-1 / Mariposa Court intersection is being reconfigured due to the pedestrian overpass proposed over US-1 at the intersection with Mariposa Court. Synchro Software was used to perform intersection capacity analysis for the proposed lane configuration at the US-1 / Mariposa Court intersection during the AM and PM peak periods. Intersection volumes were taken from data previously collected and grown to future with project conditions. The traffic signal timing plans proposed with the pedestrian overpass project were used in the analysis. The results show that with the proposed lane configuration the US-1 / Mariposa Court intersection will operate within the city's LOS standards. The proposed lane configuration and analysis worksheets are included in Attachment C.

Valet Operational Plan

An operational plan was developed for the proposed valet stations detailing the valet access points, circulation routes, and the stacking distances. The valet operation plan is included in Attachment D.

Attachment B

Intersection Delay Study

Form 750-020-07
TRAFFIC ENGINEERING
07/99

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard
CITY: Miami
COUNTY: Miami-Dade
APPROACH: Northbound
MOVEMENT: All
DATE: 07-15-2015
WEATHER: Clear
STUDY NO.: 1
OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
7:30 AM	1	1	1	1	1	0
7:31 AM	0	0	0	0	0	0
7:32 AM	0	0	0	0	0	0
7:33 AM	0	0	0	0	0	0
7:34 AM	0	0	0	1	1	0
7:35 AM	0	0	0	0	0	0
7:36 AM	0	0	0	0	0	0
7:37 AM	0	0	0	0	0	0
7:38 AM	1	0	0	0	1	0
7:39 AM	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0
7:41 AM	0	0	0	0	0	0
7:42 AM	0	1	0	1	1	1
7:43 AM	0	0	0	1	0	0
7:44 AM	1	1	1	1	1	0
7:45 AM	1	1	1	2	0	0
7:46 AM	0	0	0	0	1	1
7:47 AM	1	0	0	0	0	0
7:48 AM	0	0	0	0	0	0
7:49 AM	0	0	0	0	0	0
7:50 AM	0	1	1	1	2	0
7:51 AM	1	2	2	2	0	0
7:52 AM	1	2	0	0	1	0
7:53 AM	0	0	1	1	1	0
7:54 AM	1	1	1	1	0	0
7:55 AM	1	0	0	0	0	0
7:56 AM	0	0	0	0	0	0
7:57 AM	0	0	0	0	0	0
7:58 AM	1	1	0	1	1	0
7:59 AM	1	1	1	1	1	0
8:00 AM	1	1	1	1	0	0
SUBTOTAL$_1$	**12**	**13**	**10**	**15**	**12**	**2**

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

Form 750-020-07
TRAFFIC ENGINEERING
07/99

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard	CITY: Miami	COUNTY: Miami-Dade
APPROACH: Northbound	MOVEMENT: All	DATE: 07-15-2015
WEATHER: Clear	STUDY NO.: 1	OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
8:01 AM	0	0	0	0	0	0
8:02 AM	0	0	0	0	0	0
8:03 AM	0	0	0	0	0	1
8:04 AM	0	0	0	1	0	0
8:05 AM	1	1	1	2	2	0
8:06 AM	2	1	1	1	0	0
8:07 AM	1	0	2	1	2	1
8:08 AM	1	1	2	3	3	0
8:09 AM	2	1	1	1	0	0
8:10 AM	0	0	0	0	0	0
8:11 AM	0	0	0	0	0	0
8:12 AM	0	0	0	0	0	0
8:13 AM	0	0	0	0	0	0
8:14 AM	0	0	1	1	2	0
8:15 AM	2	2	2	2	0	0
8:16 AM	0	0	0	0	0	0
8:17 AM	0	0	0	0	0	0
8:18 AM	0	0	0	1	1	0
8:19 AM	0	0	0	0	3	0
8:20 AM	1	1	1	1	2	0
8:21 AM	1	1	1	1	0	0
8:22 AM	1	0	0	0	0	0
8:23 AM	0	0	0	0	0	0
8:24 AM	0	0	0	0	1	0
8:25 AM	1	1	0	1	1	0
8:26 AM	1	1	1	1	0	0
8:27 AM	0	0	0	1	1	0
8:28 AM	0	0	0	0	0	0
8:29 AM	0	0	1	2	2	0
SUBTOTAL$_2$	**14**	**10**	**14**	**20**	**20**	**2**

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

Form 750-020-07
TRAFFIC ENGINEERING
07/99

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard
CITY: Miami
COUNTY: Miami-Dade
APPROACH: Northbound
MOVEMENT: All
DATE: 07-15-2015
WEATHER: Clear
STUDY NO.: 1
OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
SUBTOTAL$_1$	12	13	10	15	12	2
SUBTOTAL$_2$	14	10	14	20	20	2
SUBTOTAL	26	23	24	35	32	4
TOTAL*	**27**	**24**	**25**	**36**	**33**	**4**
TOTAL	**112**				**37**	
*FDOT 2014 Seasonal Factor	1.04					

TOTAL DELAY = TOTAL NUMBER STOPPED X SAMPLING INTERVAL

= 112 X 15 = 1680 VEHICLE-SECOND

AVERAGE DELAY PER STOPPED VEHICLE = $\frac{\text{TOTAL DELAY}}{\text{NUMBER OF STOPPED VEHICLES}}$

= $\frac{1680}{33}$ = **50.9 SECONDS**

AVERAGE DELAY PER APPROACH VEHICLE = $\frac{\text{TOTA DELAY}}{\text{APPROACH DELAY}}$

=

= $\frac{1680}{37}$ = **45.4 SECONDS**

PERCENT OF VEHICLES STOPPED = $\frac{\text{NUMBER OF STOPPED VEHICLES}}{\text{APPROACH VOLUMES}}$

= $\frac{33}{37}$ = **89 PERCENT**

Form 750-020-07
TRAFFIC ENGINEERING
07/99

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard

CITY: Miami

COUNTY: Miami-Dade

APPROACH: Northbound

MOVEMENT: All

DATE: 07-15-2015

WEATHER: Cloudy

STUDY NO.:

OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
4:00 PM	2	2	4	1	3	0
4:01 PM	1	1	1	1	1	0
4:02 PM	0	0	0	2	2	0
4:03 PM	2	1	1	1	0	1
4:04 PM	0	1	1	2	4	0
4:05 PM	1	1	1	1	1	1
4:06 PM	0	0	0	0	3	0
4:07 PM	2	2	2	2	0	0
4:08 PM	2	0	0	0	0	1
4:09 PM	0	1	2	1	3	0
4:10 PM	1	1	1	2	2	0
4:11 PM	3	4	4	1	2	0
4:12 PM	2	2	3	5	4	0
4:13 PM	6	6	6	6	2	0
4:14 PM	6	3	3	2	2	0
4:15 PM	3	5	6	6	2	0
4:16 PM	5	6	6	6	3	0
4:17 PM	7	6	6	0	2	0
4:18 PM	0	1	2	3	3	1
4:19 PM	2	2	0	0	0	0
4:20 PM	0	0	1	1	1	0
4:21 PM	0	1	1	1	1	0
4:22 PM	1	2	1	1	2	0
4:23 PM	3	3	3	3	1	0
4:24 PM	0	1	1	1	1	0
4:25 PM	1	1	1	1	0	1
4:26 PM	0	0	1	0	1	0
4:27 PM	0	0	0	0	0	0
4:28 PM	0	1	1	1	2	0
4:29 PM	0	1	0	0	1	0
4:30 PM	3	3	0	0	4	0
SUBTOTAL$_1$	53	58	59	51	53	5

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

Form 750-020-07
TRAFFIC ENGINEERING
07/99

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard	CITY: Miami	COUNTY: Miami-Dade
APPROACH: Northbound	MOVEMENT: All	DATE: 07-15-2015
WEATHER: Cloudy	STUDY NO.:	OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
4:31 PM	0	1	1	1	1	0
4:32 PM	0	0	0	0	0	0
4:33 PM	0	2	0	0	2	0
4:34 PM	0	0	0	2	2	0
4:35 PM	0	1	2	1	2	1
4:36 PM	2	3	2	0	2	0
4:37 PM	2	2	2	3	6	0
4:38 PM	1	0	1	1	1	0
4:39 PM	1	2	1	0	2	1
4:40 PM	1	1	1	2	3	0
4:41 PM	2	2	1	1	1	0
4:42 PM	1	1	1	0	2	0
4:43 PM	0	0	0	0	0	0
4:44 PM	0	0	2	1	2	0
4:45 PM	1	1	1	1	0	0
4:46 PM	0	0	1	0	1	0
4:47 PM	0	0	0	1	1	0
4:48 PM	0	0	1	0	1	0
4:49 PM	0	1	2	1	3	1
4:50 PM	1	2	2	0	2	0
4:51 PM	0	2	2	2	6	0
4:52 PM	0	0	0	0	0	1
4:53 PM	0	0	0	0	0	0
4:54 PM	0	0	0	0	0	1
4:55 PM	0	1	0	0	1	0
4:56 PM	1	1	1	0	1	1
4:57 PM	0	0	0	0	0	0
4:58 PM	0	0	0	0	0	0
4:59 PM	1	2	2	3	2	0
SUBTOTAL$_2$	14	25	26	20	44	6

Form 750-020-07
TRAFFIC ENGINEERING
07/99

STATE OF FLORIDA DEPARTMENT OF TRASNPORTATION

INTERSECTION DELAY STUDY

LOCATION: Caballero Boulevard	CITY: Miami	COUNTY: Miami-Dade
APPROACH: Northbound	MOVEMENT: All	DATE: 07-15-2015
WEATHER: Cloudy	STUDY NO.:	OBSERVER: Sarah & Edna

TIME (MINUTE STARTING) AT	TOTAL NUMBER OF VEHICLES STOPPED IN THE APPROACH AT TIME				APPROACH VOLUME	
	+0 sec	+15 sec	+30 sec	+45 sec	NUMBER STOPPED	NUMBER NOT STOPPED
SUBTOTAL$_1$	53	58	59	51	53	5
SUBTOTAL$_2$	14	25	26	20	44	6
SUBTOTAL	67	83	85	71	97	11
TOTAL*	**70**	**86**	**88**	**74**	**101**	**11**
TOTAL	**318**				**112**	
*FDOT 2014 Seasonal Factor	1.04					

TOTAL DELAY = TOTAL NUMBER STOPPED X SAMPLING INTERVAL

= 318 X 15 = 4774 VEHICLE-SECOND

AVERAGE DELAY PER STOPPED VEHICLE = $\frac{\text{TOTAL DELAY}}{\text{NUMBER OF STOPPED VEHICLES}}$

= $\frac{4774}{101}$ = **47.3 SECONDS**

AVERAGE DELAY PER APPROACH VEHICLE = $\frac{\text{TOTA DELAY}}{\text{APPROACH DELAY}}$

= $\frac{4774}{112}$ = **42.6 SECONDS**

PERCENT OF VEHICLES STOPPED = $\frac{\text{NUMBER OF STOPPED VEHICLES}}{\text{APPROACH VOLUMES}}$

= $\frac{101}{112}$ = **90 PERCENT**

US-1 / Caballero Boulevard

Capacity Analysis Worksheets

Intersection	
Int Delay, s/veh	2.1

Movement	NWL	NWR	NET	NER	SWL	SWT
Vol, veh/h	21	16	2028	109	15	1579
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	16	2069	111	15	1611

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2800	1090	0	0	2181	0
Stage 1	2125	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	34	181	-	-	101	-
Stage 1	47	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	181	-	-	101	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	47	-	-	-	-	-
Stage 2	362	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	217.7		
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	46	101	-
HCM Lane V/C Ratio	-	-	0.821	0.152	-
HCM Control Delay (s)	-	-	217.7	46.9	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	3	1	-

Intersection	
Int Delay, s/veh	121.3

Movement	NWL	NWR	NET	NER	SWL	SWT
Vol, veh/h	69	43	2634	140	40	2849
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	45	2773	147	42	2999

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4130	1460	0	0	2920	0
Stage 1	2846	-	-	-	-	-
Stage 2	1284	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	~ 6	101	-	-	~ 42	-
Stage 1	~ 16	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 6	101	-	-	~ 42	-
Mov Cap-2 Maneuver	~ 6	-	-	-	-	-
Stage 1	~ 16	-	-	-	-	-
Stage 2	200	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	$ 6252.9		
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	9	~ 42	-
HCM Lane V/C Ratio	-	-	13.099	1.003	-
HCM Control Delay (s)	-		$ 6252.9	287.9	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	16	4	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Appendix E
Committed Development Documentation

Field Name	Field Value
LRTP Project Code	NM150
Facility	Atlantic Trail (north of Miami Beach)
Limit From	North Shore Park
Limit To	Haulover Park
Description	Trail Improvements
LRTP Year	2040
Project Type	Bicycle/Pedestrian Improvements
Agency Name	FL Dept. of Transportation
Purpose	
Last Approved Date	10/10/2014
Last Approved User Name	Shankar Lakshmanan
Last Amended Date	10/10/2014
Last Amended User Name	Shankar Lakshmanan
Project Costs Funded	$4.822M
Total Capital Cost	$2.128M

	P1 2015-2020(Y-O-E$)	P2 2021-2025(Y-O-E$)	P3 2026-2030(Y-O-E$)	P4 2031-2040(Y-O-E$)
Preliminary Engineering	$M	$M	$M	$0.629M
Right of Way	$M	$M	$M	$M
Construction	$M	$M	$M	$4.193M
Operations and Maintenance	$M	$M	$M	$M
Capital	$M	$M	$M	$M

Field Name	Field Value
LRTP Project Code	MDT150
Facility	79 St Causeway (JFK Cwy) Enhanced Bus
Limit From	Northside Metrorail Station
Limit To	Miami Beach Convention Center
Description	Improve/implement transit service
LRTP Year	2040
Project Type	Transit
Agency Name	Miami-Dade Dept. of Transportation and Public Works (Transit)
Purpose	
Last Approved Date	10/10/2014
Last Approved User Name	Shankar Lakshmanan
Last Amended Date	10/10/2014
Last Amended User Name	Shankar Lakshmanan
Project Costs Funded	$218.876M
Total Capital Cost	$55.457M

	P1 2015-2020(Y-O-E$)	P2 2021-2025(Y-O-E$)	P3 2026-2030(Y-O-E$)	P4 2031-2040(Y-O-E$)
Preliminary Engineering	$M	$M	$M	$M
Right of Way	$M	$15.795M	$M	$M
Construction	$M	$45.279M	$M	$M
Operations and Maintenance	$M	$16.054M	$37.816M	$96.561M
Capital	$M	$M	$M	$M

7140 COLLINS HOTEL

Traffic Study

David Plummer & Associates

Exhibit 8
Project Trip Generation Summary

Proposed ITE Land Use Designation[1]	**Number of Units**	**PM Peak Hour Vehicle Trips**		
		In	**Out**	**Total**
Hotel *Land Use Code:310*	187 Rooms	58	56	114
		$T = 0.75(X) - 26.02$		
		51% in	49% out	
Multifamily Housing (Mid-Rise) *Land Use Code: 221*	24 DU	7	4	11
		$Ln(T) = 0.96Ln(X) - 0.63$		
		61% in	39% out	
Shopping Center *Land Use Code: 820*	18,520 SF	84	83	167
		$Ln(T) = 0.72Ln(X) + 3.02$		
		50% in	50% out	
Subtotal Gross Vehicle Trips		**149**	**143**	**292**
Internalization[2]	PM 7.5%	-11	-11	-22
Pass-By Trips[3] (Shopping Center)	PM 34%	-27	-26	-53
Transit/Pedestrian Trips	10%	-11	-11	-22
Net External Trips (Proposed)		**100**	**95**	**195**

[1] Based on ITE Trip Generation Manual, Tenth Edition
[2] Internal capture is based on ITE Trip Generation Manual User's Guide and Handbook, Tenth Edition,
[3] Pass by is based on ITE Trip Generation Manual User's Guide and Handbook, Tenth Edition,

4.4 Project Trip Assignment

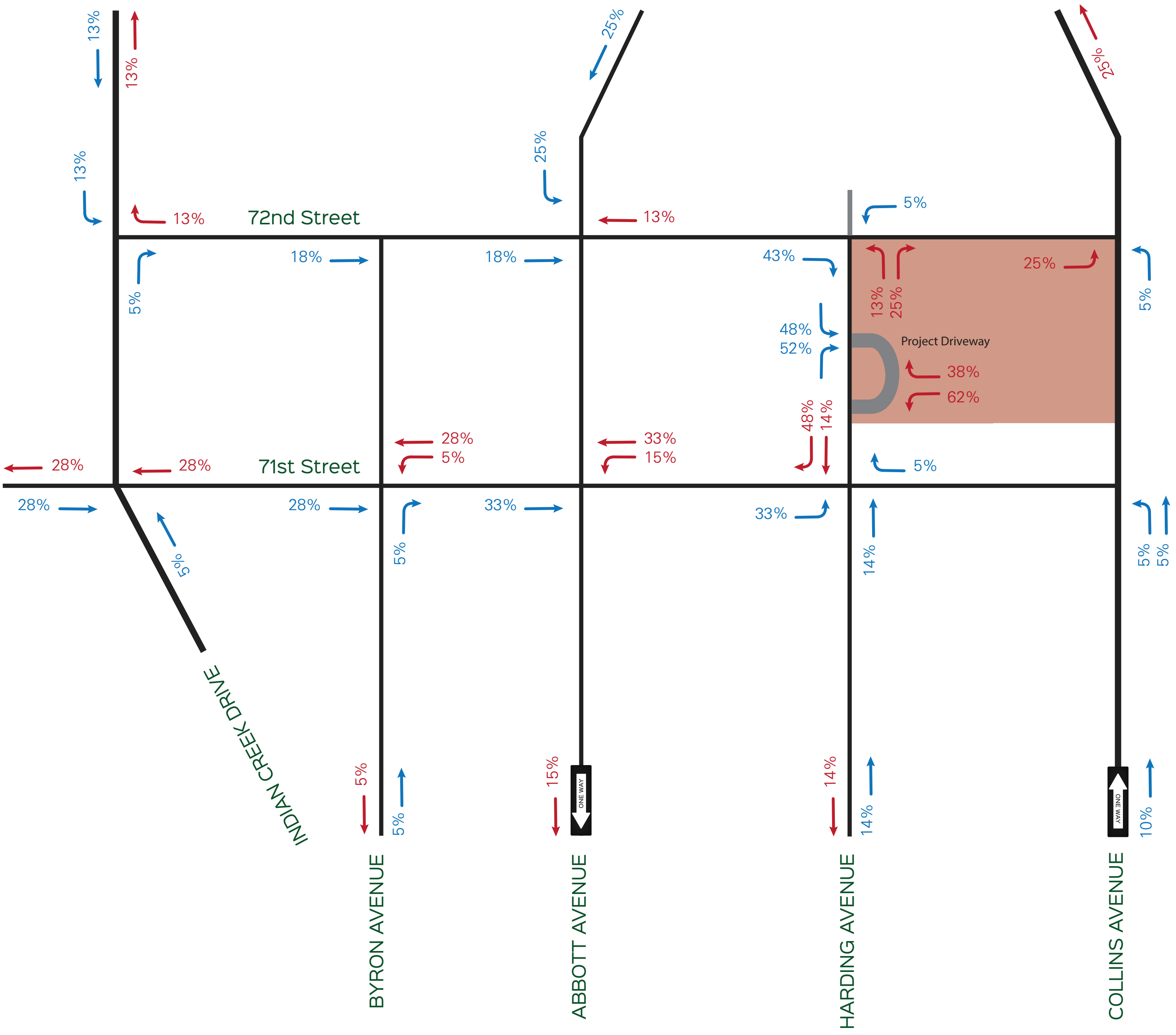
Project traffic was distributed and assigned to the study area using the Cardinal Distribution for TAZ 622 shown in Exhibit 9. The Cardinal Distribution gives a generalized distribution of trips from a TAZ to other parts of Miami-Dade County (see Appendix C). For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway.

Exhibit 9
Cardinal Distribution
(TAZ 622)

Direction	Distribution
NNE	11.03%
ENE	0.00%
ESE	0.00%
SSE	8.47%
SSW	20.50%
WSW	27.47%
WNW	10.97%
NNW	21.67%
Total	100.00%

Source: Long Range *Transportation Plan*

It should be noted that the residential and hotel components will use the proposed garage (all valet). The retail component and existing restaurant will have access to the public parking lot located directly north of the site. However, based on the queuing analysis it is suggested that the retail component be limited to 20% of the valet services provided during the PM peak hour. In order to assign each component individually, two separate project trip distributions were completed. Exhibit 10 and 11 shows the project trip distribution for the residential/hotel and retail component. Exhibit 12 and 13 shows the project trip assignment for the residential/hotel and retail component.



🟦 % IN

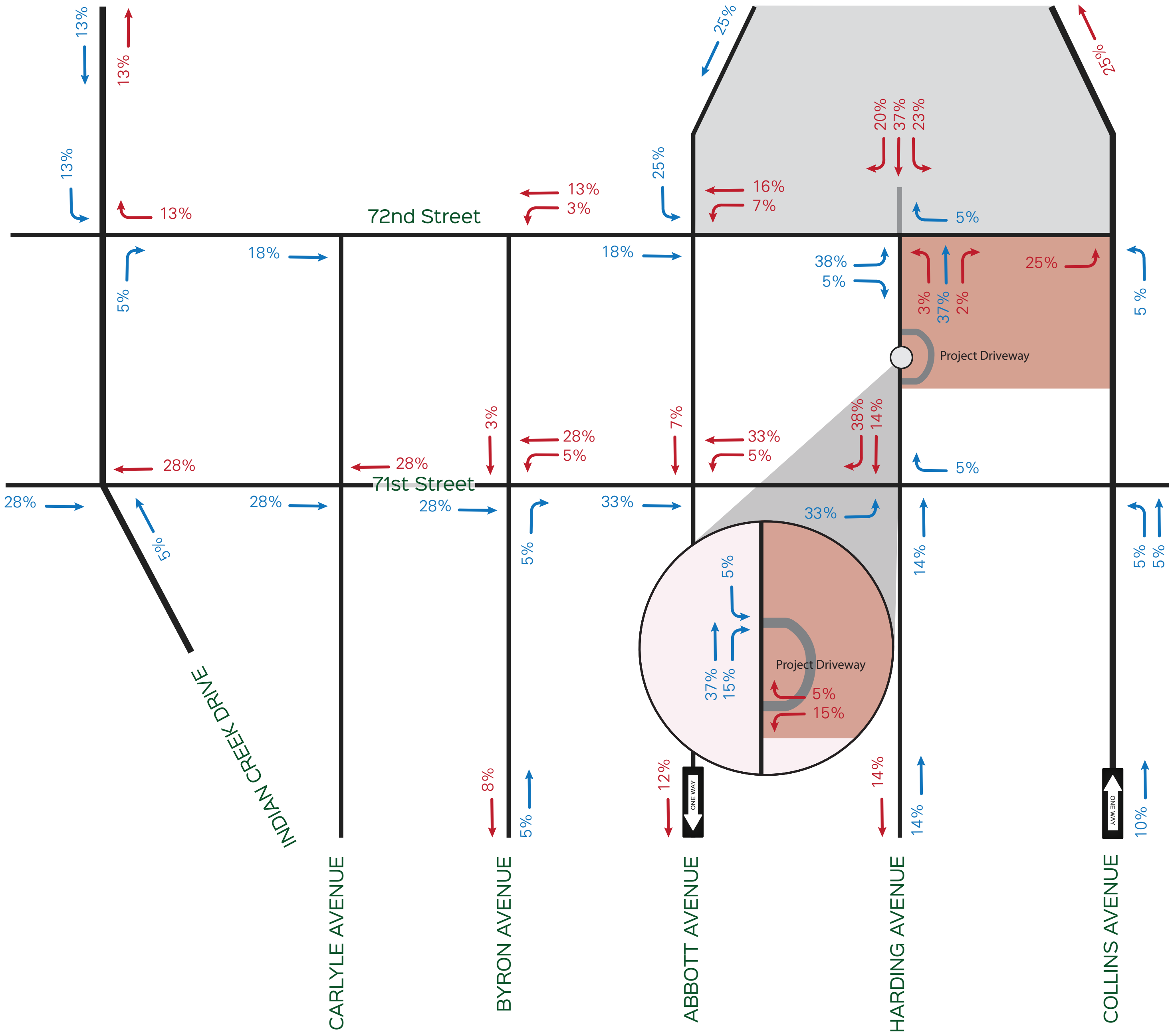
🟥 % OUT

🟫 Project Location

Exhibit 10 (Hotel & Residential)

Project Trip Distribution

NORTH
MAP NOT TO SCALE



🟦 IN

🟥 OUT

⬜ Off-Site Parking Lot

🟫 Project Location

Exhibit 11 (Commercial)

Project Trip Distribution

NORTH
MAP NOT TO SCALE

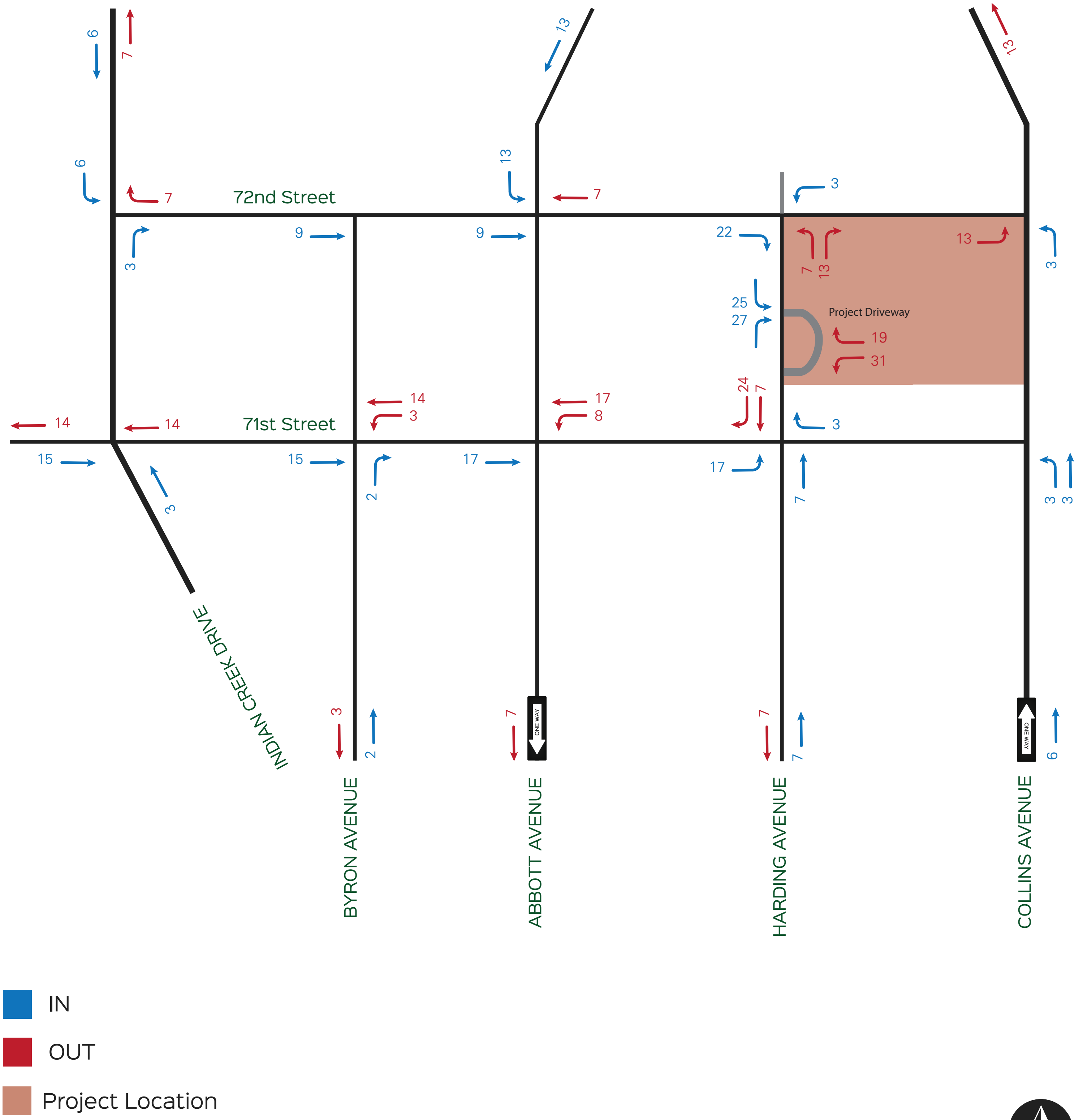
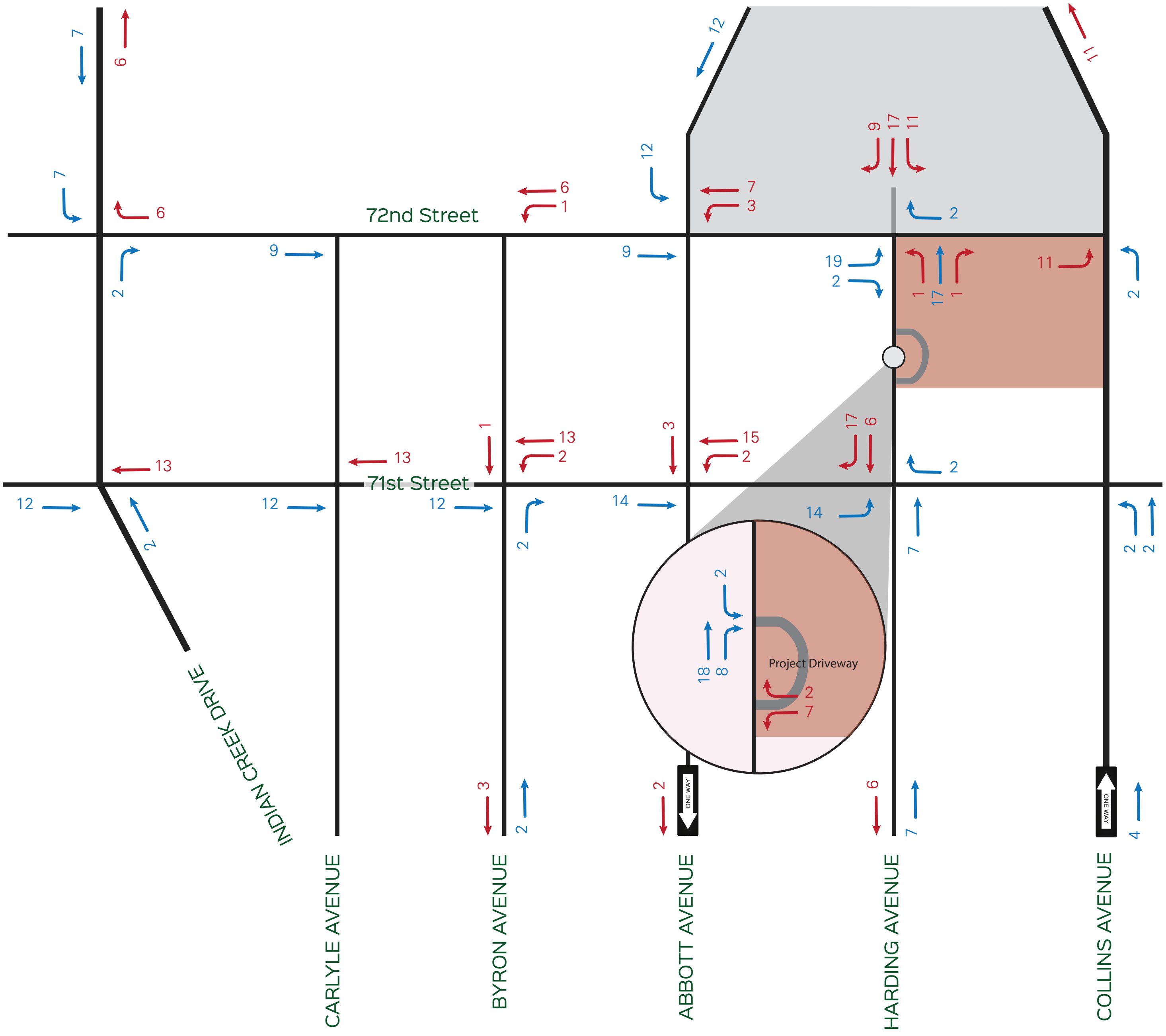


Exhibit 12 (Hotel & Residential)

Project Trip Assignment



🟦 IN

🟥 OUT

⬜ Off-Site Parking Lot

🟫 Project Location

Exhibit 13 (Commercial)

Project Trip Assignment

NORTH
MAP NOT TO SCALE

Scenario - 5

Scenario Name: Committed Dev 7140 Collins AM

User Group:

Dev. phase: 1

No. of Years to Project Traffic : 0

Analyst Note:

Warning:

VEHICLE TRIPS

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
310 - Hotel	General Urban/Suburban	Rooms	187	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	52	36	88
Data Source: Trip Generation Manual, 10th Ed					T = 0.50(X) + -5.34	59%	41%	
221 - Multifamily Housing (Mid-Rise)	General Urban/Suburban	Dwelling Units	24	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	2	6	8
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.98Ln(X) + -0.98	26%	74%	
820 - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	18.52	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	100	61	161
Data Source: Trip Generation Manual, 10th Ed					T = 0.50(X) + 151.78	62%	38%	

AM Peak Hour Trip Generation and Internalization

7140 Collins Hotel

Hotel Land Use 310 187 Rooms			**Multifamily Housing (Mid-Rise) Land Use 221 24 DU**			**Shopping Center Land Use 820 18,520 Sq Ft**		
In	**Out**		**In**	**Out**		**In**	**Out**	
52	**36**		**2**	**6**		**100**	**61**	257 ITE Trips

UNBALANCED INTERNALIZATION

	0%			*0%*			
	0	***0***		*0*			
0%				*0%*			
0		***0***		*0*			
	14%					*4%*	
	5		***4***			*4*	
0%							*0%*
0			***0***				*0*
				1%		*17%*	
				0	***0***	*17*	
			2%				*14%*
			0		***0***		*9*

Hotel		**ifamily Housing (Mid-Ri**		**Shopping Center**		
In	**Out**	**In**	**Out**	**In**	**Out**	
52	**36**	**2**	**6**	**100**	**61**	257 Vehicle Trips

BALANCED INTERNALIZATION

	0		*0*		
0			*0*		
	-4			*-4*	
0					*0*
		0		*0*	
		0			*0*

0	-4	0	0	-4	0	-8 Internal
52	32	2	6	96	61	249 External Trips
	4.5%		*0.0%*		*2.5%*	*3.1%* % Internal
				0	0	0 0% Passby
52	**32**	**2**	**6**	**96**	**61**	**249**
-5	-3	0	-1	-10	-6	-25 -10.0% Transit/Pedestrian
47	**29**	**2**	**5**	**86**	**55**	**224 Net New External Trips**

PM Peak Hour Trip Generation and Internalization

7140 Collins Hotel

Shopping Center Land Use 820 18,520 Sq Ft			Hotel Land Use 310 187 Rooms			Midrise Condo Land Use 221 24 Dwelling Units				
In	Out		In	Out		In	Out			
84	83		58	56		7	4	292		ITE Trips
UNBALANCED INTERNALIZATION										
	5%		*17%*							
	4	**4**	*10*							
2%				16%						
2		**2**		9						
	26%					*46%*				
	22		**3**			*3*				
10%							42%			
8			**2**				2			
				2%		*0%*				
				1	**0**	*0*				
			12%				3%			
			7		**0**		0			

Shopping Center			Hotel			Midrise Condo				
In	Out		In	Out		In	Out			
84	83		58	56		7	4	292		ITE Trips
BALANCED INTERNALIZATION										
	-4		*-4*							
-2				-2						
	-3					*-3*				
-2							-2			
				0		*0*				
0							0			
-4	-7		-4	-2		-3	-2	-22		Internal
80	**76**		**54**	**54**		**4**	**2**	**270**		External Trips
	6.6%			*5.3%*			*45.5%*	*7.5%*		% Internal
-27	*-26*							*-53*	-34%	Shopping Passby
53	***50***		***54***	***54***		***4***	***2***	***217***		
-5	-5		-6	-6		0	0	-22	-10%	Transit
48	**45**		**48**	**48**		**4**	**2**	**195**		**Net New External Trips**

72nd & Park

7145 Carlyle Avenue and 7144 Byron Avenue
Miami Beach, Florida 33141

prepared for:
KGTC, LLC

traffic evaluation

TRAFTECH
ENGINEERING, INC.

June 2019

ARQUITECTONICA

2900 Oak Avenue
Miami, FL 33133
305.372.1812 T
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PREPARED FOR KGTC LLC.
PROJECT # 1001.010069.000

72nd & Park

7145 CARLYLE AVE, MIAMI BEACH FL 33141
7144 BYRON AVE, MIAMI BEACH FL 33141

LOCATION MAP

05/29/2019

A0-01

TABLE 1
Trip Generation Summary - Existing Use
72nd & Park Project

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
						Total Trips	Inbound	Outbound
Private School LUC 536	225 stds	925	205	113	92	59	27	32
Gross Trips		**925**	**205**	**113**	**92**	**59**	**27**	**32**

Source: ITE Trip Generation Manual (10th Edition)

TABLE 2
Trip Generation Summary - Proposed Uses
72nd & Park Project

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
						Total Trips	Inbound	Outbound
High Rise LUC 222	282 units	1,323	92	22	70	104	63	41
Retail LUC 820	12,603 sq.ft.	1,470	12	7	5	117	56	61
Gross Trips		**2,793**	**104**	**29**	**75**	**221**	**119**	**102**
Internal Trips (see worksheet)		-542	0	0	0	-43	-21	-21
Driveway Trips		**2,251**	**104**	**29**	**75**	**178**	**98**	**81**
Pass-by Retail (1)		-404	0	0	0	-32	-17	-15
New External Trips		**1,847**	**104**	**29**	**75**	**146**	**81**	**66**

Source: ITE Trip Generation Manual (10th Edition)

Difference	**922**	**-101**	**-84**	**-17**	**87**	**54**	**34**

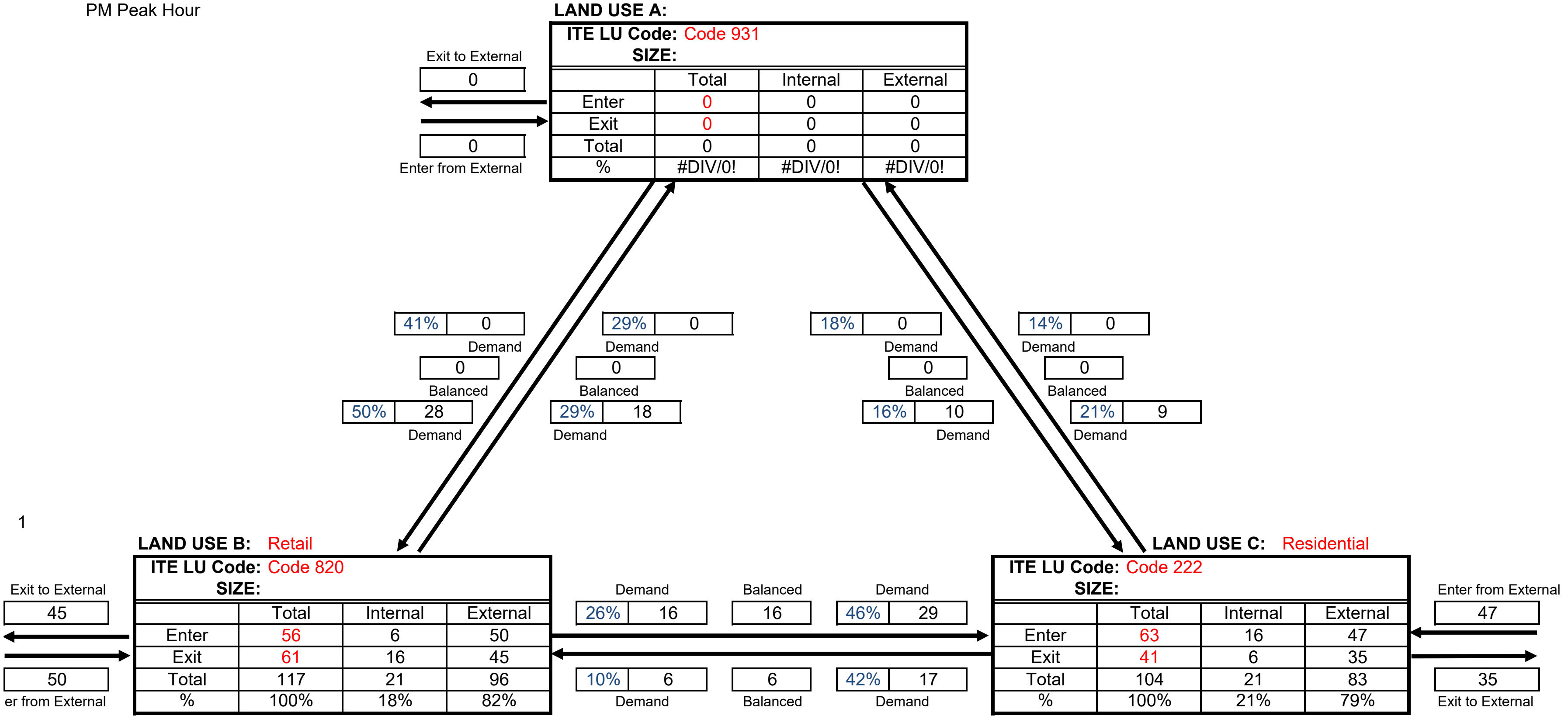
(1) Based on ITE Trip Generation Handbook (3rd Edition), Retail pass-by = 34%

Traf Tech
ENGINEERING, INC.

EXISTING LAND USES

Trip Generation
and Internal Capture Summary

Analyst: Vargas
Date: 6-May-19
PM Peak Hour



LAND USE A:

ITE LU Code: Code 931
SIZE:

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External
0

0
Enter from External

41% | 0
Demand
0
Balanced
50% | 28
Demand

29% | 0
Demand
0
Balanced
29% | 18
Demand

18% | 0
Demand
0
Balanced
16% | 10
Demand

14% | 0
Demand
0
Balanced
21% | 9
Demand

1

LAND USE B: Retail

ITE LU Code: Code 820
SIZE:

	Total	Internal	External
Enter	56	6	50
Exit	61	16	45
Total	117	21	96
%	100%	18%	82%

Exit to External
45

50
er from External

Demand
26% | 16
Balanced
16
Demand
46% | 29

10% | 6
Demand
6
Balanced
42% | 17
Demand

LAND USE C: Residential

ITE LU Code: Code 222
SIZE:

	Total	Internal	External
Enter	63	16	47
Exit	41	6	35
Total	104	21	83
%	100%	21%	79%

Enter from External
47

35
Exit to External

Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	50	47	98
Exit	0	45	35	81
Total	0	96	83	178
Single-Use Trip Gen. Est.	0	117	104	221

INTERNAL CAPTURE
19%

TABLE 3
Project Trip Distribution
TAZ # 605 for 72nd & Park

Year	Movement							
	NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW
2010	12.90%	0.80%	0.00%	3.70%	27.40%	12.60%	17.50%	25.10%
2040	8.00%	3.00%	0.00%	6.40%	27.00%	13.20%	22.20%	20.20%
2022*	10.94%	1.68%	0.00%	4.78%	27.24%	12.84%	19.38%	23.14%

*Note: * Interpolated Values*
Source: Miami-Dade County (2010 & 2040 SERPM)

Multiway Stop-Control Warrant Analysis

A multiway stop-control warrant analysis was undertaken for the intersections of 72nd Street/Carlyle Avenue and 72nd Street Byron Avenue. For this analysis, four-day machine traffic counts were collected on 72nd Street between Carlyle Avenue and Byron Avenue. The machine traffic counts were collected on Thursday, May 16 through Sunday, May 19, 2019. The results of the 4-day machine traffic counts indicate that the peak day is Friday. Additionally, based on the 4-day machine traffic counts, 8-hour intersection turning movement counts were conducted at the two study intersections between the hours of 8:00 AM and 10:00 AM and from 1:00 PM to 7:00 PM. The 8-hour traffic counts were undertaken on Friday, May 31, 2019.

The results of the traffic counts are contained in Appendix C.

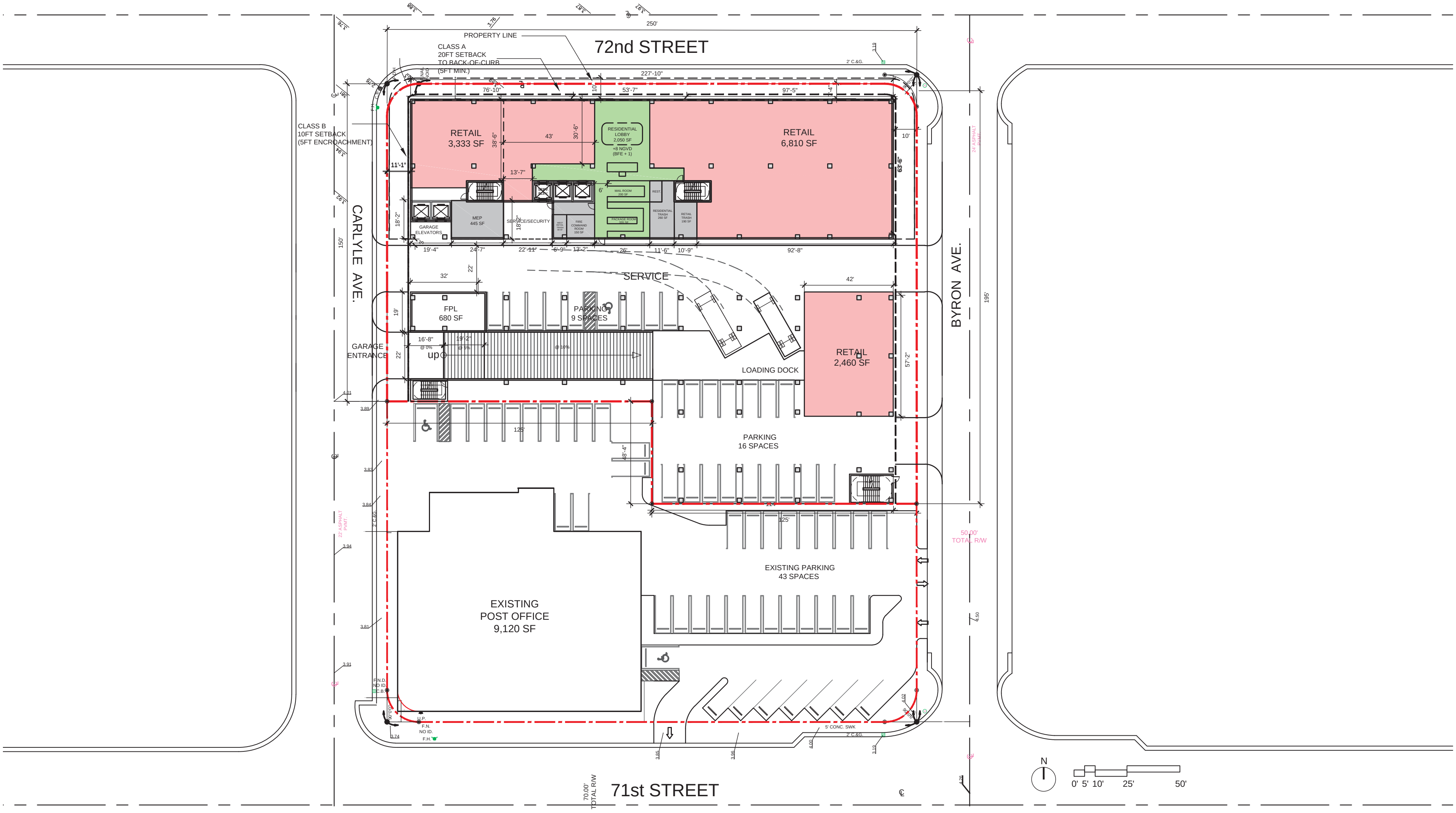
A multiway stop control warrant analysis was performed for the two study intersections following the signal warrants outlined in the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition (Section 2B.07). The minimum volume criterion to warrant multiway stop control is summarized below:

- The minimum volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and

- The combined vehicular, pedestrian and bicycle volume entering the intersection from the minor-street approaches averages at least

APPENDIX B

Site Plan



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PREPARED FOR KGTC LLC.
PROJECT # 1001.010069.000

THE DATA INCLUDED IN THIS STUDY IS CONCEPTUAL IN NATURE AND WILL CONTINUE TO BE MODIFIED THROUGHOUT THE COURSE OF THE PROJECTS DEVELOPMENT WITH THE EVENTUAL INTEGRATION OF STRUCTURAL, MEP AND LIFE SAFETY SYSTEMS. AS THESE ARE FURTHER REFINED, THE NUMBERS WILL BE ADJUSTED ACCORDINGLY.

72nd & Park

7145 CARLYLE AVE, MIAMI BEACH FL 33141
7144 BYRON AVE, MIAMI BEACH FL 33141

GROUND LEVEL

05/29/2019

A1-00A

APPENDIX E

Projected Turning Movement Volumes

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

72nd Street and Carlyle Avenue
AM Peak Hour

Description	**Carlyle Avenue Northbound**			**Southbound**			**72nd Street Eastbound**			**72nd Street Westbound**		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/31/2019)	38		28					111	14	26	77	
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2019 Peak Season Traffic	39	0	29	0	0	0	0	114	14	27	79	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2022 Background Traffic	40	0	30	0	0	0	0	118	15	28	82	0
Park & 72Trips												
- Percentages (Ins/Out)	25%		10%						25%	10%		
- Trips	0		0						0	0		
2022 Total Traffic	**40**	**0**	**30**	**0**	**0**	**0**	**0**	**118**	**15**	**28**	**82**	**0**

	AM Peak			**PM Peak**		
Monterra	**INS**	**OUT**	**Total**	**INS**	**OUT**	**Total**
Driveway Volumes	**0**	**0**	**0**	**54**	**34**	**88**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

72nd Street and Carlyle Avenue
PM Peak Hour

	Carlyle Avenue						72nd Street			72nd Street		
	Northbound			Southbound			Eastbound			Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/31/2019)	34		52					55	22	137	256	
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2019 Peak Season Traffic	35	0	54	0	0	0	0	57	23	141	264	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2022 Background Traffic	36	0	55	0	0	0	0	58	23	145	272	0
Park & 72Trips												
- Percentages (Ins/Out)	25%		10%						25%	10%		
- Trips	9		3						14	5		
2022 Total Traffic	**45**	**0**	**58**	**0**	**0**	**0**	**0**	**58**	**37**	**150**	**272**	**0**

	AM Peak			PM Peak		
Monterra	**INS**	**OUT**	**Total**	**INS**	**OUT**	**Total**
Driveway Volumes	**0**	**0**	**0**	**54**	**34**	**88**

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

72nd Street and Byron Avenue
AM Peak Hour

	Byron Avenue Northbound			Southbound			72nd Street Eastbound			72nd Street Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/31/2019)	44		119					105	24	38	73	
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2019 Peak Season Traffic	45	0	123	0	0	0	0	108	25	39	75	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2022 Background Traffic	47	0	126	0	0	0	0	111	25	40	77	0
Park & 72Trips												
- Percentages (Ins/Out)			2%					10%		2%	10%	
- Trips			0					0		0	0	
2022 Total Traffic	**47**	**0**	**126**	**0**	**0**	**0**	**0**	**111**	**25**	**40**	**77**	**0**

	AM Peak			PM Peak		
Monterra	**INS**	**OUT**	**Total**	**INS**	**OUT**	**Total**
Driveway Volumes	**0**	**0**	**0**	**54**	**34**	**88**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

72nd Street and Byron Avenue
PM Peak Hour

	Byron Avenue						72nd Street			72nd Street		
	Northbound			Southbound			Eastbound			Westbound		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/31/2019)	142		68					70	23	89	301	
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2019 Peak Season Traffic	146	0	70	0	0	0	0	72	24	92	310	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2022 Background Traffic	151	0	72	0	0	0	0	74	24	94	319	0
Park & 72Trips												
- Percentages (Ins/Out)			2%					10%		2%	10%	
- Trips			1					3		1	5	
2022 Total Traffic	**151**	**0**	**73**	**0**	**0**	**0**	**0**	**77**	**24**	**95**	**324**	**0**

	AM Peak			PM Peak		
Monterra	**INS**	**OUT**	**Total**	**INS**	**OUT**	**Total**
Driveway Volumes	**0**	**0**	**0**	**54**	**34**	**88**

Traf Tech
ENGINEERING, INC.

Appendix F
Trip Generation

Scenario - 2

Scenario Name: Proposed Uses

User Group:

Dev. phase: 1

No. of Years to Project Traffic : 0

Analyst Note:

Warning: The time periods among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
820 - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	18.05	Weekday	Best Fit (LOG)	938	938	1876
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.68Ln(X) + 5.57	50%	50%	
222 - Multifamily Housing (High-Rise)	General Urban/Suburban	Dwelling Units	252	Weekday	Best Fit (LIN)	602	602	1204
Data Source: Trip Generation Manual, 10th Ed					T = 3.94(X) + 211.81	50%	50%	
820(1) - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	18.05	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	100	61	161
Data Source: Trip Generation Manual, 10th Ed					T = 0.50(X) + 151.78	62%	38%	
222(1) - Multifamily Housing (High-Rise)	General Urban/Suburban	Dwelling Units	252	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	20	63	83
Data Source: Trip Generation Manual, 10th Ed					T = 0.28(X) + 12.86	24%	76%	
820(2) - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	18.05	Weekday, Peak Hour of Adjacent Street	Best Fit (LOG)	73	80	153
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.74Ln(X) + 2.89	48%	52%	
222(2) - Multifamily Housing (High-Rise)	General Urban/Suburban	Dwelling Units	252	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	57	37	94
Data Source: Trip Generation Manual, 10th Ed					T = 0.34(X) + 8.56	61%	39%	

Scenario - 1

Scenario Name: Existing Uses

User Group:

Dev. phase: 1

No. of Years to Project Traffic : 0

Analyst Note:

Warning: The time periods among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
710 - General Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	6.92	Weekday	Best Fit (LOG)	40	40	80
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.97Ln(X) + 2.50	50%	50%	
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	15	Weekday	Best Fit (LIN)	36	36	72
Data Source: Trip Generation Manual, 10th Ed					T = 7.56(X) + -40.86	50%	50%	
820 - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	13.37	Weekday	Best Fit (LOG)	765	765	1530
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.68Ln(X) + 5.57	50%	50%	
710(1) - General Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	6.92	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	28	5	33
Data Source: Trip Generation Manual, 10th Ed					T = 0.94(X) + 26.49	86%	14%	
220(1) - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	15	Weekday, Peak Hour of Adjacent Street	Best Fit (LOG)	2	6	8
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.95Ln(X) + -0.51	23%	77%	
820(1) - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	13.37	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	98	60	158
Data Source: Trip Generation Manual, 10th Ed					T = 0.50(X) + 151.78	62%	38%	
710(2) - General Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	6.92	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	1	8	9
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.95Ln(X) + 0.36	16%	84%	
220(2) - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	15	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	7	4	11
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.89Ln(X) + -0.02	63%	37%	
820(2) - Shopping Center	General Urban/Suburban	1000 Sq. Ft. GLA	13.37	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	59	64	123
Data Source: Trip Generation Manual, 10th Ed					Ln(T) =0.74Ln(X) + 2.89	48%	52%	

AM Peak Hour Trip Generation and Internalization

Abbott Avenue

Multifamily Housing (High-Rise) **Land Use 221** **252 Units**			**Retail** **Land Use 820** **18,000 Sq Ft**			
In	**Out**		**In**	**Out**		
20	**63**		**100**	**61**	**244**	**ITE Trips**
16	50		80	49	-20%	Transit/Pedestrian
UNBALANCED INTERNALIZATION						
	1%		*17%*			
	1	***1***	*14*			
2%				*14%*		
0		***0***		*7*		
amily Housing (High			**Retail**			
In	**Out**		**In**	**Out**		
36	**50**		**80**	**49**	215	Vehicle Trips
BALANCED INTERNALIZATION						
	-1		*-1*			
0				*0*		
0	-1		-1	0	-2	Internal
	1.2%			*0.8%*	*0.9%*	% Internal
36	**49**		**79**	**49**	**213**	**Net New External Trips**

PM Peak Hour Trip Generation and Internalization

Abbott Avenue

Multifamily Housing (High-Rise) **Land Use 221** **252 Units**			**Retail** **Land Use 820** **18,000 Sq Ft**				
In	**Out**		**In**	**Out**			
57	**37**		**73**	**80**	**247**		**ITE Trips**
46	30		58	64	197	-20%	Transit/Pedestrian
UNBALANCED INTERNALIZATION							
	42%		*10%*				
	12	***6***	*6*				
46%				*26%*			
21		***17***		*17*			
Multifamily Housing (High-Rise)			**Retail**				
In	**Out**		**In**	**Out**			
46	**30**		**58**	**64**	198		Vehicle Trips
BALANCED INTERNALIZATION							
	-5		*-5*		-20%		
-14				*-14*			
-14	-5		-5	-14	-37		Internal
	24.5%			*15.0%*		*18.6%*	% Internal
32	25		54	50	161		External Trips
			-18	-18	-36	-34%	Passby
32	**25**		**36**	**32**	**125**		**Net New External Trips**

U.S. Census Bureau

AMERICAN FactFinder

S0801

COMMUTING CHARACTERISTICS BY SEX

2013-2017 American Community Survey 5-Year Estimates

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.

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.

Subject	Census Tract 39.13, Miami-Dade County, Florida				
	Total		Male		Female
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Workers 16 years and over	3,235	+/-387	1,807	+/-309	1,428
MEANS OF TRANSPORTATION TO WORK					
Car, truck, or van	59.6%	+/-9.0	71.8%	+/-10.7	44.1%
Drove alone	53.9%	+/-7.0	67.4%	+/-10.1	36.8%
Carpooled	5.7%	+/-4.7	4.4%	+/-5.9	7.3%
In 2-person carpool	3.2%	+/-3.2	0.0%	+/-2.2	7.3%
In 3-person carpool	2.4%	+/-3.3	4.4%	+/-5.9	0.0%
In 4-or-more person carpool	0.0%	+/-1.2	0.0%	+/-2.2	0.0%
Workers per car, truck, or van	1.06	+/-0.05	1.04	+/-0.06	1.09
Public transportation (excluding taxicab)	17.9%	+/-6.4	6.9%	+/-5.4	31.9%
Walked	7.0%	+/-5.2	3.8%	+/-3.5	11.1%
Bicycle	1.7%	+/-2.1	2.3%	+/-3.5	1.1%
Taxicab, motorcycle, or other means	7.2%	+/-4.6	7.6%	+/-6.7	6.7%
Worked at home	6.6%	+/-3.8	7.6%	+/-5.3	5.2%
PLACE OF WORK					
Worked in state of residence	98.3%	+/-2.1	97.7%	+/-3.6	99.1%
Worked in county of residence	92.5%	+/-4.8	88.1%	+/-8.4	98.1%
Worked outside county of residence	5.8%	+/-4.1	9.6%	+/-7.3	1.0%
Worked outside state of residence	1.7%	+/-2.1	2.3%	+/-3.6	0.9%

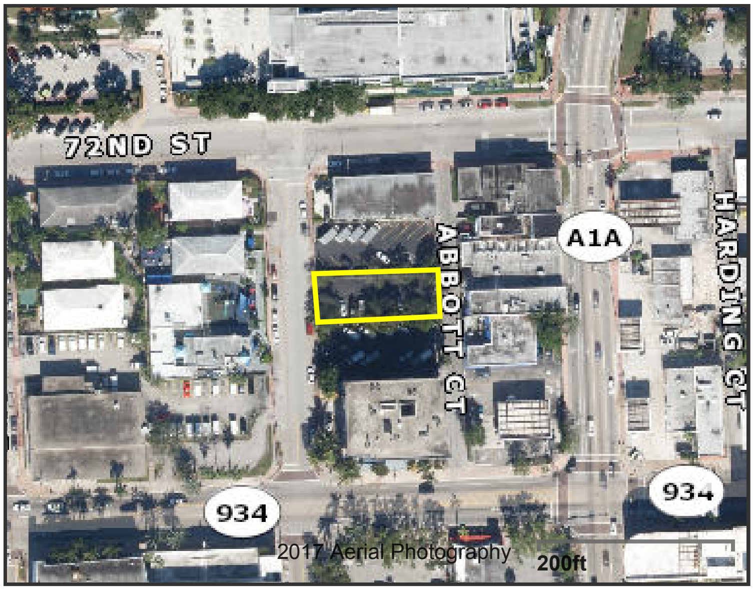
OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information

Folio:	02-3211-002-0380
Property Address:	7135 BYRON AVE Miami Beach, FL 33141-3048
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE 201 BAY HARBOR ISLANDS, FL 33154 USA
PA Primary Zone	3900 MULTI-FAMILY - 38-62 U/A
Primary Land Use	2865 PARKING LOT/MOBILE HOME PARK : PARKING LOT
Beds / Baths / Half	0 / 0 / 0
Floors	0
Living Units	0
Actual Area	0 Sq.Ft
Living Area	0 Sq.Ft
Adjusted Area	0 Sq.Ft
Lot Size	6,250 Sq.Ft
Year Built	0



Assessment Information

Year	2018	2017	2016
Land Value	$875,000	$730,149	$812,500
Building Value	$0	$0	$0
XF Value	$10,845	$11,015	$11,187
Market Value	$885,845	$741,164	$823,687
Assessed Value	$815,280	$741,164	$419,031

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction	$70,565		$404,656

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 3 BLK 6
LOT SIZE 50.000 X 125
OR 18673-4252 0599 4 (3)
COC 22007-3735 01 2004 2

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$815,280	$741,164	$419,031
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$885,845	$741,164	$823,687
City			
Exemption Value	$0	$0	$0
Taxable Value	$815,280	$741,164	$419,031
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$815,280	$741,164	$419,031

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
11/02/2016	$3,900,000	30301-1249	Qual on DOS, multi-parcel sale
01/01/2004	$1,350,000	22007-3735	Deeds that include more than one parcel
05/01/1999	$0	18633-2069	Sales which are disqualified as a result of examination of the deed
05/01/1999	$0	18673-4252	Sales which are disqualified as a result of examination of the deed

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information

Folio:	02-3211-002-0460
Property Address:	7136 ABBOTT AVE Miami Beach, FL 33141-3010
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE 201 BAY HARBOR ISLAND, FL 33154 USA
PA Primary Zone	6600 COMMERCIAL - LIBERAL
Primary Land Use	1209 MIXED USE-STORE/RESIDENTIAL : MIXED USE - RESIDENTIAL
Beds / Baths / Half	2 / 2 / 0
Floors	2
Living Units	1
Actual Area	Sq.Ft
Living Area	Sq.Ft
Adjusted Area	3,496 Sq.Ft
Lot Size	2,500 Sq.Ft
Year Built	1948

2017 Aerial Photography

Assessment Information

Year	2018	2017	2016
Land Value	$562,500	$562,500	$450,000
Building Value	$134,880	$134,880	$128,457
XF Value	$7,380	$7,470	$7,560
Market Value	$704,760	$704,850	$586,017
Assessed Value	$704,760	$704,850	$419,211

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction			$166,806

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 16 BLK 6
LOT SIZE 25.000 X 100
OR 19930-3634 1001 4

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$704,760	$704,850	$419,211
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$704,760	$704,850	$586,017
City			
Exemption Value	$0	$0	$0
Taxable Value	$704,760	$704,850	$419,211
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$704,760	$704,850	$419,211

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
08/28/2017	$2,500,000	30687-1176	Atypical exposure to market; atypical motivation
04/14/2016	$100	30418-1307	Corrective, tax or QCD; min consideration
10/01/2001	$0	19930-3634	Sales which are disqualified as a result of examination of the deed
09/01/1994	$85,000	16536-4055	Other disqualified

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information	
Folio:	02-3211-002-0470
Property Address:	7140 ABBOTT AVE Miami Beach, FL 33141-3010
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE 201 BAY HARBOR ISLANDS, FL 33154 USA
PA Primary Zone	6600 COMMERCIAL - LIBERAL
Primary Land Use	1813 OFFICE BUILDING - MULTISTORY : OFFICE BUILDING
Beds / Baths / Half	0 / 0 / 0
Floors	1
Living Units	0
Actual Area	Sq.Ft
Living Area	Sq.Ft
Adjusted Area	6,922 Sq.Ft
Lot Size	5,000 Sq.Ft
Year Built	1963

Assessment Information

Year	2018	2017	2016
Land Value	$1,125,000	$1,125,000	$900,000
Building Value	$465,000	$450,000	$193,178
XF Value	$0	$0	$13,694
Market Value	$1,590,000	$1,575,000	$1,106,872
Assessed Value	$1,590,000	$1,575,000	$647,350

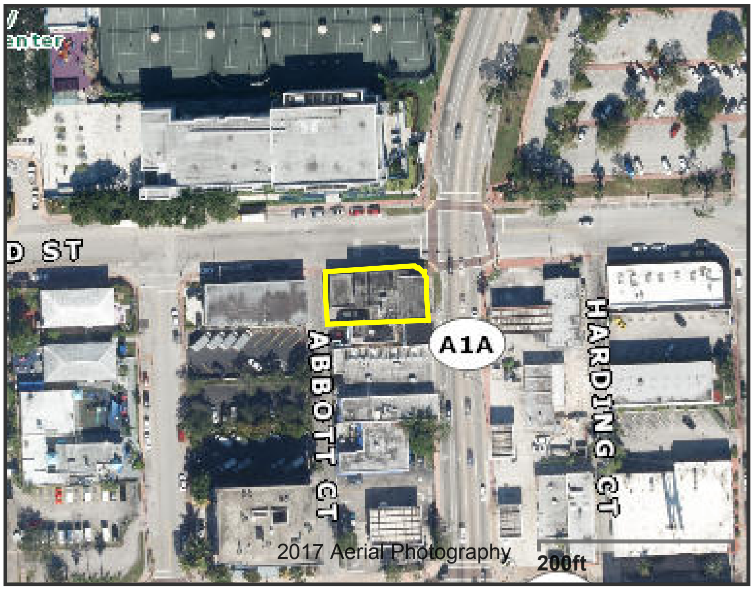
Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction			$459,522

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOTS 17 & 18 BLK 6
LOT SIZE 50.000 X 100
OR 14265-1637 0989 4
COC 22669-3432 09 2004 1



Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$1,590,000	$1,575,000	$647,350
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$1,590,000	$1,575,000	$1,106,872
City			
Exemption Value	$0	$0	$0
Taxable Value	$1,590,000	$1,575,000	$647,350
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$1,590,000	$1,575,000	$647,350

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
11/01/2016	$0	30357-2031	Corrective, tax or QCD; min consideration
11/01/2016	$2,450,000	30301-1090	Qual by exam of deed
09/01/2004	$590,000	22669-3432	Sales which are qualified
09/01/1989	$0	14265-1637	Sales which are disqualified as a result of examination of the deed

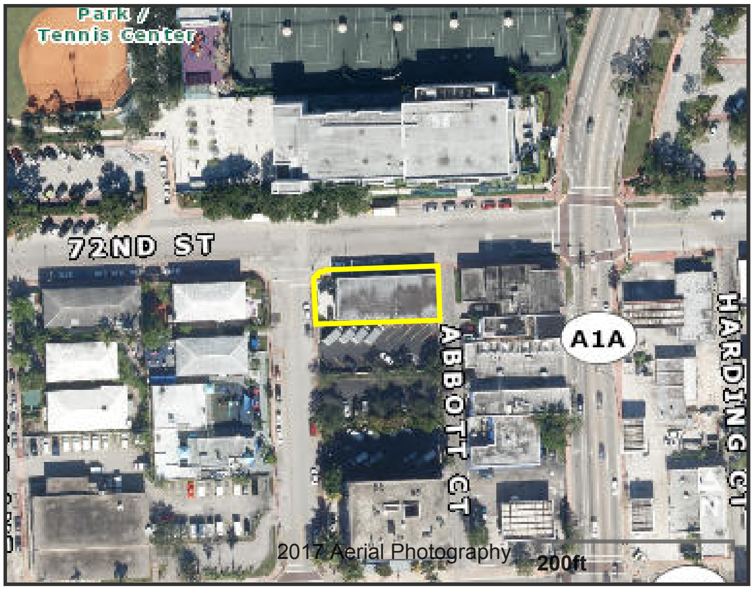
Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information	
Folio:	02-3211-002-0360
Property Address:	430 72 ST Miami Beach, FL 33141-3079
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE STE 201 BAY HARBOR ISLANDS, FL 33154 USA
PA Primary Zone	3900 MULTI-FAMILY - 38-62 U/A
Primary Land Use	0303 MULTIFAMILY 10 UNITS PLUS : MULTIFAMILY 3 OR MORE UNITS
Beds / Baths / Half	0 / 0 / 0
Floors	1
Living Units	14
Actual Area	Sq.Ft
Living Area	Sq.Ft
Adjusted Area	6,317 Sq.Ft
Lot Size	6,250 Sq.Ft
Year Built	1956



Assessment Information

Year	2018	2017	2016
Land Value	$875,000	$812,500	$812,500
Building Value	$807,000	$487,500	$399,852
XF Value	$0	$0	$0
Market Value	$1,682,000	$1,300,000	$1,212,352
Assessed Value	$1,682,000	$1,300,000	$1,188,000

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$1,682,000	$1,300,000	$1,188,000
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$1,682,000	$1,300,000	$1,212,352
City			
Exemption Value	$0	$0	$0
Taxable Value	$1,682,000	$1,300,000	$1,188,000
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$1,682,000	$1,300,000	$1,188,000

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction			$24,352

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
11/20/2017	$2,170,000	30777-4996	Qual by exam of deed
10/17/2013	$1,200,000	28871-2997	Qual by exam of deed
06/07/2010	$100	27320-3540	Corrective, tax or QCD; min consideration
01/01/1984	$266,755	12025-0815	Sales which are qualified

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 1 BLK 6
LOT SIZE 50.000 X 125
OR 12025-815 0184 1

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 3/7/2019

Property Information

Folio:	02-3211-002-0390
Property Address:	7117 BYRON AVE Miami Beach, FL 33141-0000
Owner	PUMPS AT 71 LLC 7433 COLLINS AVE CORP
Mailing Address	555 NE 185 ST #201 MIAMI, FL 33179 USA
PA Primary Zone	3900 MULTI-FAMILY - 38-62 U/A
Primary Land Use	2865 PARKING LOT/MOBILE HOME PARK : PARKING LOT
Beds / Baths / Half	0 / 0 / 0
Floors	0
Living Units	0
Actual Area	0 Sq.Ft
Living Area	0 Sq.Ft
Adjusted Area	0 Sq.Ft
Lot Size	6,250 Sq.Ft
Year Built	0

Assessment Information

Year	2018	2017	2016
Land Value	$875,000	$812,500	$812,500
Building Value	$0	$0	$0
XF Value	$5,975	$6,029	$6,082
Market Value	$880,975	$818,529	$818,582
Assessed Value	$630,568	$573,244	$521,131

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$630,568	$573,244	$521,131
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$880,975	$818,529	$818,582
City			
Exemption Value	$0	$0	$0
Taxable Value	$630,568	$573,244	$521,131
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$630,568	$573,244	$521,131

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction	$250,407	$245,285	$297,451

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
08/20/2014	$5,050,000	29285-0537	Qual on DOS, multi-parcel sale
09/01/1995	$575,000	16949-0811	Deeds that include more than one parcel

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 4 BLK 6
LOT SIZE 50.000 X 125
OR 18467-3687 0299 5 (3)

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 3/7/2019

Property Information

Folio:	02-3211-002-0430
Property Address:	7120 ABBOTT AVE Miami Beach, FL 33141-3010
Owner	PUMPS AT 71 LLC 7433 COLLINS AVE CORP
Mailing Address	555 NE 185 ST #201 MIAMI, FL 33179 USA
PA Primary Zone	6600 COMMERCIAL - LIBERAL
Primary Land Use	1111 STORE : RETAIL OUTLET
Beds / Baths / Half	0 / 0 / 0
Floors	2
Living Units	0
Actual Area	Sq.Ft
Living Area	Sq.Ft
Adjusted Area	6,112 Sq.Ft
Lot Size	5,000 Sq.Ft
Year Built	1950

2017 Aerial Photography

Assessment Information

Year	2018	2017	2016
Land Value	$1,125,000	$1,125,000	$900,000
Building Value	$329,356	$334,278	$323,049
XF Value	$25,287	$25,595	$25,904
Market Value	$1,479,643	$1,484,873	$1,248,953
Assessed Value	$1,192,074	$1,083,704	$985,186

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction	$287,569	$401,169	$263,767

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 11 & 12 BLK 6
LOT SIZE 50.000 X 100
OR 18467-3687 0299 5 (3)

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$1,192,074	$1,083,704	$985,186
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$1,479,643	$1,484,873	$1,248,953
City			
Exemption Value	$0	$0	$0
Taxable Value	$1,192,074	$1,083,704	$985,186
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$1,192,074	$1,083,704	$985,186

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
08/20/2014	$5,050,000	29285-0537	Qual on DOS, multi-parcel sale
09/01/1995	$575,000	16949-0811	Deeds that include more than one parcel

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information

Folio:	02-3211-002-0440
Property Address:	7124 ABBOTT AVE Miami Beach, FL 33141-3049
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE 201 BAY HARBOR ISLANDS, FL 33154 USA
PA Primary Zone	6600 COMMERCIAL - LIBERAL
Primary Land Use	1229 MIXED USE-STORE/RESIDENTIAL : MIXED USE - COMMERCIAL
Beds / Baths / Half	0 / 0 / 0
Floors	1
Living Units	0
Actual Area	Sq.Ft
Living Area	Sq.Ft
Adjusted Area	9,867 Sq.Ft
Lot Size	7,500 Sq.Ft
Year Built	1947

2017 Aerial Photography

Assessment Information

Year	2018	2017	2016
Land Value	$1,687,500	$1,479,212	$1,350,000
Building Value	$380,337	$385,247	$371,577
XF Value	$10,016	$10,136	$10,257
Market Value	$2,077,853	$1,874,595	$1,731,834
Assessed Value	$2,062,054	$1,874,595	$1,307,443

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction	$15,799		$424,391

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

11 53 42

NORMANDY BEACH SOUTH PB 21-54

LOT 13 THRU 15 BLK 6

LOT SIZE 75.000 X 100

OR 18673-4252 0599 4 (3)

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$2,062,054	$1,874,595	$1,307,443
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$2,077,853	$1,874,595	$1,731,834
City			
Exemption Value	$0	$0	$0
Taxable Value	$2,062,054	$1,874,595	$1,307,443
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$2,062,054	$1,874,595	$1,307,443

Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
11/02/2016	$3,900,000	30301-1249	Qual on DOS, multi-parcel sale
01/01/2004	$1,350,000	22007-3735	Deeds that include more than one parcel
05/01/1999	$0	18633-2069	Sales which are disqualified as a result of examination of the deed
05/01/1999	$0	18673-4252	Sales which are disqualified as a result of examination of the deed

Version:

OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 2/27/2019

Property Information

Folio:	02-3211-002-0370
Property Address:	7134 ABBOTT AVE Miami Beach, FL 33141-3010
Owner	ABBOTT AVENUE PARTNERS LLC
Mailing Address	1065 KANE CONCOURSE 201 BAY HARBOR ISLANDS, FL 33154 USA
PA Primary Zone	3900 MULTI-FAMILY - 38-62 U/A
Primary Land Use	2865 PARKING LOT/MOBILE HOME PARK : PARKING LOT
Beds / Baths / Half	0 / 0 / 0
Floors	0
Living Units	0
Actual Area	0 Sq.Ft
Living Area	0 Sq.Ft
Adjusted Area	0 Sq.Ft
Lot Size	6,250 Sq.Ft
Year Built	0

Assessment Information

Year	2018	2017	2016
Land Value	$831,250	$694,172	$771,875
Building Value	$0	$0	$0
XF Value	$5,156	$5,156	$5,156
Market Value	$836,406	$699,328	$777,031
Assessed Value	$769,260	$699,328	$390,523

Benefits Information

Benefit	Type	2018	2017	2016
Non-Homestead Cap	Assessment Reduction	$67,146		$386,508

Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).

Short Legal Description

NORMANDY BEACH SOUTH PB 21-54
LOT 2 BLK 6
LOT SIZE 50.000 X 125
OR 18673-4252 0599 4 (3)
COC 22007-3735 01 2004 2

Taxable Value Information

	2018	2017	2016
County			
Exemption Value	$0	$0	$0
Taxable Value	$769,260	$699,328	$390,523
School Board			
Exemption Value	$0	$0	$0
Taxable Value	$836,406	$699,328	$777,031
City			
Exemption Value	$0	$0	$0
Taxable Value	$769,260	$699,328	$390,523
Regional			
Exemption Value	$0	$0	$0
Taxable Value	$769,260	$699,328	$390,523

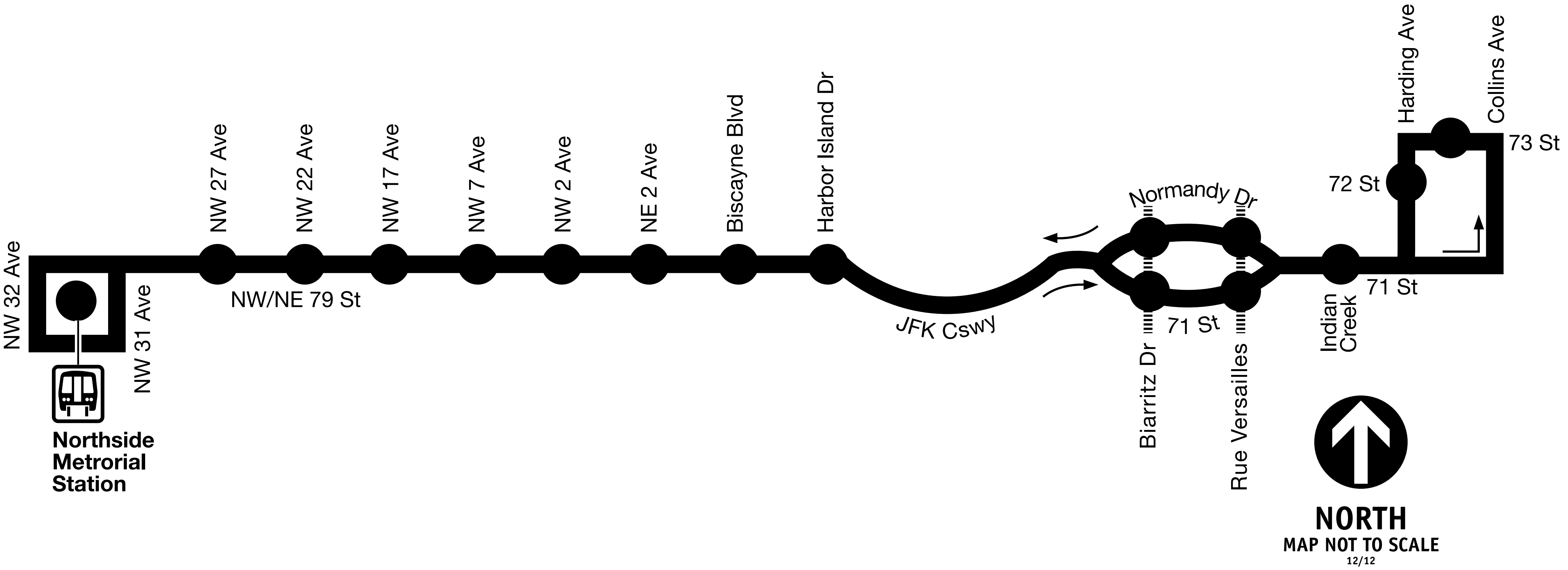
Sales Information

Previous Sale	Price	OR Book-Page	Qualification Description
11/02/2016	$3,900,000	30301-1249	Qual on DOS, multi-parcel sale
01/01/2004	$1,350,000	22007-3735	Deeds that include more than one parcel
05/01/1999	$0	18633-2069	Sales which are disqualified as a result of examination of the deed
05/01/1999	$0	18673-4252	Sales which are disqualified as a result of examination of the deed

Version:

Appendix G
Transit Information

Route 79 Street MAX



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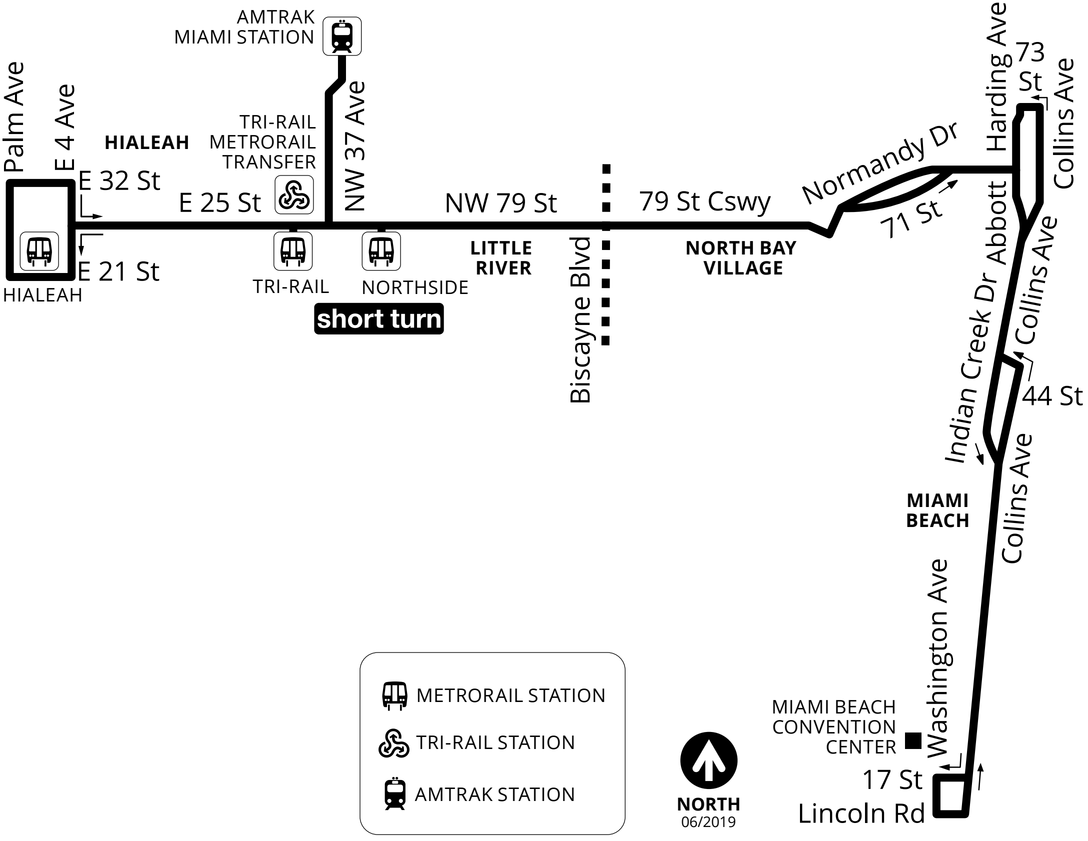

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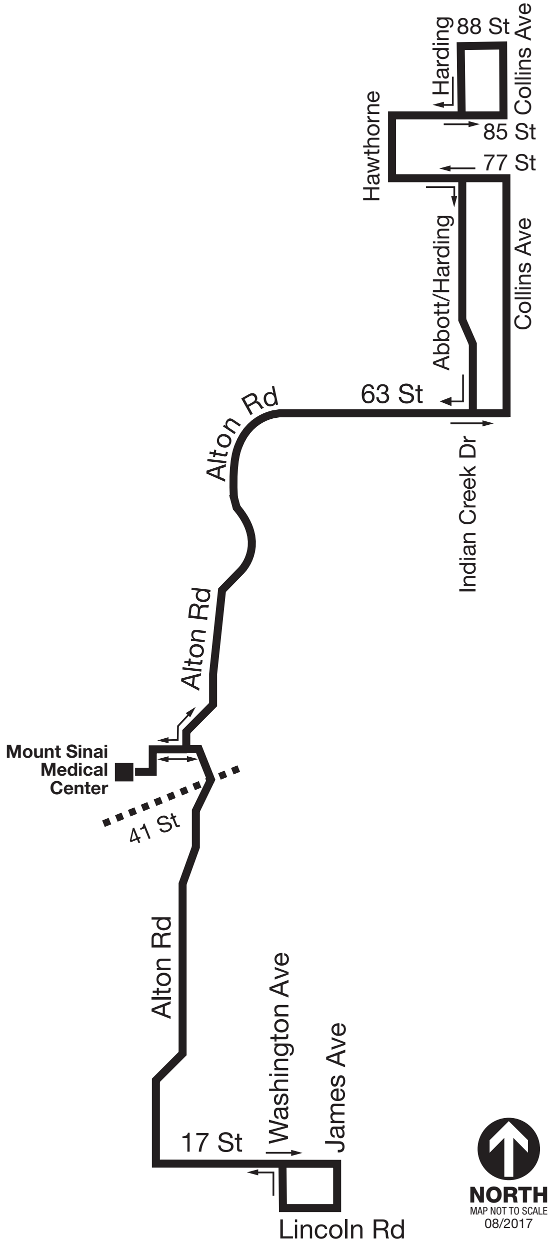
MIAMI-DADE COUNTY

115

MID-NORTH BEACH CONNECTION



MAP NOT TO SCALE
08/2017

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EASY PAY MIAMI
MDT TRANSIT WATCH

08.2017

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MIAMI-DADE COUNTY

WEEKDAYS | *ENTRE SEMANA* | *LASEMÈN*

SOUTHBOUND *RUMBO SUR* *DIREKSYON SID*	**MORNING** *MAÑANA / MATIN*					AM	PM	**AFTERNOON** *TARDE | APREMIDI*							
Collins Ave & 87 St	7:20	8:10	9:00	9:50	10:40	11:30	12:20	1:10	2:00	2:50	3:40	4:30	5:20	6:10	7:00
Abbott Ave & 69 St	7:34	8:24	9:12	10:02	10:52	11:42	12:32	1:22	2:12	3:02	3:52	4:42	5:32	6:22	7:12
Mt Sinai Hospital	7:47	8:37	9:25	10:15	11:05	11:55	12:45	1:35	2:25	3:15	4:05	4:55	5:45	6:35	7:22
Lincoln & Washington	8:04	8:54	9:44	10:34	11:24	12:14	1:04	1:54	2:44	3:34	4:24	5:14	6:04	6:54	7:37

NORTHBOUND *RUMBO NORTE* *DIREKSYON NÒ*	**MORNING** *MAÑANA | MATIN*				AM	PM	**AFTERNOON** *TARDE | APREMIDI*							
Lincoln & Washington	8:06	8:56	9:46	10:36	11:26	12:16	1:06	1:56	2:46	3:36	4:26	5:16	6:06	6:56
Mt Sinai Hospital	8:21	9:11	10:00	10:50	11:40	12:30	1:20	2:10	3:00	3:50	4:40	5:30	6:20	7:10
Collins Ave & 69 St	8:35	9:25	10:14	11:04	11:54	12:44	1:34	2:24	3:14	4:04	4:54	5:44	6:34	7:22
Collins Ave & 87 St	8:51	9:41	10:30	11:20	12:10	1:00	1:50	2:40	3:30	4:19	5:09	5:59	6:49	7:37

WEEKENDS | *FINES DE SEMANA* | *WIKENN*

SOUTHBOUND *RUMBO SUR* *DIREKSYON SID*	**MORNING** *MAÑANA / MATIN*					AM	PM	**AFTERNOON** *TARDE | APREMIDI*							
Collins Ave & 87 St	7:20	8:10	9:00	9:50	10:40	11:30	12:20	1:10	2:00	2:50	3:40	4:30	5:20	6:10	7:00
Abbott Ave & 69 St	7:30	8:20	9:11	10:01	10:51	11:41	12:31	1:21	2:11	3:01	3:51	4:41	5:31	6:21	7:10
Mt Sinai Hospital	7:40	8:30	9:22	10:12	11:02	11:52	12:42	1:32	2:22	3:12	4:02	4:52	5:42	6:32	7:20
Lincoln & Washington	7:54	8:44	9:38	10:28	11:18	12:08	12:58	1:48	2:38	3:28	4:18	5:08	5:58	6:48	7:33

NORTHBOUND *RUMBO NORTE* *DIREKSYON NÒ*	**MORNING** *MAÑANA | MATIN*				AM	PM	**AFTERNOON** *TARDE | APREMIDI*							
Lincoln & Washington	7:56	8:46	9:40	10:30	11:20	12:10	1:00	1:50	2:40	3:30	4:20	5:10	6:00	6:50
Mt Sinai Hospital	8:08	8:58	9:52	10:42	11:32	12:22	1:12	2:02	2:52	3:42	4:32	5:22	6:12	7:02
Collins Ave & 69 St	8:20	9:11	10:05	10:55	11:49	12:35	1:25	2:15	3:05	3:55	4:46	5:36	6:26	7:13
Collins Ave & 87 St	8:34	9:25	10:19	11:09	11:59	12:49	1:39	2:29	3:19	4:09	5:00	5:50	6:40	7:25

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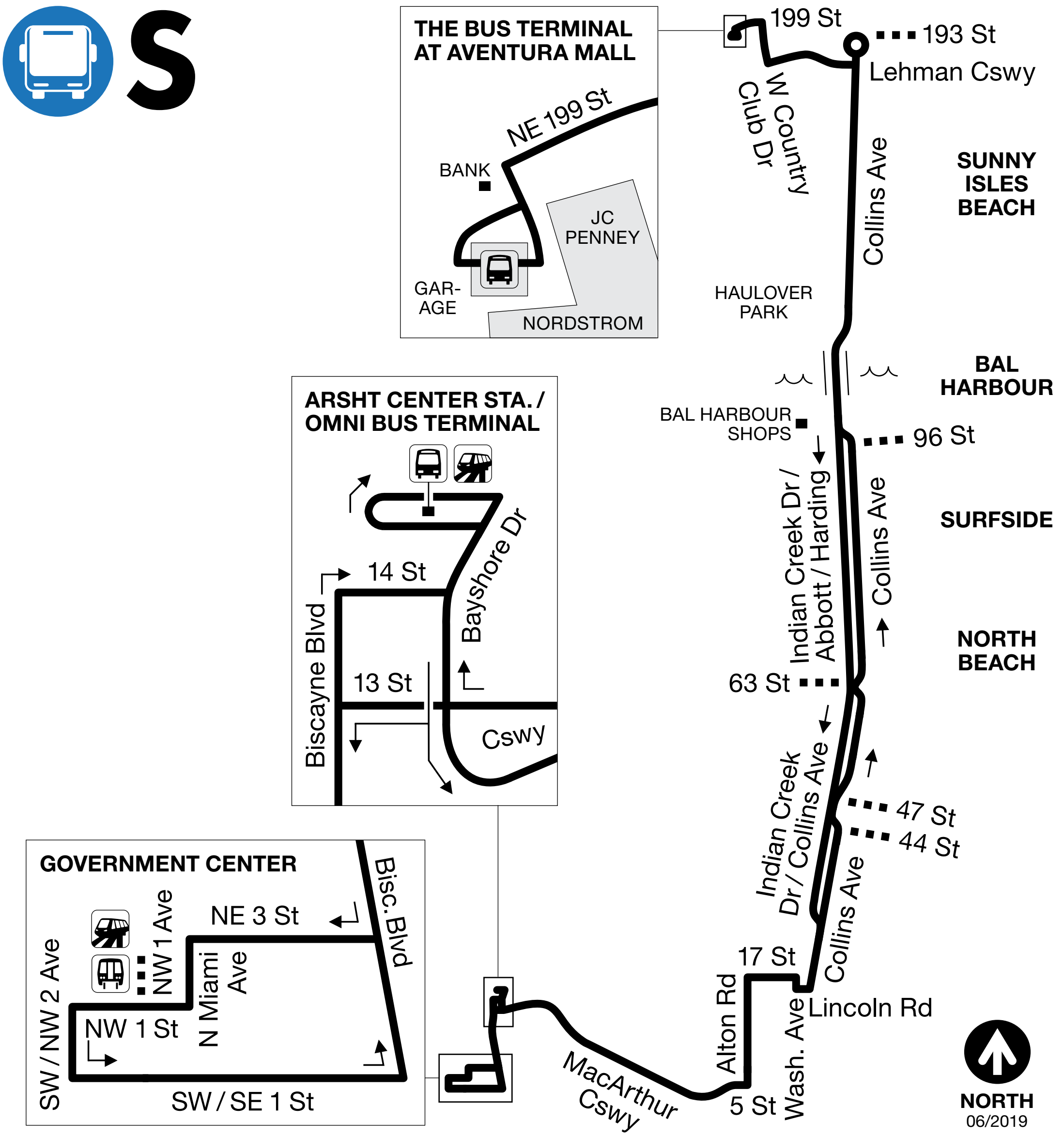

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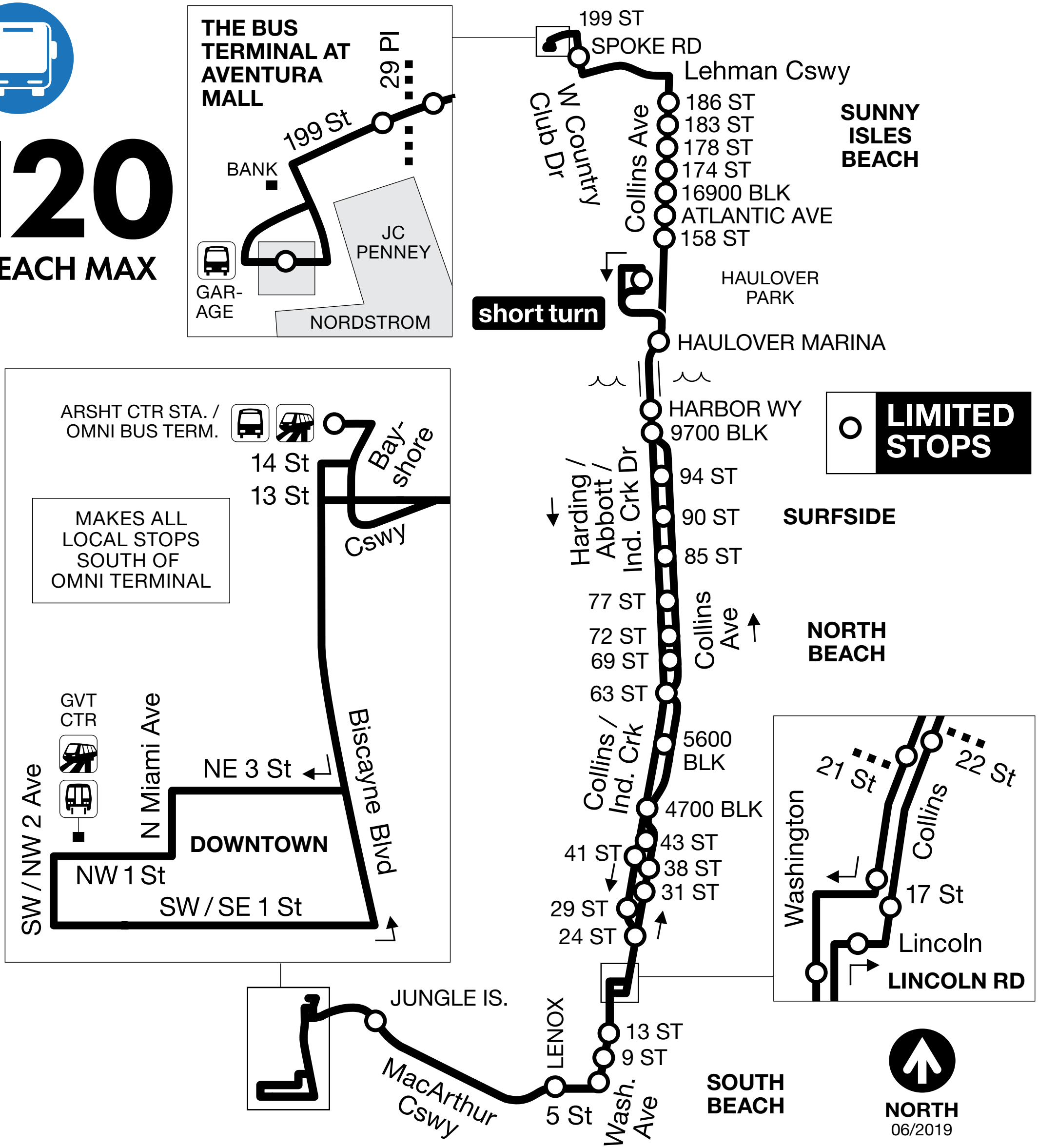
MIAMI-DADE COUNTY

120
BEACH MAX



06/2019

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WEEKDAYS / DIAS LABORABLES / LASEMÈN

SOUTHBOUND RUMBO SUR DIREKSYON SID	MORNING / MAÑANA / MATIN																												AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																																			
Bus Terminal at Aventura Mall	–	6:00	–	6:30	–	6:54	–	7:21	7:33	7:45	8:00	–	8:27	–	8:59	–	9:31	–	10:05	–	–	10:31	–	10:56	–	11:20	–	11:44	–	12:08	–	12:32	–	12:56	–	1:20	–	1:44	–	2:08	–	2:31	–	2:51	–	3:15	–	3:38	–	3:58	–	4:24	–	4:59	–	5:33	–	6:12	6:37	7:07	7:47	8:27	9:07	9:49	10:31
Collins Ave & Atlantic Ave	–	6:13	–	6:43	–	7:09	–	7:36	7:48	8:02	8:17	–	8:44	–	9:16	–	9:48	–	10:22	–	–	10:48	–	11:13	–	11:37	–	12:01	–	12:25	–	12:49	–	1:13	–	1:37	–	2:01	–	2:25	–	2:48	–	3:08	–	3:32	–	3:55	–	4:17	–	4:43	–	5:18	–	5:52	–	6:28	6:53	7:23	8:03	8:43	9:23	10:05	10:45
Haulover Club Parking Lot	6:00	–	6:30	–	6:55	–	7:23	–	–	–	–	8:29	–	9:02	–	9:32	–	10:00	–	10:11	10:35	–	11:01	–	11:25	–	11:49	–	12:13	–	12:37	–	1:01	–	1:25	–	1:49	–	2:13	–	2:37	–	2:56	–	3:20	–	3:44	–	4:07	–	4:31	–	4:59	–	5:34	–	6:06	–	–	–	–	–	–	–	–
Bal Harbour Shops	6:05	6:19	6:35	6:49	7:02	7:16	7:30	7:43	7:55	8:09	8:24	8:36	8:51	9:09	9:23	9:39	9:55	10:07	10:29	10:18	10:42	10:55	11:08	11:20	11:32	11:44	11:56	12:08	12:20	12:32	12:44	12:56	1:08	1:20	1:32	1:44	1:56	2:08	2:20	2:32	2:44	2:55	3:03	3:15	3:27	3:39	3:51	4:03	4:14	4:25	4:38	4:51	5:06	5:26	5:41	6:00	6:15	6:35	7:00	7:30	8:10	8:50	9:30	10:11	10:51
Abbott Ave & 69 St	6:14	6:28	6:44	6:58	7:14	7:28	7:42	7:55	8:10	8:24	8:39	8:51	9:06	9:20	9:34	9:50	10:06	10:18	10:40	10:29	10:53	11:06	11:19	11:31	11:43	11:55	12:07	12:19	12:31	12:43	12:55	1:07	1:19	1:31	1:43	1:55	2:07	2:19	2:31	2:43	2:55	3:06	3:14	3:26	3:38	3:50	4:02	4:14	4:25	4:36	4:49	5:02	5:17	5:37	5:52	6:10	6:25	6:45	7:10	7:40	8:20	9:00	9:40	10:20	11:00
Indian Creek Dr & 40 St	6:23	6:37	6:53	7:08	7:24	7:38	7:52	8:06	8:21	8:35	8:50	9:04	9:19	9:33	9:47	10:03	10:19	10:31	10:53	10:42	11:06	11:19	11:32	11:44	11:56	12:08	12:20	12:32	12:44	12:56	1:08	1:20	1:32	1:44	1:56	2:08	2:20	2:32	2:44	2:56	3:08	3:19	3:27	3:39	3:51	4:03	4:15	4:27	4:38	4:49	5:02	5:15	5:30	5:50	6:05	6:20	6:35	6:55	7:20	7:50	8:30	9:10	9:50	10:29	11:09
Washington Ave & Lincoln Rd	6:31	6:45	7:02	7:17	7:33	7:47	8:01	8:15	8:30	8:44	8:59	9:14	9:29	9:43	9:57	10:13	10:29	10:41	11:03	10:52	11:16	11:29	11:42	11:54	12:06	12:18	12:30	12:42	12:54	1:06	1:18	1:30	1:42	1:54	2:06	2:18	2:30	2:42	2:54	3:06	3:18	3:29	3:37	3:49	4:01	4:13	4:25	4:37	4:48	4:59	5:12	5:25	5:40	6:00	6:15	6:30	6:45	7:05	7:30	8:00	8:40	9:20	10:00	10:38	11:18
Omni Term. Arsht Metromover	6:46	7:02	7:19	7:34	7:50	8:06	8:20	8:34	8:49	9:04	9:19	9:34	9:49	10:03	10:17	10:33	10:49	11:01	11:23	11:12	11:36	11:49	12:02	12:14	12:26	12:38	12:50	1:02	1:14	1:26	1:38	1:50	2:02	2:14	2:26	2:38	2:50	3:02	3:14	3:26	3:38	3:49	4:01	4:13	4:25	4:37	4:49	5:01	5:12	5:23	5:36	5:49	6:04	6:19	6:34	6:49	7:04	7:24	7:49	8:19	8:59	9:39	10:17	10:55	11:35
Stephen P. Clark Center	6:56	7:13	7:30	7:45	8:01	8:17	8:31	8:45	9:01	9:16	9:31	9:46	10:01	10:15	10:29	10:45	11:01	11:13	11:35	11:24	11:48	12:01	12:14	12:26	12:38	12:50	1:02	1:14	1:26	1:38	1:50	2:02	2:14	2:26	2:38	2:50	3:02	3:14	3:26	3:38	3:50	4:02	4:14	4:26	4:38	4:50	5:02	5:14	5:25	5:36	5:49	6:02	6:15	6:30	6:45	7:00	7:15	7:35	8:00	8:30	9:10	9:50	10:27	11:05	11:45

WEEKDAYS / DIAS LABORABLES / LASEMÈN

NORTHBOUND RUMBO NORTE DIREKSYON NO	MORNING / MAÑANA / MATIN																										AM	PM	AFTERNOON & EVENING / TARDE Y NOCHE / APREMIDI, CHAK ASWÈ																																		
Stephen P. Clark Center	5:00	5:45	6:15	6:45	7:00	7:13	7:24	7:35	7:45	8:00	8:15	8:30	8:45	9:00	9:15	9:30	9:45	10:00	10:12	10:25	10:37	10:48	11:00	11:12	11:24	11:35	11:48	12:00	12:12	12:24	12:36	12:48	1:00	1:12	1:24	1:36	1:48	2:00	2:12	2:24	2:36	2:48	3:00	3:12	3:24	3:36	3:48	4:00	4:12	4:24	4:36	4:48	5:00	5:15	5:30	5:46	6:02	6:20	6:40	7:05	7:35	8:15	8:55	9:30
Omni Term. Arsht Metromover	5:10	5:55	6:26	6:56	7:15	7:28	7:39	7:50	8:03	8:18	8:33	8:48	9:03	9:18	9:33	9:48	10:03	10:18	10:30	10:43	10:55	11:06	11:18	11:30	11:42	11:53	12:06	12:18	12:30	12:42	12:54	1:06	1:18	1:30	1:42	1:54	2:06	2:18	2:30	2:42	2:54	3:07	3:19	3:31	3:43	3:55	4:07	4:19	4:31	4:43	4:55	5:07	5:19	5:34	5:49	6:05	6:21	6:39	6:59	7:18	7:48	8:28	9:08	9:43
Lincoln Rd & James Ave	5:26	6:12	6:43	7:14	7:33	7:46	7:57	8:10	8:23	8:38	8:53	9:10	9:25	9:40	9:55	10:10	10:25	10:40	10:52	11:05	11:17	11:28	11:40	11:52	12:04	12:15	12:28	12:40	12:52	1:04	1:16	1:28	1:40	1:52	2:04	2:16	2:28	2:40	2:52	3:04	3:16	3:29	3:41	3:53	4:05	4:17	4:29	4:41	4:53	5:05	5:17	5:29	5:41	5:56	6:11	6:27	6:43	7:01	7:21	7:38	8:08	8:48	9:28	10:03
Collins Av & 43 St	5:33	6:20	6:51	7:22	7:41	7:54	8:06	8:19	8:32	8:47	9:03	9:20	9:35	9:50	10:05	10:20	10:35	10:50	11:02	11:15	11:27	11:38	11:50	12:02	12:14	12:25	12:38	12:50	1:02	1:14	1:26	1:38	1:50	2:02	2:14	2:26	2:38	2:50	3:02	3:14	3:26	3:39	3:51	4:03	4:15	4:27	4:39	4:51	5:03	5:15	5:27	5:39	5:51	6:06	6:21	6:37	6:53	7:11	7:31	7:48	8:18	8:58	9:38	10:12
Collins Ave & 69 St	5:40	6:28	6:59	7:31	7:50	8:04	8:16	8:29	8:42	8:57	9:13	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:12	11:25	11:37	11:48	12:00	12:12	12:24	12:35	12:48	1:00	1:12	1:24	1:36	1:48	2:00	2:12	2:24	2:36	2:48	3:01	3:13	3:25	3:37	3:50	4:02	4:14	4:26	4:38	4:50	5:02	5:14	5:26	5:38	5:50	6:02	6:17	6:32	6:48	7:04	7:20	7:40	7:57	8:27	9:07	9:47	10:20
Collins Ave 9700 Block	5:47	6:36	7:08	7:40	7:59	8:13	8:25	8:38	8:52	9:07	9:23	9:40	9:55	10:10	10:25	10:40	10:55	11:10	11:22	11:35	11:47	11:58	12:10	12:22	12:34	12:45	12:58	1:10	1:22	1:34	1:46	1:58	2:10	2:22	2:34	2:46	2:58	3:11	3:23	3:35	3:47	4:00	4:12	4:24	4:36	4:48	5:00	5:12	5:24	5:36	5:48	6:00	6:12	6:27	6:42	6:58	7:12	7:28	7:48	8:05	8:35	9:15	9:55	10:28
Haulover Club Parking Lot	–	–	7:13	–	8:04	–	–	–	8:57	–	9:28	–	10:00	–	10:30	–	11:00	–	11:27	–	11:52	–	12:15	–	12:39	–	1:03	–	1:27	–	1:51	–	2:15	–	2:39	–	3:03	–	3:28	–	3:52	–	4:17	–	4:41	–	5:05	–	5:29	–	5:53	–	6:17	–	6:47	–	7:17	–	–	–	–	–	–	10:32
Collins Ave & Atlantic Ave	5:53	6:42	–	7:47	–	8:21	8:33	8:46	–	9:15	–	9:48	–	10:18	–	10:48	–	11:18	–	11:43	–	12:06	–	12:30	–	12:53	–	1:18	–	1:42	–	2:06	–	2:30	–	2:54	–	3:19	–	3:43	–	4:08	–	4:32	–	4:56	–	5:20	–	5:44	–	6:08	–	6:35	–	7:06	–	7:35	7:55	8:12	8:42	9:22	10:02	–
Bus Terminal at Aventura Mall	5:59	6:50	–	7:59	–	8:33	8:45	8:58	–	9:27	–	10:00	–	10:30	–	11:00	–	11:30	–	11:55	–	12:18	–	12:42	–	1:05	–	1:30	–	1:54	–	2:18	–	2:42	–	3:07	–	3:32	–	3:56	–	4:21	–	4:45	–	5:09	–	5:33	–	5:57	–	6:21	–	6:48	–	7:17	–	7:46	8:06	8:23	8:53	9:33	10:12	–

COLLINS EXPRESS

NORTH BEACH LOOP