



# Pompano Station

Pompano Beach, Florida

prepared for:

**Grover Corlew, LLC**

traffic study

**TRAFTECH**  
ENGINEERING, INC.

February 10, 2020

**P&Z**

**PZ19-12000047  
11/18/2020**

February 18, 2020

Mr. David Canfield  
Vice President Development  
Grover Corlew  
600 W. Hillsboro Avenue, Suite 110  
Deerfield Beach, Florida 33441

**Re: Pompano Station - Traffic Impact Study  
Broward County, Florida**

Dear David:

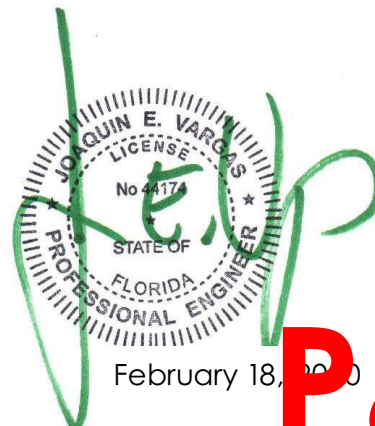
Traf Tech Engineering, Inc. is pleased to provide you with the results of the traffic study undertaken for the proposed multifamily development planned to be located at 2335 East Atlantic Boulevard (West Block) and 2401 East Atlantic Boulevard (East Block) in the City of Pompano Beach, Broward County, Florida. The study addresses the traffic impacts created by the proposed project to the surrounding street system.

It has been a pleasure working with you on this project.

Sincerely,

**TRAF TECH ENGINEERING, INC.**

Joaquin E. Vargas, P.E.  
Senior Transportation Engineer



**P&Z**

## TABLE OF CONTENTS

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<b>INTRODUCTION</b> .....	1
<b>INVENTORY</b> .....	3
Existing Land Use.....	3
Proposed Land Uses and Access.....	3
<b>EXISTING CONDITIONS</b> .....	4
Roadway System.....	4
Nearby Intersections .....	4
<b>TRAFFIC COUNTS</b> .....	6
<b>TRIP GENERATION</b> .....	8
<b>TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT</b> .....	9
<b>TRAFFIC ANALYSES</b> .....	11
Future Conditions Traffic Volumes.....	11
Level of Service Analyses .....	14
<b>CONCLUSIONS</b> .....	16
<b>SHARED PARKING ANALYSIS</b> .....	17

## LIST OF FIGURES

FIGURE 1 – Project Location Map .....	2
FIGURE 2 – Existing Lane Geometry .....	5
FIGURE 3 – Existing Traffic Counts.....	7
FIGURE 4 – New Project Traffic Assignment (New Trips ) .....	10
FIGURE 5 – Background Traffic (Year 2023) .....	12
FIGURE 6 – Total Traffic with Project (Year 2023).....	13

## LIST OF TABLES

TABLE 1 – Trip Generation Summary .....	8
TABLE 2 – Intersection Capacity/LOS Analyses .....	14

## INTRODUCTION

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Pompano Station is a proposed multifamily development planned to be located at 2335 East Atlantic Boulevard (West Block) and 2401 East Atlantic Boulevard (East Block) in the City of Pompano Beach in Broward County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

Traf Tech Engineering, Inc. was retained to conduct a traffic study<sup>1</sup> in connection with the proposed development. The study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into eight (8) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Impact Analysis
7. Conclusions and Recommendations
8. Shared Parking Study

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<sup>1</sup> The traffic methodology has been prepared and submitted to the City of Pompano Beach and is presented in Appendix A.





**Traf Tech**  
ENGINEERING, INC.

## LOCATION MAP

**FIGURE 1**  
Pompano Station  
Miami Beach, Florida

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PZ19-12000047

## INVENTORY

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### Existing Land Use

The project site (east and west blocks) is currently occupied by two parking lots. The east and west block parking lots serve office, retail and restaurant uses.

### Proposed Land Use and Access

The site will be re-developed with the following land use and intensity:

- 355 Mid-Rise residential units (147 units on the east block and 208 units on the west block).

Access to the site is provided via two access driveways off of NE 24<sup>th</sup> Avenue. The north driveway provides access to the West Block's parking garage and the south driveway provides access to the East Block's parking structure. The proposed development is anticipated to be built and occupied in the year 2023. The parking garages will serve the proposed residential development and the existing uses currently parking at the two surface parking lots. Appendix B contains a copy of the proposed site plan for the project site.

## EXISTING CONDITIONS

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This section addresses the existing roadway system located in the vicinity of the project site and nearby intersections.

### Roadway System

The roadway system located near the project site includes US-1/N. Federal Highway, NW 24<sup>th</sup> Avenue, Harbor Drive, NE 2<sup>nd</sup> Street, and East Atlantic Boulevard. US-1/N. Federal Highway is a six-lane divided major north-south facility. East Atlantic Boulevard is a four-lane divided facility in the east-west direction near the project site. NE 2<sup>nd</sup> Street, NE 24<sup>th</sup> Avenue, and Harbor Drive are two-lane undivided facilities.

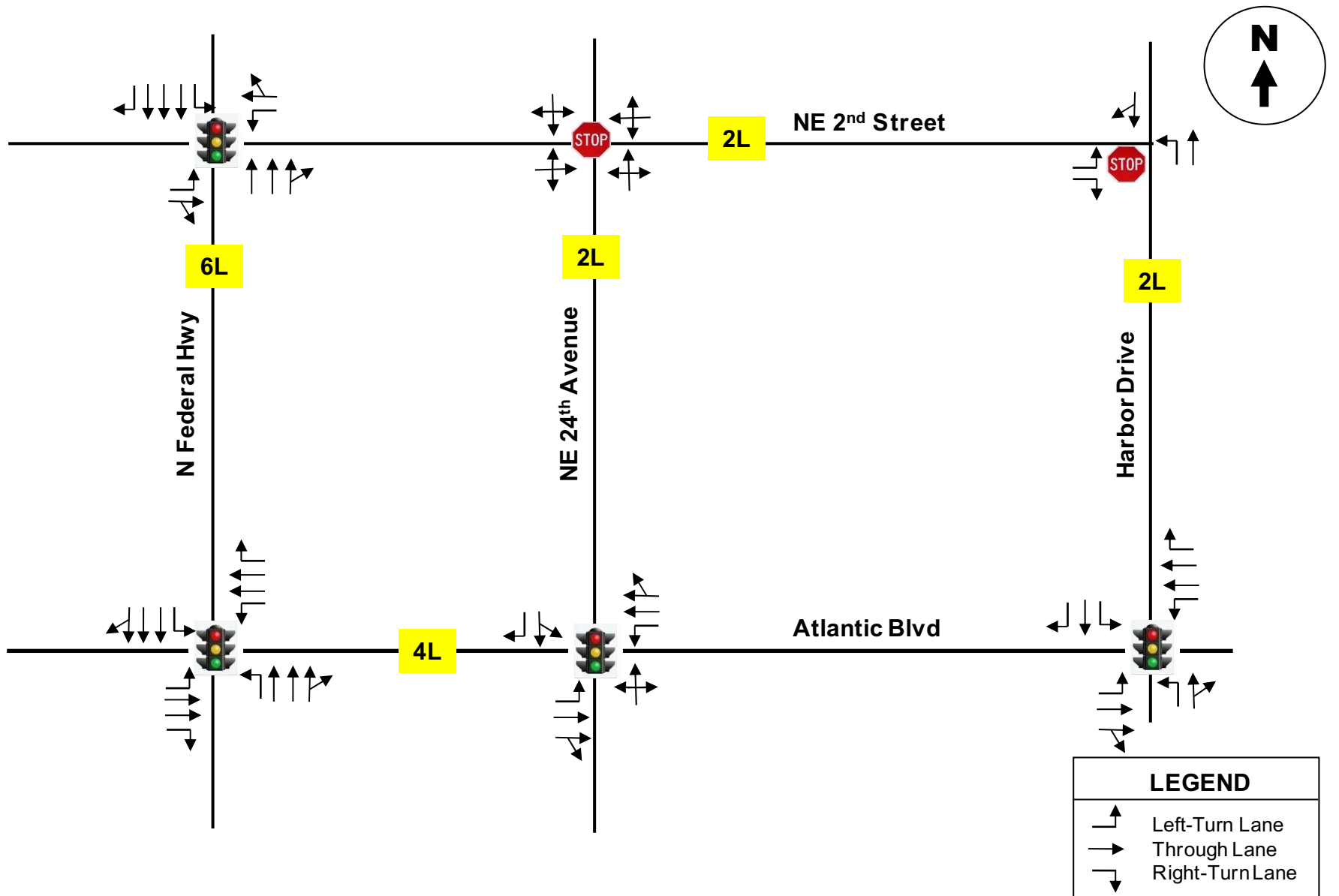
### Nearby Intersections

Six (6) intersections were identified as the locations that will be impacted the most by the proposed project. These intersections include:

1. US-1/N. Federal Highway and NE 2<sup>nd</sup> Street (Signalized)
2. NE 2<sup>nd</sup> Street and NE 24<sup>th</sup> Street (Stop control)
3. NE 2<sup>nd</sup> Street and Harbor Street (Stop control)
4. East Atlantic Boulevard and US-1/N. Federal Highway (Signalized)
5. East Atlantic Boulevard and NE 24<sup>th</sup> Avenue (Signalized)
6. East Atlantic Boulevard and Harbor Drive (Signalized)

Figure 2 shows the existing lane geometry of the study intersections selected for analysis purposes. The number of lanes on the street system surrounding the project site is also depicted in the figure.





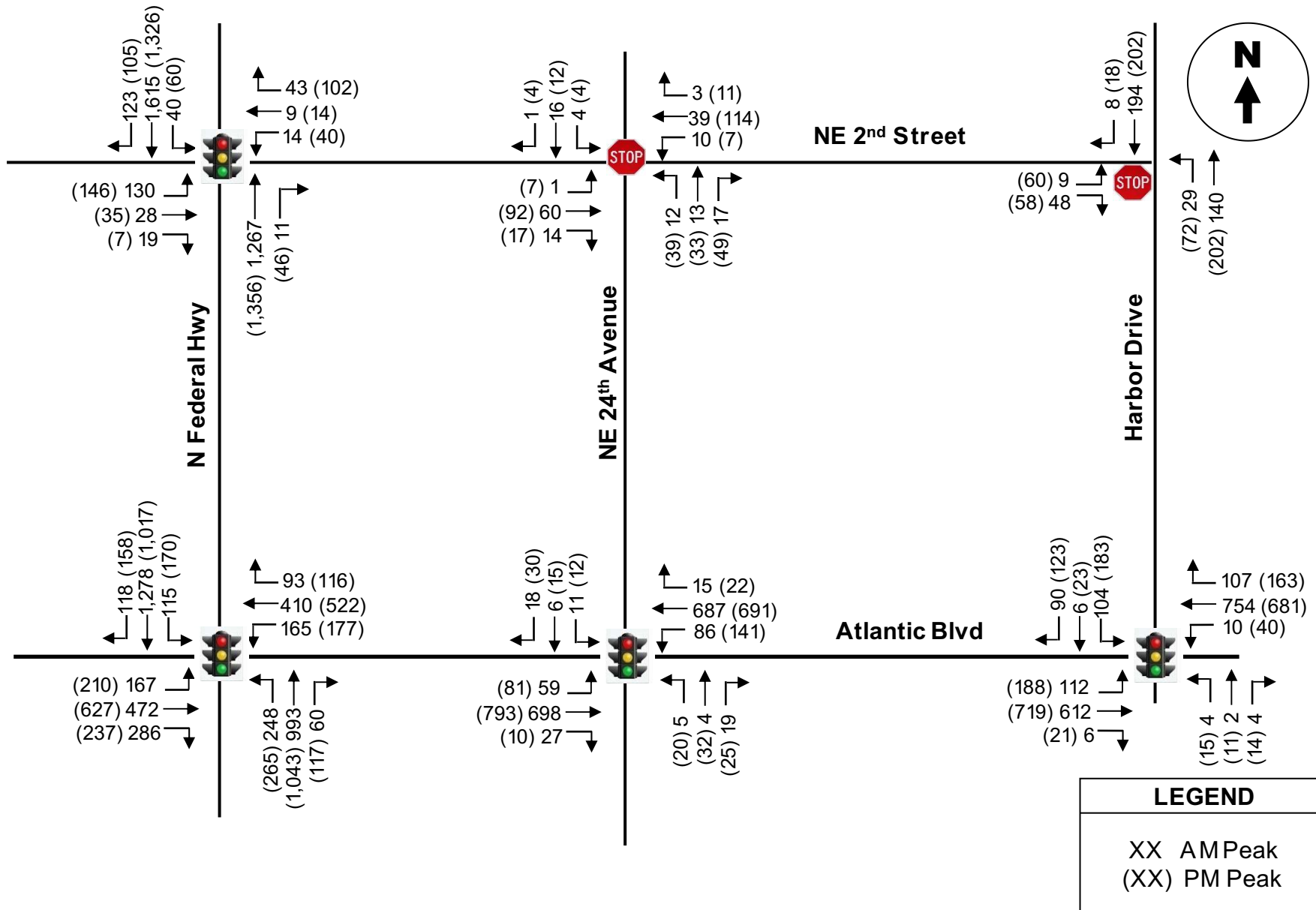
## TRAFFIC COUNTS

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Traf Tech Engineering, Inc., in association with Video Data Solutions collected intersection turning movement counts at the six (6) study intersections. The intersection turning movement counts were collected during the 2020 peak season encompassing the critical peak periods (7:00 AM to 9:00 PM) and (4:00 PM to 6:00 PM) at the following intersections located near the project site:

1. US-1/N. Federal Highway and NE 2<sup>nd</sup> Street
2. NE 2<sup>nd</sup> Street and NE 24<sup>th</sup> Street
3. NE 2<sup>nd</sup> Street and Harbor Street
4. East Atlantic Boulevard and US-1/N. Federal Highway
5. East Atlantic Boulevard and NE 24<sup>th</sup> Avenue
6. East Atlantic Boulevard and Harbor Drive

Figure 3 summarizes the results of the intersection turning movement counts. Appendix C contains the intersection turning movement counts, as collected in the field. The latest signal timing plans for the signalized intersections were obtained from Broward County Traffic Engineering Division and are also contained in Appendix C.



## TRIP GENERATION

The trip generation for the project was based on information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (10<sup>th</sup> Edition). According to the subject ITE manual, the most appropriate "land use" category for the proposed use includes ITE's Land Use 221– Multifamily Housing (Mid-Rise).

Table 1 summarizes the new external trips associated with the proposed residential development during the weekday AM and PM peak hours.

TABLE 1 Trip Generation Summary (Proposed Use) Pompano Station							
Land Use	Size	AM Peak Hour			PM Peak Hour		
		Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
MF Mid Rise LUC 221	355	118	31	87	149	91	58
External Trips		118	31	87	149	91	58

Source: ITE Trip Generation Manual (10th Edition)

As indicated in Table 1, the proposed development is projected to generate approximately 118 new trips during the AM peak hour (31 inbound and 87 outbound) and 149 new trips during the PM peak hour (91 inbound and 58 outbound).

The trip generation equations used to determine the trips associated with the proposed residential development are presented below:

### ITE Land Use 221 – Multifamily Housing (Mid-Rise)

#### Weekday AM Peak Hour of Adjacent Street

$$\ln(T) = 0.98 \ln(X) - 0.98 \text{ (26\% inbound and 74\% outbound)}$$

Where T = number of weekday AM peak hour trips and  
X = Dwelling Units

#### Weekday PM Peak Hour of Adjacent Street

$$\ln(T) = 0.96 \ln(X) - 0.63 \text{ (61\% inbound and 39\% outbound)}$$

Where T = number of weekday PM peak hour trips and  
X = Dwelling Units

## **TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT**

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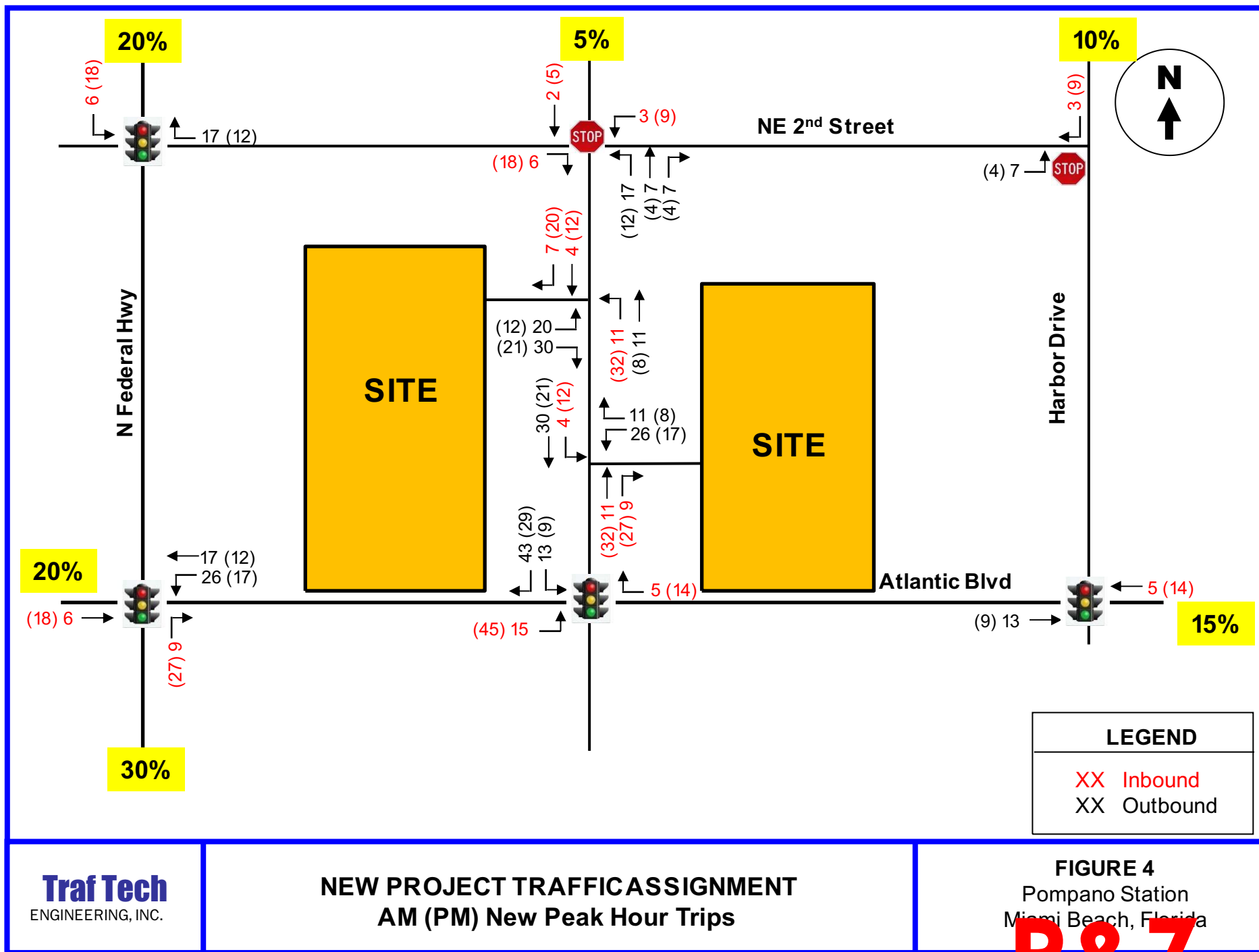
The trip distribution and traffic assignment for the project were based on knowledge of the study area, examination of the surrounding roadway network characteristics, review of current traffic volumes, and existing land use patterns.

Based on the above, the following traffic assignment was assumed for the proposed residential development:

- 20% to and from the north via US-1/N. Federal Highway
- 5% to and from the north via NE 24<sup>th</sup> Avenue
- 10% to and from the north via Harbor Drive
- 30% to and from the south via US-1/N. Federal Highway
- 20% to and from the west via Atlantic Boulevard
- 15% to and from the east via Atlantic Boulevard

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The new project traffic assignment is summarized in Figure 4.





## TRAFFIC ANALYSIS

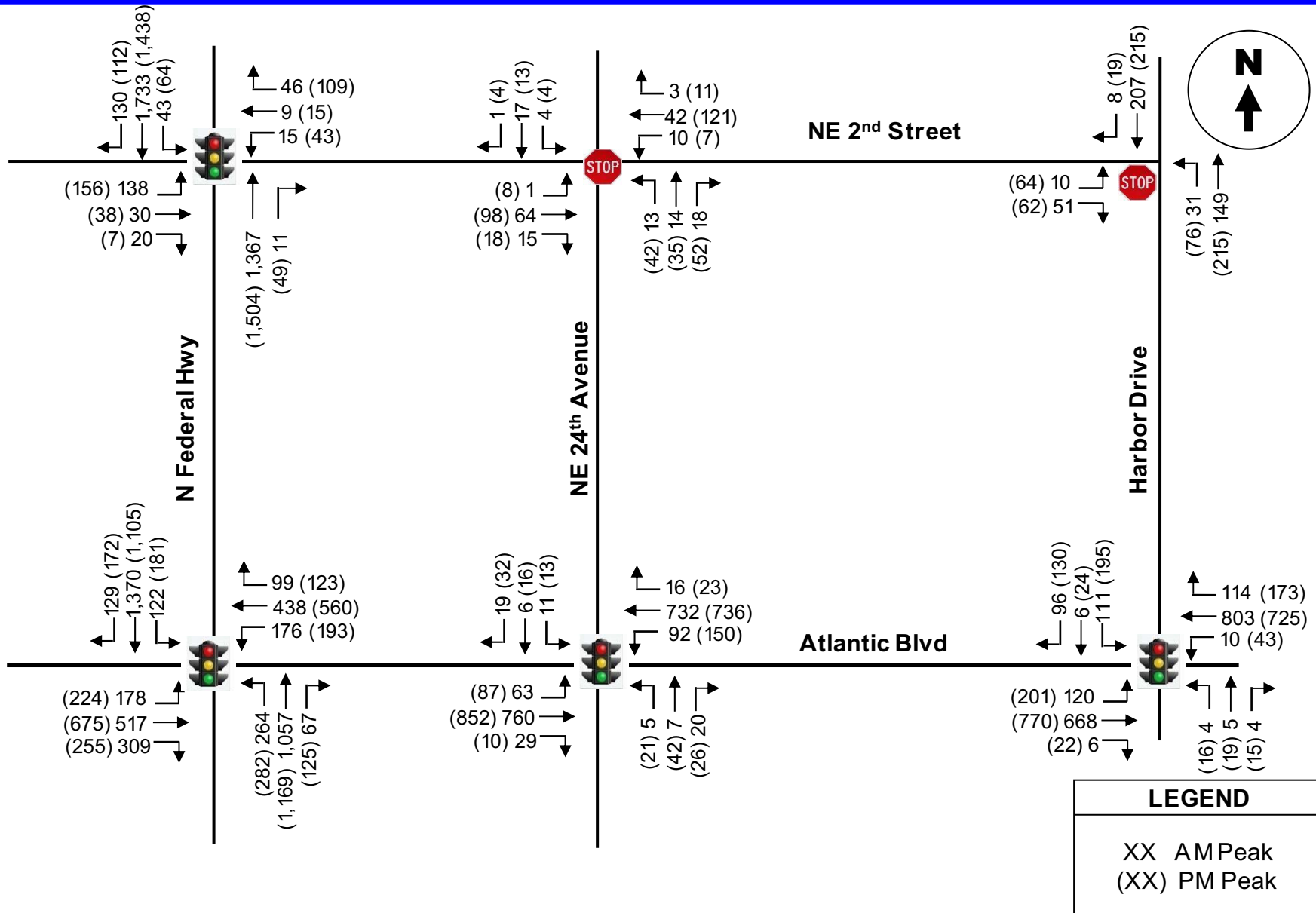
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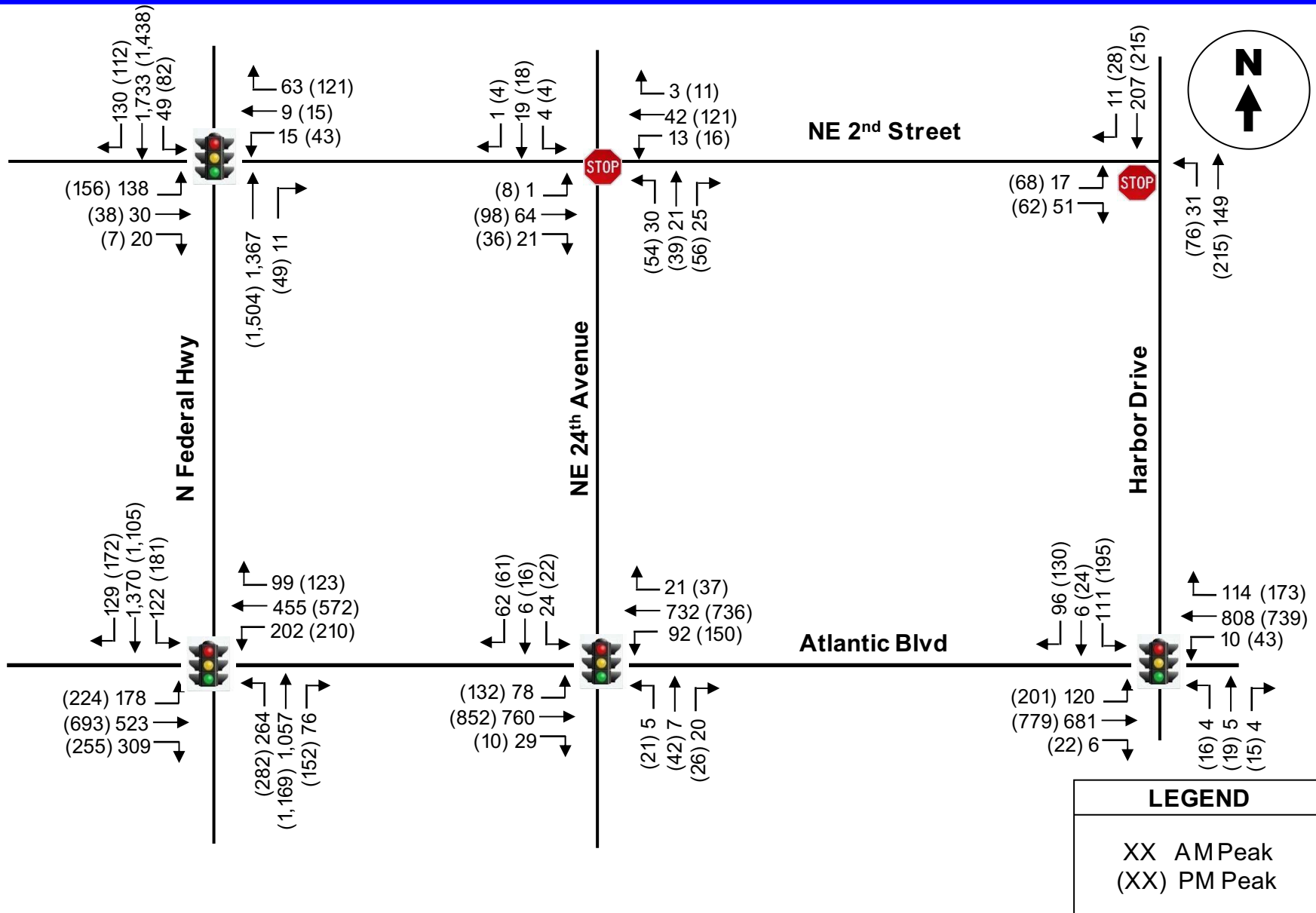
This section of the study is divided into two parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

### **Future Conditions Traffic Volumes**

Two sets of future traffic volumes were developed. The first set includes project buildout conditions without the proposed project and the second set adds the new trips anticipated to be generated by the project.

In order to develop year 2023 traffic volumes (project anticipated to be built and occupied by the year 2023), without the proposed project, two separate analyses were undertaken. The first analysis converts the existing peak hour traffic counts collected in the field during the peak season to average peak season conditions. Based on FDOT's Peak Season Factor Category report, a factor of 0.98 is required to convert traffic counts collected during the peak season to average peak season conditions (refer to Appendix D). The second analysis includes a growth factor to project 2020 peak season traffic volumes to the year 2023. Based on traffic growth data published by the FDOT for a nearby traffic count stations, traffic growth has occurred during the past five years within the study area (refer to Appendix D). As documented in Appendix D, a 2.12% growth rate was used for purposes of this study. Trips associated with nearby committed developments (Atlantic One and Hidden Harbour) were also added to the background traffic volumes. The new trips generated by the proposed project (refer to Figure 4) were added to the 2023 background traffic in order to develop total traffic conditions. The future traffic projections for the six (6) study intersections (peak season adjustments, committed developments, growth rate and project traffic) are presented in tabular format in Appendix E. Figures 5 and 6 present the year 2023 future traffic volumes for the study area. Figure 5 documents future background traffic volumes while Figure 6 presents the total traffic volume projections for the anticipated project buildout year of 2023.





## Level of Service Analyses

Intersection capacity/level of service analyses were conducted for the six (6) study intersections and the two access driveways. The analyses were undertaken following the capacity/level of service procedures outlined in the Highway Capacity Manual (HCS) using the SYNCHRO software. The results of the analyses are summarized in Table 2.

<b>TABLE 2</b> <b>Pompano Station</b> <b>Intersection Level of Service</b>			
<b>Intersection</b>	<b>2020 Existing</b>	<b>Future Traffic Conditions</b>	
		<b>2023 w/o Project</b>	<b>2023 With Project</b>
US-1/N. Federal Highway and NE 2 <sup>nd</sup> Street	B (B) 10.1 (13.1)	B (B) 10.7 (13.3)	B (B) 11.3 (13.7)
NE 2 <sup>nd</sup> Street and NE 24 <sup>th</sup> Avenue	A (A) 7.5 (8.2)	A (A) 7.6 (8.3)	A (A) 7.8 (8.5)
NE 2 <sup>nd</sup> Street and Harbor Drive - EB	B (B) 10.1 (13.3)	B (B) 10.3 (13.9)	B (B) 10.6 (14.3)
Atlantic Boulevard and US-1/N. Federal Highway	D (E) 47.1 (61.3)	D (E) 51.6 (66.3)	D (E) 54.0 (68.3)
Atlantic Boulevard and NE 24 <sup>th</sup> Avenue	A (A) 9.6 (8.0)	B (A) 14.2 (8.5)	B (A) 16.8 (9.6)
Atlantic Boulevard and Harbor Drive	C (C) 21.2 (22.4)	C (C) 22.9 (23.3)	C (C) 22.7 (23.5)
NE 24 <sup>th</sup> Avenue and West Garage Driveway	-	-	A (A) 9.2 (9.4)
NE 24 <sup>th</sup> Avenue and East Garage Driveway	-	-	A (B) 9.6 (10.2)

SOURCE: SYNCHO

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As indicated in Table 2, the proposed development is not anticipated to negatively affect the operations of the immediate transportation system. In addition, the two project driveways are anticipated to operate adequately. The intersection of East Atlantic Boulevard and North Federal Highway is the only intersection operating below the level of service standard “D” during the afternoon peak hour. However, the level of service impacts created by the Pompano Station project to the US 1/East Atlantic Boulevard intersection are minimal (there is no change in level of service as a result of this project). The computer printouts of the intersection capacity analyses are contained in Appendix F.

## CONCLUSIONS AND RECOMMENDATIONS

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Pompano Station is a proposed multifamily development planned to be located at 2335 East Atlantic Boulevard (West Block) and 2401 East Atlantic Boulevard (East Block) in the City of Pompano Beach in Broward County, Florida. The project site (east and west blocks) is currently occupied by two parking lots. The site will be re-developed with the following land use and intensity:

- 355 Mid-Rise residential units (147 units on the east block and 208 units on the west block)

Access to the site is provided via two access driveways off of NE 24<sup>th</sup> Avenue. The north driveway provides access to the West Block's parking garage and the south driveway provides access to the East Block's parking structure. The proposed development is anticipated to be built and occupied in the year 2023.

The conclusions of the traffic study are presented below :

- The proposed development is projected to generate approximately 118 new trips during the AM peak hour (31 inbound and 87 outbound) and 149 new trips during the PM peak hour (91 inbound and 58 outbound)
- The proposed development is not anticipated to negatively affect the operations of the immediate transportation system. In addition, the two project driveways are anticipated to operate adequately. The intersection of East Atlantic Boulevard and North Federal Highway is the only intersection operating below the level of service standard "D" during the afternoon peak hour. However, the level of service impacts created by the Pompano Station project to the US 1/East Atlantic Boulevard intersection are minimal (there is no change in level of service as a result of this project).

## SHARED PARKING ANALYSIS

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Since the two existing parking lots currently serve office and commercial uses, a shared parking study was undertaken for the Pompano Station project and the existing commercial businesses that are currently using the two parking lots at the project site (east and west blocks).

Shared parking principles were applied to existing commercial uses and the Pompano Station development. Shared parking is defined as parking spaces that are shared between different land uses, especially when the land uses have parking peaks that occur at different times of the day.

Using the percent parking distribution (shared parking principles), by time of day, as published in the Urban Land Institute's (ULI) *Shared Parking* document, the maximum number of shared parking spaces required to serve the existing land uses and the Pompano Station development were determined. Tables G-1a and G1-b located in Appendix G presents the parking requirements for existing commercial uses and the Pompano Station development. Shared parking principles have been applied consistent with ULI recommendations. Additional parking reductions were applied to account for internal trips and trips occurring via non-automobile modes of transportation (e.g. multimodal trips such as transit, walking and bicycle trips). As indicated in the parking analysis tables, the east block requires 230 parking stalls and 282 parking spaces are proposed. Similarly, the west block requires 298 parking spaces and 360 parking stalls are provided. Additionally, the project will add approximately 20 on-street parking spaces to the surrounding area.



# **APPENDIX A**

## **Traffic Methodology**



**PZ19-12000047**  
**11/18/2020**

## MEMORANDUM

**To:** Pamela Stanton – City of Pompano Beach  
**From:** Joaquin Vargas  
**Date:** November 25, 2019  
**Subject:** Pompano Station  
Proposed Traffic Study Methodology

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**Project Location:** 2335 East Atlantic Boulevard (West Block)  
2401 East Atlantic Boulevard (East Block)

**Existing Land Use:** The West Block is primarily a parking lot serving Bank of America (the bank and other uses fronting Atlantic Boulevard will remain). The East Block is primarily a parking lot serving Chase Bank (the bank and other uses fronting Atlantic Boulevard will remain)

**Proposed Land Uses:** Mid-Rise Residential Development  
(West Tower 210 mid-rise units with access on NE 24<sup>th</sup> Ave)  
(East Tower 148 mid-rise units with access on NE 24<sup>th</sup> Ave)

**Trip Generation:** ITE Trip Generation (10<sup>th</sup> Edition) – refer to Table 1 attached

### Proposed Traffic Impact Study Methodology

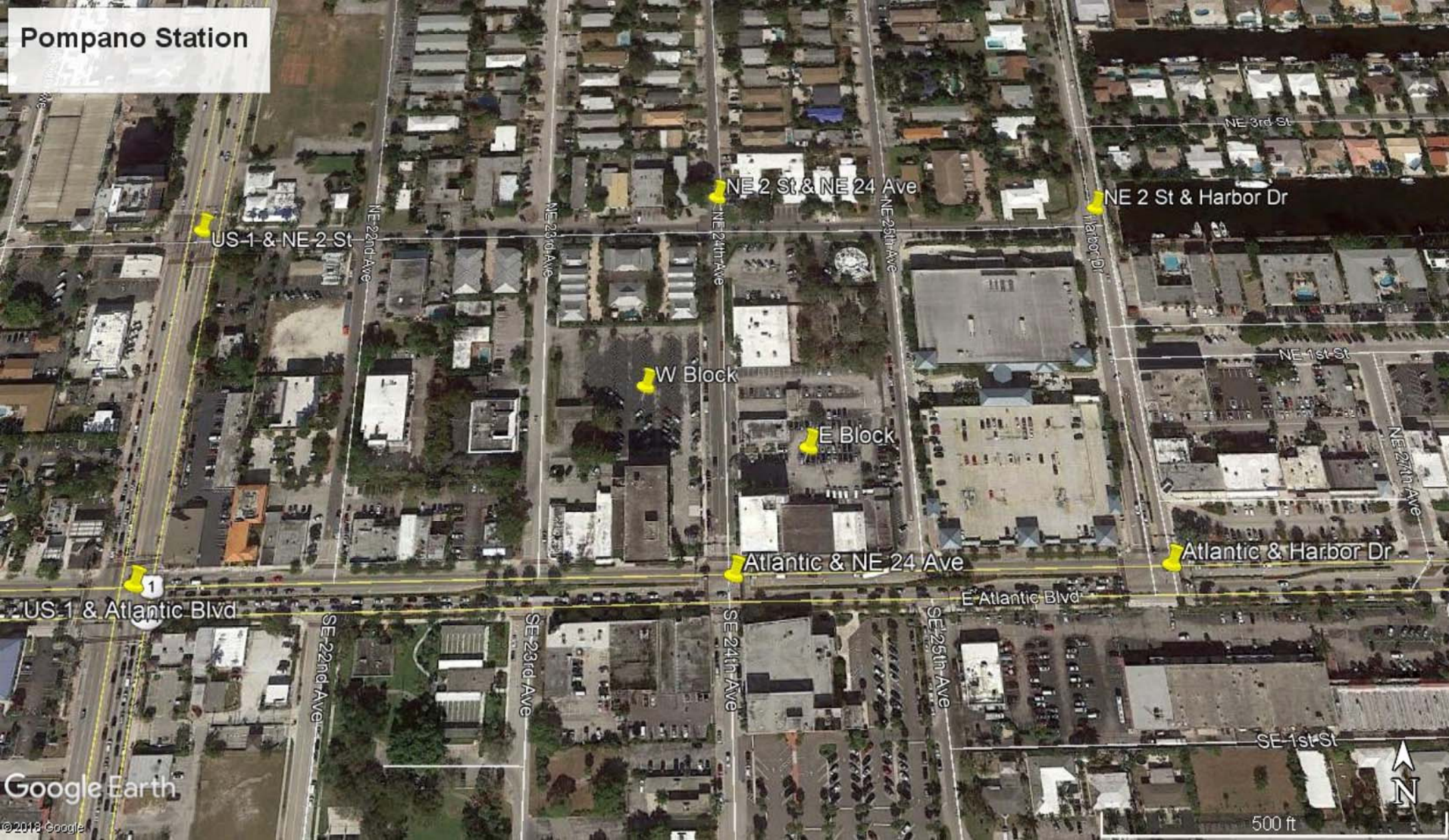
- Trip Generation – to be performed in accordance with the ITE Trip Generation (10<sup>th</sup> Edition) report.
- Trip Distribution & Assignment – to be based upon current land use patterns and the surrounding transportation network.
- Traffic Counts
  - AM (7-9) & PM (4-6) peak period turning movement counts
    - N Federal Highway and NE 2<sup>nd</sup> Street
    - N Federal Highway and E Atlantic Boulevard
    - NE 24<sup>th</sup> Avenue and NE 2<sup>nd</sup> Street
    - NE 24<sup>th</sup> Avenue and E Atlantic Boulevard
    - Harbor Drive and NE 2<sup>nd</sup> Street
    - Harbor Drive and East Atlantic Boulevard

- Signal Timing – timing plans for the study intersections will be obtained from Broward County Traffic Engineering.
- Background Growth – historic traffic data maintained by the Florida Department of Transportation (FDOT) will be reviewed for the purposes of determining historic growth rates in the project study area.
- Future Approved Projects – approved developments will be discussed with City staff for inclusion in the traffic analysis.
- Build Out Year – it is anticipated that the build out year for this project will be early 2023. This will be confirmed with the owner/ client.
- Level of Service Analyses
  - Periods to be Analyzed
    - Base Year (2019)
    - Project Build Out Year without Project Traffic
    - Project Build Out Year with Project Traffic
  - Intersection Analyses
    - Signalized intersection analysis procedures
    - To be performed in accordance with HCM procedures
    - Utilize SYNCHRO traffic analysis software
- Traffic Report – This analysis will be presented in a traffic impact study and accompanied by supporting data.

<b>TABLE 1</b> <b>Trip Generation Summary (Proposed Use)</b> <b>Pompano Station</b>							
<b>Land Use</b>	<b>Size</b>	<b>AM Peak Hour</b>			<b>PM Peak Hour</b>		
		<b>Total Trips</b>	<b>Inbound</b>	<b>Outbound</b>	<b>Total Trips</b>	<b>Inbound</b>	<b>Outbound</b>
MF Mid Rise LUC 221	358	119	31	88	151	92	59
<b>External Trips</b>		<b>119</b>	<b>31</b>	<b>88</b>	<b>151</b>	<b>92</b>	<b>59</b>



Pompano Station



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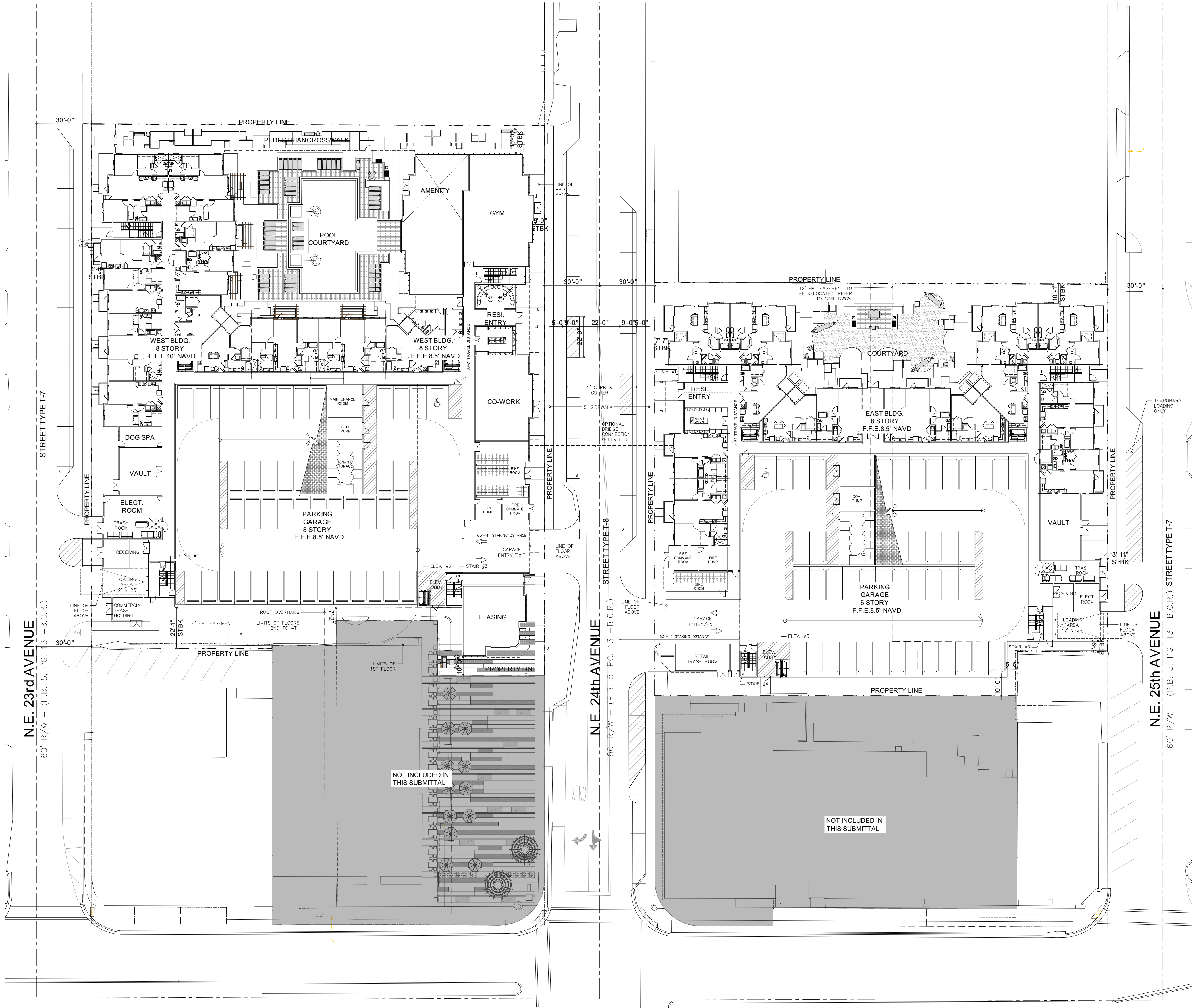
# **APPENDIX B**

## **Site Plan – Pompano Station**



**PZ19-12000047**  
**11/18/2020**





EAST ATLANTIC BOULEVARD / STATE ROAD 814  
100' R/W - (F.D.O.T. R/W MAP SECTION 86130-2501, SHEET 1 OF 1, LAST REVISION DATE 6-16-16)  
(OCEAN BOULEVARD) 100' R/W - (P.B. 5, PG. 13 -B.C.R.)

SITE DATA						
Location:	2335 East Atlantic Blvd., Pompano Beach, FL 33062					
Zoning Designation:	Transit Oriented (TO)					
Overlay District:	East Overlay District (EOD) - Core Subarea					
Type of Use:	MM - Mixed Use Main Street					
	WEST LOT		EAST LOT		TOTAL LOTS	
Site Area:	70,120 sf.	1.61 ac	54,088 sf.	1.24 ac	124,208 sf.	2.85 ac
Density:	Allowed	Proposed	Allowed	Proposed	Allowed	Proposed
	90 du/ac	129 du/ac	90 du/ac	119 du/ac	180 du/ac	248 du/ac
Subtotal:	145 units	208 units	112 units	147 units	257 units	355 units
Density Bonuses:	Option #1,2,4,6 - 70 du/ac		Option #1,6 - 40 du/ac		110 du/ac	
Building Typology:	Courtyard Building Type A		Courtyard Building Type A		Courtyard Building Type A	
UNIT MIX DEVELOPMENT SUMMARY						
Unit Type	Avg. Unit	# of Units	%	Leasable Area		
WEST BLDG						
STUDIO	548 sf	23	11%	12,604 sf		
1 BD	727 sf	99	48%	71,976 sf		
2 BD	1,131 sf	73	35%	82,545 sf		
3 BD	1,342 sf	13	6%	17,447 sf		
Sub-Total		208 units	100%	184,572 sf		
EAST BLDG						
STUDIO	547 sf	8	5%	4,376 sf		
1 BD	695 sf	50	34%	34,731 sf		
2 BD	1,060 sf	76	52%	80,596 sf		
3 BD	1,344 sf	13	9%	17,475 sf		
Sub-Total		147 units	100%	137,178 sf		
Total # of Units		355 units		321,750 sf		
DEVELOPMENT STANDARDS						
SETBACKS						
Street Designation	WEST BLDG		EAST BLDG			
	Required	Provided	Required	Provided		
SECONDARY STREET - T8						
24TH AVENUE	5'-0"	5'-0"	5'-0"	5'-8"		
TERTIARY STREET - T7						
23RD AVENUE	0'-0"	4'-6"	n/a	n/a		
25TH AVENUE	n/a	n/a	0'-0"	3'-11"		
INTERIOR SIDE - NORTH	15'-0"	15'-0"	0'-0"	10'-1"		
REAR - SOUTH	0'-0"	22'-1"	0'-0"	5'-9"		
OPEN SPACE						
Type	WEST BLDG		EAST BLDG		TOTAL	
	Required	Provided	Required	Provided	Required	Provided
Pervious - 10% min.	7,012 sf.	8,219 sf.	5,409 sf.	9,291 sf.	12,421 sf.	17,510 sf.
Impervious - 90% max.	63,108 sf.	61,901 sf.	48,679 sf.	44,797 sf.	111,787 sf.	106,698 sf.
Open Space - 10% min.	7,012 sf.	15,719 sf.	5,409 sf.	10,441 sf.	12,421 sf.	26,160 sf.
GROSS FLOOR AREA						
Levels	WEST BLDG		EAST BLDG		TOTAL	
	Provided	Provided	Provided	Provided		
Ground	28,643 sf		20,931 sf	49,574 sf		
Level 2	29,638 sf		21,972 sf	51,610 sf		
Level 3	29,638 sf		21,972 sf	51,610 sf		
Level 4	29,638 sf		21,972 sf	51,610 sf		
Levels 5 to 8	118,552 sf		87,888 sf	206,440 sf		
Total:	236,109 sf		174,735 sf	410,844 sf		
BUILDING HEIGHT						
Type	WEST BLDG		EAST BLDG			
	Max. Allowed	Provided	Max. Allowed	Provided		
Mixed Use	80'-0"	79'-8"	80'-0"	79'-8"		
ACTIVE USES						
STREET DESIGNATION	WEST BLDG		EAST BLDG			
	Required	Provided	Required	Provided		
SECONDARY STREET - T8						
24TH AVENUE	80%	85%	80%	67%		
TERTIARY STREET - T7						
23RD AVENUE	70%	66%				
25TH AVENUE			73%	56%		
Refer to sheet A-0.1 for Site Diagram						

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P219-12000047  
11/18/2020



SITE PLAN

WEST BLDG - 208 UNITS  
EAST BLDG - 147 UNITS

SCALE: 1" = 30'

PARKING			
REQUIRED			
Type	# of Units / SF	Code Required	
WEST BLDG			
Per section 155.3709.1.6			
Residential @ 1sp/du	208 units	208 sp.	
or 1sp/1000sf of GFA	236,109 sf	236 sp.	
Per table 155.5102.D.1			
Co-Work @ 1sp/400sf	1,467 sf.	4 sp.	
Subtotal		240 sp.	
Required Parking Space for the disabled			
		7 sp.	
EAST BLDG			
Per section 155.3709.1.6			
Residential @ 1sp/du	147 units	147 sp.	
or 1sp/1000sf of GFA	174,735 sf	175 sp.	
Subtotal		175 sp.	
Required Parking Space for the disabled			
		6 sp.	
GRAND TOTAL REQUIRED		415 sp.	
PROVIDED			
WEST BLDG			
Parking Garage			
Level	Standard	HC	Total per FL
Level 1	30	1	31 sp.
Level 2	51	1	52 sp.
Level 3	51	1	52 sp.
Level 4	46	1	47 sp.
Levels 5-7	156	3	159 sp.
Level 8	18	1	19 sp.
Sub-Total	352	8	360 sp.
EAST BLDG			
Parking Garage			
Level	Standard	HC	Total per FL
Level 1	29	1	30 sp.
Level 2	50	1	51 sp.
Level 3	50	1	51 sp.
Level 4	45	1	46 sp.
Level 5	50	1	51 sp.
Level 6	52	1	53 sp.
Sub-Total	276	6	282 sp.
On Street Parking			
			27 sp.
GRAND TOTAL PROVIDED		669 sp.	

ARCHITECT'S BUILDING CODE STATEMENT: TO THE BEST OF THE ARCHITECT'S KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017) AND THE APPLICABLE FIRE SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY AND CHAPTER 633, FLORIDA STATUTES.

FOR: GROVER CORLEW  
LOCATED AT: POMPANO BEACH, FL

JOSE I. SAUMELL  
AR0013085

MSA ARCHITECTS, INC.  
A40000895  
8850 SW 74th COURT  
SUITE 1513  
MIAMI, FLORIDA 33156  
(305) 272-9911

MSA ARCHITECTS  
ARCHITECTURE & PLANNING

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DRAWN 10/28/19  
DATE AS SHOWN  
SCALE 1861.PRJ  
JOB NO.  
SHEET TITLE:  
SHEET NUMBER:  
SITE PLAN  
SP-1



# **APPENDIX C**

## **Signal Timing Plan and Traffic Counts**



**PZ19-12000047  
11/18/2020**



**BROWARD COUNTY TRAFFIC ENGINEERING**  
**ACTUATED TRAFFIC SIGNAL TIMING SHEET**

Intersection Number	1336	Initial Operation Date	3/20/84
Controller Type	2070 LN	System Number	
Modification Number	10	Modification Date	10/15/2019
Drawing/Project No	228212-1501	FPL Grid Number	87888940800
Intersection	FEDERAL HWY. (US 1/SR 5) and ATLANTIC BLVD. (SR 814)		
Municipality	POMPANO BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB	NBL	SB	EBL	WB
Initial Green(MIN)	5	12	5	6	5	12	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.5	1.5	3.0	1.5	2.5
Maximum Green I	20	50	20	45	20	50	20	45
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		23		24		23		24
Permissive	NO		NO		NO		NO	
Flash Operation	RED	RED	RED	RED	RED	RED	RED	RED

Attachment

**NOTES:**

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. MOD. 10 UPDATES PH. 4 & 8 WALK VALUES.

Submitted By \_\_\_\_\_

Approved By \_\_\_\_\_

**P&Z**

**PZ19-12000047**

**11/18/2020**

Station : 1336 - US 1 &amp; Atlantic Blvd ( Standard File )

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		23		24		23		24								
Min Green	5	12	5	6	5	12	5	6	3		3		3		3	
Gap Ext	1.5	3	1.5	2.5	1.5	3	1.5	2.5								
Max1	20	50	20	45	20	50	20	45								
Max2																
Yellow Clr	5	5	4	4	5	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON		ON		ON		ON									
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable																
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

## Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay	1		1	1	1	1
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk	5	5	5	5	5	5
Ped Clear						
Track Green						
Min Dwell	6	6	6	6	6	6
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	4	2	3	2	4	1
Dwell Cyc Veh 2	8	6	8	5	7	6
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						

## Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

# P&Z

PZ19-12000047

11/18/2020

Dwell Cyc Ped8						
Exit 1	1	3	4	2	4	2
Exit 2	5	7	8	6	8	6
Exit 3						
Exit 4						

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

## Coordination

[illegible]

# P&Z

**PZ19-12000047**  
**11/18/2020**

[illegible][illegible]

**P&Z**  
**PZ19-12000047**  
**11/18/2020**



# TRAFFIC ENGINEERING DIVISION

## SIGNALIZED INTERSECTION

**LOCATION:** FEDERAL HWY (US-1/SR 5) & ATLANTIC BLVD (SR 814)

**ORDER NO.** --- **ISSUE DATE** --- **REVISION NO.** --- **COMPLETION DATE** 4/26/16

**DWG. NO.** 16-04-09-04 **FILE NO.** 1336 **CITY** POMPANO BEACH

**DWN BY:** RJBROWN

2 4 6 8



3-SECT  
1-WAY  
8 AS

1 3 5 7



3-SECT  
1-WAY  
4 AS

P-2 P-4  
P-6 P-8



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



4 EA



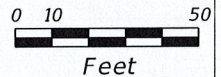
R3-7R  
1 EA



R4-7  
1 EA



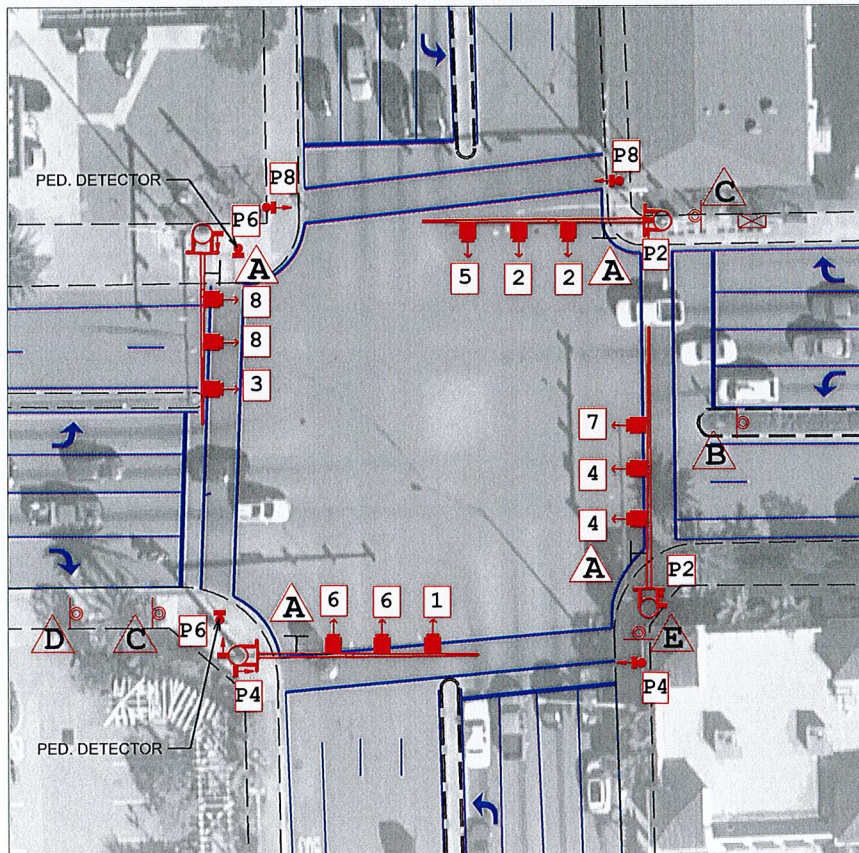
R10-15R  
2 EA



SPECIAL SIGN  
1 EA

**FEDERAL HWY (US-1/SR 5)**

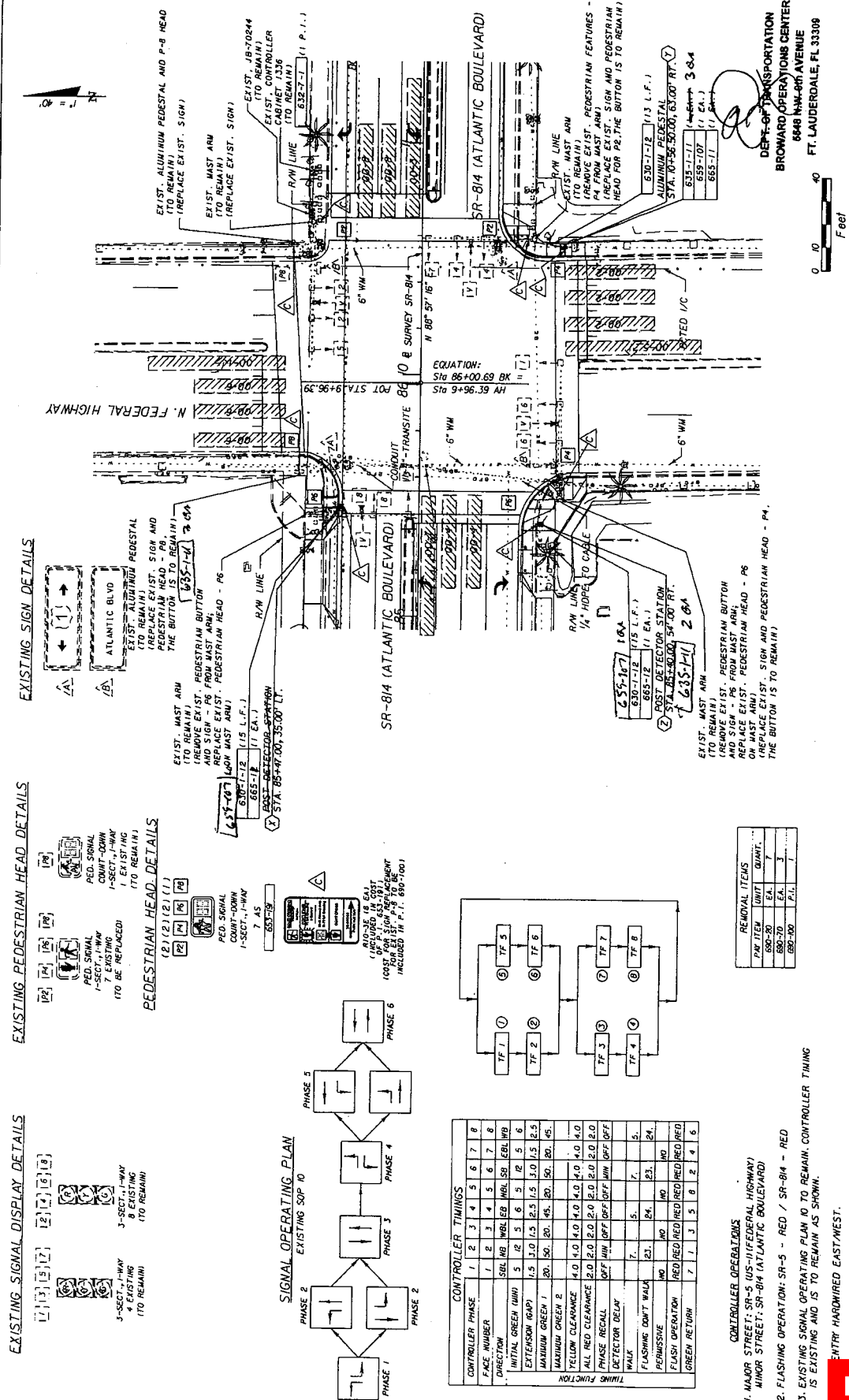
**ATLANTIC BLVD (SR 814)**



**P&Z**

PZ19-12000047  
11/18/2020

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6B-5-23.003, F.A.C.



SR 814 (ATLANTIC AVE.) & US 1 (FEDERAL HIGHWAY)

DEPT. OF TRANSPORTATION  
BROWARD OPERATIONS CENTER  
8648 NW 66th AVENUE  
FT. LAUDERDALE, FL 33309

135C

SIGNALIZATION PLAN

T-5

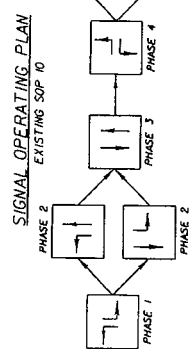
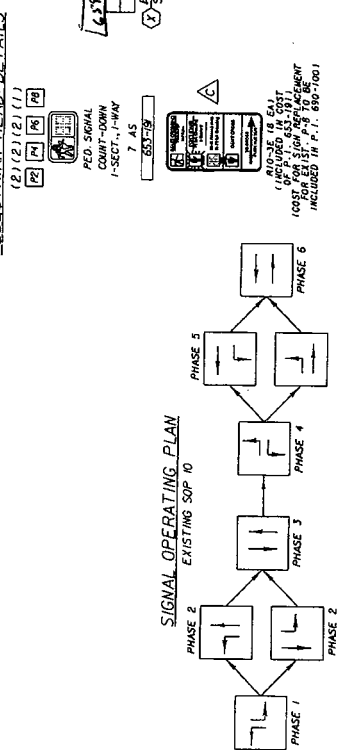
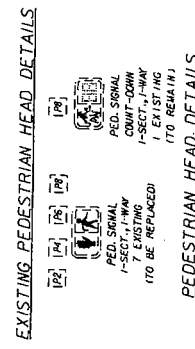
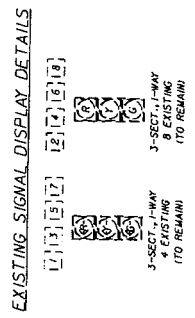
STATES OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

AD NO. COUNTY PROJECT ID

B14 BROWARD 227921-2-52-01

Gerelec Traffic Controls, Inc.  
August 10, 2012

*[Signature]*

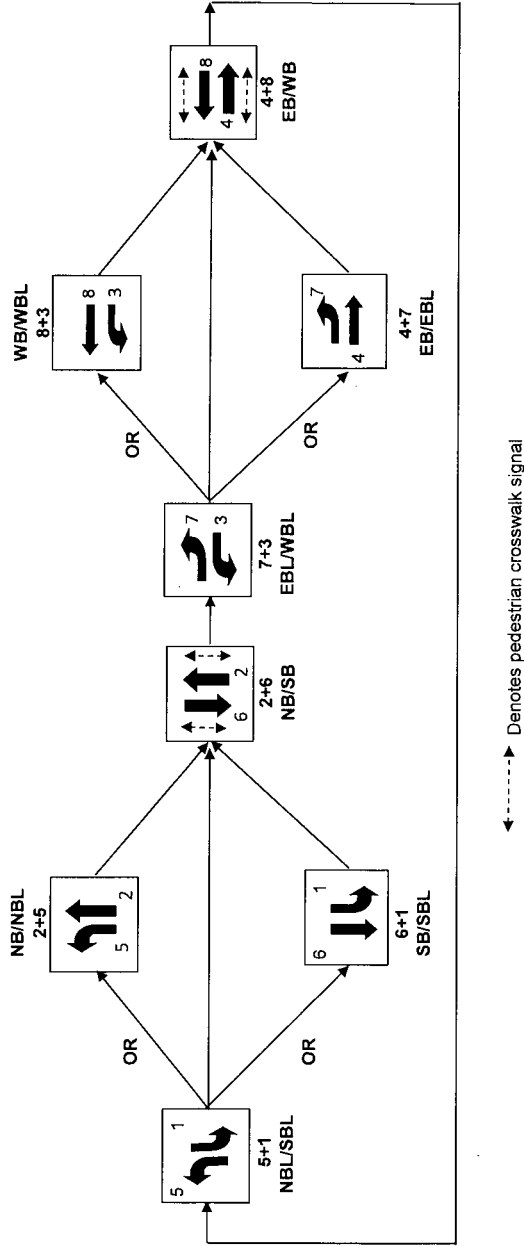


CONTROLLER TIMINGS											
CONTROLLER PHASE	1	2	3	4	5	6	7	8	9	10	11
FACE NUMBER	1	2	3	4	5	6	7	8	9	10	11
DIRECTION	SE	SW	NW	NE	SE	SW	NW	NE	SE	SW	NW
INITIAL GREEN (MIN)	5	12	5	6	5	12	5	6	5	12	5
EXTENSION (GAP)	1.5	1.0	1.5	2.5	1.5	1.0	1.5	2.5	1.5	1.0	1.5
MAXIMUM GREEN 1	80	50	20	45	80	50	20	45	80	50	20
MAXIMUM GREEN 2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
ALL RED CLEARANCE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PHASE RECALL	OFF	MIN	OFF	OFF	MIN	OFF	OFF	MIN	OFF	OFF	MIN
DETECTOR DELAY	7	7	7	7	7	7	7	7	7	7	7
WALK	7	7	7	7	7	7	7	7	7	7	7
FLASHING DON'T WALK	23	24	24	23	24	24	23	24	24	23	24
PERMISSIVE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
FLASH OPERATION	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED
GREEN RETURN	7	1	3	5	8	2	4	6	9	10	11

- CONTROLLER OPERATIONS
- MAJOR STREET: SR-5 (US-1) (FEDERAL HIGHWAY)
  - MINOR STREET: SR-814 (ATLANTIC BOULEVARD)
  - FLASHING OPERATION: SR-5 - RED / SR-814 - RED
  - EXISTING SIGNAL OPERATING PLAN IS TO REMAIN. CONTROLLER TIMING IS EXISTING AND IS TO REMAIN AS SHOWN.
  - CENTRY HARDWIRED EAST/WEST.



Sequence of Operation for 1336
Federal Hwy (US 1/SR 5) and Atlantic Blvd (SR 814), Pompano Beach





**BROWARD COUNTY TRAFFIC ENGINEERING**  
**ACTUATED TRAFFIC SIGNAL TIMING SHEET**

Intersection Number	1335	Initial Operation Date	3/20/84
Controller Type	2070 LN	System Number	1335
Modification Number	10	Modification Date	03/27/2015
Drawing/Project No	DWG 678-DG 3	FPL Grid Number	87988141000
Intersection	ATLANTIC BLVD. (SR 814) and NE/SE 24 AVENUE		
Municipality	POMPANO BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2		4	5	6		8
Direction	EBL	WB		NB	WBL	EB		SB
Initial Green(MIN)	4	15		6	4	15		6
Vehicle Ext.(GAP)	1.5	3.0		2.0	1.5	3.0		2.0
Maximum Green I	12	45		20	12	45		20
Maximum Green II								
Yellow Clearance	4.0	4.0		4.0	4.0	4.0		4.0
All Red Clearance	2.0	2.0		2.0	2.0	2.0		2.0
Phase Recall	OFF	MIN		OFF	OFF	MIN		OFF
Detector Delay				5-RT				5-RT
Walk		7		7		7		7
Pedestrian Clearance		9		15		9		15
Permissive	5 SECT				5 SECT			
Flash Operation		YELLOW		RED		YELLOW		RED

Attachment

**NOTES:**

1. ANTI-BACKDOWN EAST/WEST: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. DUAL ENTRY (HARDWIRED) NORTH/SOUTH.
3. MOD. 10 UPDATES ALL RED CLEARANCE VALUES PER FDOT STANDARDS.

Submitted By \_\_\_\_\_

Approved By \_\_\_\_\_

**P&Z**

**PZ19-12000047**

**11/18/2020**

Station : 1335 - Atlantic Blvd &amp; E 24 Ave ( Standard File )

Phase	1 (EL)	2 (WT)	3	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		9		15		9		15								
Min Green	4	15		6	4	15		6								
Gap Ext	1.5	3		2	1.5	3		2								
Max I	12	45		20	12	45		20								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2		2	2	2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON		ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable				ON				ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

## Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						

## Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

# P&Z

PZ19-12000047

11/18/2020

Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

## Coordination

[illegible]

# P&Z

**PZ19-12000047**  
**11/18/2020**

[illegible][illegible]

# P&Z

**PZ19-12000047**  
**11/18/2020**



# TRAFFIC ENGINEERING DIVISION

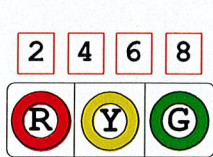
## SIGNALIZED INTERSECTION

LOCATION : ATLANTIC BLVD (SR 814) & NE 24 AVENUE

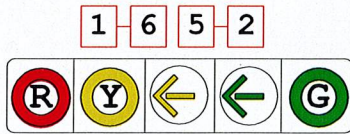
ORDER NO. --- ISSUE DATE --- REVISION NO. --- COMPLETION DATE 4/26/16

DWG. NO. 16-04-08-04 FILE NO. 1335 CITY POMPAÑO BEACH

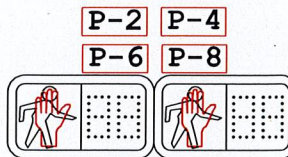
DWN BY: RJBROWN



3-SECT  
1-WAY  
8 AS



5-SECT  
1-WAY  
2 AS



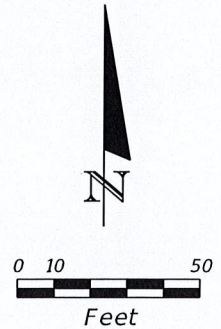
PED. SIGNAL  
COUNT-DOWN  
1-SECT., 2-WAY  
4 AS



4 EA

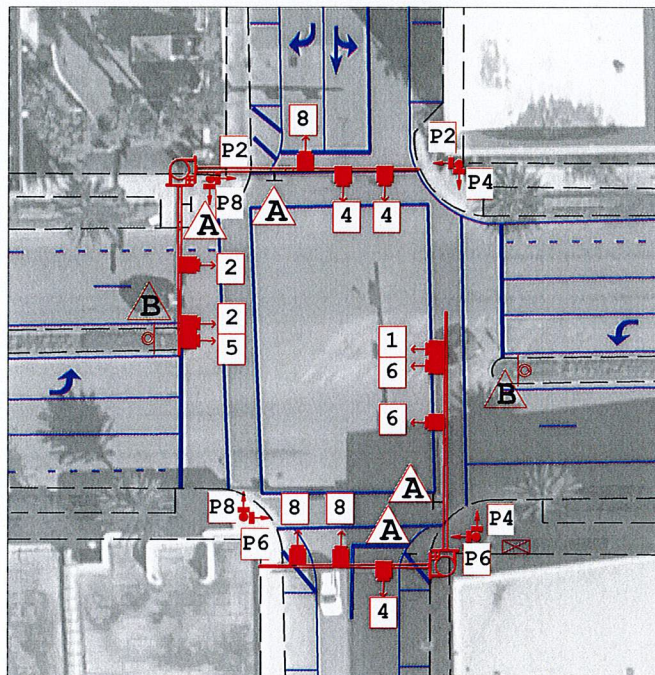


R4-7  
2 EA



NE 24 AVENUE

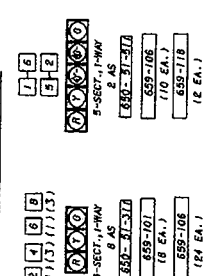
ATLANTIC BLVD (SR 814)



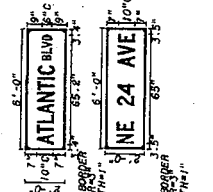
# P&Z

PZ19-12000047  
11/18/2020

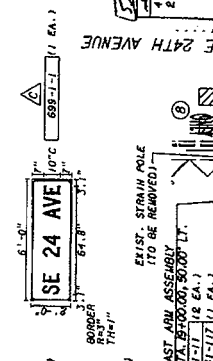
# SIGNAL DISPLAY DETAILS



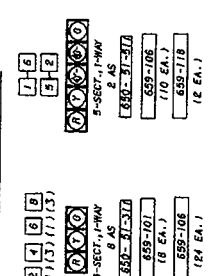
# PEDESTRIAN HEAD DETAILS



# SIGN DETAILS



# SIGNAL OPERATING PLAN



# VIDEO DETECTOR CHART

DETECTOR NO.	MOVEMENTS	ZONE
V-1	1, 6	00
V-2	2, 5	00
V-3	3, 4	00

# REMOVAL ITEMS

PAY ITEM	UNIT	QUANTITY
650-10	EA	8
650-11	EA	4
650-12	EA	4
650-13	EA	4
650-14	EA	4
650-15	EA	4
650-16	EA	4
650-17	EA	4
650-18	EA	4
650-19	EA	4
650-20	EA	4
650-21	EA	4
650-22	EA	4
650-23	EA	4
650-24	EA	4
650-25	EA	4
650-26	EA	4
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650-93	EA	4
650-94	EA	4
650-95	EA	4
650-96	EA	4
650-97	EA	4
650-98	EA	4
650-99	EA	4
650-100	EA	4

# REMOVAL ITEMS

PAY ITEM	UNIT	QUANTITY
650-10	EA	8
650-11	EA	4
650-12	EA	4
650-13	EA	4
650-14	EA	4
650-15	EA	4
650-16	EA	4
650-17	EA	4
650-18	EA	4
650-19	EA	4
650-20	EA	4
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650-89	EA	4
650-90	EA	4
650-91	EA	4
650-92	EA	4
650-93	EA	4
650-94	EA	4
650-95	EA	4
650-96	EA	4
650-97	EA	4
650-98	EA	4
650-99	EA	4
650-100	EA	4

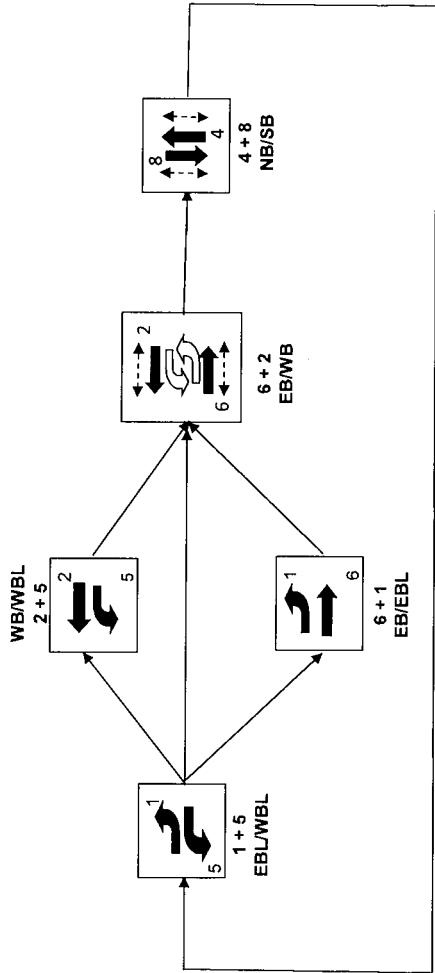
# REMOVAL ITEMS

PAY ITEM	UNIT	QUANTITY
650-10	EA	8
650-11	EA	4
650-12	EA	4
650-13	EA	4
650-14	EA	4
650-15	EA	4
650-16	EA	4
650-17	EA	4
650-18	EA	4
650-19	EA	4
650-20	EA	4
650-21	EA	4
650-22	EA	4
650-23	EA	4
650-24	EA	4
650-25	EA	4
650-26	EA	4
650-27	EA	4
650-28	EA	4
650-29	EA	4
650-30	EA	4
650-31	EA	4
650-32	EA	4
650-33	EA	4
650-34	EA	4
650-35	EA	4
650-36	EA	4
650-37	EA	4
650-38	EA	4
650-39	EA	4
650-40	EA	4
650-41	EA	4
650-42	EA	4
650-43	EA	4
650-44	EA	4
650-45	EA	4
650-46	EA	4
650-47	EA	4
650-48	EA	4
650-49	EA	4
650-50	EA	4
650-51	EA	4
650-52	EA	4
650-53	EA	4
650-54	EA	4
650-55	EA	4
650-56	EA	4
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650-58	EA	4
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650-91	EA	4
650-92	EA	4
650-93	EA	4
650-94	EA	4
650-95	EA	4
650-96	EA	4
650-97	EA	4
650-98	EA	4
650-99	EA	4
650-100	EA	4

# REMOVAL ITEMS



Sequence of Operation for (1335) ATLANTIC BLVD. (SR 814) AND NE/SE 24 AVENUE Pompano Beach





**BROWARD COUNTY TRAFFIC ENGINEERING**  
**ACTUATED TRAFFIC SIGNAL TIMING SHEET**

Intersection Number	1334	Initial Operation Date	3/20/84
Controller Type	2070 LN	System Number	1334
Modification Number	9	Modification Date	03/30/2015
Drawing/Project No	DSN. GRP. 3	FPL Grid Number	87988281006
Intersection	ATLANTIC BLVD. (SR 814) and NE 26 AVENUE		
Municipality	POMPANO BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2			5	6	4,7	3,8
Direction	EBL	WB			WBL	EB	NB	SB
Initial Green(MIN)	4	15			4	15	6	6
Vehicle Ext.(GAP)	1.5	3.0			1.5	3.0	2.0	2.0
Maximum Green I	10	45			10	45	15	25
Maximum Green II								
Yellow Clearance	4.0	4.0			4.0	4.0	4.0	4.0
All Red Clearance	2.0	2.0			2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN			OFF	MIN	OFF	OFF
Detector Delay								
Walk		7				7	5	5
Pedestrian Clearance		18					18	18
Permissive	5 SECT				5 SECT			
Flash Operation		YELLOW				YELLOW	RED	RED

Attachment

**NOTES:**

1. ANTI-BACKDOWN EAST/WEST: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. BRIDGE PREEMPTION CALL ENABLED ONLY UPON ACTIVATION OF QUEUING DETECTOR  
DETECTORS SET AT 10 SECONDS DELAY AND 7 SECONDS EXTEND CALL
3. PREEMPTION SEQUENCE (IN SECONDS): A) MIN B4 = 0; B) IF  
IN EITHER PHASE 6 OR 8, CLEAR TO NEXT ALLOWED (ENABLED) PHASE - MIN. DWELL IS 10  
SECONDS WITH PHASES 1, 2, 5 AND 7 ENABLED (PHASES 6 AND 8 OMITTED) C) RETURN TO PHASES  
2+6 AFTER PREEMPTION
4. MOD. 9 UPDATES ALL RED CLEARANCE VALUES.

Submitted By \_\_\_\_\_

Approved By \_\_\_\_\_

**P&Z**

**PZ19-12000047**

**11/18/2020**

Station : 1334 - Atlantic Blvd &amp; NE 26 Ave/Harbor Dr ( Standard File )

Phase	1 (EL)	2 (WT)	3	4	5 (WL)	6 (ET)	7 (NT)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7				7	5	5								
Ped Clearance		18				15	18	18								
Min Green	4	15			4	15	6	6								
Gap Ext	1.5	3			1.5	3	2.5	2								
Max I	10	45			10	45	15	25								
Max2																
Yellow Clr	4	4			4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2			2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON			ON	ON	ON	ON								
Auto Flash Entry								ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

## Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash					ON	ON
Override Higher Preempt					ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6		6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	10	8	8	8
Max Presence			180			
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1			1			
Dwell Cyc Veh 2			2			
Dwell Cyc Veh 3			5			
Dwell Cyc Veh 4			7			
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						

## Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

# P&Z

PZ19-12000047

11/18/2020

Dwell Cyc Ped8						
Exit 1			2			
Exit 2			6			
Exit 3						
Exit 4						

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

**P&Z**

PZ19-12000047  
11/18/2020

## Coordination

[illegible]

# P&Z

**PZ19-12000047**  
**11/18/2020**

[illegible][illegible]

**P&Z**  
**PZ19-12000047**  
**11/18/2020**



# TRAFFIC ENGINEERING DIVISION

## SIGNALIZED INTERSECTION

LOCATION: ATLANTIC BLVD (SR 814) & NE 26 AVENUE/HARBOR DR.

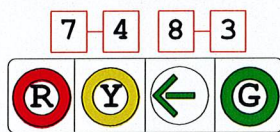
ORDER NO. --- ISSUE DATE --- REVISION NO. --- COMPLETION DATE 4/26/16

DWG. NO. 16-04-07-04 FILE NO. 1334 CITY POMPAÑO BEACH

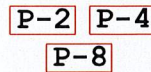
DWN BY: RJBROWN



3-SECT  
1-WAY  
4 AS



4-SECT  
1-WAY  
2AS



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

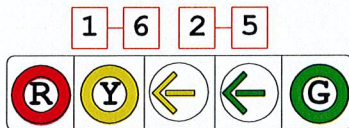
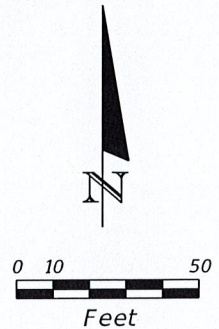


Illuminated  
Street name

4 EA



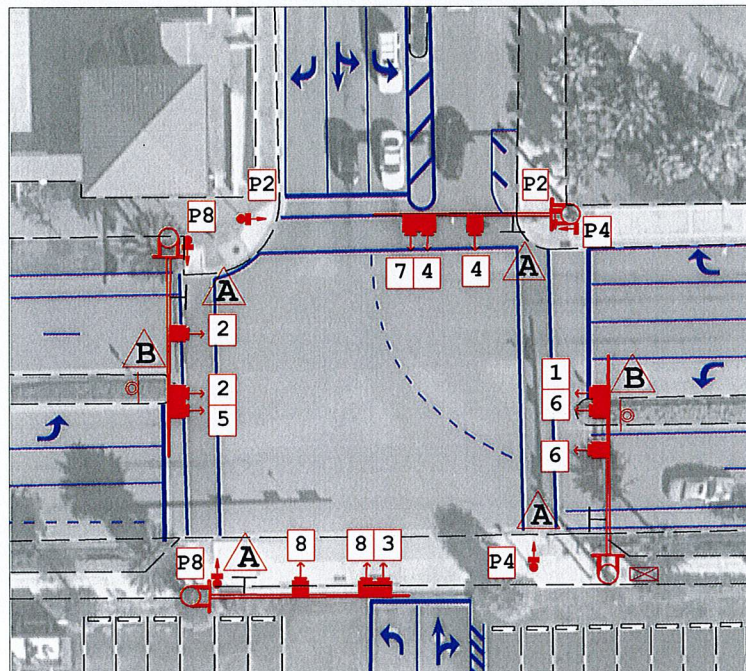
R4-7  
2 EA



5-SECT  
1-WAY  
2AS

NE 26 AVENUE/HARBOR DR.

ATLANTIC BLVD (SR 814)

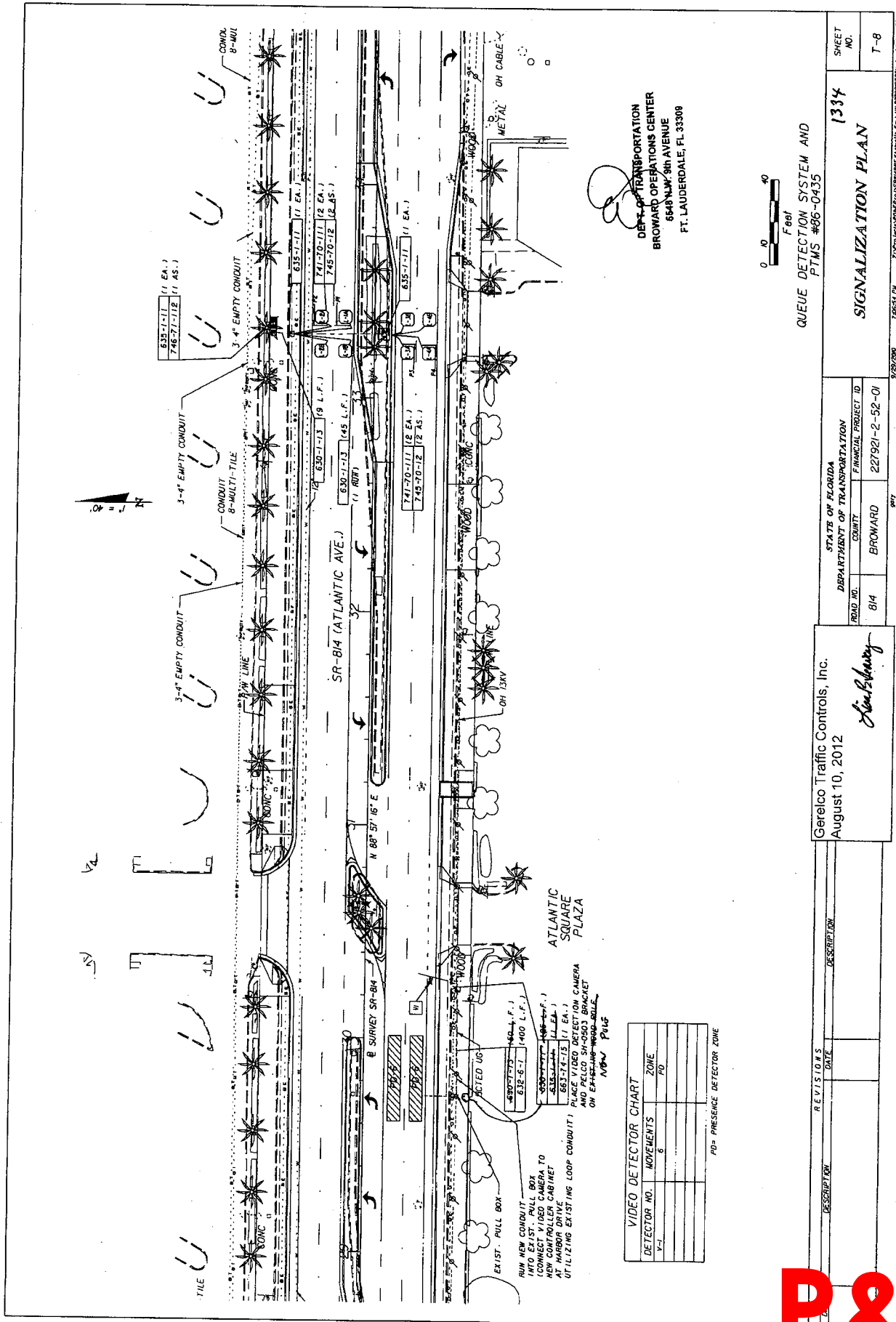


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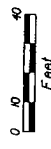
PZ19-1200047  
11/18/2020







DEPT. OF TRANSPORTATION  
BROWARD OPERATIONS CENTER  
6545 N.W. 9th AVENUE  
FT. LAUDERDALE, FL 33309



QUEUE DETECTION SYSTEM AND  
PTMS #86-0435

SHEET  
NO.  
T-8

1334  
SIGNALIZATION PLAN

STATES OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	FINANCIAL PROJECT ID
814	227921-2-52-01
COUNTY	BROWARD

Gereico Traffic Controls, Inc.  
August 10, 2012  
*Jim Eblen*

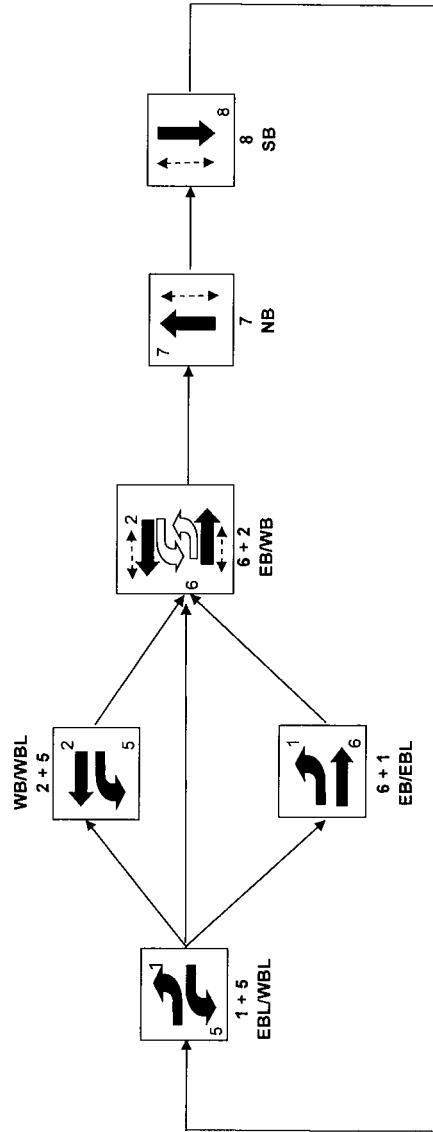
VIDEO DETECTOR CHART		
DETECTOR NO.	MOVEMENTS	ZONE
1-1	8	PD

PD= PRESENCE DETECTOR ZONE

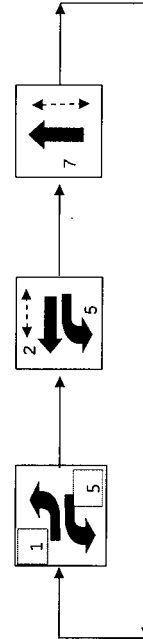
P&Z

PZ19-12000047  
11/18/2020

# Sequence of Operation for (1334) ATLANTIC BLVD. (SR 814) AND NE 26 AVENUE Pompano Beach



-----> Denotes Pedestrian Crosswalk  
 Denotes Permissive Left Turn





**BROWARD COUNTY TRAFFIC ENGINEERING**  
**ACTUATED TRAFFIC SIGNAL TIMING SHEET**

Intersection Number	1361	Initial Operation Date	3/20/84
Controller Type	2070 LN	System Number	1361
Modification Number	11	Modification Date	03/30/2015
Drawing/Project No	228212-1501	FPL Grid Number	87888942403
Intersection	FEDERAL HWY. (US 1/SR 5) and NE 2 STREET (POMPANO)		
Municipality	POMPANO BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	SBL	NB	WBL	EB		SB	EBL	WB
Initial Green(MIN)	4	12	4	6		12	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0		3.0	1.5	2.0
Maximum Green I	12	60	12	15		60	12	15
Maximum Green II								
Yellow Clearance	5.0	5.0	4.0	4.0		5.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF		MIN	OFF	OFF
Detector Delay								
Walk		7		5		7		5
Pedestrian Clearance		11		23		11		23
Permissive	5-SECT		5-SECT			5-SECT		
Flash Operation		YELLOW		RED		YELLOW		RED

Attachment

**NOTES:**

1. ANTI-BACKDOWN DIODE SOUTHBOUND: PHASES 2+6 ON--->OMIT PHASE 1.
2. DUAL ENTRY HARDWIRED EAST/WEST.
3. MOD. 11 UPDATES NS/SBL YELLOW AND ALL RED CLEARANCE VALUES.

Submitted By \_\_\_\_\_

Approved By \_\_\_\_\_

**P&Z**

**PZ19-12000047**  
**11/18/2020**

Station : 1361 - US 1 &amp; NE 2nd St (Pompano) ( Standard File )

Phase	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		5		7		5								
Ped Clearance		11		23		11		23								
Min Green	4	12	4	6		12	4	6								
Gap Ext	1.5	3	1.5	2		3	1.5	2								
Max1	12	60	12	15		60	12	15								
Max2																
Yellow Clr	5	5	4	4		5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2		2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON		ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

## Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash			ON	ON	ON	ON
Override Higher Preempt			ON	ON	ON	ON
Flash in Dwell			ON	ON	ON	ON
Link to Preempt						
Delay						
Min Duration	6	6				
Min Green	6	6				
Min Walk	6	6				
Ped Clear						
Track Green						
Min Dwell	15	15				
Max Presence	180	180				
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4				
Dwell Cyc Veh 2	6	8				
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						

## Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

# P&Z

PZ19-12000047

11/18/2020

Dwell Cyc Ped8						
Exit 1	4	2				
Exit 2	8	6				
Exit 3						
Exit 4						

Prepared By

Date Implemented

Reviewed By

Traffic Engineer



## Coordination

[illegible]

# P&Z

**PZ19-12000047**  
**11/18/2020**

[illegible][illegible]

**P&Z**  
**PZ19-12000047**  
**11/18/2020**

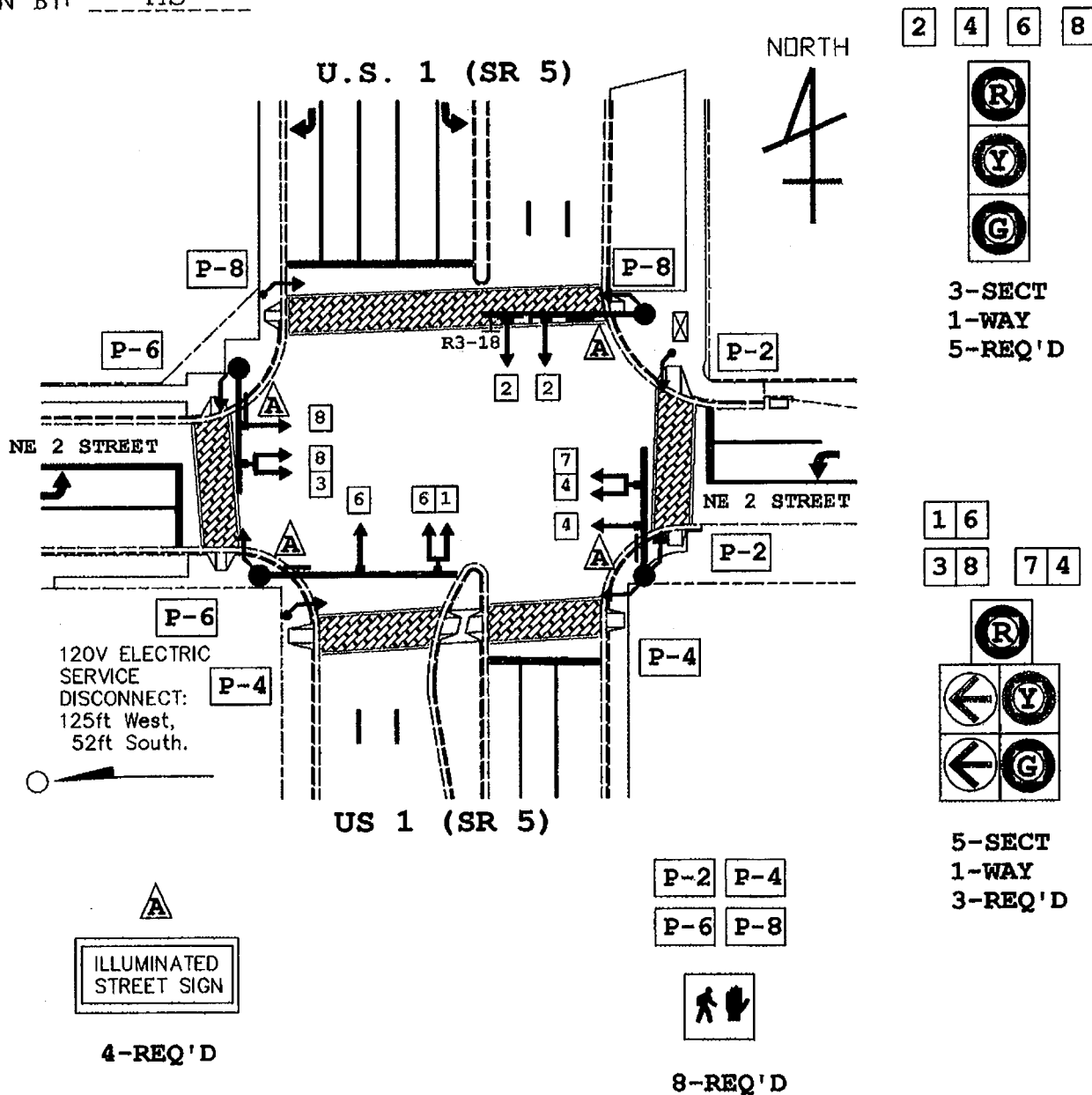
# TRAFFIC ENGINEERING DIVISION SIGNALIZED INTERSECTION

LOCATION **US 1 (SR 5) AND NE 2 STREET**

ORDER NO. **FDOT** ISSUE DATE **-----** REV NO. **5** COMPLETION DATE **1-21-11**

DWG. NO. **04-03-07-01** FILE NO. **1361** CITY **POMPANO BEACH** SCALE: 1" = 50'

DWN BY: **MS**

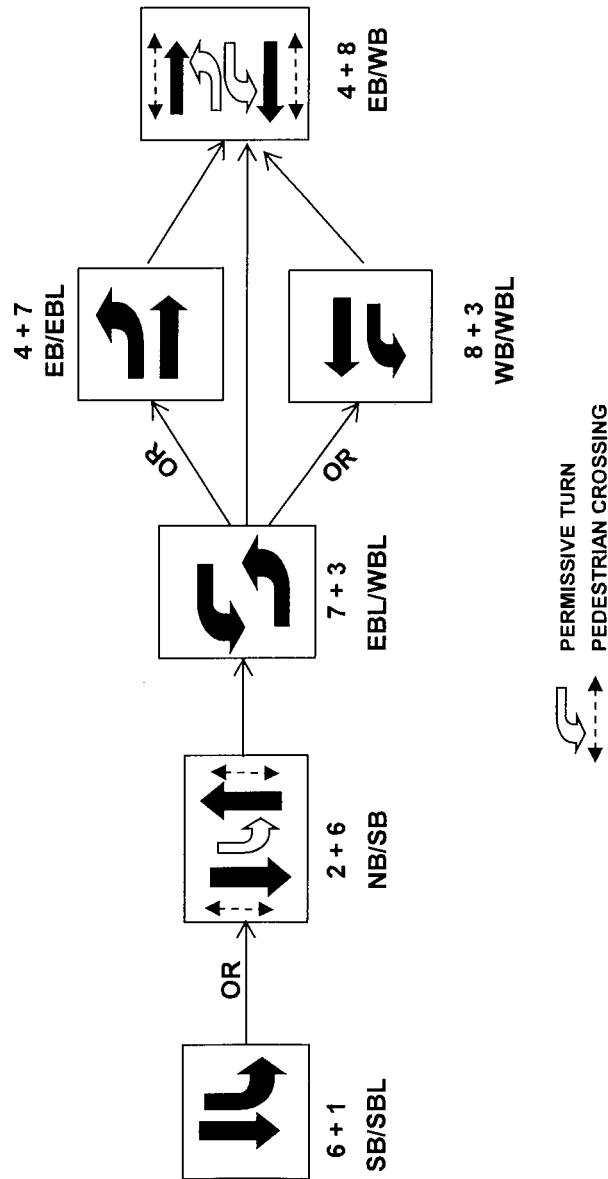


1. VIDEO DETECTION
2. THIS REVISION REPLACES NB R3-2 SIGN WITH R3-18 SIGN, PER FDOT

P&Z

PZ19-12000047  
11/18/2020

Federal Hwy (US 1/SR 5) and NE 2 Street (1361)  
Pompano Beach



# Traf Tech Engineering Inc.

File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Autos - Heavy Vehicles

Start Time	US-1 Southbound					NE 2nd Street Westbound					US-1 Northbound					NE 2nd Street Eastbound					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
07:00	11	318	6	0	335	10	2	1	0	13	3	212	0	0	215	2	7	19	0	28	591
07:15	19	385	7	0	411	5	1	4	0	10	3	271	0	0	274	2	5	37	0	44	739
07:30	37	495	10	1	543	14	2	5	0	21	3	320	0	0	323	3	1	30	0	34	921
07:45	30	353	6	0	389	7	2	3	0	12	2	343	0	0	345	4	9	32	0	45	791
Total	97	1551	29	1	1678	36	7	13	0	56	11	1146	0	0	1157	11	22	118	0	151	3042
08:00	26	395	10	1	432	9	3	4	0	16	4	331	0	0	335	5	14	30	0	49	832
08:15	32	411	11	2	456	14	2	2	0	18	2	299	0	0	301	7	5	34	0	46	821
08:30	26	350	10	2	388	10	2	6	0	18	4	299	0	0	303	4	10	27	0	41	750
08:45	27	346	10	0	383	23	3	5	0	31	6	300	0	0	306	3	4	26	0	33	753
Total	111	1502	41	5	1659	56	10	17	0	83	16	1229	0	0	1245	19	33	117	0	169	3156
*** BREAK ***																					
16:00	21	333	10	1	365	28	4	12	0	44	9	331	0	1	341	5	5	31	0	41	791
16:15	23	327	11	3	364	34	5	11	0	50	15	334	0	0	349	5	10	25	0	40	803
16:30	27	348	16	1	392	30	6	7	0	43	14	296	0	1	311	5	10	21	0	36	782
16:45	19	355	16	2	392	37	5	9	0	51	13	314	0	0	327	2	9	35	0	46	816
Total	90	1363	53	7	1513	129	20	39	0	188	51	1275	0	2	1328	17	34	112	0	163	3192
17:00	22	306	15	1	344	25	2	14	0	41	6	336	0	0	342	1	5	37	0	43	770
17:15	26	344	12	2	384	24	1	5	0	30	11	379	0	2	392	2	12	41	0	55	861
17:30	40	348	13	0	401	18	6	13	0	37	17	355	0	1	373	2	10	29	0	41	852
17:45	24	336	16	0	376	23	1	2	0	26	11	295	0	0	306	5	2	42	0	49	757
Total	112	1334	56	3	1505	90	10	34	0	134	45	1365	0	3	1413	10	29	149	0	188	3240
Grand Total	410	5750	179	16	6355	311	47	103	0	461	123	5015	0	5	5143	57	118	496	0	671	12630
Apprch %	6.5	90.5	2.8	0.3		67.5	10.2	22.3	0		2.4	97.5	0	0.1		8.5	17.6	73.9	0		
Total %	3.2	45.5	1.4	0.1	50.3	2.5	0.4	0.8	0	3.7	1	39.7	0	0	40.7	0.5	0.9	3.9	0	5.3	
Autos	410	5727	179	16	6332	309	47	103	0	459	120	4978	0	5	5103	57	117	496	0	670	12564
% Autos	100	99.6	100	100	99.6	99.4	100	100	0	99.6	97.6	99.3	0	100	99.2	100	99.2	100	0	99.9	99.5
Heavy Vehicles	0	23	0	0	23	2	0	0	0	2	3	37	0	0	40	0	1	0	0	1	66
% Heavy Vehicles	0	0.4	0	0	0.4	0.6	0	0	0	0.4	2.4	0.7	0	0	0.8	0	0.8	0	0	0.1	0.5

# P&Z

PZ19-12000047

11/18/2020

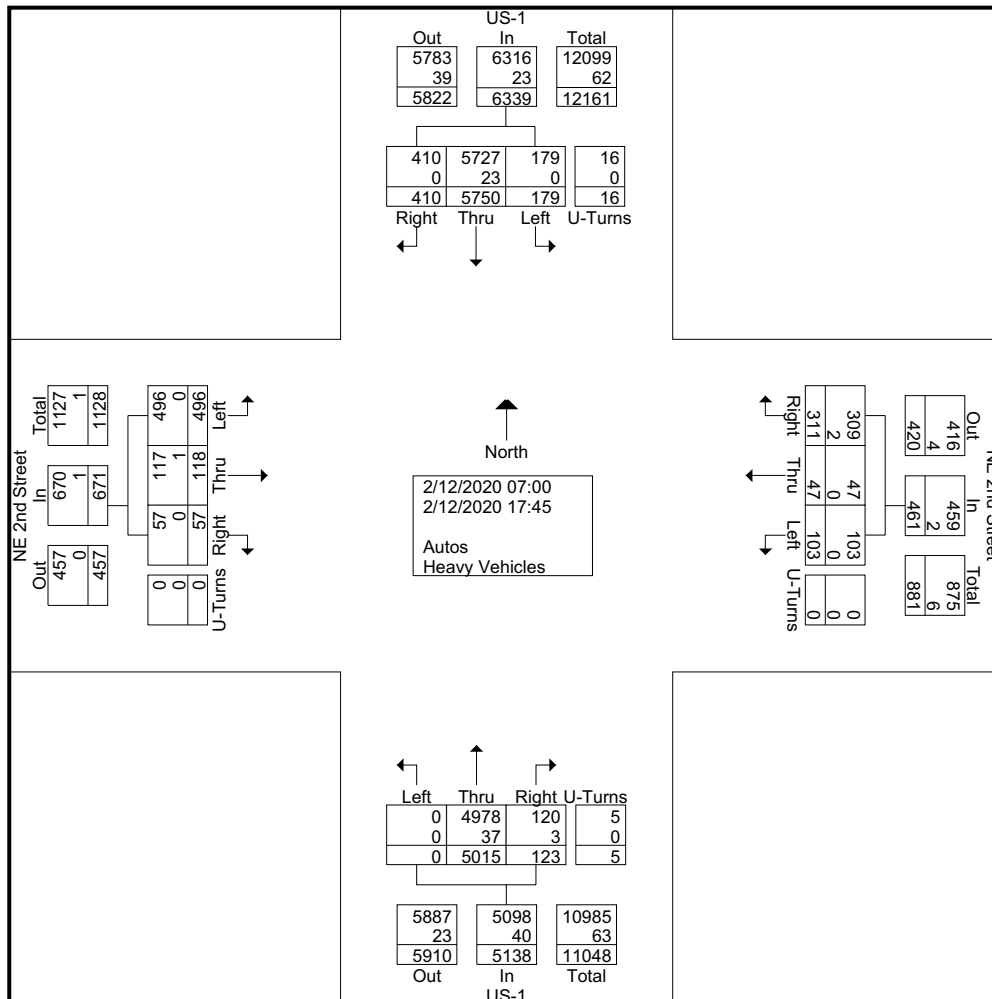
# Traf Tech Engineering Inc.

File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



# P&Z

PZ19-12000047

11/18/2020



# Traf Tech Engineering Inc.

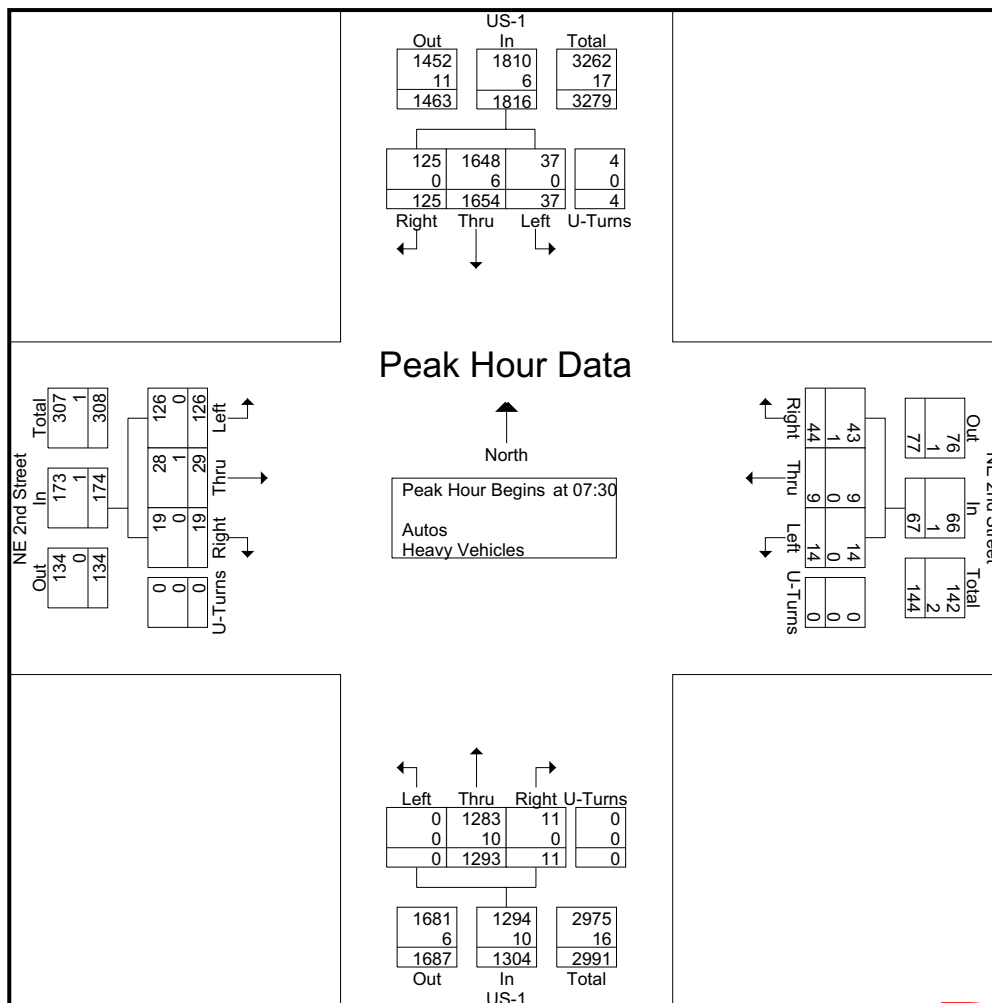
File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 3

	US-1 Southbound					NE 2nd Street Westbound					US-1 Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	37	495	10	1	543	14	2	5	0	21	3	320	0	0	323	3	1	30	0	34	921
07:45	30	353	6	0	389	7	2	3	0	12	2	343	0	0	345	4	9	32	0	45	791
08:00	26	395	10	1	432	9	3	4	0	16	4	331	0	0	335	5	14	30	0	49	832
08:15	32	411	11	2	456	14	2	2	0	18	2	299	0	0	301	7	5	34	0	46	821
Total Volume	125	1654	37	4	1820	44	9	14	0	67	11	1293	0	0	1304	19	29	126	0	174	3365
% App. Total	6.9	90.9	2	0.2		65.7	13.4	20.9	0		0.8	99.2	0	0		10.9	16.7	72.4	0		
PHF	.845	.835	.841	.500	.838	.786	.750	.700	.000	.798	.688	.942	.000	.000	.945	.679	.518	.926	.000	.888	.913
Autos	125	1648										1283									
% Autos	100	99.6	100	100	99.7	97.7	100	100	0	98.5	100	99.2	0	0	99.2	100	96.6	100	0	99.4	99.5
Heavy Vehicles	0	6	0	0	6	1	0	0	0	1	0	10	0	0	10	0	1	0	0	1	18
% Heavy Vehicles	0	0.4	0	0	0.3	2.3	0	0	0	1.5	0	0.8	0	0	0.8	0	3.4	0	0	0.6	0.5



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

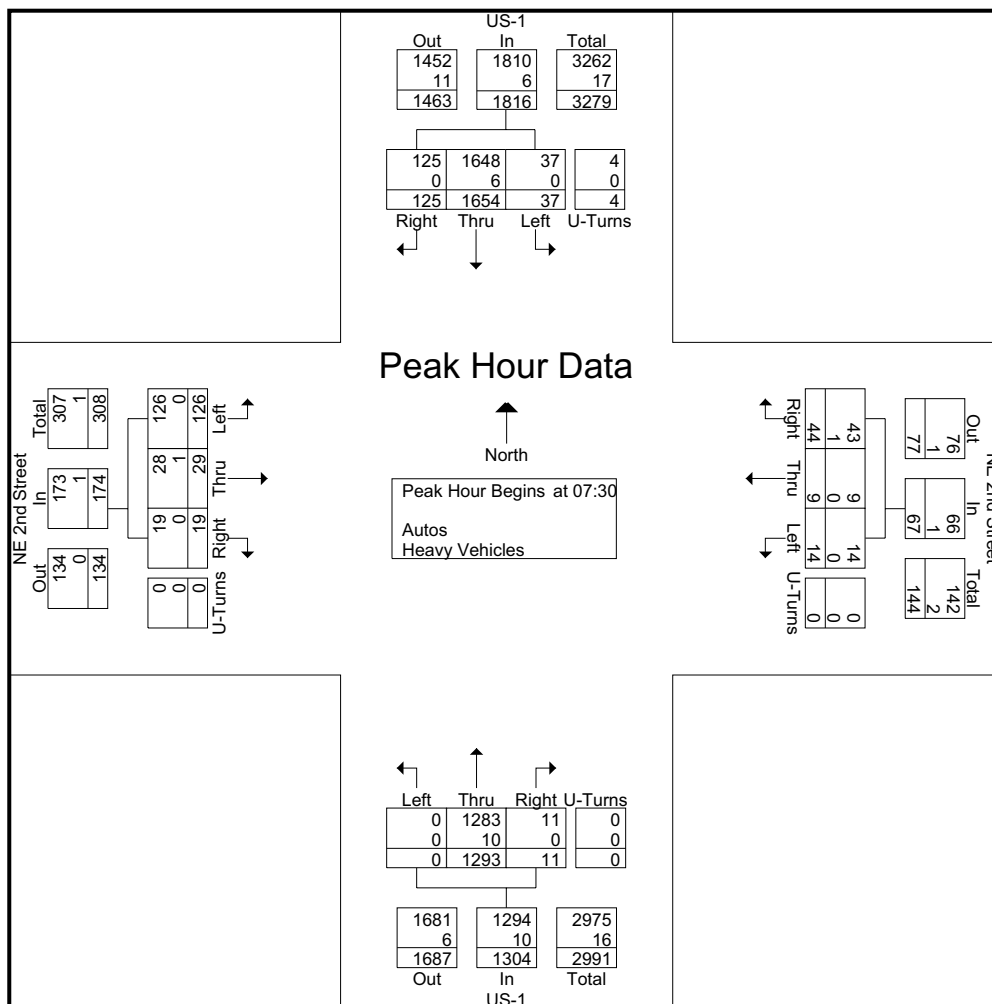
File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 4

	US-1 Southbound					NE 2nd Street Westbound					US-1 Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	37	495	10	1	543	14	2	5	0	21	3	320	0	0	323	3	1	30	0	34	921
07:45	30	353	6	0	389	7	2	3	0	12	2	343	0	0	345	4	9	32	0	45	791
08:00	26	395	10	1	432	9	3	4	0	16	4	331	0	0	335	5	14	30	0	49	832
08:15	32	411	11	2	456	14	2	2	0	18	2	299	0	0	301	7	5	34	0	46	821
Total Volume	125	1654	37	4	1820	44	9	14	0	67	11	1293	0	0	1304	19	29	126	0	174	3365
% App. Total	6.9	90.9	2	0.2		65.7	13.4	20.9	0		0.8	99.2	0	0		10.9	16.7	72.4	0		
PHF	.845	.835	.841	.500	.838	.786	.750	.700	.000	.798	.688	.942	.000	.000	.945	.679	.518	.926	.000	.888	.913
Autos	125	1648										1283									
% Autos	100	99.6	100	100	99.7	97.7	100	100	0	98.5	100	99.2	0	0	99.2	100	96.6	100	0	99.4	99.5
Heavy Vehicles	0	6	0	0	6	1	0	0	0	1	0	10	0	0	10	0	1	0	0	1	18
% Heavy Vehicles	0	0.4	0	0	0.3	2.3	0	0	0	1.5	0	0.8	0	0	0.8	0	3.4	0	0	0.6	0.5



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

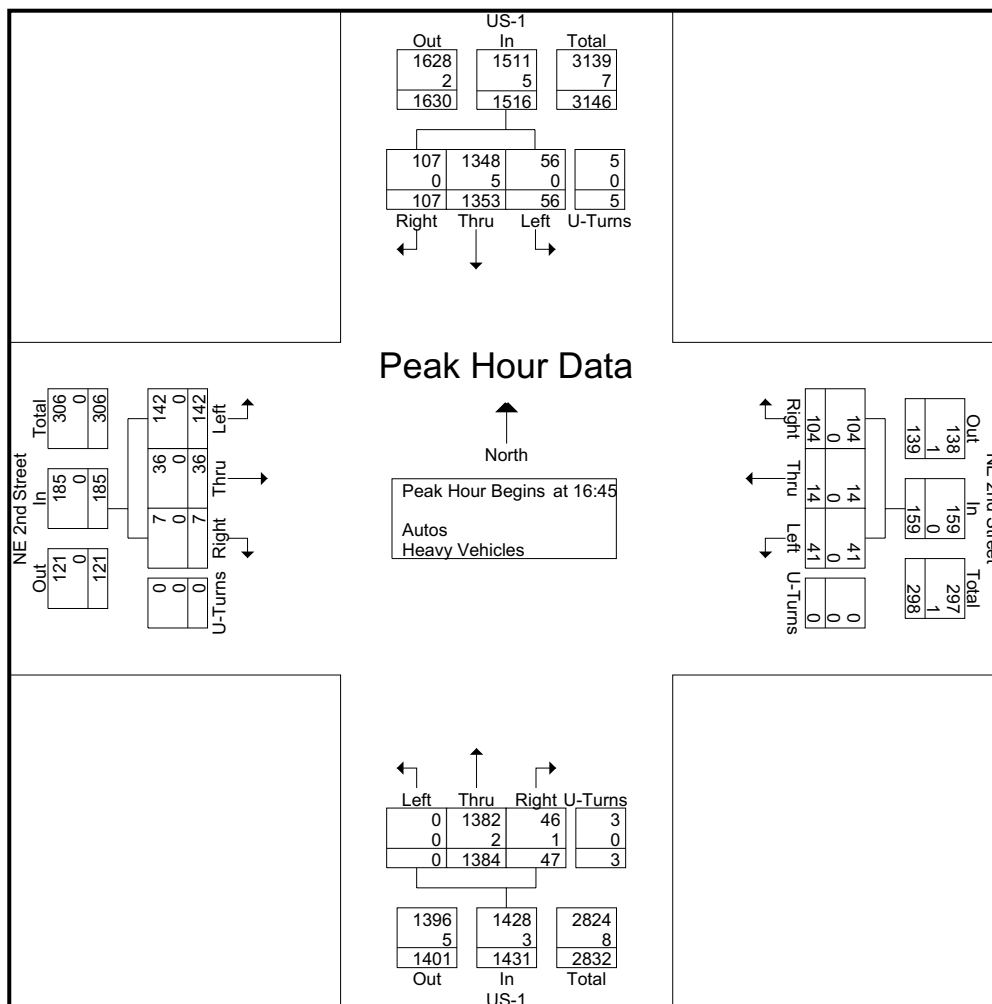
File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 5

	US-1 Southbound					NE 2nd Street Westbound					US-1 Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	19	355	16	2	392	37	5	9	0	51	13	314	0	0	327	2	9	35	0	46	816
17:00	22	306	15	1	344	25	2	14	0	41	6	336	0	0	342	1	5	37	0	43	770
17:15	26	344	12	2	384	24	1	5	0	30	11	379	0	2	392	2	12	41	0	55	861
17:30	40	348	13	0	401	18	6	13	0	37	17	355	0	1	373	2	10	29	0	41	852
Total Volume	107	1353	56	5	1521	104	14	41	0	159	47	1384	0	3	1434	7	36	142	0	185	3299
% App. Total	7	89	3.7	0.3		65.4	8.8	25.8	0		3.3	96.5	0	0.2		3.8	19.5	76.8	0		
PHF	.669	.953	.875	.625	.948	.703	.583	.732	.000	.779	.691	.913	.000	.375	.915	.875	.750	.866	.000	.841	.958
Autos	107	1348										1382									
% Autos	100	99.6	100	100	99.7	100	100	100	0	100	97.9	99.9	0	100	99.8	100	100	100	0	100	99.8
Heavy Vehicles	0	5	0	0	5	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	8
% Heavy Vehicles	0	0.4	0	0	0.3	0	0	0	0	0	2.1	0.1	0	0	0.2	0	0	0	0	0	0.2



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 1- US-1 & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Peds & Bikes

Start Time	US-1 Southbound				NE 2nd Street Westbound				US-1 Northbound				NE 2nd Street Eastbound				Int. Total
	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
*** BREAK ***																	
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3
Total	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	2	6
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
*** BREAK ***																	
08:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	4
*** BREAK ***																	
16:00	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
16:15	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
16:30	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
16:45	3	0	0	1	0	0	0	1	3	0	0	1	1	0	0	0	10
Total	3	0	0	3	1	0	0	3	3	0	0	2	1	0	0	1	17
17:00	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	4
17:15	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3
17:30	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0	3	7
17:45	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	6
Total	2	0	0	2	0	0	2	1	0	0	0	6	2	0	0	5	20
Grand Total	5	0	0	6	1	0	2	7	3	0	0	10	4	0	0	9	47
Apprch %	45.5	0	0	54.5	10	0	20	70	23.1	0	0	76.9	30.8	0	0	69.2	
Total %	10.6	0	0	12.8	2.1	0	4.3	14.9	6.4	0	0	21.3	8.5	0	0	19.1	

# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Autos - Heavy Vehicles

Start Time	NE 24th Ave Southbound					Atlantic Blvd Westbound					NE 24th Ave Northbound					Atlantic Blvd Eastbound					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
07:00	1	4	1	0	6	0	8	2	0	10	3	3	0	0	6	2	11	2	0	15	37
07:15	0	6	1	0	7	0	6	2	0	8	4	1	3	0	8	3	11	1	0	15	38
07:30	0	6	0	0	6	1	10	5	0	16	5	0	1	0	6	5	8	0	0	13	41
07:45	1	1	0	0	2	0	10	6	0	16	8	1	1	0	10	2	13	3	0	18	46
Total	2	17	2	0	21	1	34	15	0	50	20	5	5	0	30	12	43	6	0	61	162
08:00	0	6	1	0	7	1	4	1	0	6	1	2	2	0	5	5	16	0	0	21	39
08:15	1	6	1	0	8	1	11	1	1	14	2	4	4	0	10	3	17	0	0	20	52
08:30	0	2	1	0	3	0	7	3	0	10	4	2	1	0	7	1	16	1	0	18	38
08:45	0	2	1	0	3	1	18	5	0	24	10	5	5	0	20	5	12	0	0	17	64
Total	1	16	4	0	21	3	40	10	1	54	17	13	12	0	42	14	61	1	0	76	193
*** BREAK ***																					
16:00	3	4	1	0	8	2	28	1	0	31	9	5	9	0	23	6	21	0	0	27	89
16:15	0	2	2	0	4	3	30	3	0	36	14	7	9	0	30	4	26	2	0	32	102
16:30	0	4	1	0	5	6	25	3	0	34	14	14	8	0	36	4	21	3	0	28	103
16:45	1	2	0	0	3	0	33	0	0	33	13	8	14	0	35	3	26	2	0	31	102
Total	4	12	4	0	20	11	116	7	0	134	50	34	40	0	124	17	94	7	0	118	396
17:00	0	1	2	0	3	1	26	1	0	28	15	9	8	0	32	4	15	0	0	19	82
17:15	1	3	2	0	6	0	28	1	0	29	15	8	6	0	29	4	20	2	0	26	90
17:30	0	3	3	0	6	3	32	1	0	36	20	10	3	0	33	3	24	1	0	28	103
17:45	0	1	2	0	3	0	18	3	0	21	13	0	7	0	20	8	25	2	0	35	79
Total	1	8	9	0	18	4	104	6	0	114	63	27	24	0	114	19	84	5	0	108	354
Grand Total	8	53	19	0	80	19	294	38	1	352	150	79	81	0	310	62	282	19	0	363	1105
Apprch %	10	66.2	23.8	0		5.4	83.5	10.8	0.3		48.4	25.5	26.1	0		17.1	77.7	5.2	0		
Total %	0.7	4.8	1.7	0	7.2	1.7	26.6	3.4	0.1	31.9	13.6	7.1	7.3	0	28.1	5.6	25.5	1.7	0	32.9	
Autos	8	52	19	0	79	19	291	38	1	349	148	79	80	0	307	62	279	19	0	360	1095
% Autos	100	98.1	100	0	98.8	100	99	100	100	99.1	98.7	100	98.8	0	99	100	98.9	100	0	99.2	99.1
Heavy Vehicles	0	1	0	0	1	0	3	0	0	3	2	0	1	0	3	0	3	0	0	3	10
% Heavy Vehicles	0	1.9	0	0	1.2	0	1	0	0	0.9	1.3	0	1.2	0	1	0	1.1	0	0	0.8	0.9

# P&Z

PZ19-12000047

11/18/2020



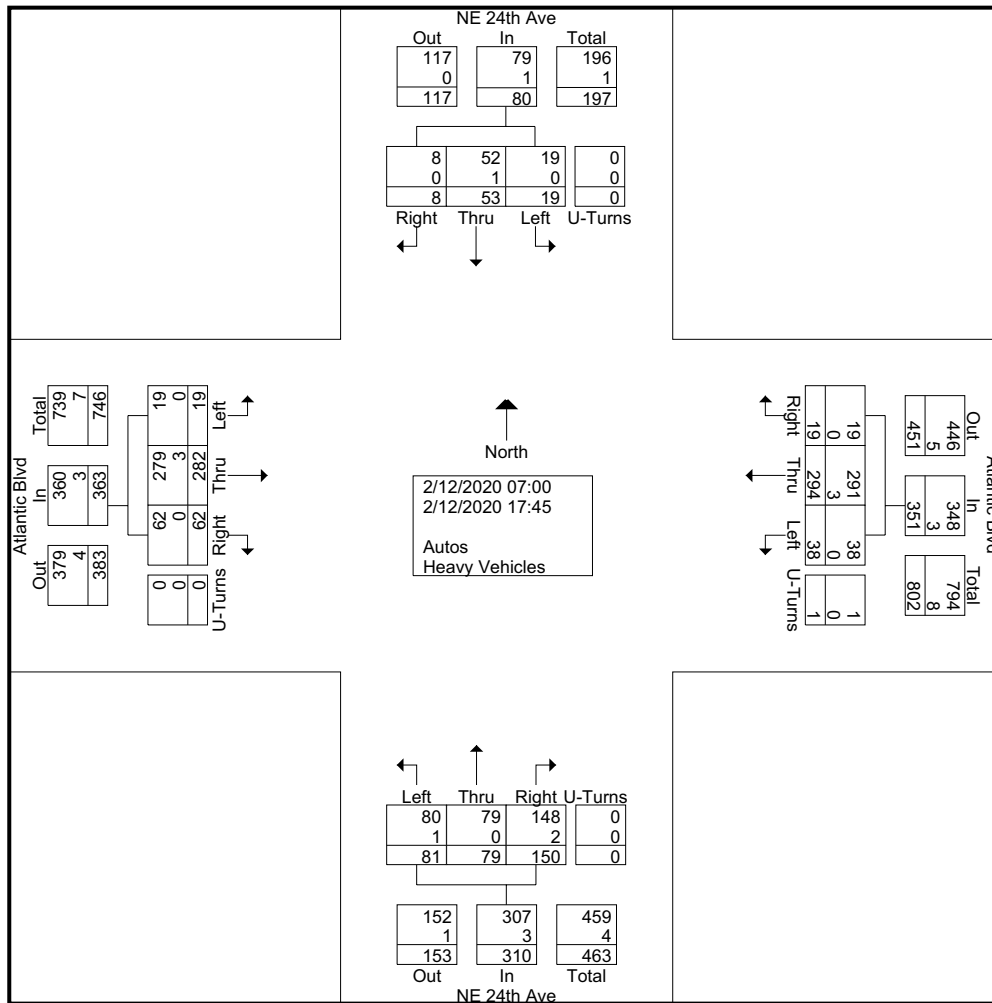
# Traf Tech Engineering Inc.

File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

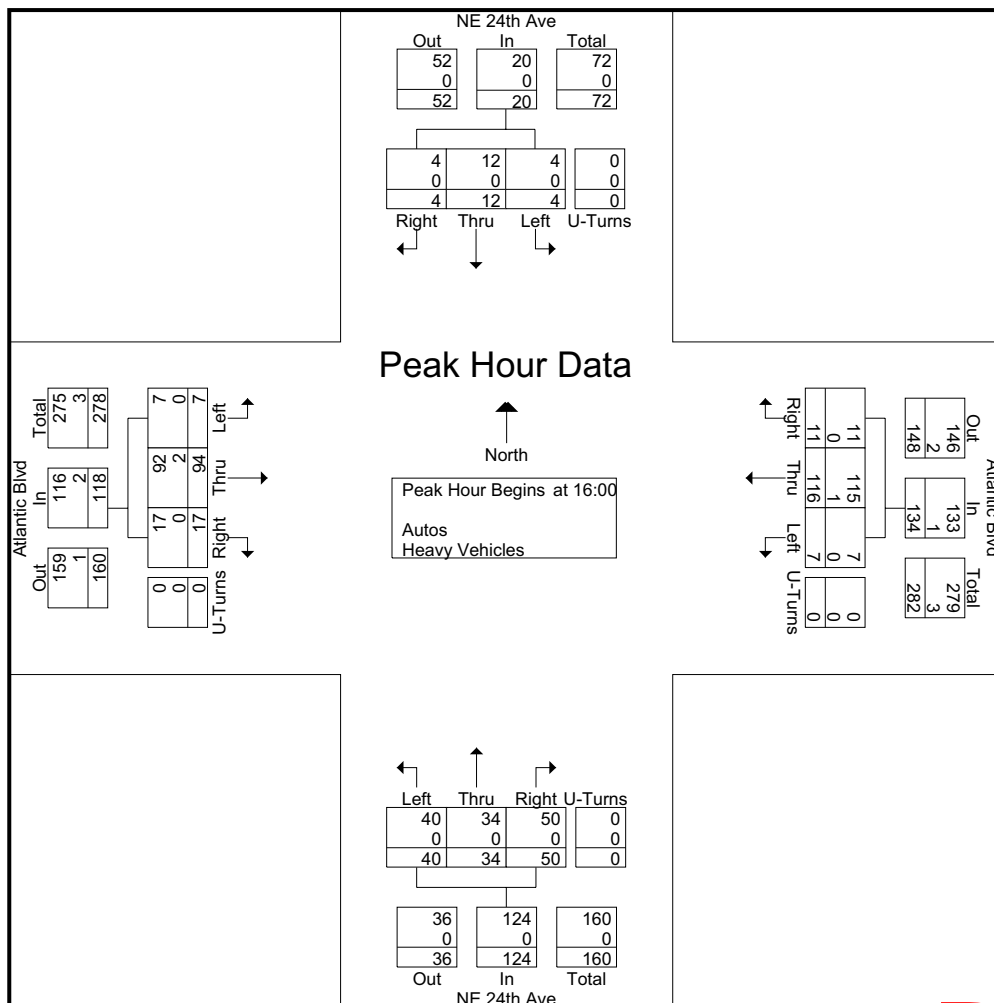
File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 3

	NE 24th Ave Southbound					Atlantic Blvd Westbound					NE 24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	3	4	1	0	8	2	28	1	0	31	9	5	9	0	23	6	21	0	0	27	89
16:15	0	2	2	0	4	3	30	3	0	36	14	7	9	0	30	4	26	2	0	32	102
16:30	0	4	1	0	5	6	25	3	0	34	14	14	8	0	36	4	21	3	0	28	103
16:45	1	2	0	0	3	0	33	0	0	33	13	8	14	0	35	3	26	2	0	31	102
Total Volume	4	12	4	0	20	11	116	7	0	134	50	34	40	0	124	17	94	7	0	118	396
% App. Total	20	60	20	0		8.2	86.6	5.2	0		40.3	27.4	32.3	0		14.4	79.7	5.9	0		
PHF	.333	.750	.500	.000	.625	.458	.879	.583	.000	.931	.893	.607	.714	.000	.861	.708	.904	.583	.000	.922	.961
Autos	4	12	4	0	20	11	115	7	0	133	50	34	40	0	124	17	92	7	0	116	393
% Autos	100	100	100	0	100	100	99.1										97.9				
Heavy Vehicles	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
% Heavy Vehicles	0	0	0	0	0	0	0.9	0	0	0.7	0	0	0	0	0	0	2.1	0	0	1.7	0.8



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

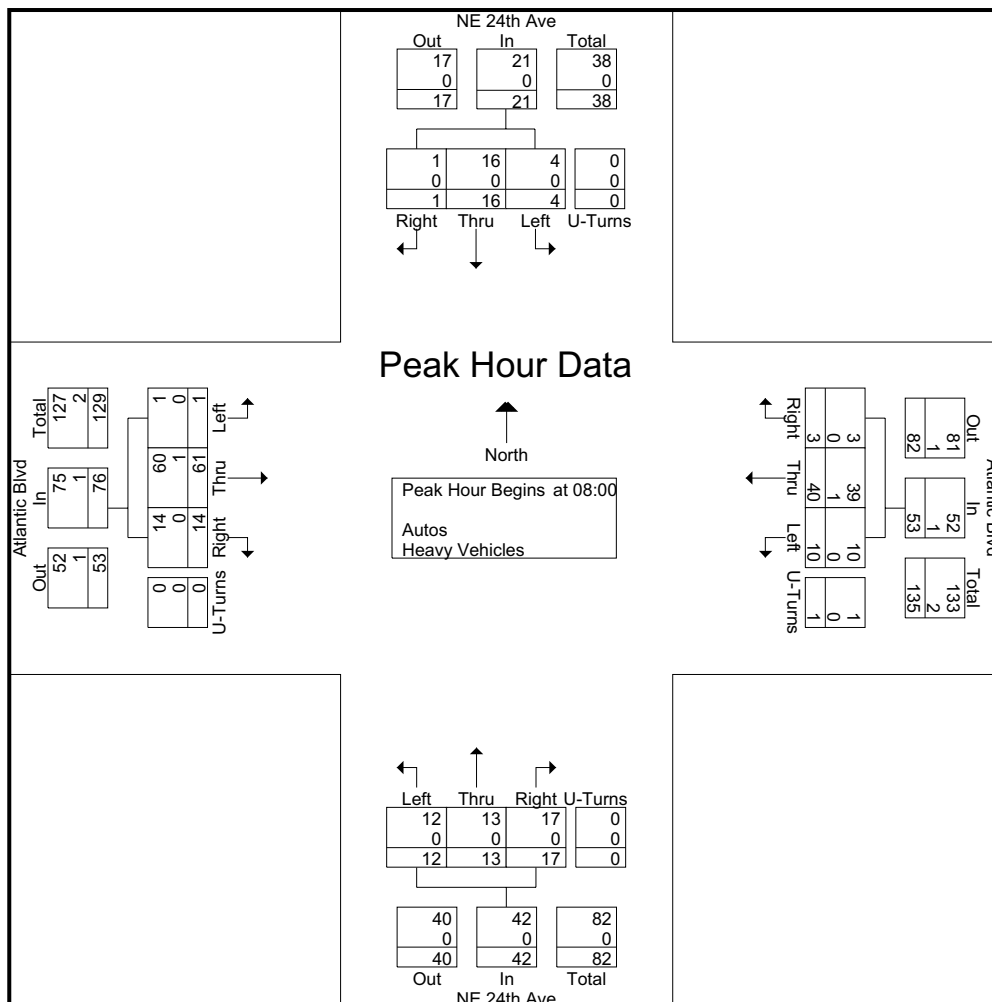
File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 4

	NE 24th Ave Southbound					Atlantic Blvd Westbound					NE 24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	6	1	0	7	1	4	1	0	6	1	2	2	0	5	5	16	0	0	21	39
08:15	1	6	1	0	8	1	11	1	1	14	2	4	4	0	10	3	17	0	0	20	52
08:30	0	2	1	0	3	0	7	3	0	10	4	2	1	0	7	1	16	1	0	18	38
08:45	0	2	1	0	3	1	18	5	0	24	10	5	5	0	20	5	12	0	0	17	64
Total Volume	1	16	4	0	21	3	40	10	1	54	17	13	12	0	42	14	61	1	0	76	193
% App. Total	4.8	76.2	19	0		5.6	74.1	18.5	1.9		40.5	31	28.6	0		18.4	80.3	1.3	0		
PHF	.250	.667	1.0	.000	.656	.750	.556	.500	.250	.563	.425	.650	.600	.000	.525	.700	.897	.250	.000	.905	.754
Autos	1	16	4	0	21	3	39	10	1	53	17	13	12	0	42	14	60	1	0	75	191
% Autos	100	100	100	0	100	100	97.5										98.4				
Heavy Vehicles	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Heavy Vehicles	0	0	0	0	0	0	2.5	0	0	1.9	0	0	0	0	0	0	1.6	0	0	1.3	1.0



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

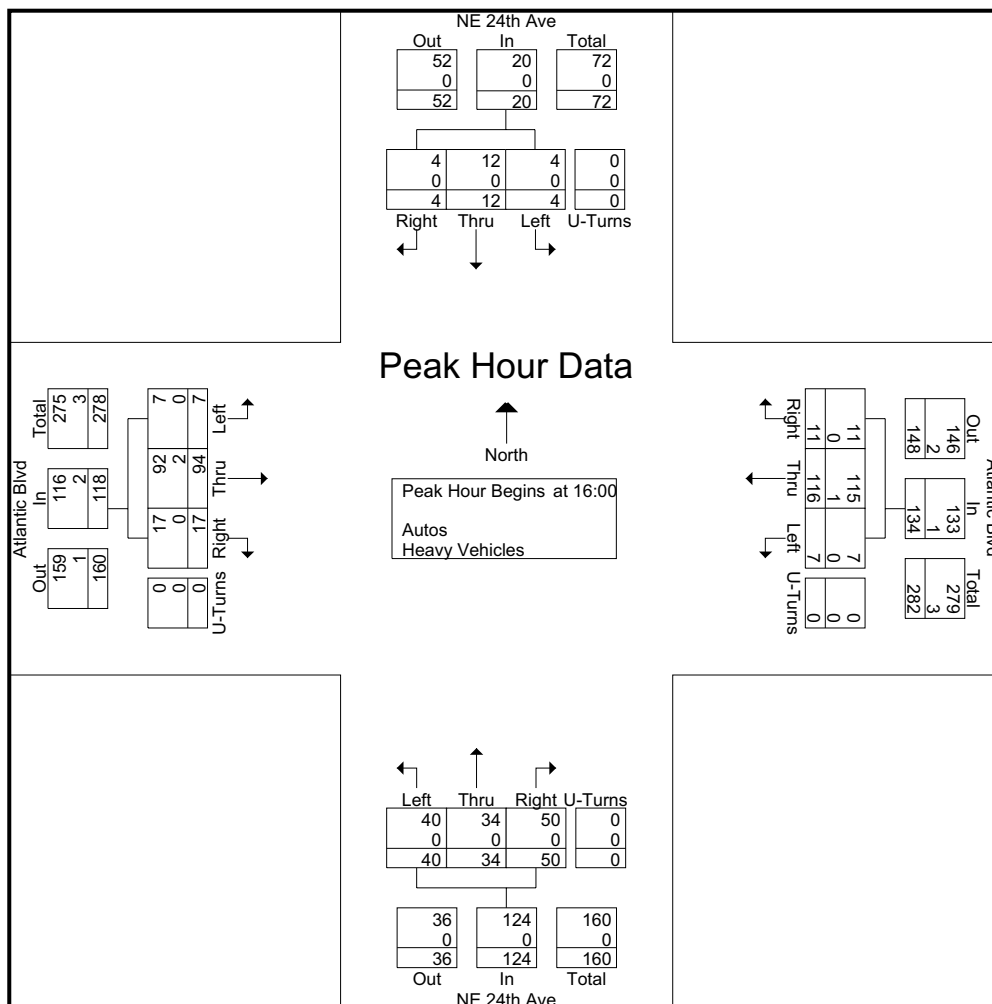
File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 5

	NE 24th Ave Southbound					Atlantic Blvd Westbound					NE 24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	3	4	1	0	8	2	28	1	0	31	9	5	9	0	23	6	21	0	0	27	89
16:15	0	2	2	0	4	3	30	3	0	36	14	7	9	0	30	4	26	2	0	32	102
16:30	0	4	1	0	5	6	25	3	0	34	14	14	8	0	36	4	21	3	0	28	103
16:45	1	2	0	0	3	0	33	0	0	33	13	8	14	0	35	3	26	2	0	31	102
Total Volume	4	12	4	0	20	11	116	7	0	134	50	34	40	0	124	17	94	7	0	118	396
% App. Total	20	60	20	0		8.2	86.6	5.2	0		40.3	27.4	32.3	0		14.4	79.7	5.9	0		
PHF	.333	.750	.500	.000	.625	.458	.879	.583	.000	.931	.893	.607	.714	.000	.861	.708	.904	.583	.000	.922	.961
Autos	4	12	4	0	20	11	115	7	0	133	50	34	40	0	124	17	92	7	0	116	393
% Autos	100	100	100	0	100	100	99.1										97.9				
Heavy Vehicles	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
% Heavy Vehicles	0	0	0	0	0	0	0.9	0	0	0.7	0	0	0	0	0	0	2.1	0	0	1.7	0.8



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 2- NE 24th Ave & NE 2nd St

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Peds & Bikes

Start Time	NE 24th Ave Southbound				Atlantic Blvd Westbound				NE 24th Ave Northbound				Atlantic Blvd Eastbound				Int. Total
	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
*** BREAK ***																	
07:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
*** BREAK ***																	
08:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
*** BREAK ***																	
16:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
16:15	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
*** BREAK ***																	
16:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	1	6
*** BREAK ***																	
17:15	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
17:30	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	3
17:45	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
Total	0	0	0	5	0	0	0	1	0	0	0	3	0	0	0	0	9
Grand Total	0	0	0	9	0	0	0	1	0	0	0	7	1	0	0	1	19
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	50	0	0	50	
Total %	0	0	0	47.4	0	0	0	5.3	0	0	0	36.8	5.3	0	0	5.3	

# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 3- Harbor Dr & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Autos - Heavy Vehicles

Start Time	Harbor Dr Southbound					NE 2nd Street Westbound					Harbor Dr Northbound					NE 2nd Street Eastbound					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
07:00	3	32	0	0	35	0	0	0	0	0	0	22	5	0	27	6	0	7	0	13	75
07:15	4	51	0	0	55	0	0	0	0	0	0	18	3	0	21	8	0	3	0	11	87
07:30	3	62	0	0	65	0	0	0	0	0	0	19	5	0	24	4	0	1	0	5	94
07:45	5	46	0	0	51	0	0	0	0	0	0	18	3	0	21	10	0	2	0	12	84
Total	15	191	0	0	206	0	0	0	0	0	0	77	16	0	93	28	0	13	0	41	340
08:00	0	44	0	0	44	0	0	0	0	0	0	28	3	0	31	12	0	2	0	14	89
08:15	3	53	0	0	56	0	0	0	0	0	0	38	13	0	51	14	0	1	0	15	122
08:30	2	46	0	0	48	0	0	0	0	0	0	30	6	0	36	15	0	2	0	17	101
08:45	3	55	0	0	58	0	0	0	0	0	0	47	8	0	55	8	0	4	0	12	125
Total	8	198	0	0	206	0	0	0	0	0	0	143	30	0	173	49	0	9	0	58	437
*** BREAK ***																					
16:00	7	42	0	0	49	0	0	0	0	0	0	49	15	0	64	13	0	18	0	31	144
16:15	5	52	0	0	57	0	0	0	0	0	0	45	14	0	59	10	0	11	0	21	137
16:30	3	44	0	0	47	0	0	0	0	0	0	45	22	0	67	18	0	11	0	29	143
16:45	6	44	0	0	50	0	0	0	0	0	0	53	15	0	68	7	0	18	0	25	143
Total	21	182	0	0	203	0	0	0	0	0	0	192	66	0	258	48	0	58	0	106	567
17:00	5	47	0	0	52	0	0	0	0	0	0	44	20	0	64	18	0	12	0	30	146
17:15	4	71	0	0	75	0	0	0	0	0	0	64	16	0	80	16	0	17	0	33	188
17:30	1	42	0	0	43	0	0	0	0	0	0	36	16	0	52	15	0	17	0	32	127
17:45	2	52	0	0	54	0	0	0	0	0	0	51	16	0	67	19	0	17	0	36	157
Total	12	212	0	0	224	0	0	0	0	0	0	195	68	0	263	68	0	63	0	131	618
Grand Total	56	783	0	0	839	0	0	0	0	0	0	607	180	0	787	193	0	143	0	336	1962
Apprch %	6.7	93.3	0	0		0	0	0	0		0	77.1	22.9	0		57.4	0	42.6	0		
Total %	2.9	39.9	0	0	42.8	0	0	0	0	0	0	30.9	9.2	0	40.1	9.8	0	7.3	0	17.1	
Autos	56	778	0	0	834	0	0	0	0	0	0	606	180	0	786	193	0	142	0	335	1955
% Autos	100	99.4	0	0	99.4	0	0	0	0	0	0	99.8	100	0	99.9	100	0	99.3	0	99.7	99.6
Heavy Vehicles																					
% Heavy Vehicles	0	0.6	0	0	0.6	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.7	0	0.3	0.4

# P&Z

PZ19-12000047

11/18/2020



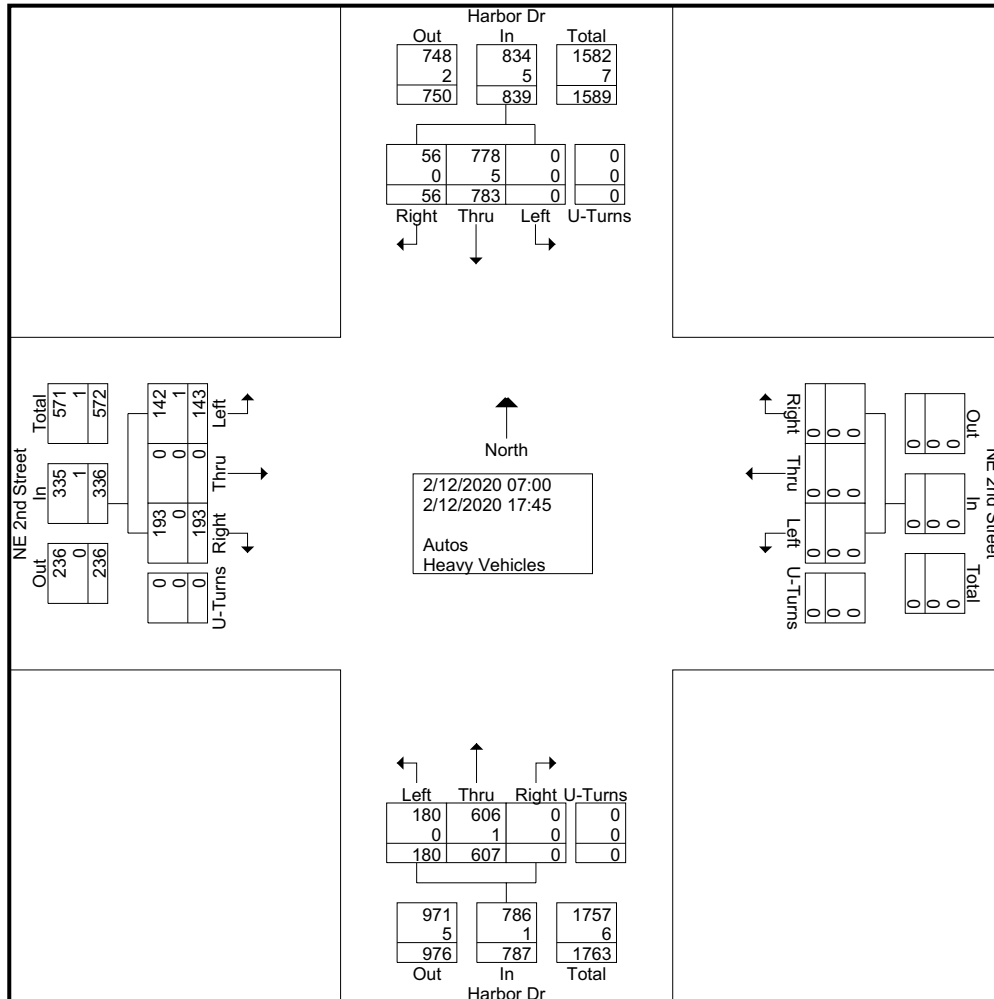
# Traf Tech Engineering Inc.

File Name : 3- Harbor Dr & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

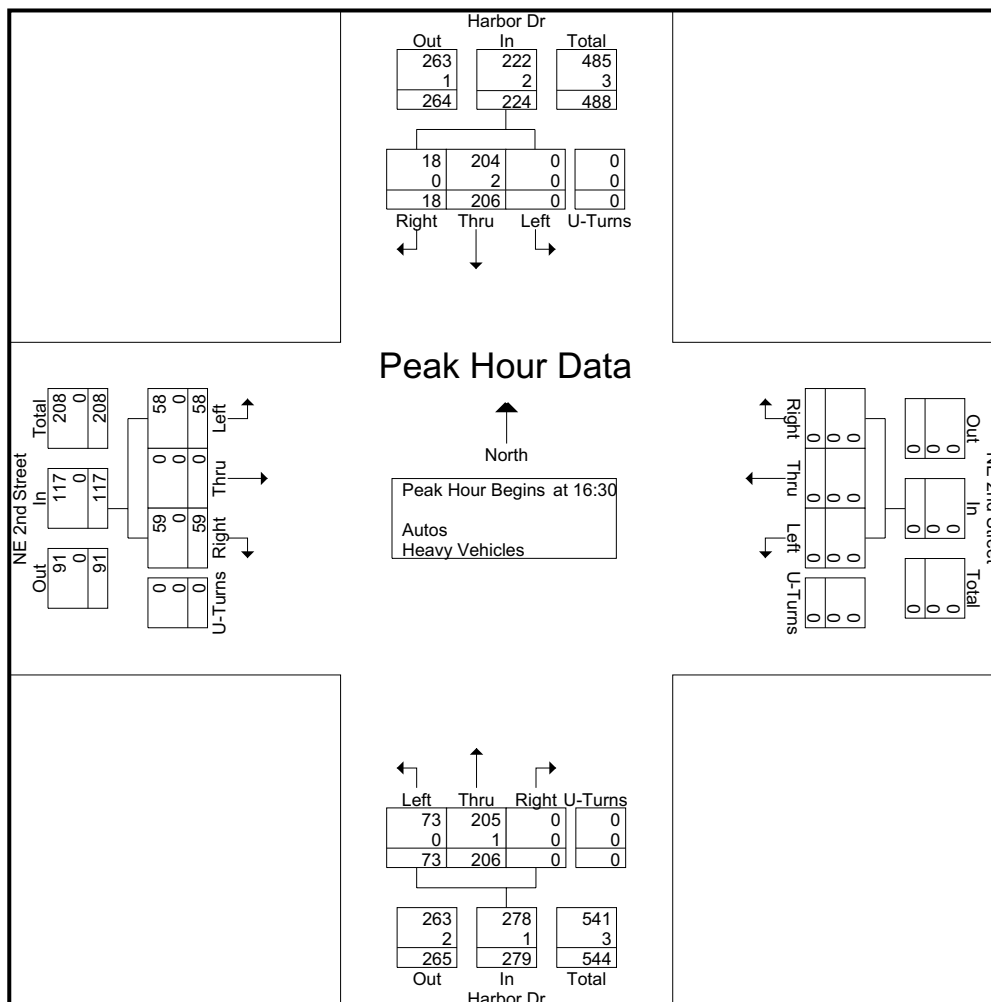
File Name : 3- Harbor Dr & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 3

	Harbor Dr Southbound					NE 2nd Street Westbound					Harbor Dr Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	3	44	0	0	47	0	0	0	0	0	0	45	22	0	67	18	0	11	0	29	143
16:45	6	44	0	0	50	0	0	0	0	0	0	53	15	0	68	7	0	18	0	25	143
17:00	5	47	0	0	52	0	0	0	0	0	0	44	20	0	64	18	0	12	0	30	146
17:15	4	71	0	0	75	0	0	0	0	0	0	64	16	0	80	16	0	17	0	33	188
Total Volume	18	206	0	0	224	0	0	0	0	0	0	206	73	0	279	59	0	58	0	117	620
% App. Total	8	92	0	0		0	0	0	0		0	73.8	26.2	0		50.4	0	49.6	0		
PHF	.750	.725	.000	.000	.747	.000	.000	.000	.000	.000	.000	.805	.830	.000	.872	.819	.000	.806	.000	.886	.824
Autos	18	204	0	0	222	0	0	0	0	0	0	205	73	0	278	59	0	58	0	117	617
% Autos	100	99.0										99.5									
Heavy Vehicles	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Heavy Vehicles	0	1.0	0	0	0.9	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0.5



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

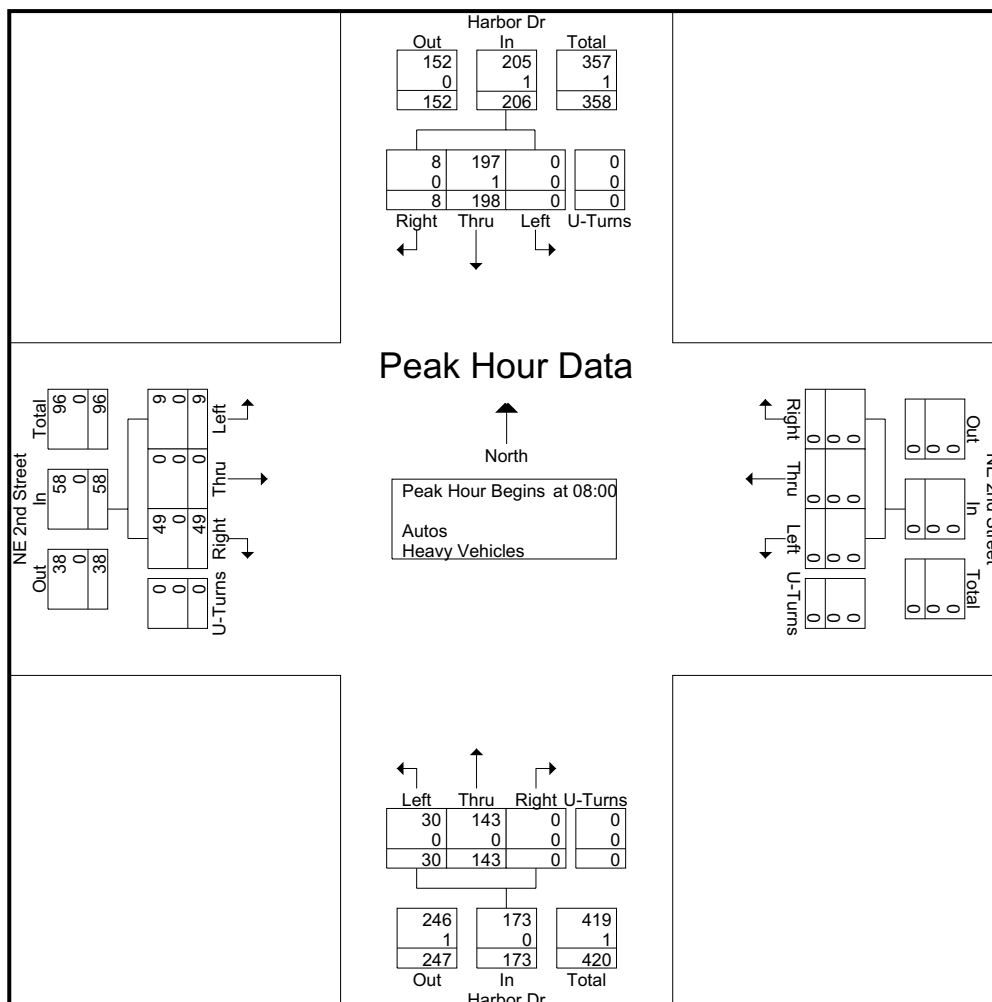
File Name : 3- Harbor Dr & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 4

	Harbor Dr Southbound					NE 2nd Street Westbound					Harbor Dr Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	44	0	0	44	0	0	0	0	0	0	28	3	0	31	12	0	2	0	14	89
08:15	3	53	0	0	56	0	0	0	0	0	0	38	13	0	51	14	0	1	0	15	122
08:30	2	46	0	0	48	0	0	0	0	0	0	30	6	0	36	15	0	2	0	17	101
08:45	3	55	0	0	58	0	0	0	0	0	0	47	8	0	55	8	0	4	0	12	125
Total Volume	8	198	0	0	206	0	0	0	0	0	0	143	30	0	173	49	0	9	0	58	437
% App. Total	3.9	96.1	0	0		0	0	0	0		0	82.7	17.3	0		84.5	0	15.5	0		
PHF	.667	.900	.000	.000	.888	.000	.000	.000	.000	.000	.000	.761	.577	.000	.786	.817	.000	.563	.000	.853	.874
Autos	8	197	0	0	205	0	0	0	0	0	0	143	30	0	173	49	0	9	0	58	436
% Autos	100	99.5																			
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	0.5	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

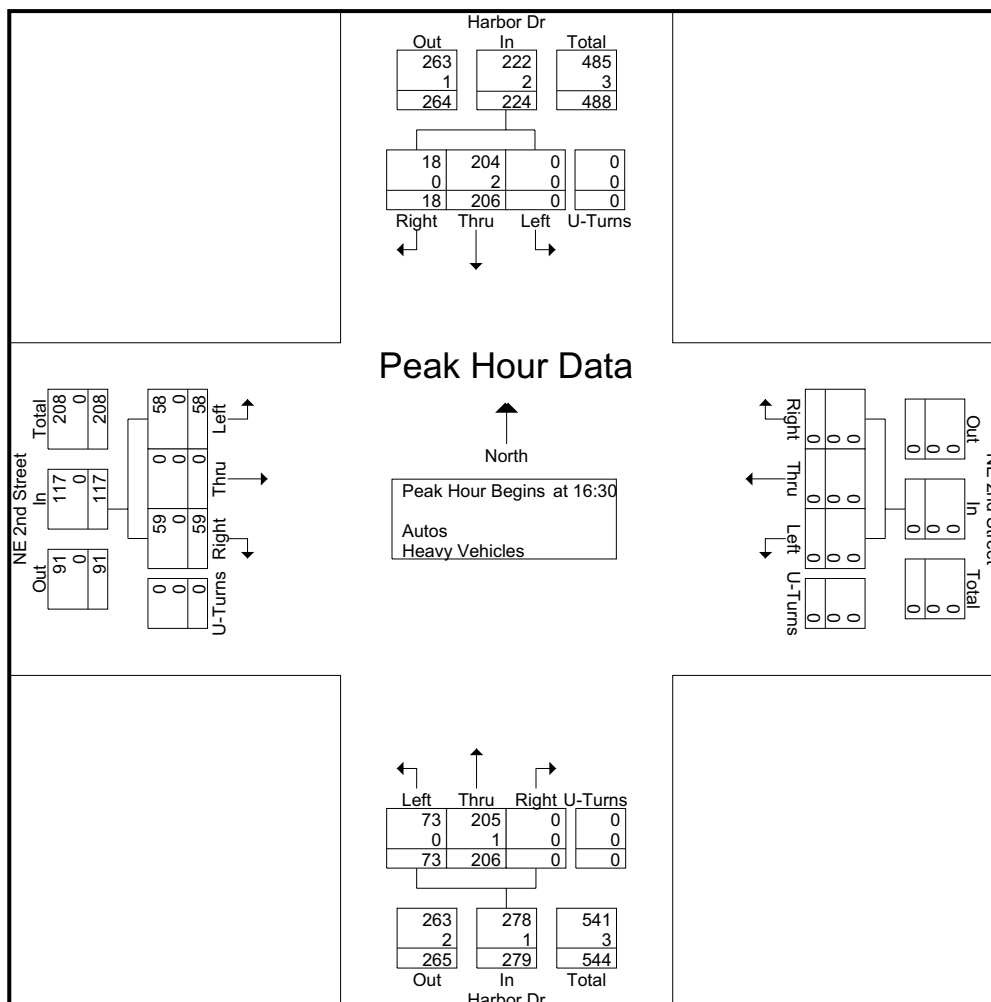
File Name : 3- Harbor Dr & NE 2nd Street

Site Code : 00000000

Start Date : 2/12/2020

Page No : 5

	Harbor Dr Southbound					NE 2nd Street Westbound					Harbor Dr Northbound					NE 2nd Street Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	3	44	0	0	47	0	0	0	0	0	0	45	22	0	67	18	0	11	0	29	143
16:45	6	44	0	0	50	0	0	0	0	0	0	53	15	0	68	7	0	18	0	25	143
17:00	5	47	0	0	52	0	0	0	0	0	0	44	20	0	64	18	0	12	0	30	146
17:15	4	71	0	0	75	0	0	0	0	0	0	64	16	0	80	16	0	17	0	33	188
Total Volume	18	206	0	0	224	0	0	0	0	0	0	206	73	0	279	59	0	58	0	117	620
% App. Total	8	92	0	0		0	0	0	0		0	73.8	26.2	0		50.4	0	49.6	0		
PHF	.750	.725	.000	.000	.747	.000	.000	.000	.000	.000	.000	.805	.830	.000	.872	.819	.000	.806	.000	.886	.824
Autos	18	204	0	0	222	0	0	0	0	0	0	205	73	0	278	59	0	58	0	117	617
% Autos	100	99.0										99.5									
Heavy Vehicles	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Heavy Vehicles	0	1.0	0	0	0.9	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0.5



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 3- Harbor Dr & NE 2nd Street  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 1

## Groups Printed- Peds & Bikes

	Harbor Dr Southbound				NE 2nd Street Westbound				Harbor Dr Northbound				NE 2nd Street Eastbound				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
*** BREAK ***																	
08:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4
08:30	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	1	7

\*\*\* BREAK \*\*\*

Grand Total	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	1	7
Apprch %	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	
Total %	0	0	0	14.3	0	0	0	0	0	0	0	71.4	0	0	0	14.3	

# P&Z

PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

File Name : 4- US-1 & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 1

## Groups Printed- Autos - Heavy Vehicles

Start Time	US-1 Southbound					Atlantic Blvd Westbound					US-1 Northbound					Atlantic Blvd Eastbound					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
07:00	42	242	18	2	304	20	93	28	0	141	9	158	47	0	214	49	87	33	2	171	830
07:15	30	316	17	2	365	23	99	43	0	165	5	173	45	0	223	57	87	39	1	184	937
07:30	20	394	16	1	431	24	102	54	0	180	15	239	65	0	319	75	93	43	0	211	1141
07:45	29	288	34	2	353	20	111	44	0	175	13	295	71	1	380	78	146	35	1	260	1168
Total	121	1240	85	7	1453	87	405	169	0	661	42	865	228	1	1136	259	413	150	4	826	4076
08:00	30	303	30	1	364	26	102	34	0	162	14	249	53	1	317	70	135	41	1	247	1090
08:15	41	319	37	3	400	25	103	36	0	164	19	230	64	1	314	69	108	41	0	218	1096
08:30	23	265	42	4	334	31	134	39	0	204	9	219	76	1	305	67	132	31	1	231	1074
08:45	32	276	32	2	342	24	112	36	0	172	14	217	46	1	278	64	139	45	1	249	1041
Total	126	1163	141	10	1440	106	451	145	0	702	56	915	239	4	1214	270	514	158	3	945	4301
*** BREAK ***																					
16:00	53	245	44	3	345	34	122	46	0	202	30	223	74	1	328	54	172	45	0	271	1146
16:15	38	245	43	1	327	35	154	57	0	246	37	253	63	1	354	62	166	42	0	270	1197
16:30	44	270	46	2	362	28	102	47	0	177	23	237	60	2	322	71	163	50	0	284	1145
16:45	45	250	45	4	344	26	128	59	0	213	26	248	68	1	343	60	148	51	0	259	1159
Total	180	1010	178	10	1378	123	506	209	0	838	116	961	265	5	1347	247	649	188	0	1084	4647
17:00	41	249	37	1	328	32	132	35	0	199	30	278	70	1	379	57	138	43	2	240	1146
17:15	41	259	44	4	348	31	136	55	0	222	29	250	63	1	343	68	168	51	0	287	1200
17:30	35	274	35	3	347	24	117	48	0	189	31	249	64	2	346	58	173	52	0	283	1165
17:45	44	256	45	4	349	31	148	43	0	222	29	287	68	1	385	59	161	52	4	276	1232
Total	161	1038	161	12	1372	118	533	181	0	832	119	1064	265	5	1453	242	640	198	6	1086	4743
Grand Total	588	4451	565	39	5643	434	1895	704	0	3033	333	3805	997	15	5150	1018	2216	694	13	3941	17767
Apprch %	10.4	78.9	10	0.7		14.3	62.5	23.2	0		6.5	73.9	19.4	0.3		25.8	56.2	17.6	0.3		
Total %	3.3	25.1	3.2	0.2	31.8	2.4	10.7	4	0	17.1	1.9	21.4	5.6	0.1	29	5.7	12.5	3.9	0.1	22.2	
Autos	570	4404	551	39	5564	427	1853	692	0	2972	324	3753	975	15	5067	990	2166	663	13	3832	17435
% Autos	96.9	98.9	97.5	100	98.6	98.4	97.8	98.3	0	98	97.3	98.6	97.8	100	98.4	97.2	97.7	95.5	100	97.2	98.1
Heavy Vehicles																					
% Heavy Vehicles	3.1	1.1	2.5	0	1.4	1.6	2.2	1.7	0	2	2.7	1.4	2.2	0	1.6	2.8	2.3	4.5	0	2.8	1.9

# P&Z

PZ19-12000047  
 11/18/2020



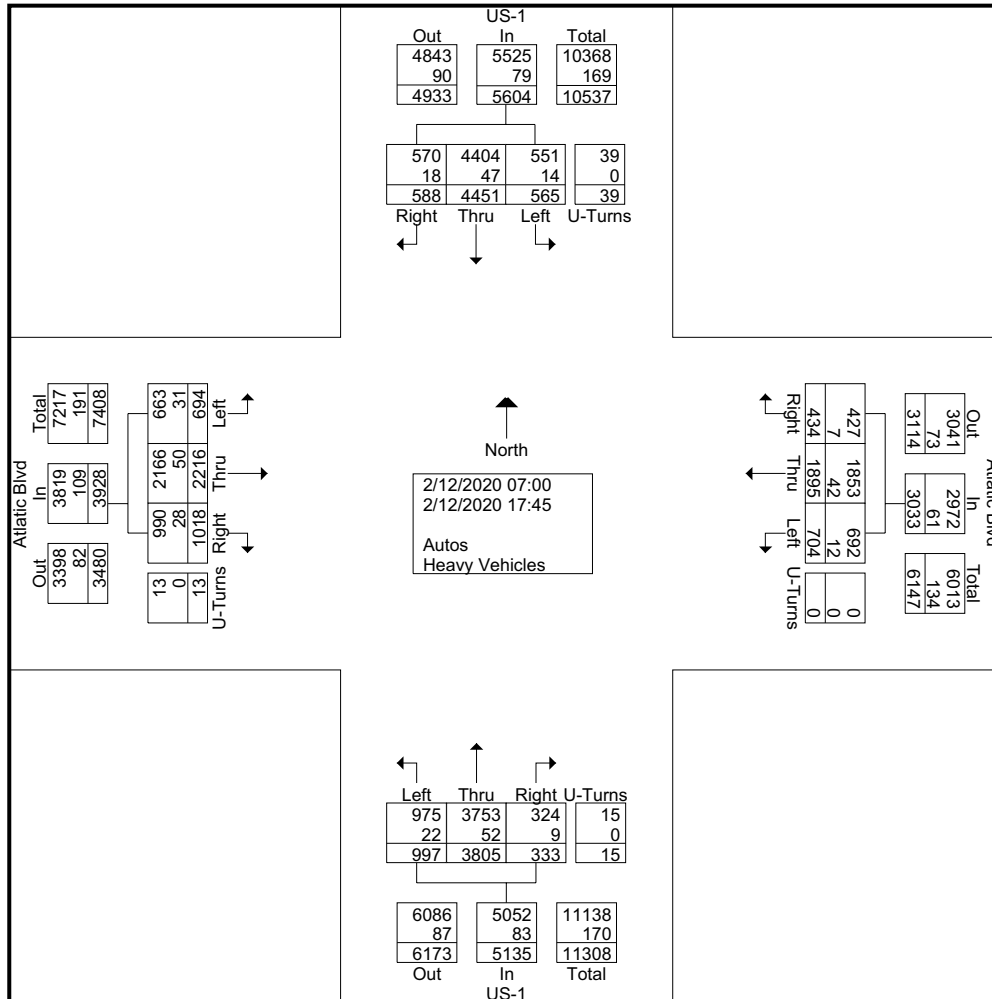
# Traf Tech Engineering Inc.

File Name : 4- US-1 & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



# P&Z

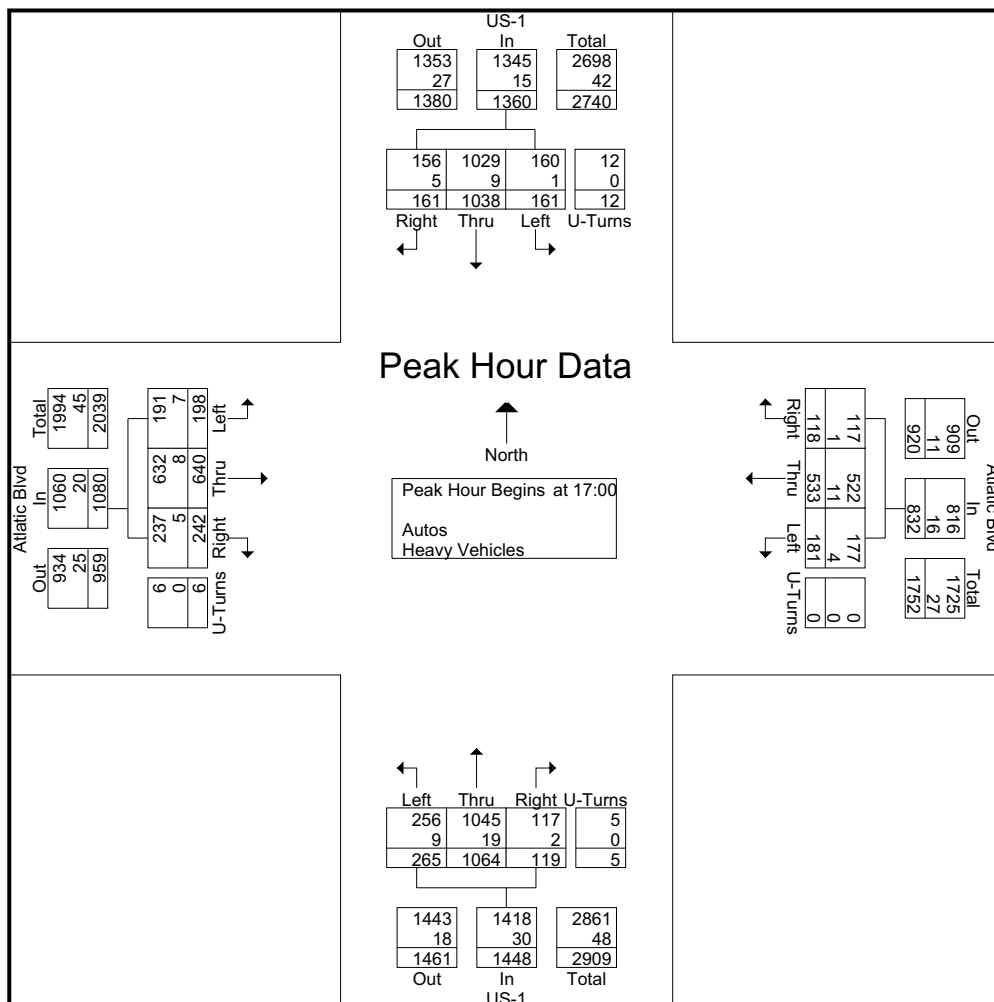
PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 4- US-1 & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 3

	US-1 Southbound					Atlantic Blvd Westbound					US-1 Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	41	249	37	1	328	32	132	35	0	199	30	278	70	1	379	57	138	43	2	240	1146
17:15	41	259	44	4	348	31	136	55	0	222	29	250	63	1	343	68	168	51	0	287	1200
17:30	35	274	35	3	347	24	117	48	0	189	31	249	64	2	346	58	173	52	0	283	1165
17:45	44	256	45	4	349	31	148	43	0	222	29	287	68	1	385	59	161	52	4	276	1232
Total Volume	161	1038	161	12	1372	118	533	181	0	832	119	1064	265	5	1453	242	640	198	6	1086	4743
% App. Total	11.7	75.7	11.7	0.9		14.2	64.1	21.8	0		8.2	73.2	18.2	0.3		22.3	58.9	18.2	0.6		
PHF	.915	.947	.894	.750	.983	.922	.900	.823	.000	.937	.960	.927	.946	.625	.944	.890	.925	.952	.375	.946	.962
Autos	156	1029										1045									
% Autos	96.9	99.1	99.4	100	98.9	99.2	97.9	97.8	0	98.1	98.3	98.2	96.6	100	97.9	97.9	98.8	96.5	100	98.2	98.3
Heavy Vehicles																					
% Heavy Vehicles	3.1	0.9	0.6	0	1.1	0.8	2.1	2.2	0	1.9	1.7	1.8	3.4	0	2.1	2.1	1.3	3.5	0	1.8	1.7



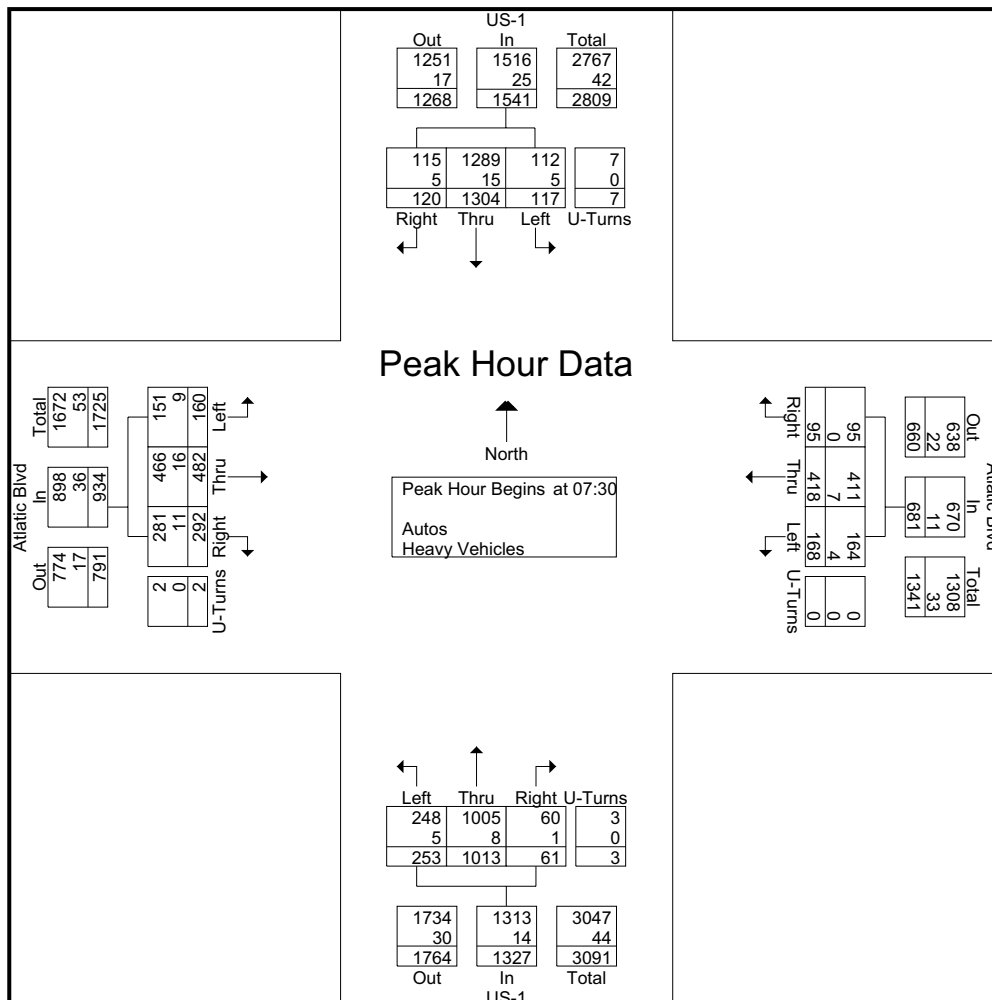
**P&Z**

PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

File Name : 4- US-1 & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 4

	US-1 Southbound					Atlantic Blvd Westbound					US-1 Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	20	394	16	1	431	24	102	54	0	180	15	239	65	0	319	75	93	43	0	211	1141
07:45	29	288	34	2	353	20	111	44	0	175	13	295	71	1	380	78	146	35	1	260	1168
08:00	30	303	30	1	364	26	102	34	0	162	14	249	53	1	317	70	135	41	1	247	1090
08:15	41	319	37	3	400	25	103	36	0	164	19	230	64	1	314	69	108	41	0	218	1096
Total Volume	120	1304	117	7	1548	95	418	168	0	681	61	1013	253	3	1330	292	482	160	2	936	4495
% App. Total	7.8	84.2	7.6	0.5		14	61.4	24.7	0		4.6	76.2	19	0.2		31.2	51.5	17.1	0.2		
PHF	.732	.827	.791	.583	.898	.913	.941	.778	.000	.946	.803	.858	.891	.750	.875	.936	.825	.930	.500	.900	.962
Autos	115	1289										1005									
% Autos	95.8	98.8	95.7	100	98.4	100	98.3	97.6	0	98.4	98.4	99.2	98.0	100	98.9	96.2	96.7	94.4	100	96.2	98.1
Heavy Vehicles																					
% Heavy Vehicles	4.2	1.2	4.3	0	1.6	0	1.7	2.4	0	1.6	1.6	0.8	2.0	0	1.1	3.8	3.3	5.6	0	3.8	1.9



**P&Z**

PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

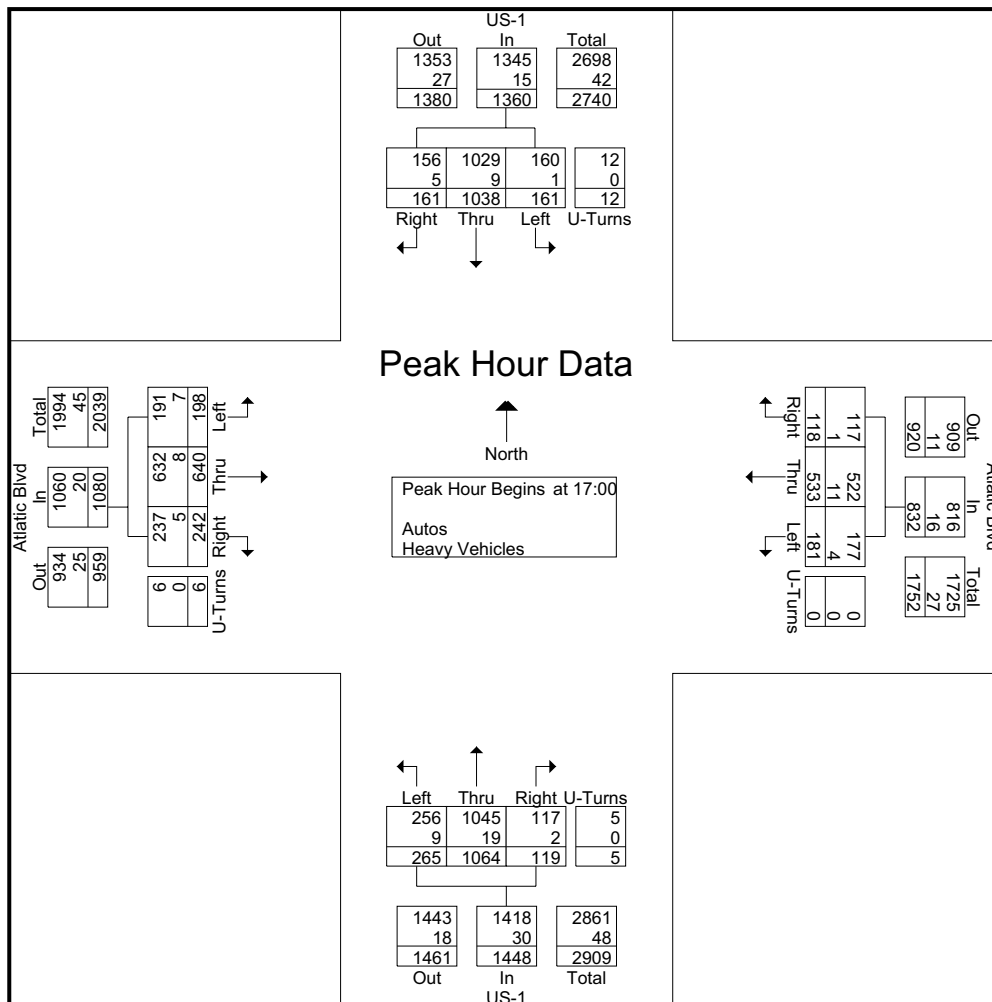
File Name : 4- US-1 & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 5

	US-1 Southbound					Atlantic Blvd Westbound					US-1 Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	41	249	37	1	328	32	132	35	0	199	30	278	70	1	379	57	138	43	2	240	1146
17:15	41	259	44	4	348	31	136	55	0	222	29	250	63	1	343	68	168	51	0	287	1200
17:30	35	274	35	3	347	24	117	48	0	189	31	249	64	2	346	58	173	52	0	283	1165
17:45	44	256	45	4	349	31	148	43	0	222	29	287	68	1	385	59	161	52	4	276	1232
Total Volume	161	1038	161	12	1372	118	533	181	0	832	119	1064	265	5	1453	242	640	198	6	1086	4743
% App. Total	11.7	75.7	11.7	0.9		14.2	64.1	21.8	0		8.2	73.2	18.2	0.3		22.3	58.9	18.2	0.6		
PHF	.915	.947	.894	.750	.983	.922	.900	.823	.000	.937	.960	.927	.946	.625	.944	.890	.925	.952	.375	.946	.962
Autos	156	1029										1045									
% Autos	96.9	99.1	99.4	100	98.9	99.2	97.9	97.8	0	98.1	98.3	98.2	96.6	100	97.9	97.9	98.8	96.5	100	98.2	98.3
Heavy Vehicles																					
% Heavy Vehicles	3.1	0.9	0.6	0	1.1	0.8	2.1	2.2	0	1.9	1.7	1.8	3.4	0	2.1	2.1	1.3	3.5	0	1.8	1.7



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 4- US-1 & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Peds & Bikes

Start Time	US-1 Southbound				Atlantic Blvd Westbound				US-1 Northbound				Atlantic Blvd Eastbound				Int. Total
	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	4
07:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3
07:45	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4
Total	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	4	12
08:00	0	0	0	4	0	0	0	0	0	0	0	1	1	0	0	1	7
08:15	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	3
08:30	0	0	0	7	0	0	0	0	0	0	0	2	0	0	0	0	9
08:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	13	0	0	0	0	0	0	0	3	2	0	0	1	20
*** BREAK ***																	
16:00	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	4	9
16:15	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	5
16:30	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	2	7
16:45	1	0	0	3	0	0	0	0	1	0	0	1	1	0	0	0	7
Total	2	0	0	10	0	0	0	0	1	0	0	6	1	0	0	8	28
17:00	1	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	5
17:15	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	1	5
17:30	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	4
17:45	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	3	0	1	5	0	0	0	0	2	0	0	4	1	0	0	2	18
Grand Total	6	0	1	33	0	0	0	0	3	0	0	16	4	0	0	15	78
Apprch %	15	0	2.5	82.5	0	0	0	0	15.8	0	0	84.2	21.1	0	0	78.9	
Total %	7.7	0	1.3	42.3	0	0	0	0	3.8	0	0	20.5	5.1	0	0	19.2	

# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Autos - Heavy Vehicles

	SE24th Ave Southbound					Atlantic Blvd Westbound					SE24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	5	0	0	0	5	2	141	8	0	151	2	0	0	0	2	1	109	13	0	123	281
07:15	3	0	4	0	7	1	173	21	2	197	0	0	1	0	1	2	111	11	0	124	329
07:30	5	1	0	0	6	1	173	35	1	210	2	0	0	0	2	1	124	10	3	138	356
07:45	4	5	2	0	11	3	177	27	3	210	6	1	1	0	8	6	203	13	1	223	452
Total	17	6	6	0	29	7	664	91	6	768	10	1	2	0	13	10	547	47	4	608	1418
08:00	4	1	4	0	9	5	171	13	1	190	4	1	1	0	6	6	190	14	0	210	415
08:15	7	0	2	0	9	1	189	22	2	214	6	0	0	1	7	9	143	14	1	167	397
08:30	3	0	3	1	7	6	164	20	0	190	3	2	1	1	7	7	176	13	1	197	401
08:45	3	0	1	0	4	2	154	20	2	178	1	3	0	0	4	2	197	14	0	213	399
Total	17	1	10	1	29	14	678	75	5	772	14	6	2	2	24	24	706	55	2	787	1612
*** BREAK ***																					
16:00	9	2	3	0	14	9	193	33	4	239	6	10	7	0	23	6	225	9	3	243	519
16:15	6	7	5	0	18	7	199	42	1	249	9	9	5	0	23	3	217	14	1	235	525
16:30	8	2	1	0	11	3	141	22	2	168	5	6	2	0	13	1	165	24	3	193	385
16:45	8	4	3	0	15	3	172	35	5	215	5	8	5	1	19	0	202	22	3	227	476
Total	31	15	12	0	58	22	705	132	12	871	25	33	19	1	78	10	809	69	10	898	1905
17:00	10	7	4	0	21	5	156	23	0	184	2	6	4	0	12	2	183	13	5	203	420
17:15	6	6	5	1	18	7	184	46	2	239	8	7	4	0	19	1	226	15	4	246	522
17:30	11	5	9	0	25	3	143	16	7	169	6	6	5	0	17	4	207	21	7	239	450
17:45	6	4	6	1	17	5	205	18	1	229	9	3	3	0	15	1	214	20	4	239	500
Total	33	22	24	2	81	20	688	103	10	821	25	22	16	0	63	8	830	69	20	927	1892
Grand Total	98	44	52	3	197	63	2735	401	33	3232	74	62	39	3	178	52	2892	240	36	3220	6827
Apprch %	49.7	22.3	26.4	1.5		1.9	84.6	12.4	1		41.6	34.8	21.9	1.7		1.6	89.8	7.5	1.1		
Total %	1.4	0.6	0.8	0	2.9	0.9	40.1	5.9	0.5	47.3	1.1	0.9	0.6	0	2.6	0.8	42.4	3.5	0.5	47.2	
Autos	97	44	51	3	195	62	2713	399	33	3207	74	62	39	3	178	52	2858	238	36	3184	6764
% Autos	99	100	98.1	100	99	98.4	99.2	99.5	100	99.2	100	100	100	100	100	100	98.8	99.2	100	98.9	99.1
Heavy Vehicles																					
% Heavy Vehicles	1	0	1.9	0	1	1.6	0.8	0.5	0	0.8	0	0	0	0	0	0	1.2	0.8	0	1.1	0.9

# P&Z

PZ19-12000047

11/18/2020



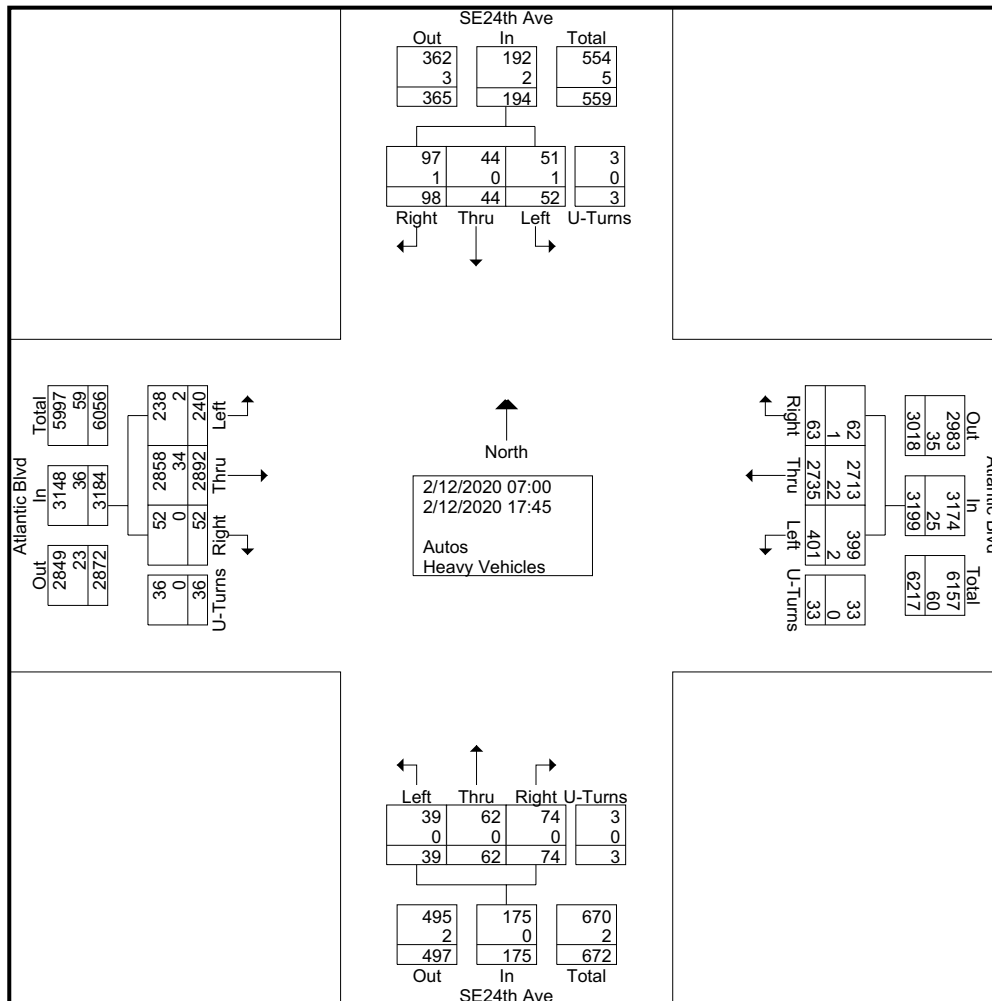
# Traf Tech Engineering Inc.

File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

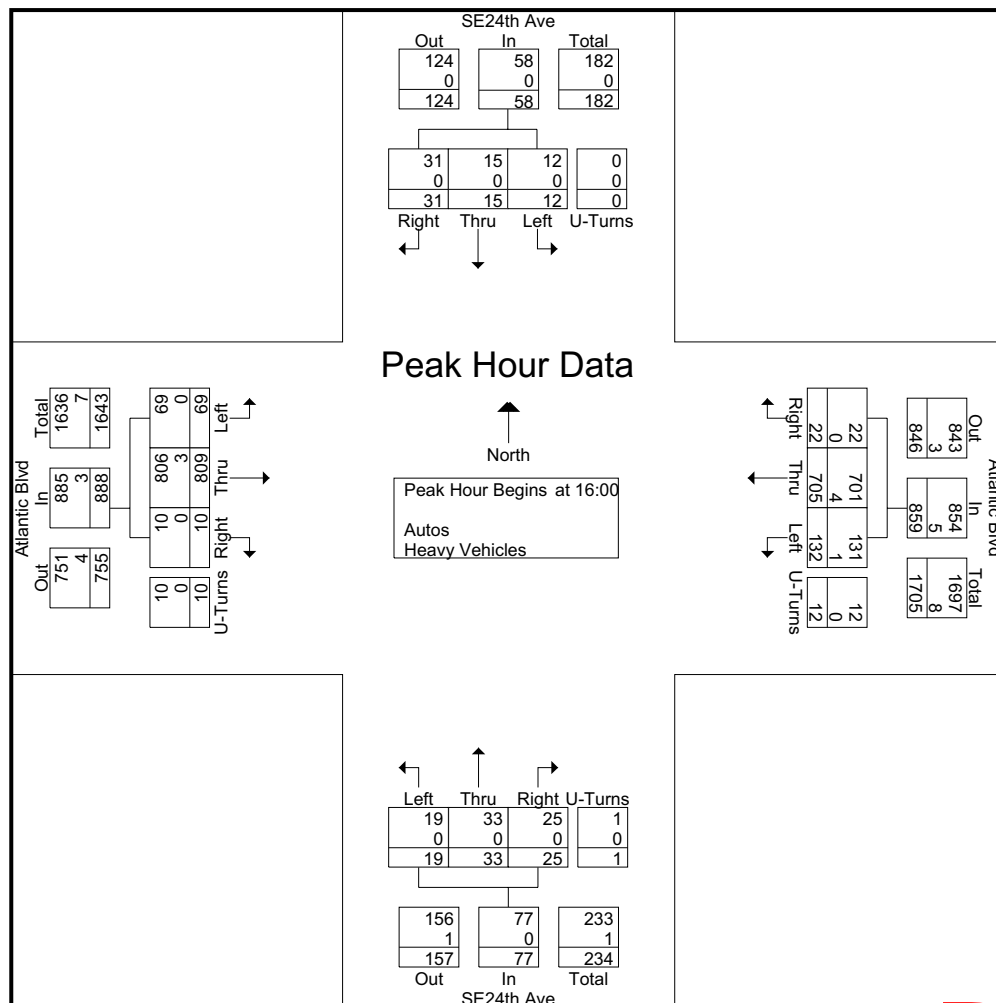
File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 3

	SE24th Ave Southbound					Atlantic Blvd Westbound					SE24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis is From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	9	2	3	0	14	9	193	33	4	239	6	10	7	0	23	6	225	9	3	243	519
16:15	6	7	5	0	18	7	199	42	1	249	9	9	5	0	23	3	217	14	1	235	525
16:30	8	2	1	0	11	3	141	22	2	168	5	6	2	0	13	1	165	24	3	193	385
16:45	8	4	3	0	15	3	172	35	5	215	5	8	5	1	19	0	202	22	3	227	476
Total Volume	31	15	12	0	58	22	705	132	12	871	25	33	19	1	78	10	809	69	10	898	1905
% App. Total	53.4	25.9	20.7	0		2.5	80.9	15.2	1.4		32.1	42.3	24.4	1.3		1.1	90.1	7.7	1.1		
PHF	.861	.536	.600	.000	.806	.611	.886	.786	.600	.874	.694	.825	.679	.250	.848	.417	.899	.719	.833	.924	.907
Autos	31	15	12	0	58	22	701	131	12	866	25	33	19	1	78	10	806	69	10	895	1897
% Autos	100	100	100	0	100	100	99.4	99.2	100	99.4	100	100	100	100	100	100	99.6				
Heavy Vehicles	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	8
% Heavy Vehicles	0	0	0	0	0	0	0.6	0.8	0	0.6	0	0	0	0	0	0	0.4	0	0	0.3	0.4



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

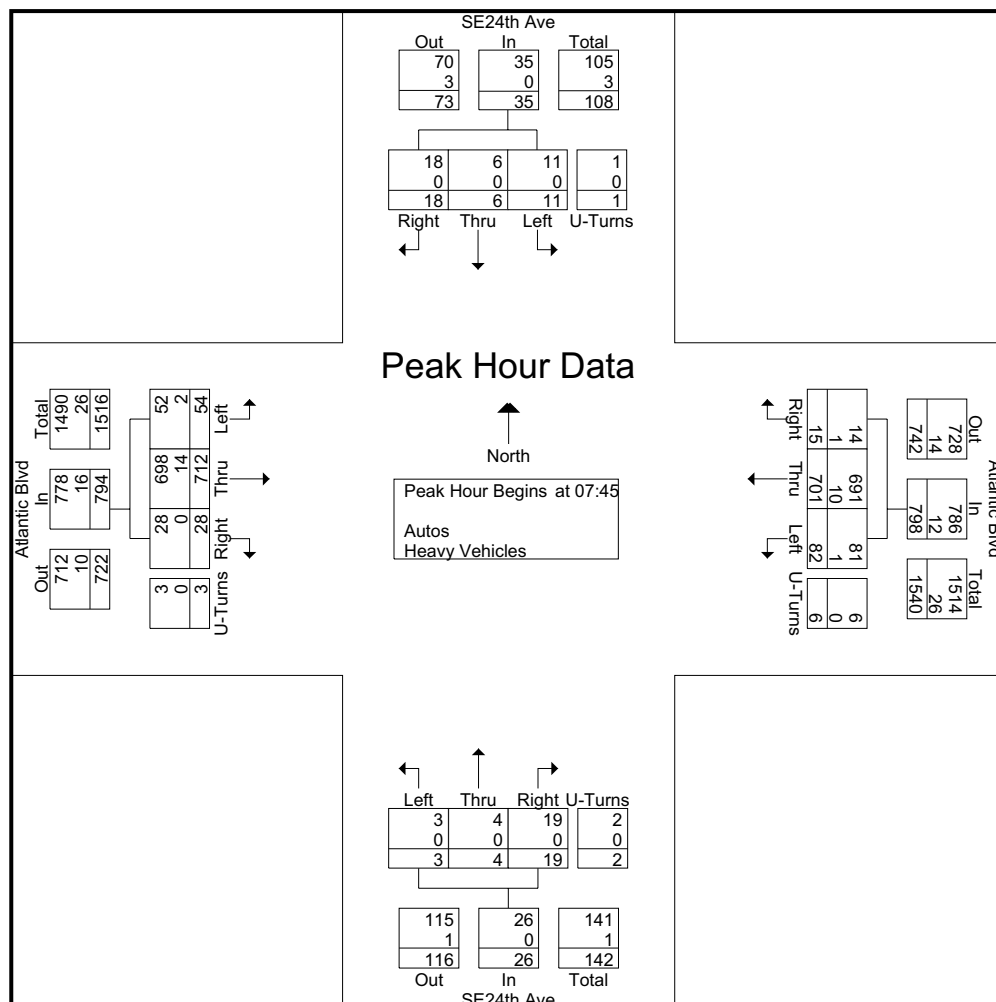
File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 4

	SE24th Ave Southbound					Atlantic Blvd Westbound					SE24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	4	5	2	0	11	3	177	27	3	210	6	1	1	0	8	6	203	13	1	223	452
08:00	4	1	4	0	9	5	171	13	1	190	4	1	1	0	6	6	190	14	0	210	415
08:15	7	0	2	0	9	1	189	22	2	214	6	0	0	1	7	9	143	14	1	167	397
08:30	3	0	3	1	7	6	164	20	0	190	3	2	1	1	7	7	176	13	1	197	401
Total Volume	18	6	11	1	36	15	701	82	6	804	19	4	3	2	28	28	712	54	3	797	1665
% App. Total	50	16.7	30.6	2.8		1.9	87.2	10.2	0.7		67.9	14.3	10.7	7.1		3.5	89.3	6.8	0.4		
PHF	.643	.300	.688	.250	.818	.625	.927	.759	.500	.939	.792	.500	.750	.500	.875	.778	.877	.964	.750	.893	.921
Autos	18	6	11	1	36	14	691	81	6	792	19	4	3	2	28	28	698	52	3	781	1637
% Autos	100	100	100	100	100	93.3	98.6	98.8	100	98.5	100	100	100	100	100	100	98.0	96.3	100	98.0	98.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	6.7	1.4	1.2	0	1.5	0	0	0	0	0	0	2.0	3.7	0	2.0	1.7



**P&Z**

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

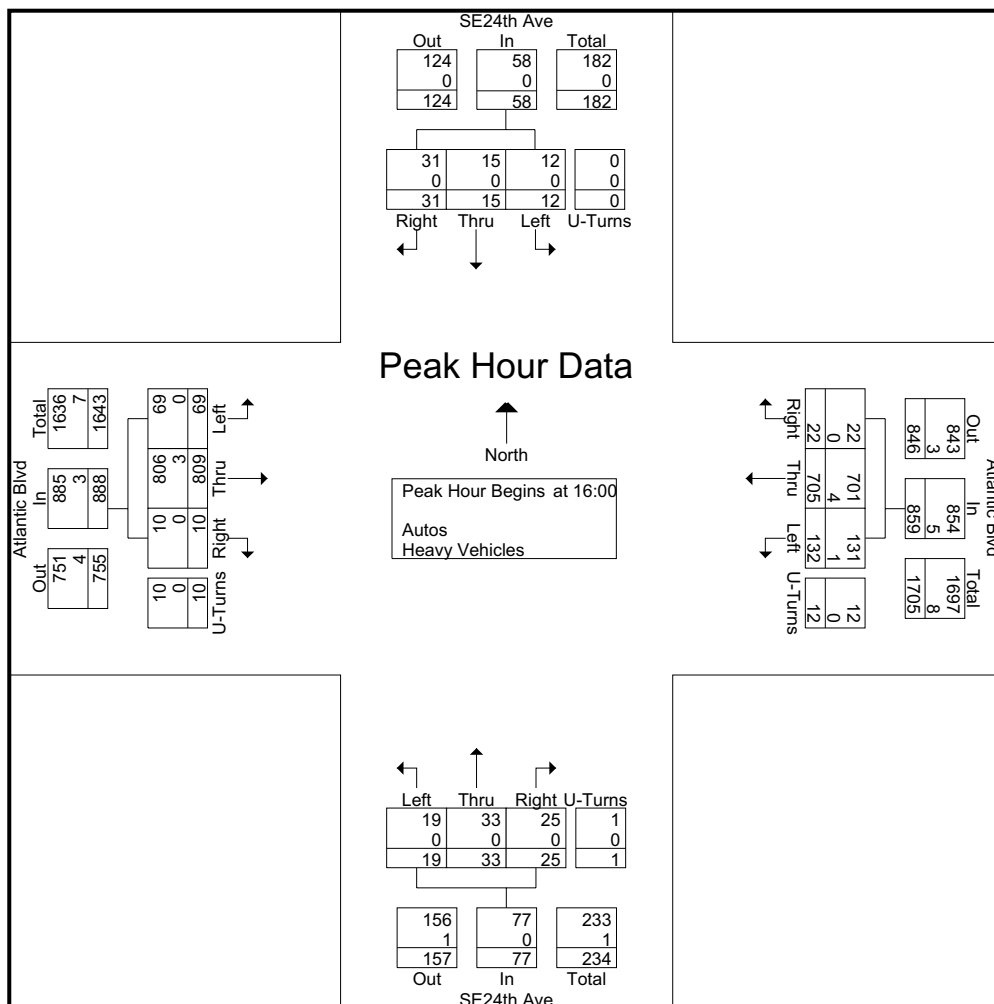
File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 5

	SE24th Ave Southbound					Atlantic Blvd Westbound					SE24th Ave Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	9	2	3	0	14	9	193	33	4	239	6	10	7	0	23	6	225	9	3	243	519
16:15	6	7	5	0	18	7	199	42	1	249	9	9	5	0	23	3	217	14	1	235	525
16:30	8	2	1	0	11	3	141	22	2	168	5	6	2	0	13	1	165	24	3	193	385
16:45	8	4	3	0	15	3	172	35	5	215	5	8	5	1	19	0	202	22	3	227	476
Total Volume	31	15	12	0	58	22	705	132	12	871	25	33	19	1	78	10	809	69	10	898	1905
% App. Total	53.4	25.9	20.7	0		2.5	80.9	15.2	1.4		32.1	42.3	24.4	1.3		1.1	90.1	7.7	1.1		
PHF	.861	.536	.600	.000	.806	.611	.886	.786	.600	.874	.694	.825	.679	.250	.848	.417	.899	.719	.833	.924	.907
Autos	31	15	12	0	58	22	701	131	12	866	25	33	19	1	78	10	806	69	10	895	1897
% Autos	100	100	100	0	100	100	99.4	99.2	100	99.4	100	100	100	100	100	100	99.6				
Heavy Vehicles	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	8
% Heavy Vehicles	0	0	0	0	0	0	0.6	0.8	0	0.6	0	0	0	0	0	0	0.4	0	0	0.3	0.4



# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 5- SE 24th Ave & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Peds & Bikes

Start Time	SE24th Ave Southbound				Atlantic Blvd Westbound				SE24th Ave Northbound				Atlantic Blvd Eastbound				Int. Total
	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0	0	4
07:15	0	0	0	2	0	0	0	0	4	0	0	1	0	0	0	1	8
07:30	0	0	0	1	0	0	0	0	2	0	0	4	0	0	0	0	7
07:45	0	0	0	5	0	0	0	2	0	0	0	4	0	0	0	0	11
Total	0	0	0	8	1	0	0	2	8	0	0	10	0	0	0	1	30
08:00	0	0	0	9	0	0	0	1	0	0	0	0	0	0	0	2	12
08:15	0	0	0	6	0	0	0	0	1	0	0	3	0	0	0	0	10
08:30	2	0	0	8	0	0	0	0	1	0	0	3	0	0	0	0	14
08:45	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	7
Total	2	0	0	26	0	0	0	1	2	0	0	10	0	0	0	2	43
*** BREAK ***																	
16:00	2	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	5
16:15	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
16:30	2	0	0	3	0	0	0	1	0	0	0	1	0	0	0	0	7
16:45	0	0	0	0	0	0	0	1	3	0	0	3	0	0	0	2	9
Total	5	0	0	4	0	0	0	2	5	0	0	6	0	0	0	2	24
17:00	0	0	0	5	0	0	0	0	4	0	0	1	0	0	0	0	10
17:15	0	0	0	0	0	0	0	3	3	0	0	3	1	0	0	1	11
17:30	0	0	0	2	0	0	0	0	1	0	0	4	0	0	0	0	7
17:45	1	0	0	3	1	0	0	1	4	0	0	2	0	0	0	2	14
Total	1	0	0	10	1	0	0	4	12	0	0	10	1	0	0	3	42
Grand Total	8	0	0	48	2	0	0	9	27	0	0	36	1	0	0	8	139
Apprch %	14.3	0	0	85.7	18.2	0	0	81.8	42.9	0	0	57.1	11.1	0	0	88.9	
Total %	5.8	0	0	34.5	1.4	0	0	6.5	19.4	0	0	25.9	0.7	0	0	5.8	

# P&Z

PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 1

## Groups Printed- Autos - Heavy Vehicles

Start Time	Harbor Dr Southbound					Atlantic Blvd Westbound					Harbor Dr Northbound					Atlantic Blvd Eastbound					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
07:00	24	0	25	0	49	20	157	0	0	177	0	1	1	0	2	2	110	15	1	128	356
07:15	33	1	21	0	55	19	168	0	1	188	1	2	0	0	3	1	122	15	3	141	387
07:30	35	0	24	0	59	17	174	0	0	191	0	0	2	0	2	1	111	32	2	146	398
07:45	30	1	25	0	56	23	152	1	0	176	1	0	0	0	1	0	190	26	1	217	450
Total	122	2	95	0	219	79	651	1	1	732	2	3	3	0	8	4	533	88	7	632	1591
08:00	23	1	24	0	48	14	196	1	1	212	0	0	0	0	0	1	172	23	0	196	456
08:15	24	2	30	0	56	36	214	0	0	250	1	0	2	0	3	2	151	21	2	176	485
08:30	23	0	18	0	41	13	130	2	2	147	0	0	0	0	0	0	127	28	0	155	343
08:45	22	3	34	0	59	46	229	2	2	279	3	2	2	0	7	3	174	35	0	212	557
Total	92	6	106	0	204	109	769	5	5	888	4	2	4	0	10	6	624	107	2	739	1841
*** BREAK ***																					
16:00	35	10	55	0	100	37	197	4	2	240	3	1	5	0	9	3	193	49	2	247	596
16:15	37	6	54	0	97	40	177	7	4	228	3	3	4	0	10	4	185	47	1	237	572
16:30	24	0	24	0	48	33	149	5	1	188	3	1	2	0	6	5	185	27	2	219	461
16:45	29	7	54	0	90	56	172	13	5	246	5	6	4	0	15	9	171	54	1	235	586
Total	125	23	187	0	335	166	695	29	12	902	14	11	15	0	40	21	734	177	6	938	2215
17:00	32	4	49	0	85	38	168	1	1	208	4	4	6	0	14	6	171	34	1	212	519
17:15	23	2	33	0	58	28	171	2	5	206	2	3	5	0	10	4	199	48	1	252	526
17:30	16	5	41	0	62	22	130	4	1	157	3	8	11	0	22	7	204	37	2	250	491
17:45	20	6	32	0	58	31	156	10	2	199	5	6	3	0	14	6	176	40	1	223	494
Total	91	17	155	0	263	119	625	17	9	770	14	21	25	0	60	23	750	159	5	937	2030
Grand Total	430	48	543	0	1021	473	2740	52	27	3292	34	37	47	0	118	54	2641	531	20	3246	7677
Apprch %	42.1	4.7	53.2	0		14.4	83.2	1.6	0.8		28.8	31.4	39.8	0		1.7	81.4	16.4	0.6		
Total %	5.6	0.6	7.1	0	13.3	6.2	35.7	0.7	0.4	42.9	0.4	0.5	0.6	0	1.5	0.7	34.4	6.9	0.3	42.3	
Autos	429	48	539	0	1016	471	2723	52	27	3273	33	37	46	0	116	54	2607	524	20	3205	7610
% Autos	99.8	100	99.3	0	99.5	99.6	99.4	100	100	99.4	97.1	100	97.9	0	98.3	100	98.7	98.7	100	98.7	99.1
Heavy Vehicles																					
% Heavy Vehicles	0.2	0	0.7	0	0.5	0.4	0.6	0	0	0.6	2.9	0	2.1	0	1.7	0	1.3	1.3	0	1.3	0.9

# P&Z

PZ19-12000047  
 11/18/2020



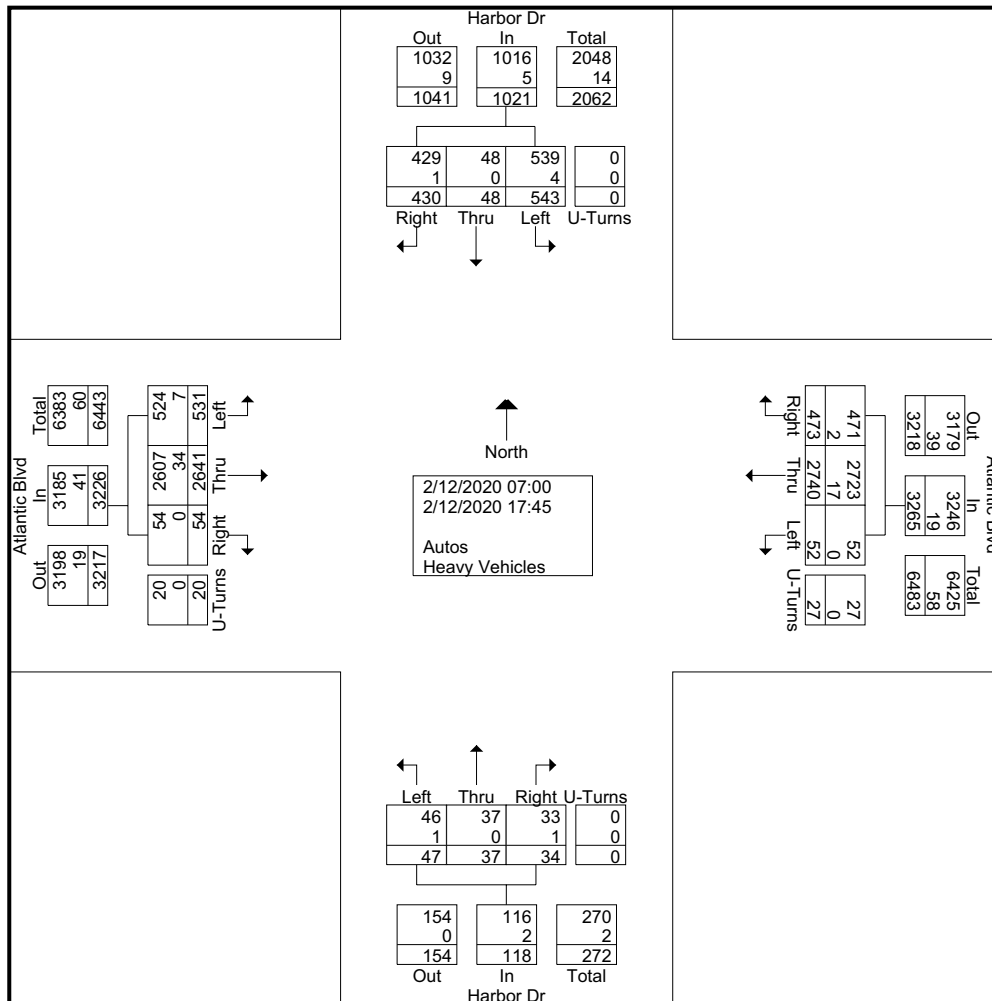
# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 2



**P&Z**

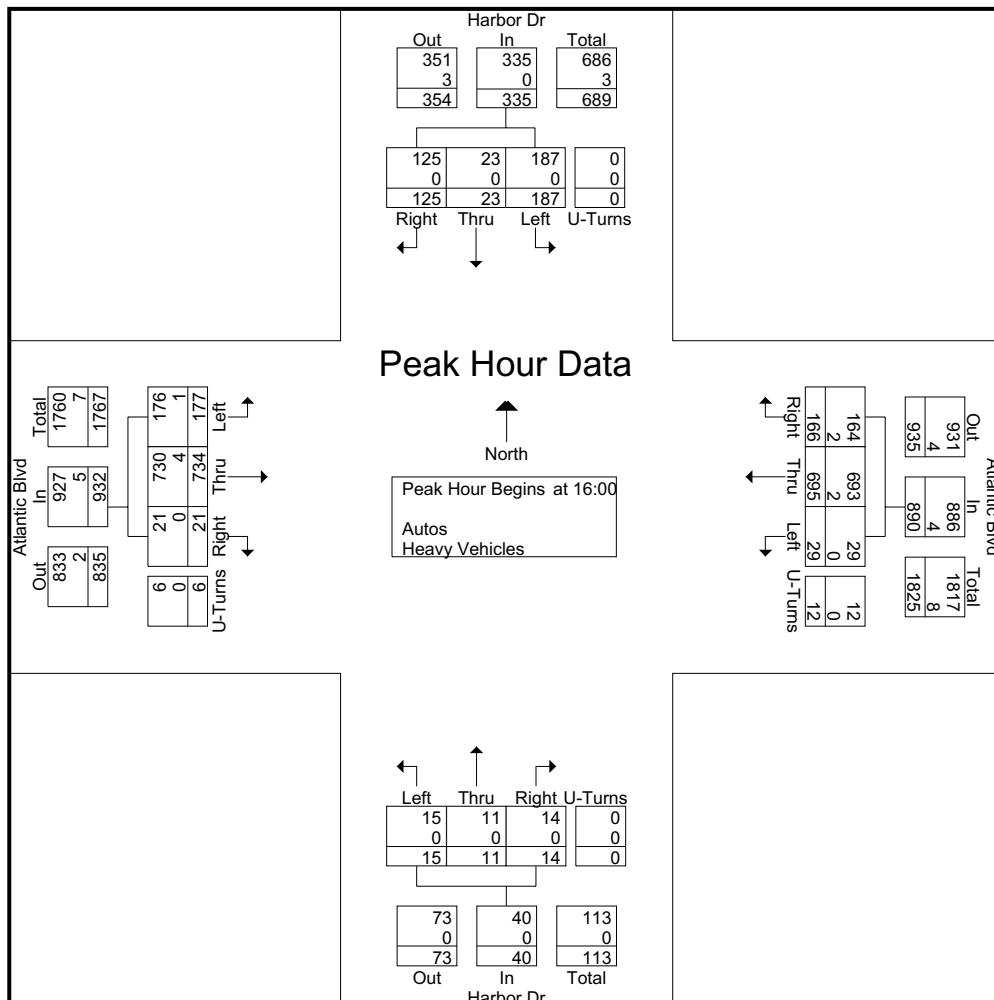
PZ19-12000047

11/18/2020

# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 3

	Harbor Dr Southbound					Atlantic Blvd Westbound					Harbor Dr Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis is From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	35	10	55	0	100	37	197	4	2	240	3	1	5	0	9	3	193	49	2	247	596
16:15	37	6	54	0	97	40	177	7	4	228	3	3	4	0	10	4	185	47	1	237	572
16:30	24	0	24	0	48	33	149	5	1	188	3	1	2	0	6	5	185	27	2	219	461
16:45	29	7	54	0	90	56	172	13	5	246	5	6	4	0	15	9	171	54	1	235	586
Total Volume	125	23	187	0	335	166	695	29	12	902	14	11	15	0	40	21	734	177	6	938	2215
% App. Total	37.3	6.9	55.8	0		18.4	77.1	3.2	1.3		35	27.5	37.5	0		2.2	78.3	18.9	0.6		
PHF	.845	.575	.850	.000	.838	.741	.882	.558	.600	.917	.700	.458	.750	.000	.667	.583	.951	.819	.750	.949	.929
Autos	125	23	187	0	335	164	693	29	12	898	14	11	15	0	40	21	730	176	6	933	2206
% Autos	100	100	100	0	100	98.8	99.7										99.5	99.4	100	99.5	99.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	1.2	0.3	0	0	0.4	0	0	0	0	0	0	0.5	0.6	0	0.5	0.4



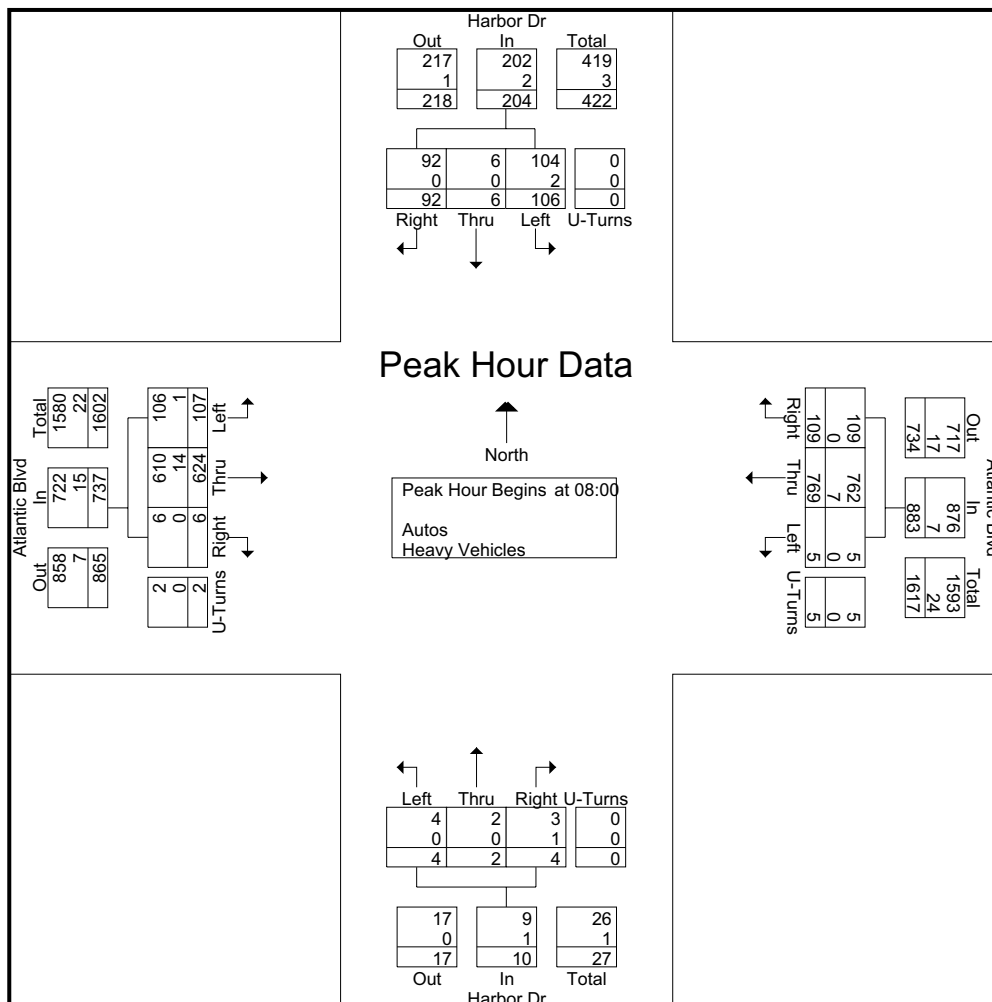
**P&Z**

PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 4

	Harbor Dr Southbound					Atlantic Blvd Westbound					Harbor Dr Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	23	1	24	0	48	14	196	1	1	212	0	0	0	0	0	1	172	23	0	196	456
08:15	24	2	30	0	56	36	214	0	0	250	1	0	2	0	3	2	151	21	2	176	485
08:30	23	0	18	0	41	13	130	2	2	147	0	0	0	0	0	0	127	28	0	155	343
08:45	22	3	34	0	59	46	229	2	2	279	3	2	2	0	7	3	174	35	0	212	557
Total Volume	92	6	106	0	204	109	769	5	5	888	4	2	4	0	10	6	624	107	2	739	1841
% App. Total	45.1	2.9	52	0		12.3	86.6	0.6	0.6		40	20	40	0		0.8	84.4	14.5	0.3		
PHF	.958	.500	.779	.000	.864	.592	.840	.625	.625	.796	.333	.250	.500	.000	.357	.500	.897	.764	.250	.871	.826
Autos	92	6	104	0	202	109	762	5	5	881	3	2	4	0	9	6	610	106	2	724	1816
% Autos	100	100	98.1	0	99.0	100	99.1				75.0	100	100	0	90.0	100	97.8	99.1	100	98.0	98.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	1.9	0	1.0	0	0.9	0	0	0.8	25.0	0	0	0	10.0	0	2.2	0.9	0	2.0	1.4



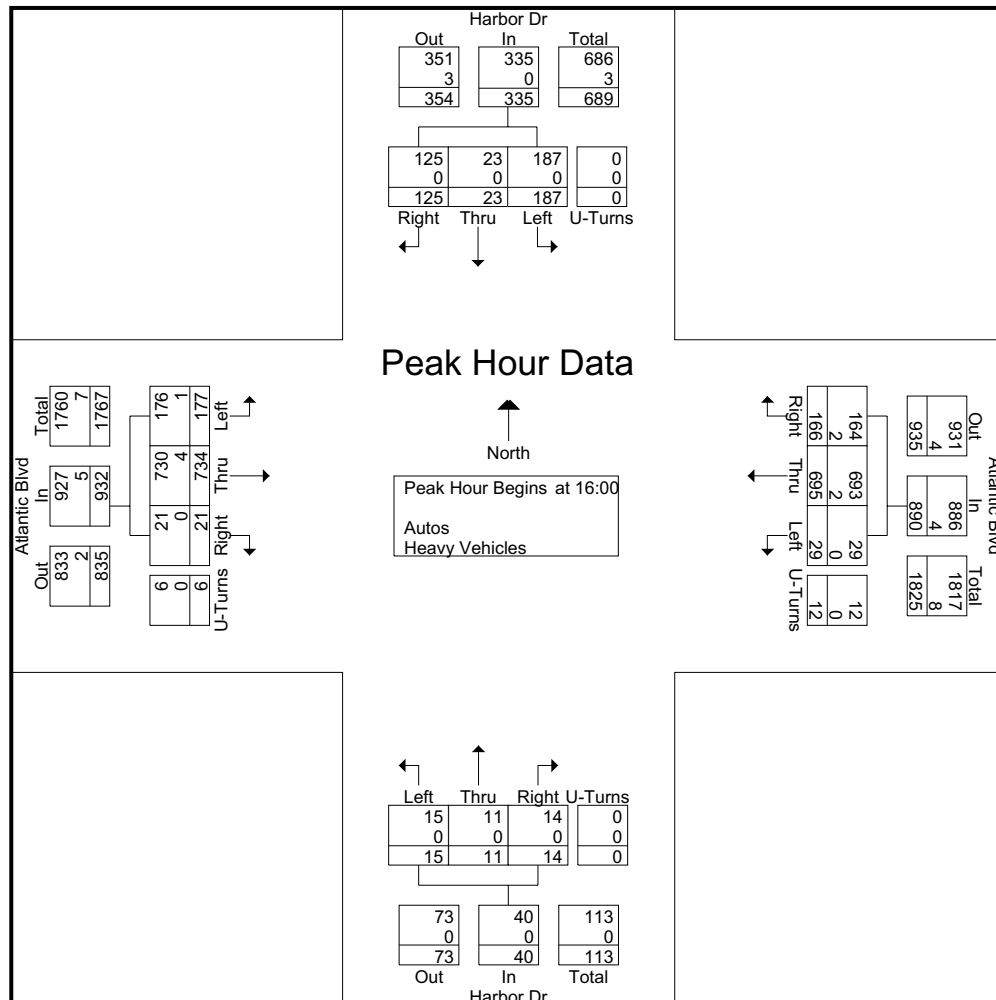
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PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd  
 Site Code : 00000000  
 Start Date : 2/12/2020  
 Page No : 5

	Harbor Dr Southbound					Atlantic Blvd Westbound					Harbor Dr Northbound					Atlantic Blvd Eastbound					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	35	10	55	0	100	37	197	4	2	240	3	1	5	0	9	3	193	49	2	247	596
16:15	37	6	54	0	97	40	177	7	4	228	3	3	4	0	10	4	185	47	1	237	572
16:30	24	0	24	0	48	33	149	5	1	188	3	1	2	0	6	5	185	27	2	219	461
16:45	29	7	54	0	90	56	172	13	5	246	5	6	4	0	15	9	171	54	1	235	586
Total Volume	125	23	187	0	335	166	695	29	12	902	14	11	15	0	40	21	734	177	6	938	2215
% App. Total	37.3	6.9	55.8	0		18.4	77.1	3.2	1.3		35	27.5	37.5	0		2.2	78.3	18.9	0.6		
PHF	.845	.575	.850	.000	.838	.741	.882	.558	.600	.917	.700	.458	.750	.000	.667	.583	.951	.819	.750	.949	.929
Autos	125	23	187	0	335	164	693	29	12	898	14	11	15	0	40	21	730	176	6	933	2206
% Autos	100	100	100	0	100	98.8	99.7										99.5	99.4	100	99.5	99.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	1.2	0.3	0	0	0.4	0	0	0	0	0	0	0.5	0.6	0	0.5	0.4



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PZ19-12000047  
 11/18/2020

# Traf Tech Engineering Inc.

File Name : 6- Harbor Dr & Atlantic Blvd

Site Code : 00000000

Start Date : 2/12/2020

Page No : 1

## Groups Printed- Peds & Bikes

Start Time	Harbor Dr Southbound				Atlantic Blvd Westbound				Harbor Dr Northbound				Atlantic Blvd Eastbound				Int. Total
	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:15	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
07:30	0	0	0	3	1	0	0	0	0	0	0	2	0	0	0	0	6
07:45	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	3
Total	0	0	0	7	3	0	0	0	0	0	0	3	0	0	0	1	14
08:00	0	0	0	8	5	0	0	0	0	0	0	0	0	0	0	0	13
08:15	0	0	0	5	1	0	0	4	2	0	0	4	0	0	0	3	19
08:30	0	0	0	5	2	0	0	1	1	0	0	0	0	0	0	2	11
08:45	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	7
Total	0	0	0	21	8	0	0	5	3	0	0	8	0	0	0	5	50
*** BREAK ***																	
16:00	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	2	5
16:15	0	0	0	5	2	0	0	3	0	0	0	1	2	0	0	1	14
16:30	1	0	0	5	0	0	0	4	1	0	0	2	0	0	0	2	15
16:45	2	0	0	3	0	0	0	0	1	0	0	1	0	0	0	4	11
Total	3	0	0	13	2	0	0	8	3	0	0	4	3	0	0	9	45
17:00	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1	5
17:15	1	0	0	2	1	0	0	3	0	0	0	2	1	0	0	4	14
17:30	2	0	0	5	0	0	0	4	0	0	0	1	0	0	0	2	14
17:45	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	6
Total	3	0	0	11	1	0	0	10	1	0	0	4	1	0	0	8	39
Grand Total	6	0	0	52	14	0	0	23	7	0	0	19	4	0	0	23	148
Apprch %	10.3	0	0	89.7	37.8	0	0	62.2	26.9	0	0	73.1	14.8	0	0	85.2	
Total %	4.1	0	0	35.1	9.5	0	0	15.5	4.7	0	0	12.8	2.7	0	0	15.5	

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PZ19-12000047

11/18/2020

# **APPENDIX D**

## **Peak Season Conversion Factors and Historical Traffic Data**



**PZ19-12000047  
11/18/2020**



2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 8601 CEN.-W OF US1 TO SR7

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2018 - 01/06/2018	1.00	1.02
2	01/07/2018 - 01/13/2018	1.01	1.03
3	01/14/2018 - 01/20/2018	1.01	1.03
4	01/21/2018 - 01/27/2018	1.00	1.02
* 5	01/28/2018 - 02/03/2018	0.99	1.01
* 6	02/04/2018 - 02/10/2018	0.97	0.99
* 7	02/11/2018 - 02/17/2018	0.96	0.98
* 8	02/18/2018 - 02/24/2018	0.96	0.98
* 9	02/25/2018 - 03/03/2018	0.96	0.98
*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	0.98	1.00
*14	04/01/2018 - 04/07/2018	0.98	1.00
*15	04/08/2018 - 04/14/2018	0.98	1.00
*16	04/15/2018 - 04/21/2018	0.99	1.01
*17	04/22/2018 - 04/28/2018	1.00	1.02
18	04/29/2018 - 05/05/2018	1.01	1.03
19	05/06/2018 - 05/12/2018	1.02	1.04
20	05/13/2018 - 05/19/2018	1.03	1.05
21	05/20/2018 - 05/26/2018	1.03	1.05
22	05/27/2018 - 06/02/2018	1.03	1.05
23	06/03/2018 - 06/09/2018	1.02	1.04
24	06/10/2018 - 06/16/2018	1.02	1.04
25	06/17/2018 - 06/23/2018	1.02	1.04
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	1.03	1.05
29	07/15/2018 - 07/21/2018	1.03	1.05
30	07/22/2018 - 07/28/2018	1.02	1.04
31	07/29/2018 - 08/04/2018	1.02	1.04
32	08/05/2018 - 08/11/2018	1.01	1.03
33	08/12/2018 - 08/18/2018	1.01	1.03
34	08/19/2018 - 08/25/2018	1.01	1.03
35	08/26/2018 - 09/01/2018	1.02	1.04
36	09/02/2018 - 09/08/2018	1.02	1.04
37	09/09/2018 - 09/15/2018	1.03	1.05
38	09/16/2018 - 09/22/2018	1.02	1.04
39	09/23/2018 - 09/29/2018	1.01	1.03
40	09/30/2018 - 10/06/2018	1.01	1.03
41	10/07/2018 - 10/13/2018	1.00	1.02
42	10/14/2018 - 10/20/2018	1.00	1.02
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	1.01	1.03
48	11/25/2018 - 12/01/2018	1.01	1.03
49	12/02/2018 - 12/08/2018	1.00	1.02
50	12/09/2018 - 12/15/2018	1.00	1.02
51	12/16/2018 - 12/22/2018	1.01	1.03
52	12/23/2018 - 12/29/2018	1.01	1.03
53	12/30/2018 - 12/31/2018	1.01	1.03

\* PEAK SEASON

25-FEB-2019 16:26:26

830UPD

4\_8601\_PKSEASON.TXT

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**PZ19-12000047  
11/18/2020**

FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2018 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0435 - SR 814/ATLANTIC BLVD - W OF ICWW BR

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2018	24500	C	E 12500		W 12000	9.00	54.10	2.90
2017	25000	C	E 12500		W 12500	9.00	53.80	2.90
2016	25500	C	E 13000		W 12500	9.00	55.20	1.00
2015	21500	C	E 11000		W 10500	9.00	54.90	1.00
2014	24500	C	E 12500		W 12000	9.00	54.50	1.00
2013	24500	C	E 12500		W 12000	9.00	54.60	2.80
2012	23500	C	E 12500		W 11000	9.00	55.00	2.80
2011	23500	C	E 10500		W 13000	9.00	54.50	1.50
2010	25500	C	E 12500		W 13000	9.37	54.06	1.50
2009	28000	C	E 14500		W 13500	9.31	53.74	1.50
2008	25000	C	E 13000		W 12000	9.70	54.48	2.40
2007	29000	C	E 14500		W 14500	9.10	53.47	2.40
2006	29500	C	E 14500		W 15000	9.48	53.59	3.00
2005	29000	C	E 14500		W 14500	10.60	58.90	2.70
2004	30000	C	E 15000		W 15000	10.40	56.30	2.70
2003	29500	C	E 15000		W 14500	9.20	55.90	2.60

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: 86 - BROWARD

SITE: 5100 - SR 5 - N OF NE 6 ST, POMPANO

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2018	43000	C	N 22000		S 21000	9.00	54.10	6.10
2017	41000	C	N 21000		S 20000	9.00	53.80	3.90
2016	39500	C	N 19500		S 20000	9.00	55.20	3.90
2015	43000	C	N 21500		S 21500	9.00	54.90	3.90
2014	39500	C	N 19500		S 20000	9.00	54.50	5.50
2013	37500	C	N 18500		S 19000	9.00	54.60	5.50
2012	39000	C	N 21000		S 18000	9.00	55.00	5.50
2011	38000	C	N 18500		S 19500	9.00	54.50	5.50
2010	39000	C	N 19500		S 19500	9.37	54.06	5.50
2009	42000	C	N 21000		S 21000	9.31	53.74	5.50
2008	41500	C	N 20500		S 21000	9.70	54.48	2.70
2007	42500	C	N 21000		S 21500	9.10	53.47	2.70
2006	42000	C	N 21000		S 21000	9.48	53.59	4.40
2005	39000	C	N 19000		S 20000	10.60	58.90	3.50
2004	38000	C	N 19000		S 19000	10.40	56.30	3.50
2003	35500	C	N 17500		S 18000	9.20	55.90	3.50

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

FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2018 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7423 - ATLANTIC BLVD, W OF US 1

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2018	37000	C	E 18500		W 18500	9.00	54.50	5.30
2017	35500	C	E 20500		W 15000	9.00	51.90	7.10
2016	33500	C	E 17000		W 16500	9.00	54.10	7.10
2015	32000	C	E 15000		W 17000	9.00	54.00	7.10
2014	33000	C	E 17500		W 15500	9.00	54.20	4.80
2013	31500	C	E 16000		W 15500	9.00	53.60	5.40
2012	35500	C	E 17000		W 18500	9.00	52.20	5.40
2011	34000	C	E 17500		W 16500	9.00	52.50	2.00
2010	37000	C	E 19000		W 18000	8.35	52.69	2.00
2009	40000	C	E 20000		W 20000	8.53	53.89	2.00
2008	40500	S	E 20000		W 20500	8.81	54.16	4.20
2007	41500	F	E 20500		W 21000	8.63	55.75	3.30
2006	39500	C	E 19500		W 20000	8.40	55.34	4.70
2005	36500	C	E 18000		W 18500	8.20	51.70	2.80

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: 86 - BROWARD

SITE: 7739 - US 1, S OF ATLANTIC BLVD

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----	-----	-----	-----	-----
2018	44000 C	N	21500	S 22500	9.00	54.10	2.60
2017	42500 C	N	20500	S 22000	9.00	53.80	2.60
2016	42500 C	N	21500	S 21000	9.00	55.20	4.10
2015	37000 C	N	17000	S 20000	9.00	54.90	4.10
2014	41000 C	N	20000	S 21000	9.00	54.50	4.30
2013	40000 C	N	20000	S 20000	9.00	54.60	7.70
2012	37500 C	N	18000	S 19500	9.00	55.00	7.70
2011	36500 C	N	18000	S 18500	9.00	54.50	4.00
2010	37000 C	N	18000	S 19000	9.37	54.06	4.00
2009	41000 C	N	20500	S 20500	9.31	53.74	4.00
2008	39000 S	N	19500	S 19500	9.70	54.48	4.10
2007	41000 F	N	20500	S 20500	9.10	53.47	2.60
2006	41000 C	N	20500	S 20500	9.48	53.59	3.30
2005	39500 C	N	20000	S 19500	10.60	58.90	0.00

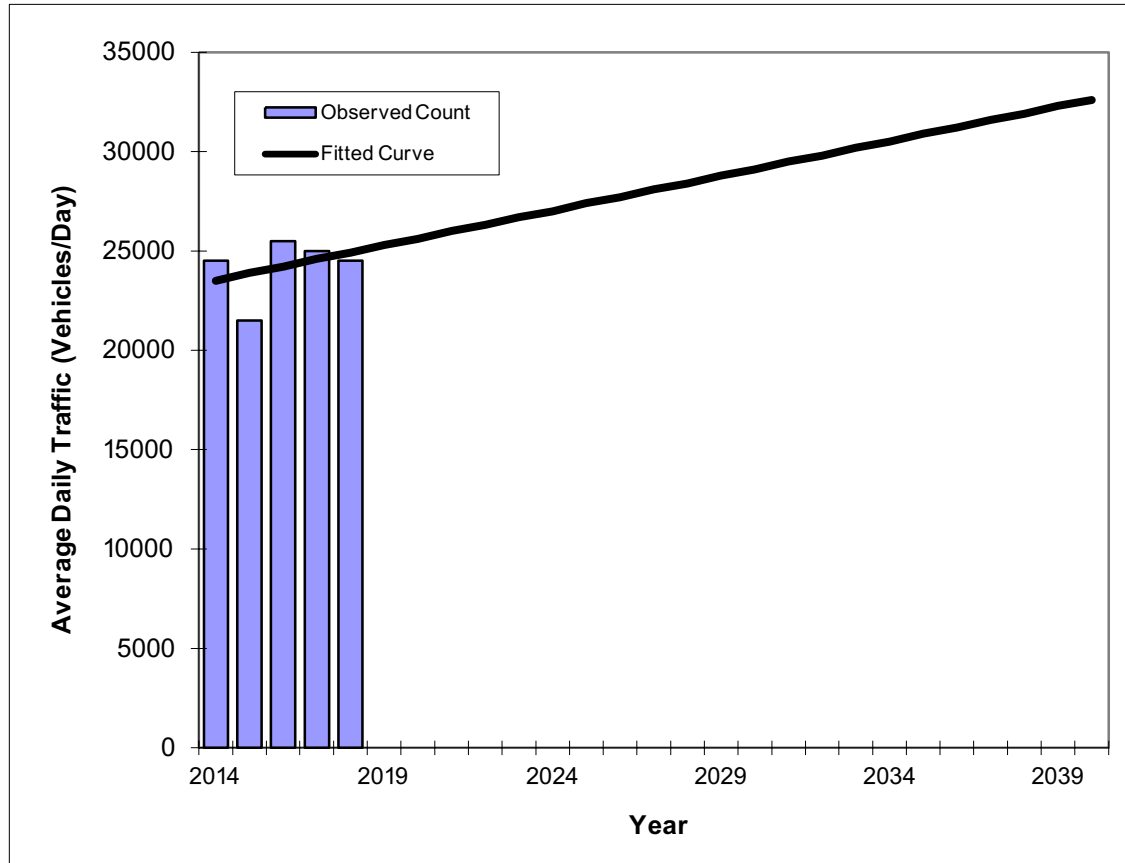
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

# Traffic Trends - V2.0

## SR 814/ATLANTICBLVD -- W OF ICWW BR

PIN#	0
Location	1

County:	BROWARD
Station #:	0435
Highway:	SR 814/ATLANTIC BLVD



Traffic (ADT/AADT)		
Year	Count*	Trend**
2014	24500	23500
2015	21500	23900
2016	25500	24200
2017	25000	24600
2018	24500	24900
2020 Opening Year Trend		
2020	N/A	25600
2021 Mid-Year Trend		
2021	N/A	26000
2023 Design Year Trend		
2023	N/A	26700
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	350
Trend R-squared:	12.50%
Trend Annual Historic Growth Rate:	1.49%
Trend Growth Rate (2018 to Design Year):	1.45%
Printed:	17-Feb-20
Straight Line Growth Option	

\*Axle-Adjusted

**P&Z**

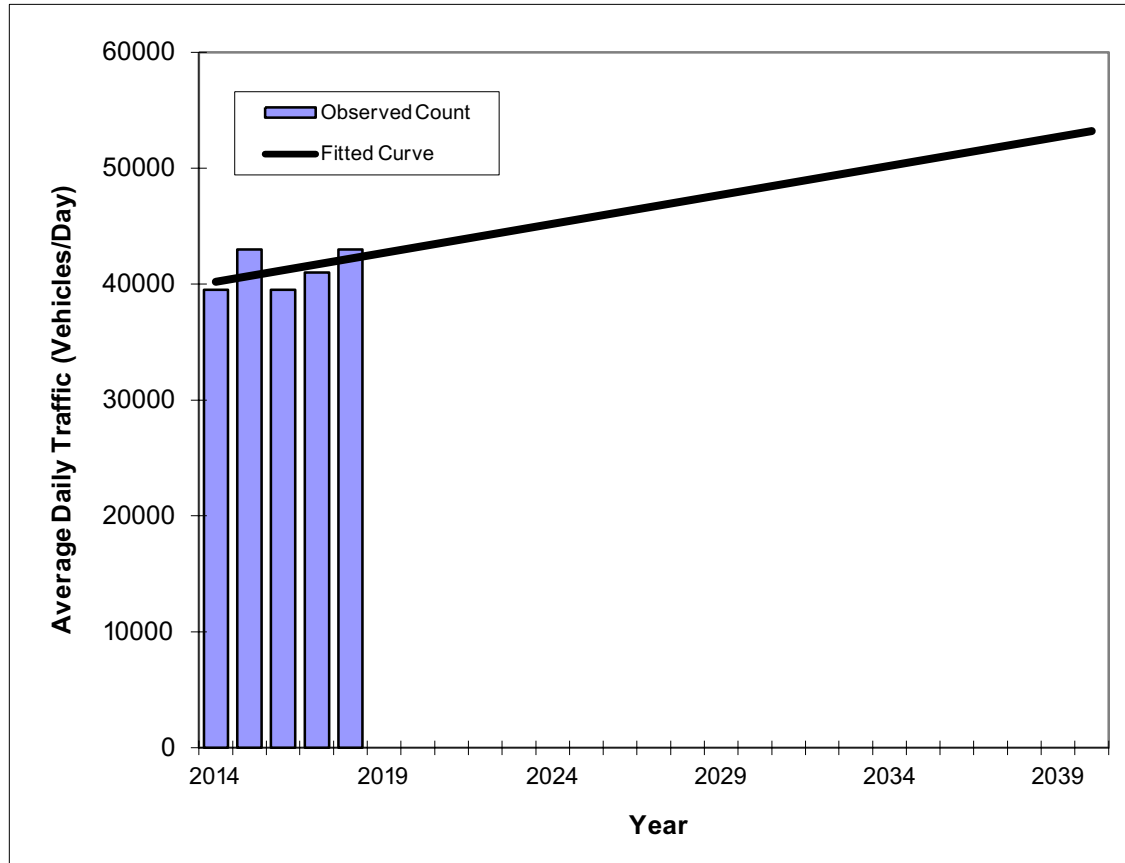
PZ19-12000047

# Traffic Trends - V2.0

## SR 5 -- N OF NE 6 ST

PIN#	0
Location	2

County :	BROWARD
Station #:	5100
Highway :	SR 5



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	39500	40200
2015	43000	40700
2016	39500	41200
2017	41000	41700
2018	43000	42200
2020 Opening Year Trend		
2020	N/A	43200
2021 Mid-Year Trend		
2021	N/A	43700
2023 Design Year Trend		
2023	N/A	44700
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	500
Trend R-squared:	20.33%
Trend Annual Historic Growth Rate:	1.24%
Trend Growth Rate (2018 to Design Year):	1.18%
Printed:	17-Feb-20
Straight Line Growth Option	

\*Axle-Adjusted

# P&Z

PZ19-12000047

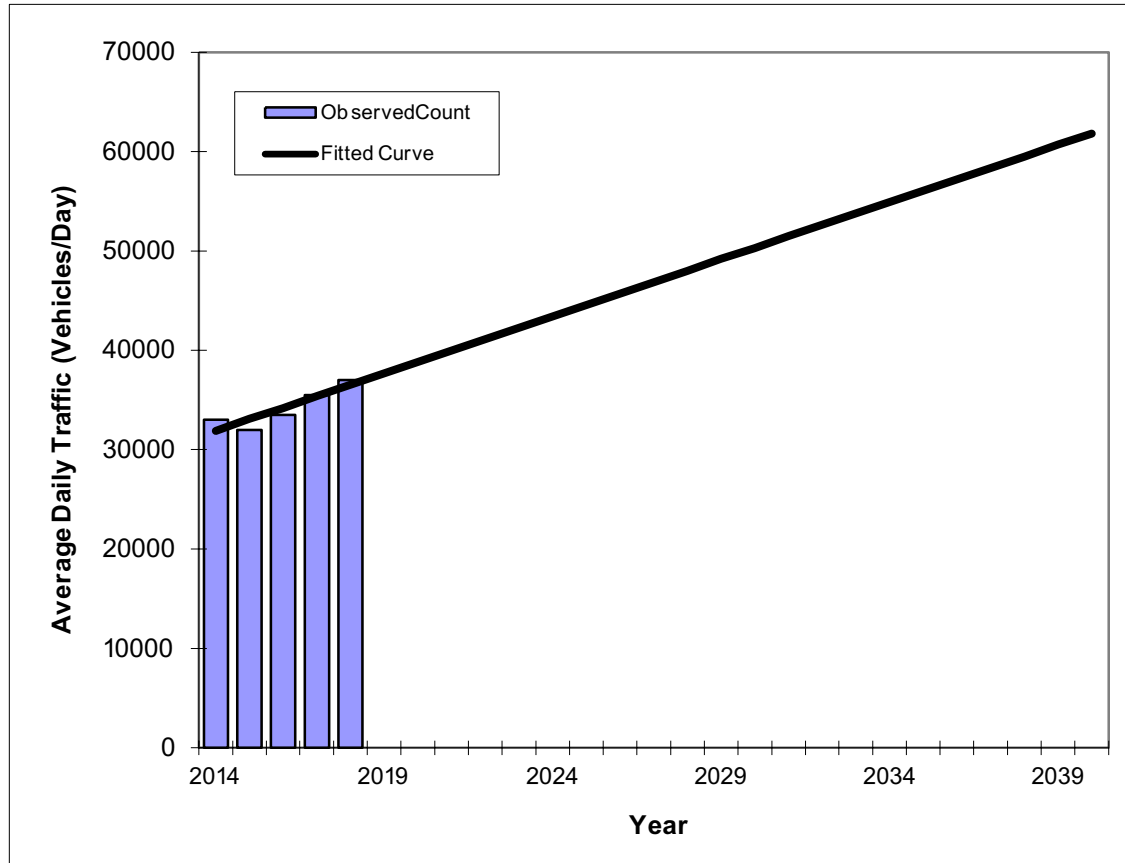


# Traffic Trends - V2.0

## ATLANTIC BLVD -- W OF US 1

PIN#	0
Location	3

County:	BROWARD
Station #:	7423
Highway:	ATLANTIC BLVD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	33000	31900
2015	32000	33100
2016	33500	34200
2017	35500	35400
2018	37000	36500
2020 Opening Year Trend		
2020	N/A	38800
2021 Mid-Year Trend		
2021	N/A	40000
2023 Design Year Trend		
2023	N/A	42300
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	1,150
Trend R-squared:	81.13%
Trend Annual Historic Growth Rate:	3.61%
Trend Growth Rate (2018 to Design Year):	3.18%
Printed:	17-Feb-20
Straight Line Growth Option	

\*Axle-Adjusted

# P&Z

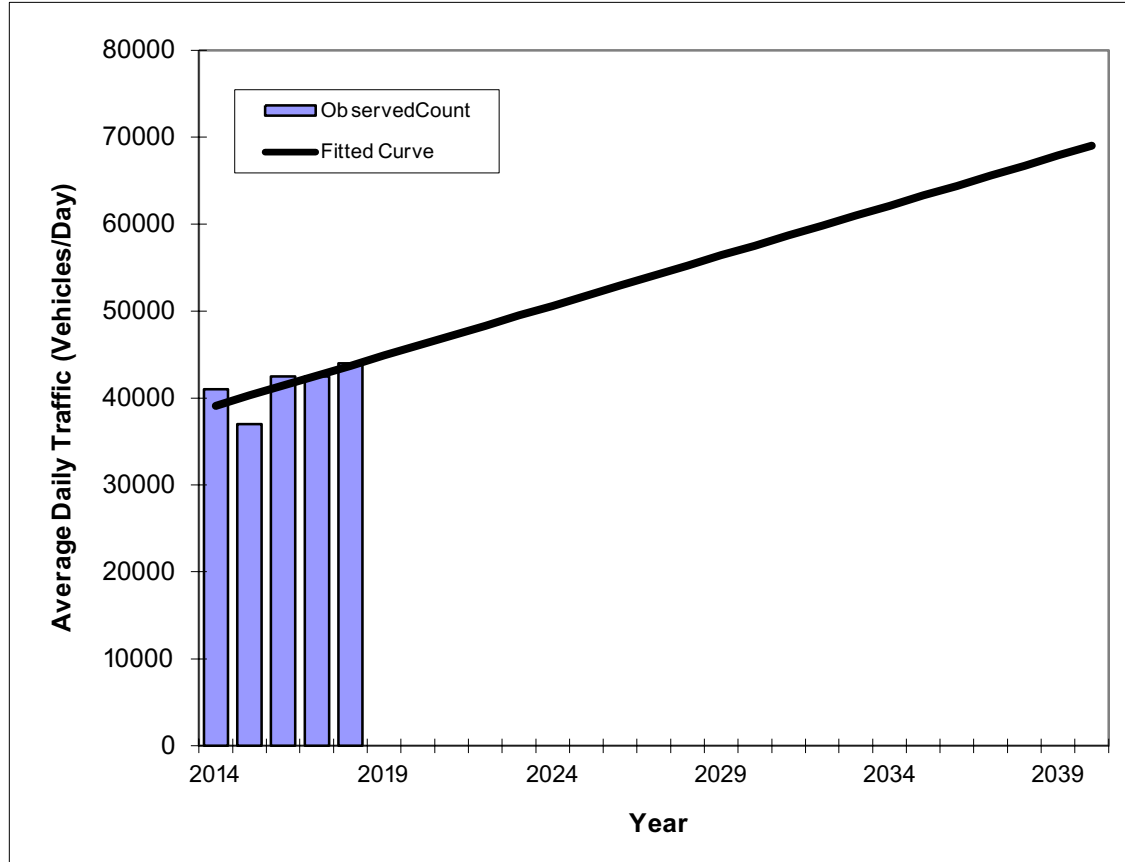
PZ19-12000047

# Traffic Trends - V2.0

## US 1 -- S OF ATLANTIC BLVD

PIN#	0
Location	4

County:	BROWARD
Station #:	7739
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	41000	39100
2015	37000	40300
2016	42500	41400
2017	42500	42600
2018	44000	43700
2020 Opening Year Trend		
2020	N/A	46000
2021 Mid-Year Trend		
2021	N/A	47200
2023 Design Year Trend		
2023	N/A	49500
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	1,150
Trend R-squared:	46.08%
Trend Annual Historic Growth Rate:	2.94%
Trend Growth Rate (2018 to Design Year):	2.65%
Printed:	17-Feb-20
Straight Line Growth Option	

\*Axle-Adjusted

# P&Z

PZ19-12000047

### Growth Rate Trend Analysis Calculations

Description	Station #			
	0435	5100	7423	7339
Trend Growth Rate(1)	1.45	1.18	3.18	2.65
Adjusted Trend Growth Rate	1.45	1.18	3.18	2.65
Average Growth Rate				2.12
<b>Growth Rate Used</b>				<b>2.12</b>

Notes:

1: Refer to Trend Analysis Chart

# **APPENDIX E**

## **Future Turning Movement Volumes, Committed Developments Information, and Existing Driveway Trips**



**PZ19-12000047**

**11/18/2020**

# FUTURE TURNING MOVEMENT VOLUME ANALYSIS

## US -1 and NW 2nd Street AM Peak Hour Analysis

Description	US-1 Northbound			US-1 Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)		1,293	11	41	1,648	125	126	29	19	14	9	44
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	0	1,267	11	40	1,615	123	130	28	19	14	9	43
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		3			5							
Hidden Harbour		15			8							
<b>2023 Background Traffic</b>	<b>0</b>	<b>1,367</b>	<b>11</b>	<b>43</b>	<b>1,733</b>	<b>130</b>	<b>138</b>	<b>30</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>46</b>
<b>Project Trips</b>												
Trips				6								17
<b>2023 Total Traffic</b>	<b>0</b>	<b>1,367</b>	<b>11</b>	<b>49</b>	<b>1,733</b>	<b>130</b>	<b>138</b>	<b>30</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>63</b>

# FUTURE TURNING MOVEMENT VOLUME ANALYSIS

## US -1 and NW 2nd Street PM Peak Hour Analysis

Description	US-1 Northbound			US-1 Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)		1,384	47	61	1,353	107	142	36	7	41	14	104
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	0	1,356	46	60	1,326	105	146	35	7	40	14	102
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		3			19							
Hidden Harbour		57			7							
<b>2023 Background Traffic</b>	<b>0</b>	<b>1,504</b>	<b>49</b>	<b>64</b>	<b>1,438</b>	<b>112</b>	<b>156</b>	<b>38</b>	<b>7</b>	<b>43</b>	<b>15</b>	<b>109</b>
<b>Project Trips</b>												
Trips				18								12
<b>2023 Total Traffic</b>	<b>0</b>	<b>1,504</b>	<b>49</b>	<b>82</b>	<b>1,438</b>	<b>112</b>	<b>156</b>	<b>38</b>	<b>7</b>	<b>43</b>	<b>15</b>	<b>121</b>

# FUTURE TURNING MOVEMENT VOLUME ANALYSIS

## NE 24th Avenue and NW 2nd Street AM Peak Hour Analysis

Description	NE 24th Avenue Northbound			NE 24th Avenue Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	12	13	17	4	16	1	1	61	14	10	40	3
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	12	13	17	4	16	1	1	60	14	10	39	3
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour												
<b>2023 Background Traffic</b>	<b>13</b>	<b>14</b>	<b>18</b>	<b>4</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>64</b>	<b>15</b>	<b>10</b>	<b>42</b>	<b>3</b>
<b>Project Trips</b> Trips	17	7	7		2				6	3		
<b>2023 Total Traffic</b>	<b>30</b>	<b>21</b>	<b>25</b>	<b>4</b>	<b>19</b>	<b>1</b>	<b>1</b>	<b>64</b>	<b>21</b>	<b>13</b>	<b>42</b>	<b>3</b>



# FUTURE TURNING MOVEMENT VOLUME ANALYSIS

## NE 24th Avenue and NW 2nd Street AM Peak Hour Analysis

Description	NE 24th Avenue Northbound			NE 24th Avenue Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	40	34	50	4	12	4	7	94	17	7	116	11
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	39	33	49	4	12	4	7	92	17	7	114	11
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour												
<b>2023 Background Traffic</b>	<b>42</b>	<b>35</b>	<b>52</b>	<b>4</b>	<b>13</b>	<b>4</b>	<b>8</b>	<b>98</b>	<b>18</b>	<b>7</b>	<b>121</b>	<b>11</b>
<b>Project Trips</b> Trips	12	4	4		7				18	7		
<b>2023 Total Traffic</b>	<b>54</b>	<b>39</b>	<b>56</b>	<b>4</b>	<b>20</b>	<b>4</b>	<b>8</b>	<b>98</b>	<b>36</b>	<b>14</b>	<b>121</b>	<b>11</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### Harbor Drive and NW 2nd Street AM Peak Hour Analysis

Description	Harbor Drive Northbound			Harbor Drive Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	30	143			198	8	9		49			
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	29	140	0	0	194	8	9	0	48	0	0	0
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour												
<b>2023 Background Traffic</b>	<b>31</b>	<b>149</b>	<b>0</b>	<b>0</b>	<b>207</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Project Trips</b> Trips						3	7					
<b>2023 Total Traffic</b>	<b>31</b>	<b>149</b>	<b>0</b>	<b>0</b>	<b>207</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### Harbor Drive and NW 2nd Street PM Peak Hour Analysis

Description	Harbor Drive Northbound			Harbor Drive Southbound			NE 2nd Street Eastbound			NE 2nd Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	73	206			206	18	58		59			
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	72	202	0	0	202	18	60	0	58	0	0	0
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour												
<b>2023 Background Traffic</b>	<b>76</b>	<b>215</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>19</b>	<b>64</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Project Trips</b> Trips						7	4					
<b>2023 Total Traffic</b>	<b>76</b>	<b>215</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>26</b>	<b>68</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### US-1 and Atlantic Boulevard AM Peak Hour Analysis

Description	US -1 Northbound			US -1 Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	253	1,013	61	117	1,304	120	162	482	292	168	418	95
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	248	993	60	115	1,278	118	167	472	286	165	410	93
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		3	3		1	4		14	4	1	2	
Hidden Harbour		15			8							
<b>2023 Background Traffic</b>	<b>264</b>	<b>1,075</b>	<b>67</b>	<b>122</b>	<b>1,370</b>	<b>129</b>	<b>178</b>	<b>517</b>	<b>309</b>	<b>176</b>	<b>438</b>	<b>99</b>
<b>Project Trips</b>												
Trips			9					6		26	17	
<b>2023 Total Traffic</b>	<b>264</b>	<b>1,075</b>	<b>76</b>	<b>122</b>	<b>1,370</b>	<b>129</b>	<b>178</b>	<b>523</b>	<b>309</b>	<b>202</b>	<b>455</b>	<b>99</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### US-1 and Atlantic Boulevard PM Peak Hour Analysis

Description	US -1 Northbound			US -1 Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	270	1,064	119	173	1,038	161	204	640	242	181	533	118
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	265	1,043	117	170	1,017	158	210	627	237	177	522	116
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		2	1		15	4		7	2	4	4	
Hidden Harbour		57			7							
<b>2023 Background Traffic</b>	<b>282</b>	<b>1,169</b>	<b>125</b>	<b>181</b>	<b>1,105</b>	<b>172</b>	<b>224</b>	<b>675</b>	<b>255</b>	<b>193</b>	<b>560</b>	<b>123</b>
<b>Project Trips</b>												
Trips			27					18		17	12	
<b>2023 Total Traffic</b>	<b>282</b>	<b>1,169</b>	<b>152</b>	<b>181</b>	<b>1,105</b>	<b>172</b>	<b>224</b>	<b>693</b>	<b>255</b>	<b>210</b>	<b>572</b>	<b>123</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### SE 24th Avenue and Atlantic Boulevard AM Peak Hour Analysis

Description	SE 24th Avenue Northbound			SE 24th Avenue Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	5	4	19	11	6	18	57	712	28	88	701	15
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	5	4	19	11	6	18	59	698	27	86	687	15
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour		3						17				
<b>2023 Background Traffic</b>	<b>5</b>	<b>7</b>	<b>20</b>	<b>11</b>	<b>6</b>	<b>19</b>	<b>63</b>	<b>760</b>	<b>29</b>	<b>92</b>	<b>732</b>	<b>16</b>
<b>Project Trips</b> Trips				13		43	15					5
<b>2023 Total Traffic</b>	<b>5</b>	<b>7</b>	<b>20</b>	<b>24</b>	<b>6</b>	<b>62</b>	<b>78</b>	<b>760</b>	<b>29</b>	<b>92</b>	<b>732</b>	<b>21</b>

## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### SE 24th Avenue and Atlantic Boulevard AM Peak Hour Analysis

Description	SE 24th Avenue Northbound			SE 24th Avenue Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	20	33	25	12	15	31	79	809	10	144	705	22
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	20	32	25	12	15	30	81	793	10	141	691	22
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b> Atlantic One Hidden Harbour	8						8					
<b>2023 Background Traffic</b>	<b>21</b>	<b>42</b>	<b>26</b>	<b>13</b>	<b>16</b>	<b>32</b>	<b>87</b>	<b>852</b>	<b>10</b>	<b>150</b>	<b>736</b>	<b>23</b>
<b>Project Trips</b> Trips				9			45			14		
<b>2023 Total Traffic</b>	<b>21</b>	<b>42</b>	<b>26</b>	<b>22</b>	<b>16</b>	<b>61</b>	<b>132</b>	<b>852</b>	<b>10</b>	<b>150</b>	<b>736</b>	<b>37</b>

# FUTURE TURNING MOVEMENT VOLUME ANALYSIS

## Harbor Drive and Atlantic Boulevard AM Peak Hour Analysis

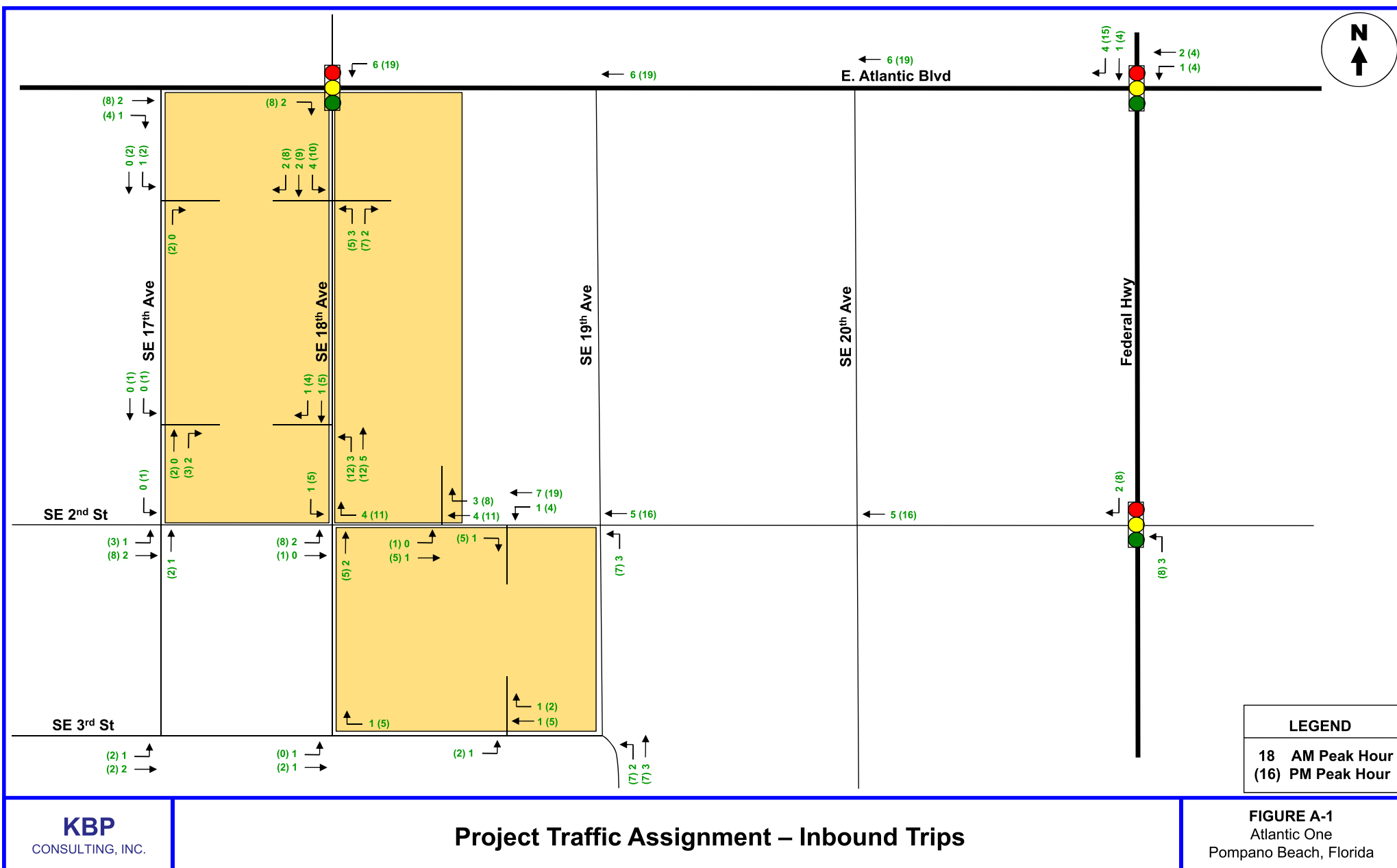
Description	Harbor Drive Northbound			Harbor Drive Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	4	2	4	106	6	92	109	624	6	10	769	109
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	4	2	4	104	6	90	112	612	6	10	754	107
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		3						17				
Hidden Harbour												
<b>2023 Background Traffic</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>111</b>	<b>6</b>	<b>96</b>	<b>120</b>	<b>668</b>	<b>6</b>	<b>10</b>	<b>803</b>	<b>114</b>
<b>Project Trips</b>												
Trips								13			5	
<b>2023 Total Traffic</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>111</b>	<b>6</b>	<b>96</b>	<b>120</b>	<b>681</b>	<b>6</b>	<b>10</b>	<b>808</b>	<b>114</b>



## FUTURE TURNING MOVEMENT VOLUME ANALYSIS

### Harbor Drive and Atlantic Boulevard PM Peak Hour Analysis

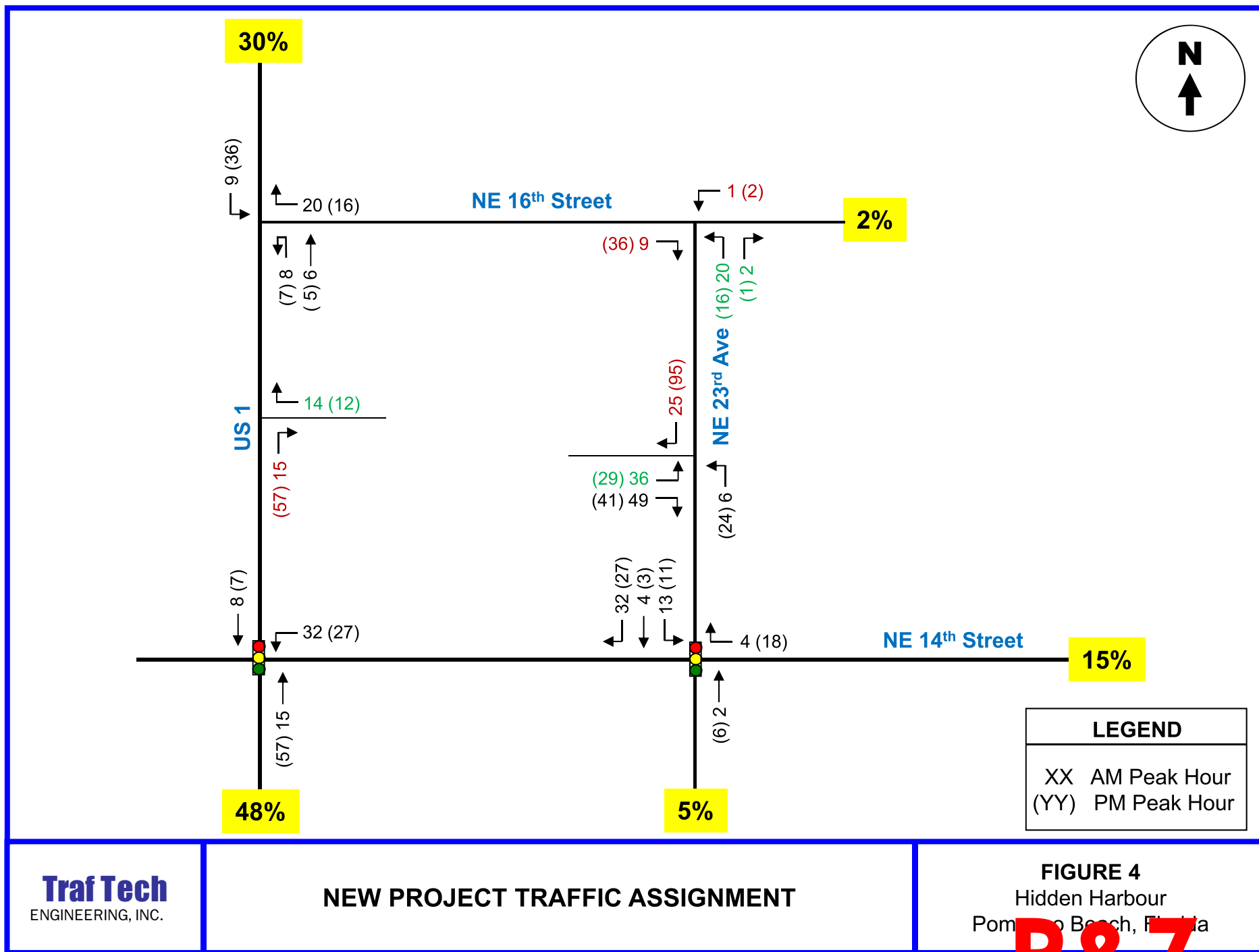
Description	Harbor Drive Northbound			Harbor Drive Southbound			Atlantic Boulevard Eastbound			Atlantic Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2020 Existing Traffic (2/12/2020)	15	11	14	187	23	125	183	734	21	41	695	166
Season Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	1.03	0.98	0.98	0.98	0.98	0.98
2020 Peak Season Traffic	15	11	14	183	23	123	188	719	21	40	681	163
Annual Growth Rate	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	0.00%	2.12%	2.12%	2.12%	2.12%	2.12%
<b>Committed Developments</b>												
Atlantic One		8						4				
Hidden Harbour												
<b>2023 Background Traffic</b>	<b>16</b>	<b>19</b>	<b>15</b>	<b>195</b>	<b>24</b>	<b>130</b>	<b>201</b>	<b>770</b>	<b>22</b>	<b>43</b>	<b>725</b>	<b>173</b>
<b>Project Trips</b>												
Trips								9			14	
<b>2023 Total Traffic</b>	<b>16</b>	<b>19</b>	<b>15</b>	<b>195</b>	<b>24</b>	<b>130</b>	<b>201</b>	<b>779</b>	<b>22</b>	<b>43</b>	<b>739</b>	<b>173</b>



**P&Z**

PZ19-12000047





<b>TABLE E-1</b> <b>Trip Generation Summary</b> <b>Pompano Residential West Side (Existing Uses)</b>									
Land Use	Scale	Units	AM Peak Hour			PM Peak Hour			
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	
Office (LUC 710)	25,392	sq ft	50	43	7	31	5	26	
Retail (LUC 820)	5,034	sq ft	5	3	2	60	29	31	
Quality Restaurant (LUC 931)	5,000	sq ft	4	2	2	39	26	13	
<b>Total</b>			<b>59</b>	<b>48</b>	<b>11</b>	<b>130</b>	<b>60</b>	<b>70</b>	

Source: ITE Trip Generation Manual (10th Edition)

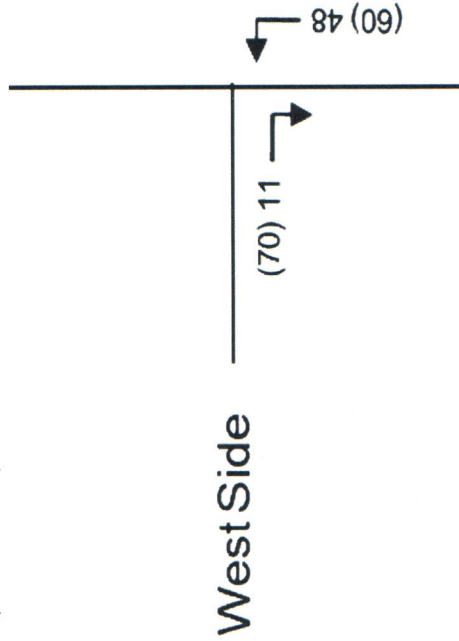


TABLE E-2 Trip Generation Summary Pompano Residential East Side (Existing Uses)									
Land Use	Scale	Units	AM Peak Hour			PM Peak Hour			
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound	
Office (LUC 710)	18,537	sq ft	44	38	6	23	4	19	
Retail (LUC 820)	10,819	sq ft	10	6	4	105	50	55	
Quality Restaurant (LUC 931)	5,000	sq ft	4	2	2	39	26	13	
Total			58	46	12	167	80	87	

Source: ITE Trip Generation Manual (10th Edition)



# **APPENDIX F**

























## **SYNCHRO Analyses**



**PZ19-12000047**  
**11/18/2020**

# HCM 2010 Signalized Intersection Summary

## 101: Federal Highway/US 1 & NE 2nd Street

















															
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations								  			  				
Traffic Volume (veh/h)	130	28	19	14	9	43	0	1267	11	40	1615	123			
Future Volume (veh/h)	130	28	19	14	9	43	0	1267	11	40	1615	123			
Number	7	4	14	3	8	18	5	2	12	1	6	16			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863			
Adj Flow Rate, veh/h	143	31	21	15	10	47	0	1392	12	44	1775	135			
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2			
Cap, veh/h	170	101	68	138	15	71	0	3673	32	353	3923	1219			
Arrive On Green	0.06	0.10	0.10	0.01	0.05	0.05	0.00	1.00	1.00	0.02	0.77	0.77			
Sat Flow, veh/h	1774	1035	701	1774	284	1334	0	5368	45	1774	5085	1580			
Grp Volume(v), veh/h	143	0	52	15	0	57	0	908	496	44	1775	135			
Grp Sat Flow(s),veh/h/ln	1774	0	1736	1774	0	1618	0	1695	1855	1774	1695	1580			
Q Serve(g_s), s	9.0	0.0	4.5	1.3	0.0	5.5	0.0	0.0	0.0	1.1	19.6	3.4			
Cycle Q Clear(g_c),s	9.0	0.0	4.5	1.3	0.0	5.5	0.0	0.0	0.0	1.1	19.6	3.4			
Prop In Lane	1.00		0.40	1.00		0.82	0.00		0.02	1.00		1.00			
Lane Grp Cap(c), veh/h	170	0	169	138	0	87	0	2394	1310	353	3923	1219			
V/C Ratio(X)	0.84	0.00	0.31	0.11	0.00	0.66	0.00	0.38	0.38	0.12	0.45	0.11			
Avail Cap(c_a), veh/h	170	0	347	216	0	324	0	2394	1310	514	3923	1219			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.81	0.81	1.00	1.00	1.00			
Uniform Delay (d), s/veh	69.2	0.0	67.2	70.4	0.0	74.3	0.0	0.0	0.0	5.5	6.4	4.6			
Incr Delay (d2), s/veh	28.2	0.0	0.4	0.1	0.0	3.1	0.0	0.4	0.7	0.1	0.4	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	0.0	2.2	0.6	0.0	2.5	0.0	0.1	0.2	0.5	9.2	1.5			
LnGrp Delay(d),s/veh	97.5	0.0	67.5	70.6	0.0	77.4	0.0	0.4	0.7	5.6	6.8	4.8			
LnGrp LOS	F		E	E		E		A	A	A	A	A			
Approach Vol, veh/h	195			72			1404			1954					
Approach Delay, s/veh	89.5			76.0			0.5			6.6					
Approach LOS	F			E			A			A					
Timer	1	2	3	4	5	6	7	8							
Assigned Phs	1	2	3	4			6	7	8						
Phs Duration (G+Y+Rc), s	10.4	120.0	7.9	21.6			130.4	15.0	14.6						
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0			7.0	6.0	6.0						
Max Green Setting (Gmax), s	18.0	75.0	9.0	32.0			100.0	9.0	32.0						
Max Q Clear Time (g_c+l1), s	3.1	2.0	3.3	6.5			21.6	11.0	7.5						
Green Ext Time (p_c), s	0.0	12.3	0.0	0.1			22.8	0.0	0.2						
Intersection Summary															
HCM 2010 Ctrl Delay				10.1											
HCM 2010 LOS				B											

Existing AM Peak Hour



# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	130	28	14	9	1267	40	1615	123
Future Volume (vph)	130	28	14	9	1267	40	1615	123
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	15.0	38.0	15.0	38.0	82.0	25.0	107.0	107.0
Total Split (%)	9.4%	23.8%	9.4%	23.8%	51.3%	15.6%	66.9%	66.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.3	14.7	11.2	7.1	117.6	127.3	127.3	127.3
Actuated g/C Ratio	0.11	0.09	0.07	0.04	0.74	0.80	0.80	0.80
v/c Ratio	0.99	0.29	0.14	0.49	0.38	0.16	0.44	0.11
Control Delay	138.5	50.8	62.2	38.2	4.6	5.5	5.9	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.5	50.8	62.2	38.2	4.7	5.5	5.9	0.8
LOS	F	D	E	D	A	A	A	A
Approach Delay		115.1		43.2	4.7		5.5	
Approach LOS		F		D	A		A	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 11.8

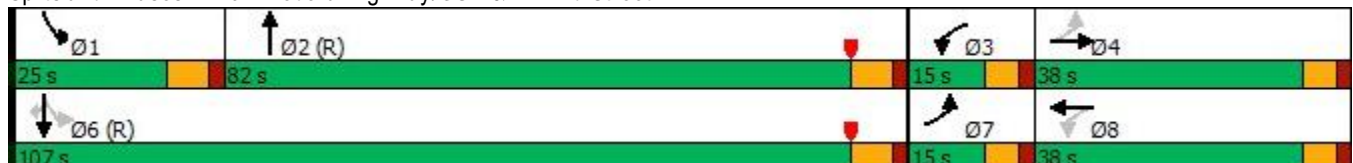
Intersection LOS: B

Intersection Capacity Utilization 58.3%

ICU Level of Service B

Analysis Period (min) 15

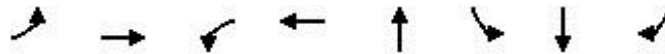
Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



Existing AM Peak Hour

## Queues

### 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	52	15	57	1404	44	1775	135
v/c Ratio	0.99	0.29	0.14	0.49	0.38	0.16	0.44	0.11
Control Delay	138.5	50.8	62.2	38.2	4.6	5.5	5.9	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.5	50.8	62.2	38.2	4.7	5.5	5.9	0.8
Queue Length 50th (ft)	144	31	14	10	68	9	194	0
Queue Length 95th (ft)	#223	81	38	59	96	20	246	16
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	144	363	149	364	3734	390	4045	1251
Starvation Cap Reductn	0	0	0	0	406	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	81	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.14	0.10	0.16	0.42	0.11	0.45	0.11

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.





Queue shown is maximum after two cycles.

HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 7.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	60	14	10	39	3	12	13	17	4	16	1
Future Vol, veh/h	1	60	14	10	39	3	12	13	17	4	16	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	80	19	13	52	4	16	17	23	5	21	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	1%	19%	19%
Vol Thru, %	31%	80%	75%	76%
Vol Right, %	40%	19%	6%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	75	52	21
LT Vol	12	1	10	4
Through Vol	13	60	39	16
RT Vol	17	14	3	1
Lane Flow Rate	56	100	69	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.063	0.112	0.08	0.033
Departure Headway (Hd)	4.063	4.024	4.161	4.281
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	869	884	853	824
Service Time	2.148	2.081	2.223	2.372
HCM Lane V/C Ratio	0.064	0.113	0.081	0.034
HCM Control Delay	7.4	7.6	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.1

Existing AM Peak Hour

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection

Int Delay, s/veh 1.9

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 9 48 29 140 194 8

Future Vol, veh/h 9 48 29 140 194 8

Conflicting Peds, #/hr 1 5 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 0 100 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 87 87 87 87 87 87

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 10 55 33 161 223 9

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 457 234 233 0 - 0

Stage 1 229 - - - - -

Stage 2 228 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 562 805 1335 - - -

Stage 1 809 - - - - -

Stage 2 810 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 547 800 1334 - - -

Mov Cap-2 Maneuver 547 - - - - -

Stage 1 788 - - - - -

Stage 2 809 - - - - -

Approach EB NB SB

HCM Control Delay, s 10.1 1.3 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity (veh/h) 1334 - 547 800 - -

HCM Lane V/C Ratio 0.025 - 0.019 0.069 - -
























HCM Control Delay (s) 7.8 - 11.7 9.8 - -

HCM Lane LOS A - B A - -

HCM 95th %tile Q(veh) 0.1 - 0.1 0.2 - -

Existing AM Peak Hour

HCM 2010 Signalized Intersection Summary  
104: Federal Highway/US 1 & Atlantic Boulevard

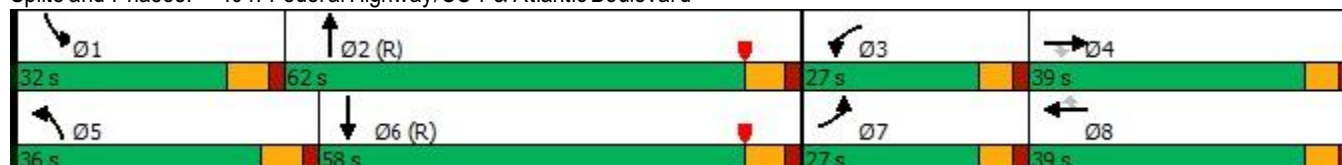
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	472	286	165	410	93	248	993	60	115	1278	118
Future Volume (veh/h)	167	472	286	165	410	93	248	993	60	115	1278	118
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	174	492	298	172	427	97	258	1034	62	120	1331	123
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	730	322	190	722	319	278	2186	131	139	1740	161
Arrive On Green	0.11	0.21	0.21	0.21	0.41	0.41	0.16	0.45	0.45	0.16	0.73	0.73
Sat Flow, veh/h	1774	3539	1563	1774	3539	1562	1774	4907	294	1774	4737	438
Grp Volume(v), veh/h	174	492	298	172	427	97	258	714	382	120	953	501
Grp Sat Flow(s),veh/h/ln	1774	1770	1563	1774	1770	1562	1774	1695	1810	1774	1695	1784
Q Serve(g_s), s	15.5	20.5	29.9	15.1	15.1	6.7	23.0	23.7	23.7	10.6	27.2	27.2
Cycle Q Clear(g_c),s	15.5	20.5	29.9	15.1	15.1	6.7	23.0	23.7	23.7	10.6	27.2	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.25
Lane Grp Cap(c), veh/h	194	730	322	190	722	319	278	1510	807	139	1246	656
V/C Ratio(X)	0.90	0.67	0.92	0.90	0.59	0.30	0.93	0.47	0.47	0.86	0.76	0.76
Avail Cap(c_a), veh/h	233	730	322	233	730	322	322	1510	807	277	1246	656
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	70.3	58.5	62.3	62.0	42.2	39.7	66.6	31.2	31.2	66.6	17.0	17.0
Incr Delay (d2), s/veh	26.9	4.9	34.1	27.6	1.1	0.4	28.5	1.1	2.0	5.4	4.1	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	10.5	16.0	8.8	7.5	2.9	13.4	11.3	12.3	5.3	13.1	14.4
LnGrp Delay(d),s/veh	97.2	63.5	96.4	89.6	43.2	40.1	95.1	32.2	33.2	72.0	21.1	24.5
LnGrp LOS	F	E	F	F	D	D	F	C	C	E	C	C
Approach Vol, veh/h	964				696				1354		1574	
Approach Delay, s/veh	79.8				54.3				44.5		26.1	
Approach LOS	E				D				D		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	78.3	23.2	39.0	32.1	65.8	23.5	38.6				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	55.0	21.0	33.0	29.0	51.0	21.0	33.0				
Max Q Clear T ime(g_c+l1), s	12.6	25.7	17.1	31.9	25.0	29.2	17.5	17.1				
Green Ext T ime(p_c), s	0.1	7.6	0.1	0.4	0.1	9.8	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			47.1									
HCM 2010 LOS			D									

Existing AM Peak Hour

104: Federal Highway/US1 & Atlantic Boulevard

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 103 (64%), Referenced to phase 2:NBT and 6:SBT ,Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 53.4	Intersection LOS: D
Intersection Capacity Utilization 97.7%	ICU Level of Service F
Analysis Period (min) 15	











Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



**P&Z**  
**PZ19-12000047**  
**11/18/2020**

## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	174	492	298	172	427	97	258	1097	120	1454
v/c Ratio	0.86	0.62	0.52	0.85	0.54	0.22	0.90	0.53	0.74	0.85
Control Delay	103.3	60.7	8.6	90.7	64.6	19.4	98.3	37.4	89.9	49.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.3	60.7	8.6	90.7	64.6	19.4	98.3	37.4	89.9	49.7
Queue Length 50th (ft)	180	250	0	177	245	14	265	315	107	527
Queue Length 95th (ft)	#288	318	87	#284	298	81	#400	386	162	599
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	232	789	578	232	787	433	320	2058	276	1701
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	2
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.62	0.52	0.74	0.54	0.22	0.81	0.53	0.43	0.86




















#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# HCM 2010 Signalized Intersection Summary

## 105: NE 24th Avenue & Atlantic Boulevard

















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	698	27	86	687	15	5	4	19	11	6	18
Future Volume (veh/h)	59	698	27	86	687	15	5	4	19	11	6	18
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.98		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	64	759	29	93	747	16	5	4	21	12	7	20
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	580	2826	108	609	2886	62	33	16	54	78	38	76
Arrive On Green	0.02	0.81	0.81	0.02	0.55	0.55	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1774	3470	133	1774	3540	76	140	337	1113	852	770	1554
Grp Volume(v), veh/h	64	387	401	93	373	390	30	0	0	19	0	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1846	1589	0	0	1623	0	1554
Q Serve(g_s), s	1.0	8.3	8.3	1.4	17.8	17.8	0.0	0.0	0.0	0.0	0.0	2.0
Cycle Q Clear(g_c),s	1.0	8.3	8.3	1.4	17.8	17.8	2.8	0.0	0.0	1.6	0.0	2.0
Prop In Lane	1.00		0.07	1.00		0.04	0.17		0.70	0.63		1.00
Lane Grp Cap(c), veh/h	580	1441	1493	609	1443	1505	104	0	0	116	0	76
V/C Ratio(X)	0.11	0.27	0.27	0.15	0.26	0.26	0.29	0.00	0.00	0.16	0.00	0.26
Avail Cap(c_a), veh/h	716	1441	1493	676	1443	1505	261	0	0	269	0	233
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.72	0.72	0.72	0.94	0.94	0.94	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.3	3.5	3.5	2.5	10.8	10.8	73.8	0.0	0.0	73.1	0.0	73.3
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.4	0.4	0.6	0.0	0.0	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.1	4.3	0.7	8.9	9.3	1.3	0.0	0.0	0.8	0.0	0.9
LnGrp Delay(d),s/veh	3.3	3.9	3.9	2.5	11.2	11.1	74.3	0.0	0.0	73.4	0.0	74.0
LnGrp LOS	A	A	A	A	B	B	E			E		E
Approach Vol, veh/h		852			856			30			39	
Approach Delay, s/veh		3.8			10.2			74.3			73.7	
Approach LOS		A			B			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	136.4		13.8	9.9	136.3		13.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time(g_c+l1), s	3.0	19.8		4.8	3.4	10.3		4.0				
Green Ext Time(p_c), s	0.0	5.4		0.1	0.0	5.6		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									

Existing AM Peak Hour



# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	59	698	86	687	5	4	11	6	18
Future Volume (vph)	59	698	86	687	5	4	11	6	18
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effct Green (s)	137.1	132.5	139.0	136.0		6.9		6.9	6.9
Actuated g/C Ratio	0.86	0.83	0.87	0.85		0.04		0.04	0.04
v/c Ratio	0.12	0.27	0.16	0.26		0.34		0.30	0.16
Control Delay	5.8	14.6	2.0	3.5		46.0		86.0	2.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	5.8	14.6	2.0	3.5		46.0		86.0	2.7
LOS	A	B	A	A		D		F	A
Approach Delay		14.0		3.4		46.0		43.3	
Approach LOS		B		A		D		D	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBT L and 6:EBT L, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 10.0

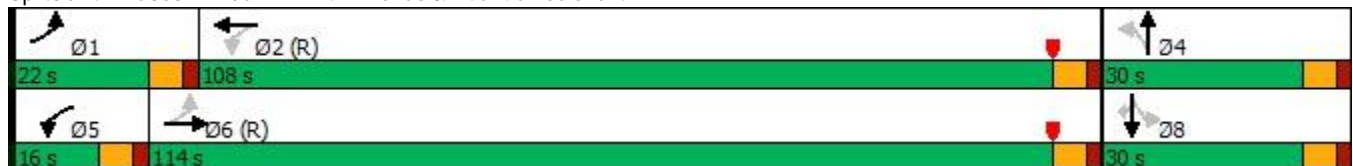
Intersection LOS: B

Intersection Capacity Utilization 47.4%

ICU Level of Service A

Analysis Period (min) 15

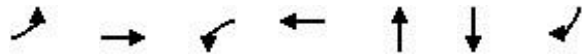
Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Existing AM Peak Hour

## Queues

### 105: NE 24th Avenue & Atlantic Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	64	788	93	763	30	19	20
v/c Ratio	0.12	0.27	0.16	0.26	0.34	0.30	0.16
Control Delay	5.8	14.6	2.0	3.5	46.0	86.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	14.6	2.0	3.5	46.0	86.0	2.7
Queue Length 50th (ft)	28	299	8	81	9	20	0
Queue Length 95th (ft)	m49	382	21	126	47	50	0
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity (vph)	652	2906	634	2990	251	219	285
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.27	0.15	0.26	0.12	0.09	0.07























#### Intersection Summary

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

Existing AM Peak Hour

# HCM Signalized Intersection Capacity Analysis

## 106: Atlantic Boulevard & Harbor Drive

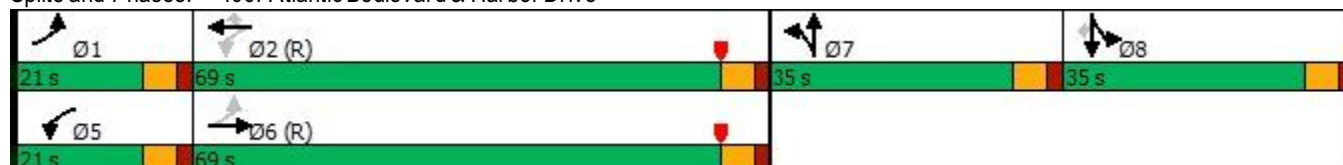
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	612	6	10	754	107	4	2	4	104	6	90
Future Volume (vph)	112	612	6	10	754	107	4	2	4	104	6	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.90		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1765	3531		1753	3539	1447	1770	1498		1770	1863	1548
Flt Permitted	0.26	1.00		0.36	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	491	3531		667	3539	1447	1770	1498		1770	1863	1548
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	137	746	7	12	920	130	5	2	5	127	7	110
RTOR Reduction (vph)	0	0	0	0	0	31	0	5	0	0	0	99
Lane Group Flow (vph)	137	753	0	12	920	99	5	2	0	127	7	11
Confl. Peds. (#/hr)	21		8	8		21	5		5	5		5
Confl. Bikes (#/hr)			3						8			
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	122.8	115.8		112.6	110.7	110.7	2.4	2.4		15.9	15.9	15.9
Effective Green, g (s)	122.8	115.8		112.6	110.7	110.7	2.4	2.4		15.9	15.9	15.9
Actuated g/C Ratio	0.77	0.72		0.70	0.69	0.69	0.01	0.01		0.10	0.10	0.10
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	432	2555		482	2448	1001	26	22		175	185	153
v/s Ratio Prot	c0.01	c0.21		0.00	c0.26		c0.00	0.00		c0.07	0.00	
v/s Ratio Perm	0.23			0.02		0.07						0.01
v/c Ratio	0.32	0.29		0.02	0.38	0.10	0.19	0.09		0.73	0.04	0.07
Uniform Delay, d1	5.9	7.8		7.1	10.3	8.2	77.8	77.7		69.9	65.1	65.4
Progression Factor	2.40	2.48		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.0	0.4	0.2	1.3	0.7		11.9	0.0	0.1
Delay (s)	14.3	19.6		7.1	10.7	8.3	79.2	78.4		81.8	65.2	65.4
Level of Service	B	B		A	B	A	E	E		F	E	E
Approach Delay (s)		18.8			10.4			78.7			74.0	
Approach LOS		B			B			E			E	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		21.2			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			24.0				
Intersection Capacity Utilization		55.5%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

Existing AM Peak Hour

106: Atlantic Boulevard & Harbor Drive

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 76 (48%), Referenced to phase 2:WBT L and 6:EBT L, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	











Splits and Phases: 106: Atlantic Boulevard & Harbor Drive



**P&Z**  
**PZ19-12000047**  
**11/18/2020**





















## Queues

### 106: Atlantic Boulevard & Harbor Drive

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	137	753	12	920	130	5	7	127	7	110
v/c Ratio	0.32	0.28	0.02	0.36	0.12	0.08	0.11	0.73	0.04	0.44
Control Delay	13.6	18.1	5.9	10.7	3.3	76.8	52.5	92.0	62.3	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	18.1	5.9	10.7	3.3	76.8	52.5	92.0	62.3	15.7
Queue Length 50th (ft)	72	274	2	155	7	5	2	131	7	0
Queue Length 95th (ft)	142	358	9	267	32	19	19	179	21	44
Internal Link Dist (ft)		1130		512			236		622	
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity (vph)	491	2715	636	2527	1062	320	298	320	337	370
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.28	0.02	0.36	0.12	0.02	0.02	0.40	0.02	0.30
Intersection Summary										

Existing AM Peak Hour

















# HCM 2010 Signalized Intersection Summary 101: Federal Highway/US 1 & NE 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	30	20	15	9	46	0	1367	11	43	1733	130
Future Volume (veh/h)	138	30	20	15	9	46	0	1367	11	43	1733	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	152	33	22	16	10	51	0	1502	12	47	1904	143
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	170	104	69	142	15	76	0	3660	29	326	3910	1215
Arrive On Green	0.06	0.10	0.10	0.01	0.06	0.06	0.00	1.00	1.00	0.02	0.77	0.77
Sat Flow, veh/h	1774	1043	695	1774	265	1351	0	5372	42	1774	5085	1580
Grp Volume(v), veh/h	152	0	55	16	0	61	0	979	535	47	1904	143
Grp Sat Flow(s),veh/h/ln	1774	0	1738	1774	0	1616	0	1695	1855	1774	1695	1580
Q Serve(g_s), s	9.0	0.0	4.7	1.4	0.0	5.9	0.0	0.0	0.0	1.1	22.1	3.7
Cycle Q Clear(g_c),s	9.0	0.0	4.7	1.4	0.0	5.9	0.0	0.0	0.0	1.1	22.1	3.7
Prop In Lane	1.00		0.40	1.00		0.84	0.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	170	0	173	142	0	91	0	2384	1305	326	3910	1215
V/C Ratio(X)	0.89	0.00	0.32	0.11	0.00	0.67	0.00	0.41	0.41	0.14	0.49	0.12
Avail Cap(c_a), veh/h	170	0	348	220	0	323	0	2384	1305	486	3910	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	0.0	67.0	70.0	0.0	74.1	0.0	0.0	0.0	5.7	6.8	4.7
Incr Delay (d2), s/veh	39.3	0.0	0.4	0.1	0.0	3.2	0.0	0.4	0.7	0.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	2.3	0.7	0.0	2.7	0.0	0.1	0.3	0.6	10.4	1.7
LnGrp Delay(d),s/veh	108.9	0.0	67.4	70.1	0.0	77.3	0.0	0.4	0.7	5.7	7.3	4.9
LnGrp LOS	F		E	E		E		A	A	A	A	A
Approach Vol, veh/h	207				77		1514		2094			
Approach Delay, s/veh	97.8				75.8		0.5		7.1			
Approach LOS	F				E		A		A			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	10.5	119.5	8.0	21.9		130.0	15.0	15.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0		7.0	6.0	6.0				
Max Green Setting (Gmax), s	18.0	75.0	9.0	32.0		100.0	9.0	32.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0	3.4	6.7		24.1	11.0	7.9				
Green Ext Time (p_c), s	0.0	14.1	0.0	0.1		26.3	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			10.7									
HCM 2010 LOS			B									

Background AM Peak Hour

# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	138	30	15	9	1367	43	1733	130
Future Volume (vph)	138	30	15	9	1367	43	1733	130
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	15.0	38.0	15.0	38.0	82.0	25.0	107.0	107.0
Total Split (%)	9.4%	23.8%	9.4%	23.8%	51.3%	15.6%	66.9%	66.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	17.9	12.5	11.3	7.1	117.5	127.3	127.3	127.3
Actuated g/C Ratio	0.11	0.08	0.07	0.04	0.73	0.80	0.80	0.80
v/c Ratio	1.07	0.36	0.15	0.50	0.41	0.19	0.47	0.11
Control Delay	157.9	55.2	62.5	37.3	4.8	6.0	6.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.9	55.2	62.5	37.3	4.8	6.0	6.2	0.8
LOS	F	E	E	D	A	A	A	A
Approach Delay		130.6		42.5	4.8		5.8	
Approach LOS		F		D	A		A	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 12.8

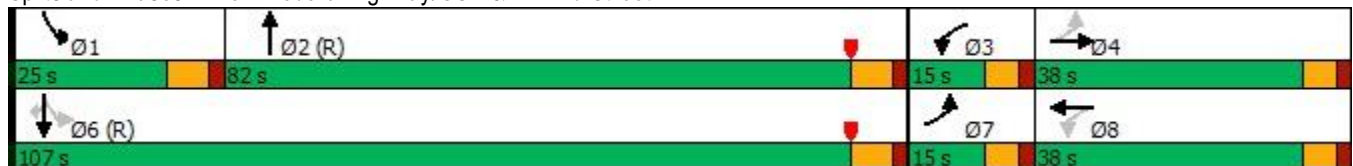
Intersection LOS: B

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Analysis Period (min) 15

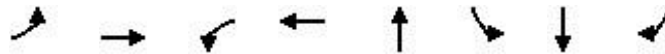
Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



Background AM Peak Hour

## Queues

### 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	55	16	61	1514	47	1904	143
v/c Ratio	1.07	0.36	0.15	0.50	0.41	0.19	0.47	0.11
Control Delay	157.9	55.2	62.5	37.3	4.8	6.0	6.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.9	55.2	62.5	37.3	4.8	6.0	6.2	0.8
Queue Length 50th (ft)	~160	37	15	10	78	9	217	0
Queue Length 95th (ft)	#249	86	39	61	103	21	274	16
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	142	363	149	366	3731	367	4044	1252
Starvation Cap Reductn	0	0	0	0	404	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	187	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.15	0.11	0.17	0.46	0.13	0.49	0.11

#### Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 7.6







Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	64	15	10	42	3	13	14	18	4	17	1
Future Vol, veh/h	1	64	15	10	42	3	13	14	18	4	17	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	85	20	13	56	4	17	19	24	5	23	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.6	7.5	7.6
HCM LOS	A	A	A	A
























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	1%	18%	18%
Vol Thru, %	31%	80%	76%	77%
Vol Right, %	40%	19%	5%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	80	55	22
LT Vol	13	1	10	4
Through Vol	14	64	42	17
RT Vol	18	15	3	1
Lane Flow Rate	60	107	73	29
Geometry Grp	1	1	1	1
Degree of Util (X)	0.068	0.12	0.085	0.035
Departure Headway (Hd)	4.084	4.034	4.174	4.301
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	862	880	849	818
Service Time	2.179	2.099	2.244	2.401
HCM Lane V/C Ratio	0.07	0.122	0.086	0.035
HCM Control Delay	7.5	7.7	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.1

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	51	31	149	207	8
Future Vol, veh/h	10	51	31	149	207	8
Conflicting Peds, #/hr	1	5	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	59	36	171	238	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	488	249	248	0	-	0
Stage 1	244	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	539	790	1318	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	523	785	1317	-	-	-
Mov Cap-2 Maneuver	523	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.3	1.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1317	-	523	785	-	-
HCM Lane V/C Ratio	0.027	-	0.022	0.075	-	-
HCM Control Delay (s)	7.8	-	12	10	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.2	-	-

# HCM 2010 Signalized Intersection Summary





















## 104: Federal Highway/US 1 & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	517	309	176	438	99	264	1075	67	122	1370	129
Future Volume (veh/h)	178	517	309	176	438	99	264	1075	67	122	1370	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	185	539	322	183	456	103	275	1120	70	127	1427	134
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	730	322	201	721	318	294	2131	133	146	1665	156
Arrive On Green	0.12	0.21	0.21	0.23	0.41	0.41	0.17	0.44	0.44	0.16	0.70	0.70
Sat Flow, veh/h	1774	3539	1563	1774	3539	1562	1774	4893	306	1774	4729	444
Grp Volume(v), veh/h	185	539	322	183	456	103	275	776	414	127	1023	538
Grp Sat Flow(s),veh/h/ln	1774	1770	1563	1774	1770	1562	1774	1695	1808	1774	1695	1783
Q Serve(g_s), s	16.5	22.8	33.0	16.1	16.4	7.2	24.5	26.8	26.8	11.2	36.0	36.0
Cycle Q Clear(g_c),s	16.5	22.8	33.0	16.1	16.4	7.2	24.5	26.8	26.8	11.2	36.0	36.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.25
Lane Grp Cap(c), veh/h	205	730	322	201	721	318	294	1477	788	146	1193	628
V/C Ratio(X)	0.90	0.74	1.00	0.91	0.63	0.32	0.93	0.53	0.53	0.87	0.86	0.86
Avail Cap(c_a), veh/h	233	730	322	233	730	322	322	1477	788	277	1193	628
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	69.8	59.5	63.5	61.1	42.6	39.9	65.9	33.0	33.1	66.0	20.7	20.7
Incr Delay (d2), s/veh	29.8	6.6	49.9	30.5	1.5	0.4	31.1	1.3	2.5	5.3	7.2	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	11.8	18.7	9.5	8.1	3.1	14.5	12.8	13.9	5.6	17.7	19.5
LnGrp Delay(d),s/veh	99.7	66.0	113.4	91.6	44.1	40.3	96.9	34.4	35.6	71.3	27.8	33.3
LnGrp LOS	F	E	F	F	D	D	F	C	D	E	C	C
Approach Vol, veh/h	1046				742				1465			
Approach Delay, s/veh	86.6				55.3				46.5			
Approach LOS	F				E				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc),s	20.2	76.7	24.1	39.0	33.6	63.3	24.5	38.6				
Change Period (Y+Rc),s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	55.0	21.0	33.0	29.0	51.0	21.0	33.0				
Max Q Clear Time (g_c+l1), s	13.2	28.8	18.1	35.0	26.5	38.0	18.5	18.4				
Green Ext Time (p_c),s	0.1	8.2	0.0	0.0	0.1	7.8	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay	51.6											
HCM 2010 LOS	D											

Background AM Peak Hour

# Timings

## 104: Federal Highway/US 1 & Atlantic Boulevard

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	178	517	309	176	438	99	264	1075	122	1370
Future Volume (vph)	178	517	309	176	438	99	264	1075	122	1370
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	12.0	37.0	12.0	37.0
Total Split (s)	27.0	39.0	39.0	27.0	39.0	39.0	36.0	62.0	32.0	58.0
Total Split (%)	16.9%	24.4%	24.4%	16.9%	24.4%	24.4%	22.5%	38.8%	20.0%	36.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	19.0	35.0	35.0	19.0	35.0	35.0	26.9	64.6	15.4	53.1
Actuated g/C Ratio	0.12	0.22	0.22	0.12	0.22	0.22	0.17	0.40	0.10	0.33
v/c Ratio	0.88	0.70	0.55	0.87	0.59	0.24	0.93	0.58	0.75	0.94
Control Delay	105.8	63.6	10.3	90.1	64.0	20.2	100.8	39.0	91.1	56.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	63.6	10.3	90.1	64.0	20.2	100.8	39.0	91.1	56.6
LOS	F	E	B	F	E	C	F	D	F	E
Approach Delay		54.6			64.3			50.6		59.2
Approach LOS		D			E			D		E

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 103 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 56.4

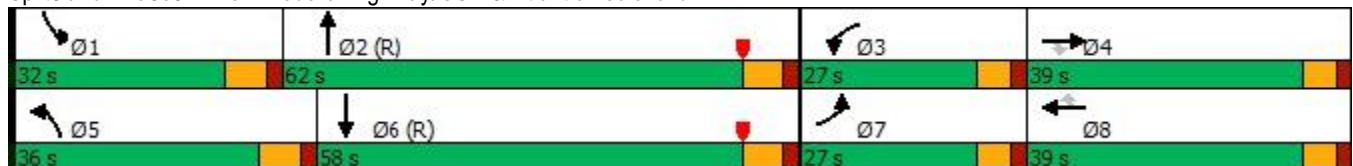
Intersection LOS: E

Intersection Capacity Utilization 101.2%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



Background AM Peak Hour

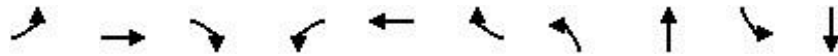
nc o 1 t Report  
**P&Z**

PZ19-12000047

11/18/2020

## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	539	322	183	456	103	275	1190	127	1561
v/c Ratio	0.88	0.70	0.55	0.87	0.59	0.24	0.93	0.58	0.75	0.94
Control Delay	105.8	63.6	10.3	90.1	64.0	20.2	100.8	39.0	91.1	56.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	63.6	10.3	90.1	64.0	20.2	100.8	39.0	91.1	56.6
Queue Length 50th (ft)	191	281	11	189	263	26	283	352	114	590
Queue Length 95th (ft)	#316	351	105	#317	317	91	#441	429	174	#697
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	232	774	582	232	772	427	320	2039	276	1668
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.70	0.55	0.79	0.59	0.24	0.86	0.58	0.46	0.94




















#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# HCM 2010 Signalized Intersection Summary

















## 105: NE 24th Avenue & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	760	29	92	732	16	5	7	20	11	6	19
Future Volume (veh/h)	63	760	29	92	732	16	5	7	20	11	6	19
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.98		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	68	826	32	100	796	17	5	8	22	12	7	21
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	2822	109	572	2884	62	32	23	50	79	38	76
Arrive On Green	0.02	0.81	0.81	0.01	0.27	0.27	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1774	3468	134	1774	3540	76	122	478	1016	861	774	1554
Grp Volume(v), veh/h	68	421	437	100	398	415	35	0	0	19	0	21
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1846	1616	0	0	1635	0	1554
Q Serve(g_s), s	1.0	9.3	9.3	1.5	28.4	28.4	0.0	0.0	0.0	0.0	0.0	2.1
Cycle Q Clear(g_c),s	1.0	9.3	9.3	1.5	28.4	28.4	3.3	0.0	0.0	1.6	0.0	2.1
Prop In Lane	1.00		0.07	1.00		0.04	0.14		0.63	0.63		1.00
Lane Grp Cap(c), veh/h	513	1440	1491	572	1442	1504	105	0	0	117	0	76
V/C Ratio(X)	0.13	0.29	0.29	0.17	0.28	0.28	0.33	0.00	0.00	0.16	0.00	0.28
Avail Cap(c_a), veh/h	648	1440	1491	639	1442	1504	265	0	0	269	0	233
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.92	0.92	0.92	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.0	3.6	3.6	2.6	21.2	21.2	73.9	0.0	0.0	73.1	0.0	73.3
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.4	0.4	0.7	0.0	0.0	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.6	4.7	0.7	14.2	14.8	1.5	0.0	0.0	0.8	0.0	0.9
LnGrp Delay(d),s/veh	5.0	4.0	4.0	2.6	21.7	21.6	74.6	0.0	0.0	73.3	0.0	74.1
LnGrp LOS	A	A	A	A	C	C	E			E		E
Approach Vol, veh/h		926			913			35			40	
Approach Delay, s/veh		4.0			19.6			74.6			73.7	
Approach LOS		A			B			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	136.3		13.8	10.0	136.2		13.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time (g_c+l1), s	3.0	30.4		5.3	3.5	11.3		4.1				
Green Ext Time (p_c), s	0.0	5.8		0.1	0.0	6.3		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				14.2								
HCM 2010 LOS				B								

Background AM Peak Hour

# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	63	760	92	732	5	7	11	6	19
Future Volume (vph)	63	760	92	732	5	7	11	6	19
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effect Green (s)	137.0	132.3	137.7	132.6		7.0		7.0	7.0
Actuated g/C Ratio	0.86	0.83	0.86	0.83		0.04		0.04	0.04
v/c Ratio	0.13	0.30	0.18	0.28		0.39		0.26	0.17
Control Delay	5.7	16.2	2.6	4.5		49.7		82.4	2.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	5.7	16.2	2.6	4.5		49.7		82.4	2.8
LOS	A	B	A	A		D		F	A
Approach Delay		15.4		4.3		49.7		40.6	
Approach LOS		B		A		D		D	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 11.2

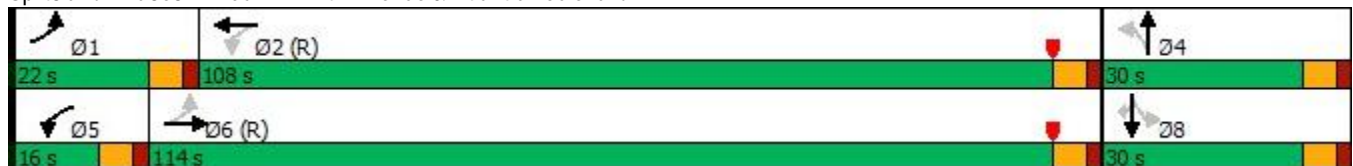
Intersection LOS: B

Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

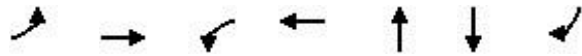
Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Background AM Peak Hour

## Queues

### 105: NE 24th Avenue & Atlantic Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	68	858	100	813	35	19	21
v/c Ratio	0.13	0.30	0.18	0.28	0.39	0.26	0.17
Control Delay	5.7	16.2	2.6	4.5	49.7	82.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	16.2	2.6	4.5	49.7	82.4	2.8
Queue Length 50th (ft)	28	351	9	88	13	20	0
Queue Length 95th (ft)	m46	417	36	183	53	50	0
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity (vph)	622	2901	598	2916	257	247	285
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.30	0.17	0.28	0.14	0.08	0.07












#### Intersection Summary

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



# HCM Signalized Intersection Capacity Analysis





















## 106: Atlantic Boulevard & Harbor Drive

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	668	6	10	803	114	4	5	4	111	6	96
Future Volume (vph)	120	668	6	10	803	114	4	5	4	111	6	96
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	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.96		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	3531		1758	3539	1447	1770	1660		1770	1863	1548
Flt Permitted	0.24	1.00		0.33	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	446	3531		615	3539	1447	1770	1660		1770	1863	1548
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	146	815	7	12	979	139	5	6	5	135	7	117
RTOR Reduction (vph)	0	0	0	0	0	33	0	5	0	0	0	105
Lane Group Flow (vph)	146	822	0	12	979	106	5	6	0	135	7	12
Confl. Peds. (#/hr)	21		8	8		21	5		5	5		5
Confl. Bikes (#/hr)			3						8			
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	121.2	113.7		110.0	108.1	108.1	3.8	3.8		16.6	16.6	16.6
Effective Green, g (s)	121.2	113.7		110.0	108.1	108.1	3.8	3.8		16.6	16.6	16.6
Actuated g/C Ratio	0.76	0.71		0.69	0.68	0.68	0.02	0.02		0.10	0.10	0.10
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	399	2509		436	2391	977	42	39		183	193	160
v/s Ratio Prot	c0.02	0.23		0.00	c0.28		0.00	c0.00		c0.08	0.00	
v/s Ratio Perm	0.26			0.02		0.07						0.01
v/c Ratio	0.37	0.33		0.03	0.41	0.11	0.12	0.16		0.74	0.04	0.08
Uniform Delay, d1	6.9	8.7		7.9	11.6	9.1	76.5	76.5		69.6	64.5	64.8
Progression Factor	2.39	2.49		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.0	0.5	0.2	0.5	0.7		12.5	0.0	0.1
Delay (s)	16.7	22.1		7.9	12.2	9.3	76.9	77.2		82.1	64.5	64.8
Level of Service	B	C		A	B	A	E	E		F	E	E
Approach Delay (s)		21.3			11.8			77.1			73.8	
Approach LOS		C			B			E			E	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		22.9										
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		160.0										
Intersection Capacity Utilization		57.6%										
Analysis Period (min)		15										
c Critical Lane Group												

Background AM Peak Hour

# Timings

## 106: Atlantic Boulevard & Harbor Drive

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	668	10	803	114	4	5	111	6	96
Future Volume (vph)	120	668	10	803	114	4	5	111	6	96
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	2		7	7	8	8	
Permitted Phases	6		2		2					8
Detector Phase	1	6	5	2	2	7	7	8	8	8
Switch Phase										
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	31.0	21.0	31.0	31.0	31.0	31.0	29.0	29.0	29.0
Total Split (s)	21.0	69.0	21.0	69.0	69.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	13.1%	43.1%	13.1%	43.1%	43.1%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effect Green (s)	123.6	119.7	114.8	110.5	110.5	6.2	6.2	16.6	16.6	16.6
Actuated g/C Ratio	0.77	0.75	0.72	0.69	0.69	0.04	0.04	0.10	0.10	0.10
v/c Ratio	0.38	0.31	0.03	0.40	0.13	0.07	0.16	0.74	0.04	0.44
Control Delay	16.2	21.2	6.8	12.7	4.1	76.2	58.2	91.9	61.5	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	21.2	6.8	12.7	4.1	76.2	58.2	91.9	61.5	15.1
LOS	B	C	A	B	A	E	E	F	E	B
Approach Delay		20.4		11.6			63.9		56.4	
Approach LOS		C		B			E		E	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 76 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 20.4

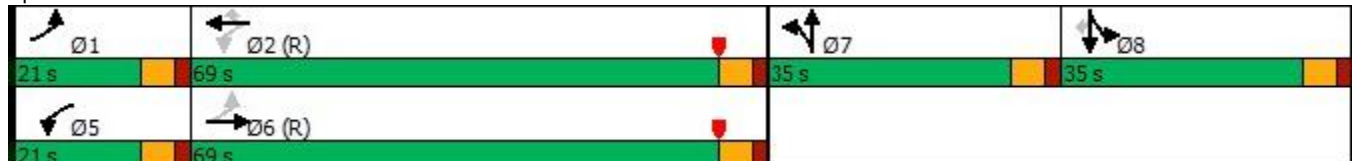
Intersection LOS: C

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 106: Atlantic Boulevard & Harbor Drive



Background AM Peak Hour

Incident Report  
**P&Z**

PZ19-12000047

11/18/2020





















## Queues

### 106: Atlantic Boulevard & Harbor Drive



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	822	12	979	139	5	11	135	7	117
v/c Ratio	0.38	0.31	0.03	0.40	0.13	0.07	0.16	0.74	0.04	0.44
Control Delay	16.2	21.2	6.8	12.7	4.1	76.2	58.2	91.9	61.5	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	21.2	6.8	12.7	4.1	76.2	58.2	91.9	61.5	15.1
Queue Length 50th (ft)	106	346	3	238	13	5	6	139	7	0
Queue Length 95th (ft)	151	395	9	300	38	19	26	188	21	45
Internal Link Dist (ft)		1130		512			236		622	
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity (vph)	453	2643	585	2443	1030	320	314	320	337	376
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.31	0.02	0.40	0.13	0.02	0.04	0.42	0.02	0.31
Intersection Summary										

















# HCM 2010 Signalized Intersection Summary 101: Federal Highway/US 1 & NE 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	30	20	15	9	63	0	1367	11	49	1733	130
Future Volume (veh/h)	138	30	20	15	9	63	0	1367	11	49	1733	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	152	33	22	16	10	69	0	1502	12	54	1904	143
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	170	115	77	157	14	94	0	3598	29	323	3854	1198
Arrive On Green	0.06	0.11	0.11	0.01	0.07	0.07	0.00	1.00	1.00	0.02	0.76	0.76
Sat Flow, veh/h	1774	1043	695	1774	203	1404	0	5372	42	1774	5085	1580
Grp Volume(v), veh/h	152	0	55	16	0	79	0	979	535	54	1904	143
Grp Sat Flow(s),veh/h/ln	1774	0	1738	1774	0	1608	0	1695	1855	1774	1695	1580
Q Serve(g_s), s	9.0	0.0	4.7	1.3	0.0	7.7	0.0	0.0	0.0	1.4	23.2	3.9
Cycle Q Clear(g_c),s	9.0	0.0	4.7	1.3	0.0	7.7	0.0	0.0	0.0	1.4	23.2	3.9
Prop In Lane	1.00		0.40	1.00		0.87	0.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	170	0	192	157	0	108	0	2344	1283	323	3854	1198
V/C Ratio(X)	0.90	0.00	0.29	0.10	0.00	0.73	0.00	0.42	0.42	0.17	0.49	0.12
Avail Cap(c_a), veh/h	170	0	348	235	0	322	0	2344	1283	482	3854	1198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	0.0	65.3	68.3	0.0	73.2	0.0	0.0	0.0	6.2	7.5	5.2
Incr Delay (d2), s/veh	39.9	0.0	0.3	0.1	0.0	3.5	0.0	0.4	0.8	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	2.2	0.7	0.0	3.5	0.0	0.1	0.3	0.7	10.9	1.7
LnGrp Delay(d),s/veh	108.3	0.0	65.6	68.4	0.0	76.8	0.0	0.4	0.8	6.3	8.0	5.4
LnGrp LOS	F		E	E		E		A	A	A	A	A
Approach Vol, veh/h	207					95		1514		2101		
Approach Delay, s/veh	97.0					75.4		0.5		7.7		
Approach LOS	F					E		A		A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	6		7	8				
Phs Duration (G+Y+Rc),s	10.6	117.6	8.0	23.7	128.3		15.0	16.7				
Change Period (Y+Rc),s	7.0	7.0	6.0	6.0	7.0		6.0	6.0				
Max Green Setting (Gmax), s	18.0	75.0	9.0	32.0	100.0		9.0	32.0				
Max Q Clear Time (g_c+I1), s	3.4	2.0	3.3	6.7	25.2		11.0	9.7				
Green Ext Time (p_c), s	0.0	14.1	0.0	0.1	26.2		0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			11.3									
HCM 2010 LOS			B									

Future AM Peak Hour

# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	138	30	15	9	1367	49	1733	130
Future Volume (vph)	138	30	15	9	1367	49	1733	130
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	15.0	38.0	15.0	38.0	82.0	25.0	107.0	107.0
Total Split (%)	9.4%	23.8%	9.4%	23.8%	51.3%	15.6%	66.9%	66.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	20.5	15.1	12.7	7.3	114.8	124.7	124.7	124.7
Actuated g/C Ratio	0.13	0.09	0.08	0.05	0.72	0.78	0.78	0.78
v/c Ratio	0.98	0.30	0.13	0.56	0.42	0.23	0.48	0.12
Control Delay	132.4	52.7	61.5	35.1	5.0	6.5	6.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.4	52.7	61.5	35.1	5.0	6.5	6.8	0.9
LOS	F	D	E	D	A	A	A	A
Approach Delay		111.2		39.5	5.0		6.4	
Approach LOS		F		D	A		A	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 127 (79%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 12.2

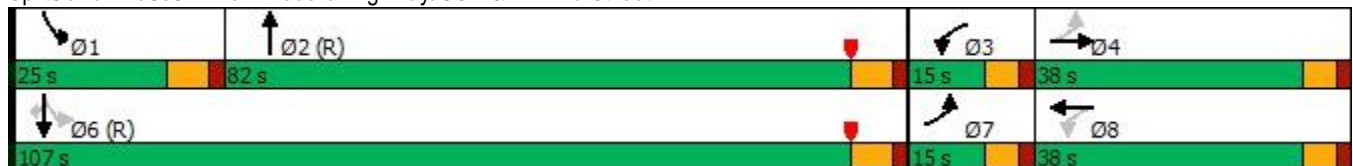
Intersection LOS: B

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



Future AM Peak Hour

## Queues

### 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	55	16	79	1514	54	1904	143
v/c Ratio	0.98	0.30	0.13	0.56	0.42	0.23	0.48	0.12
Control Delay	132.4	52.7	61.5	35.1	5.0	6.5	6.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.4	52.7	61.5	35.1	5.0	6.5	6.8	0.9
Queue Length 50th (ft)	~159	37	15	10	77	11	217	0
Queue Length 95th (ft)	#239	86	38	66	104	24	281	17
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	155	363	160	379	3643	360	3961	1229
Starvation Cap Reductn	0	0	0	0	415	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	187	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.15	0.10	0.21	0.47	0.15	0.50	0.12

#### Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	64	21	13	42	3	30	21	25	4	19	1
Future Vol, veh/h	1	64	21	13	42	3	30	21	25	4	19	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	85	28	17	56	4	40	28	33	5	25	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.9	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	39%	1%	22%	17%
Vol Thru, %	28%	74%	72%	79%
Vol Right, %	33%	24%	5%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	86	58	24
LT Vol	30	1	13	4
Through Vol	21	64	42	19
RT Vol	25	21	3	1
Lane Flow Rate	101	115	77	32
Geometry Grp	1	1	1	1
Degree of Util (X)	0.12	0.133	0.094	0.04
Departure Headway (Hd)	4.279	4.185	4.368	4.479
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	841	862	824	802
Service Time	2.289	2.185	2.379	2.492
HCM Lane V/C Ratio	0.12	0.133	0.093	0.04
HCM Control Delay	7.9	7.8	7.8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.3	0.1

Future AM Peak Hour

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection

Int Delay, s/veh 2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 17 51 31 149 207 11

Future Vol, veh/h 17 51 31 149 207 11

Conflicting Peds, #/hr 1 5 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 0 100 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 87 87 87 87 87 87

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 20 59 36 171 238 13

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 490 251 252 0 - 0

Stage 1 246 - - - - -

Stage 2 244 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 537 788 1313 - - -

Stage 1 795 - - - - -

Stage 2 797 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 521 784 1312 - - -

Mov Cap-2 Maneuver 521 - - - - -

Stage 1 773 - - - - -

Stage 2 796 - - - - -

Approach EB NB SB

HCM Control Delay, s 10.6 1.3 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBTEBLn1 EBLn2 SBT SBR

Capacity (veh/h) 1312 - 521 784 - -

HCM Lane V/C Ratio 0.027 - 0.038 0.075 - -

HCM Control Delay (s) 7.8 - 12.2 10 - -

HCM Lane LOS A - B B - -






















HCM 95th %tile Q(veh) 0.1 - 0.1 0.2 - -

Future AM Peak Hour



# HCM 2010 Signalized Intersection Summary





















## 104: Federal Highway/US 1 & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	523	309	202	455	99	264	1075	76	122	1370	129
Future Volume (veh/h)	178	523	309	202	455	99	264	1075	76	122	1370	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	185	545	322	210	474	103	275	1120	79	127	1427	134
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	730	322	227	773	342	294	2041	144	146	1595	150
Arrive On Green	0.12	0.21	0.21	0.26	0.44	0.44	0.17	0.42	0.42	0.16	0.67	0.67
Sat Flow, veh/h	1774	3539	1563	1774	3539	1564	1774	4850	342	1774	4729	444
Grp Volume(v), veh/h	185	545	322	210	474	103	275	783	416	127	1023	538
Grp Sat Flow(s),veh/h/ln	1774	1770	1563	1774	1770	1564	1774	1695	1802	1774	1695	1783
Q Serve(g_s), s	16.5	23.1	33.0	18.5	16.5	6.8	24.5	27.8	27.8	11.2	39.6	39.6
Cycle Q Clear(g_c),s	16.5	23.1	33.0	18.5	16.5	6.8	24.5	27.8	27.8	11.2	39.6	39.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	205	730	322	227	773	342	294	1427	758	146	1144	601
V/C Ratio(X)	0.90	0.75	1.00	0.93	0.61	0.30	0.93	0.55	0.55	0.87	0.89	0.89
Avail Cap(c_a), veh/h	233	730	322	233	773	342	322	1427	758	277	1144	601
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	69.8	59.6	63.5	58.8	39.8	37.1	65.9	34.9	34.9	66.0	23.7	23.7
Incr Delay (d2), s/veh	29.8	6.9	49.9	36.9	1.2	0.4	31.1	1.5	2.9	5.2	9.7	16.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	12.0	18.7	11.3	8.2	3.0	14.5	13.3	14.5	5.6	19.7	21.9
LnGrp Delay(d),s/veh	99.7	66.4	113.4	95.7	41.1	37.5	96.9	36.4	37.7	71.2	33.4	40.2
LnGrp LOS	F	E	F	F	D	D	F	D	D	E	C	D
Approach Vol, veh/h	1052				787			1474			1688	
Approach Delay, s/veh	86.7				55.2			48.1			38.4	
Approach LOS	F				E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	74.3	26.5	39.0	33.6	61.0	24.5	41.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	25.0	55.0	21.0	33.0	29.0	51.0	21.0	33.0				
Max Q Clear Time (g_c+I1), s	13.2	29.8	20.5	35.0	26.5	41.6	18.5	18.5				
Green Ext Time (p_c), s	0.1	8.2	0.0	0.0	0.1	6.1	0.0	2.4				
Intersection Summary												
HCM 2010 Ctrl Delay	54.0											
HCM 2010 LOS	D											

Future AM Peak Hour

# Timings

## 104: Federal Highway/US 1 & Atlantic Boulevard

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	178	523	309	202	455	99	264	1075	122	1370
Future Volume (vph)	178	523	309	202	455	99	264	1075	122	1370
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	12.0	37.0	12.0	37.0
Total Split (s)	27.0	39.0	39.0	27.0	39.0	39.0	36.0	62.0	32.0	58.0
Total Split (%)	16.9%	24.4%	24.4%	16.9%	24.4%	24.4%	22.5%	38.8%	20.0%	36.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	19.0	33.7	33.7	20.3	35.0	35.0	26.9	64.6	15.4	53.1
Actuated g/C Ratio	0.12	0.21	0.21	0.13	0.22	0.22	0.17	0.40	0.10	0.33
v/c Ratio	0.88	0.73	0.57	0.94	0.61	0.24	0.93	0.59	0.75	0.94
Control Delay	105.8	65.8	11.0	99.8	62.4	18.0	100.8	39.1	91.8	55.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	65.8	11.0	99.8	62.4	18.0	100.8	39.1	91.8	55.9
LOS	F	E	B	F	E	B	F	D	F	E
Approach Delay		56.0			66.5			50.6		58.6
Approach LOS		E			E			D		E

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 103 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 57.0

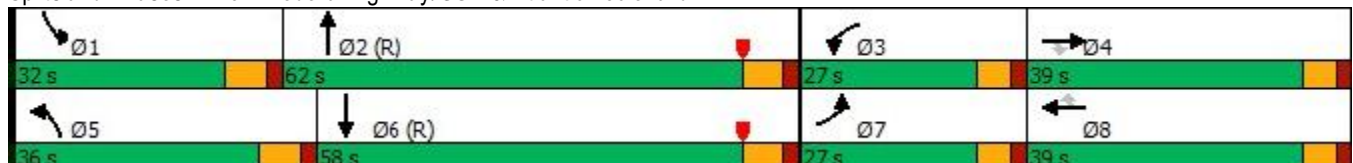
Intersection LOS: E

Intersection Capacity Utilization 102.7%

ICU Level of Service G

Analysis Period (min) 15











Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



Future AM Peak Hour

## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard




















										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	545	322	210	474	103	275	1199	127	1561
v/c Ratio	0.88	0.73	0.57	0.94	0.61	0.24	0.93	0.59	0.75	0.94
Control Delay	105.8	65.8	11.0	99.8	62.4	18.0	100.8	39.1	91.8	55.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	65.8	11.0	99.8	62.4	18.0	100.8	39.1	91.8	55.9
Queue Length 50th (ft)	191	284	14	219	271	25	283	355	114	590
Queue Length 95th (ft)	#316	354	110	#364	329	93	#441	433	174	#697
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	232	745	568	232	772	427	320	2037	276	1668
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.73	0.57	0.91	0.61	0.24	0.86	0.59	0.46	0.94

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

















# HCM 2010 Signalized Intersection Summary 105: NE 24th Avenue & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	760	29	92	732	21	5	7	20	24	6	62
Future Volume (veh/h)	78	760	29	92	732	21	5	7	20	24	6	62
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	85	826	32	100	796	23	5	8	22	26	7	67
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	498	2764	107	559	2797	81	33	33	67	115	27	103
Arrive On Green	0.02	0.80	0.80	0.01	0.26	0.26	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	1774	3468	134	1774	3508	101	107	495	1019	1145	404	1562
Grp Volume(v), veh/h	85	421	437	100	401	418	35	0	0	33	0	67
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1840	1621	0	0	1548	0	1562
Q Serve(g_s), s	1.4	10.1	10.2	1.7	28.9	28.9	0.0	0.0	0.0	0.0	0.0	6.7
Cycle Q Clear(g_c),s	1.4	10.1	10.2	1.7	28.9	28.9	3.2	0.0	0.0	2.8	0.0	6.7
Prop In Lane	1.00		0.07	1.00		0.06	0.14		0.63	0.79		1.00
Lane Grp Cap(c), veh/h	498	1411	1461	559	1411	1467	132	0	0	142	0	103
V/C Ratio(X)	0.17	0.30	0.30	0.18	0.28	0.28	0.26	0.00	0.00	0.23	0.00	0.65
Avail Cap(c_a), veh/h	632	1411	1461	626	1411	1467	265	0	0	263	0	234
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.60	0.60	0.60	0.92	0.92	0.92	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.7	4.3	4.3	3.1	22.6	22.6	71.3	0.0	0.0	71.1	0.0	73.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.1	0.5	0.4	0.4	0.0	0.0	0.3	0.0	2.6
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(50%),veh/ln	0.8	5.0	5.2	0.8	14.4	15.0	1.5	0.0	0.0	1.4	0.0	3.0
LnGrp Delay(d),s/veh	5.7	4.7	4.6	3.2	23.1	23.0	71.7	0.0	0.0	71.4	0.0	75.6
LnGrp LOS	A	A	A	A	C	C	E			E		E
ApproachVol, veh/h		943			919			35			100	
ApproachDelay, s/veh		4.7			20.9			71.7			74.2	
ApproachLOS		A			C			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	133.6		16.5	10.0	133.5		16.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time (g_c+l1), s	3.4	30.9		5.2	3.7	12.2		8.7				
Green Ext Time (p_c), s	0.0	5.9		0.1	0.0	6.3		0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				16.8								
HCM 2010 LOS				B								

Future AM Peak Hour

# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	78	760	92	732	5	7	24	6	62
Future Volume (vph)	78	760	92	732	5	7	24	6	62
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effect Green (s)	133.4	128.3	133.8	128.5		8.4		8.4	8.4
Actuated g/C Ratio	0.83	0.80	0.84	0.80		0.05		0.05	0.05
v/c Ratio	0.15	0.30	0.19	0.29		0.34		0.40	0.46
Control Delay	7.2	18.9	3.4	6.1		45.1		86.8	25.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	7.2	18.9	3.4	6.1		45.1		86.8	25.1
LOS	A	B	A	A		D		F	C
Approach Delay		17.8		5.8		45.1		45.5	
Approach LOS		B		A		D		D	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 14.2

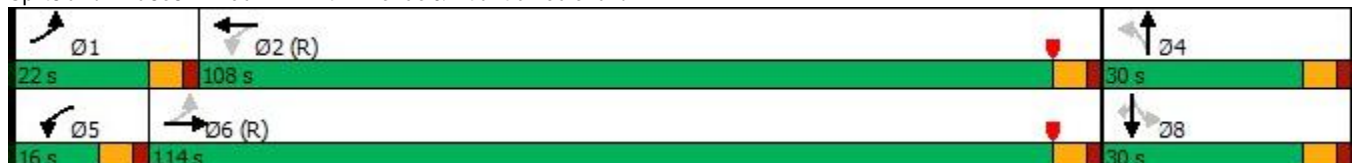
Intersection LOS: B

Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

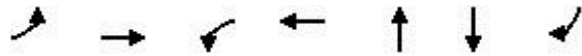
Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Future AM Peak Hour

## Queues

### 105: NE 24th Avenue & Atlantic Boulevard

























Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	85	858	100	819	35	33	67
v/c Ratio	0.15	0.30	0.19	0.29	0.34	0.40	0.46
Control Delay	7.2	18.9	3.4	6.1	45.1	86.8	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	18.9	3.4	6.1	45.1	86.8	25.1
Queue Length 50th (ft)	41	350	10	97	13	34	0
Queue Length 95th (ft)	m65	415	51	245	52	72	52
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity (vph)	656	2815	578	2819	256	235	290
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.30	0.17	0.29	0.14	0.14	0.23

#### Intersection Summary

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

# HCM Signalized Intersection Capacity Analysis





















## 106: Atlantic Boulevard & Harbor Drive

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	681	6	10	808	114	4	5	4	111	6	96
Future Volume (vph)	120	681	6	10	808	114	4	5	4	111	6	96
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	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.96		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	3531		1757	3539	1447	1770	1660		1770	1863	1548
Flt Permitted	0.24	1.00		0.33	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	438	3531		610	3539	1447	1770	1660		1770	1863	1548
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	146	830	7	12	985	139	5	6	5	135	7	117
RTOR Reduction (vph)	0	0	0	0	0	34	0	5	0	0	0	105
Lane Group Flow (vph)	146	837	0	12	985	105	5	6	0	135	7	12
Confl. Peds. (#/hr)	21		8	8		21	5		5	5		5
Confl. Bikes (#/hr)			3						8			
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	121.6	113.7		108.8	106.9	106.9	3.8	3.8		16.6	16.6	16.6
Effective Green, g (s)	121.6	113.7		108.8	106.9	106.9	3.8	3.8		16.6	16.6	16.6
Actuated g/C Ratio	0.76	0.71		0.68	0.67	0.67	0.02	0.02		0.10	0.10	0.10
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	405	2509		428	2364	966	42	39		183	193	160
v/s Ratio Prot	c0.02	0.24		0.00	c0.28		0.00	c0.00		c0.08	0.00	
v/s Ratio Perm	0.25			0.02		0.07						0.01
v/c Ratio	0.36	0.33		0.03	0.42	0.11	0.12	0.16		0.74	0.04	0.08
Uniform Delay, d1	7.0	8.8		8.3	12.2	9.5	76.5	76.5		69.6	64.5	64.8
Progression Factor	2.02	2.38		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.4		0.0	0.5	0.2	0.5	0.7		12.5	0.0	0.1
Delay (s)	14.4	21.3		8.3	12.8	9.7	76.9	77.2		82.1	64.5	64.8
Level of Service	B	C		A	B	A	E	E		F	E	E
Approach Delay (s)		20.2			12.3			77.1			73.8	
Approach LOS		C			B			E			E	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		22.7				HCM 2000 Level of Service		C				
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		160.0				Sum of lost time (s)		24.0				
Intersection Capacity Utilization		57.8%				ICU Level of Service		B				
Analysis Period (min)		15										
c Critical Lane Group												

Future AM Peak Hour

# Timings

## 106: Atlantic Boulevard & Harbor Drive

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	681	10	808	114	4	5	111	6	96
Future Volume (vph)	120	681	10	808	114	4	5	111	6	96
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	2		7	7	8	8	
Permitted Phases	6		2		2					8
Detector Phase	1	6	5	2	2	7	7	8	8	8
Switch Phase										
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	31.0	21.0	31.0	31.0	31.0	31.0	29.0	29.0	29.0
Total Split (s)	21.0	69.0	21.0	69.0	69.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	13.1%	43.1%	13.1%	43.1%	43.1%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	124.0	119.7	113.7	109.4	109.4	6.2	6.2	16.6	16.6	16.6
Actuatedg/C Ratio	0.78	0.75	0.71	0.68	0.68	0.04	0.04	0.10	0.10	0.10
v/c Ratio	0.35	0.32	0.03	0.41	0.14	0.07	0.16	0.74	0.04	0.44
Control Delay	13.8	20.4	7.0	13.5	4.4	76.2	58.2	91.9	61.5	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	20.4	7.0	13.5	4.4	76.2	58.2	91.9	61.5	15.1
LOS	B	C	A	B	A	E	E	F	E	B
Approach Delay		19.4		12.3			63.9		56.4	
Approach LOS		B		B			E		E	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 76 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 20.3

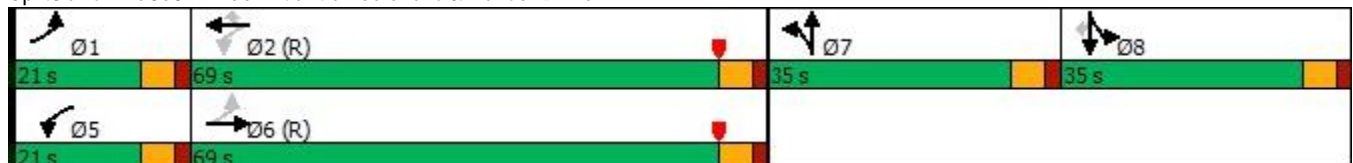
Intersection LOS: C

Intersection Capacity Utilization 57.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 106: Atlantic Boulevard & Harbor Drive













Future AM Peak Hour






## Queues

### 106: Atlantic Boulevard & Harbor Drive

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	837	12	985	139	5	11	135	7	117
v/c Ratio	0.35	0.32	0.03	0.41	0.14	0.07	0.16	0.74	0.04	0.44
Control Delay	13.8	20.4	7.0	13.5	4.4	76.2	58.2	91.9	61.5	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	20.4	7.0	13.5	4.4	76.2	58.2	91.9	61.5	15.1
Queue Length 50th (ft)	104	346	3	241	13	5	6	139	7	0
Queue Length 95th (ft)	149	397	9	320	40	19	26	188	21	45
Internal Link Dist (ft)	1130		512				236	622		
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity (vph)	465	2643	579	2418	1021	320	314	320	337	376
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.32	0.02	0.41	0.14	0.02	0.04	0.42	0.02	0.31
Intersection Summary										

HCM 2010 TWSC  
201: Driveway West




Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	30	11	97	46	7
Future Vol, veh/h	20	30	11	97	46	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	33	12	105	50	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	183	54	58	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	129	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	806	1013	1546	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	800	1013	1546	-	-	-
Mov Cap-2 Maneuver	800	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	0.7		0		
HCM LOS	A					
Minor Lane/ Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1546	-	915	-	-	
HCM Lane V/CRatio	0.008	-	0.059	-	-	
HCM Control Delay (s)	7.3	0	9.2	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Future AM Peak Hour

HCM 2010 TWSC  
202: NE 24th Avenue & Driveway East

Intersection

Int Delay, s/veh 1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	11	97	9	4	72
Future Vol, veh/h	26	11	97	9	4	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	12	105	10	4	78





















Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	196	110	0
Stage 1	110	-	-
Stage 2	86	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	793	943	-
Stage 1	915	-	-
Stage 2	937	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	791	943	-
Mov Cap-2 Maneuver	791	-	-
Stage 1	912	-	-
Stage 2	937	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.4
HCM LOS	A		

Minor Lane/ Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	831	1474
HCM Lane V/CRatio	-	-	0.048	0.003
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Future AM Peak Hour

















# HCM 2010 Signalized Intersection Summary 101: Federal Highway/US 1 & NE 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	35	7	40	14	102	0	1356	46	60	1326	105
Future Volume (veh/h)	146	35	7	40	14	102	0	1356	46	60	1326	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	154	37	7	42	15	107	0	1427	48	63	1396	111
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	227	243	46	226	20	140	0	3258	110	309	3589	1091
Arrive On Green	0.09	0.16	0.16	0.03	0.10	0.10	0.00	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1774	1517	287	1774	193	1374	0	5220	170	1774	5085	1546
Grp Volume(v), veh/h	154	0	44	42	0	122	0	957	518	63	1396	111
Grp Sat Flow(s),veh/h/ln	1774	0	1804	1774	0	1567	0	1695	1832	1774	1695	1546
Q Serve(g_s), s	13.7	0.0	3.8	3.8	0.0	13.7	0.0	0.0	0.0	2.1	20.0	4.1
Cycle Q Clear(g_c),s	13.7	0.0	3.8	3.8	0.0	13.7	0.0	0.0	0.0	2.1	20.0	4.1
Prop In Lane	1.00		0.16	1.00		0.88	0.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	227	0	289	226	0	159	0	2186	1181	309	3589	1091
V/C Ratio(X)	0.68	0.00	0.15	0.19	0.00	0.77	0.00	0.44	0.44	0.20	0.39	0.10
Avail Cap(c_a), veh/h	230	0	441	265	0	322	0	2186	1181	379	3589	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	0.0	65.0	69.8	0.0	78.8	0.0	0.0	0.0	9.7	10.7	8.4
Incr Delay (d2), s/veh	6.3	0.0	0.1	0.1	0.0	2.9	0.0	0.5	0.9	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	1.9	1.9	0.0	6.1	0.0	0.1	0.3	1.0	9.4	1.8
LnGrp Delay(d),s/veh	70.2	0.0	65.1	69.9	0.0	81.7	0.0	0.5	0.9	9.8	11.1	8.6
LnGrp LOS	E		E	E		F		A	A	A	B	A
Approach Vol, veh/h	198			164			1475			1570		
Approach Delay, s/veh	69.0			78.7			0.6			10.8		
Approach LOS	E			E			A			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	6		7	8				
Phs Duration (G+Y+Rc),s	11.0	123.1	11.1	34.9	134.0		21.7	24.3				
Change Period (Y+Rc),s	7.0	7.0	6.0	6.0	7.0		6.0	6.0				
Max Green Setting (Gmax), s	11.0	90.0	9.0	44.0	108.0		16.0	37.0				
Max Q Clear Time (g_c+l1), s	4.1	2.0	5.8	5.8	22.0		15.7	15.7				
Green Ext Time (p_c), s	0.0	13.6	0.0	0.1	14.4		0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									

Existing PM Peak Hour

# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	146	35	40	14	1356	60	1326	105
Future Volume (vph)	146	35	40	14	1356	60	1326	105
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	22.0	50.0	15.0	43.0	97.0	18.0	115.0	115.0
Total Split (%)	12.2%	27.8%	8.3%	23.9%	53.9%	10.0%	63.9%	63.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.6	18.4	15.6	8.3	124.8	137.4	137.4	137.4
Actuatedg/C Ratio	0.16	0.10	0.09	0.05	0.69	0.76	0.76	0.76
v/c Ratio	0.82	0.23	0.32	0.70	0.42	0.26	0.36	0.09
Control Delay	99.7	69.7	69.7	38.6	4.4	8.4	7.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	99.7	69.7	69.7	38.6	4.5	8.4	7.5	1.2
LOS	F	E	E	D	A	A	A	A
Approach Delay		93.1		46.5	4.5		7.1	
Approach LOS		F		D	A		A	

### Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 136 (76%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 12.8

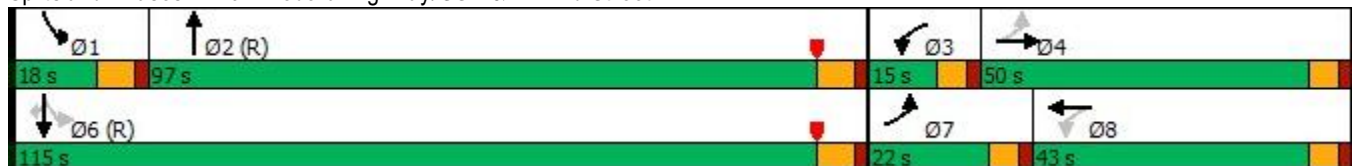
Intersection LOS: B

Intersection Capacity Utilization 63.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



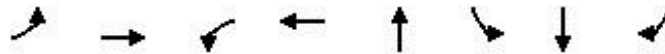
Existing PM Peak Hour

inc 0101 Client Report  
**P&Z**

**PZ19-12000047**  
**11/18/2020**

## Queues

### 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	154	44	42	122	1475	63	1396	111
v/c Ratio	0.82	0.23	0.32	0.70	0.42	0.26	0.36	0.09
Control Delay	99.7	69.7	69.7	38.6	4.4	8.4	7.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	99.7	69.7	69.7	38.6	4.5	8.4	7.5	1.2
Queue Length 50th (ft)	171	44	44	18	65	16	173	0
Queue Length 95th (ft)	#257	88	81	90	m84	35	233	18
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	193	446	150	411	3505	285	3881	1190
Starvation Cap Reductn	0	0	0	0	567	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.10	0.28	0.30	0.50	0.22	0.36	0.09

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.





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

HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 8.2

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	92	17	7	114	11	39	33	49	4	12	4
Future Vol, veh/h	7	92	17	7	114	11	39	33	49	4	12	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	96	18	7	119	11	41	34	51	4	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.3	8.2	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	6%	5%	20%
Vol Thru, %	27%	79%	86%	60%
Vol Right, %	40%	15%	8%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	116	132	20
LT Vol	39	7	7	4
Through Vol	33	92	114	12
RT Vol	49	17	11	4
Lane Flow Rate	126	121	138	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.153	0.146	0.167	0.027
Departure Headway (Hd)	4.359	4.342	4.361	4.58
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	828	825	783
Service Time	2.378	2.361	2.378	2.602
HCM Lane V/C Ratio	0.153	0.146	0.167	0.027
HCM Control Delay	8.2	8.1	8.3	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.6	0.1

Existing PM Peak Hour

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection

Int Delay, s/veh 3.5

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 60 58 72 202 202 18

Future Vol, veh/h 60 58 72 202 202 18

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 0 100 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 82 82 82 82 82 82

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 73 71 88 246 246 22

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 679 257 268 0 - 0

Stage 1 257 - - - - -

Stage 2 422 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 417 782 1296 - - -

Stage 1 786 - - - - -

Stage 2 662 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 389 782 1296 - - -

Mov Cap-2 Maneuver 389 - - - - -

Stage 1 733 - - - - -

Stage 2 662 - - - - -

Approach EB NB SB

HCM Control Delay, s 13.3 2.1 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBTEBLn1 EBLn2 SBT SBR

Capacity (veh/h) 1296 - 389 782 - -

HCM Lane V/C Ratio 0.068 - 0.188 0.09 - -

HCM Control Delay (s) 8 - 16.4 10.1 - -
























HCM Lane LOS A - C B - -

HCM 95th %tile Q(veh) 0.2 - 0.7 0.3 - -

Existing PM Peak Hour



# HCM 2010 Signalized Intersection Summary 104: Federal Highway/US 1 & Atlantic Boulevard

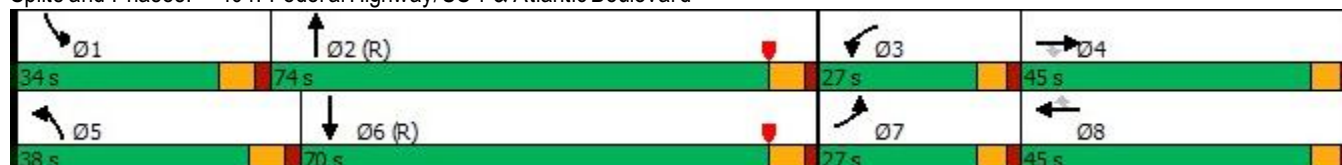
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	627	237	177	522	116	265	1043	117	170	1017	158
Future Volume (veh/h)	210	627	237	177	522	116	265	1043	117	170	1017	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	219	653	247	184	544	121	276	1086	122	177	1059	165
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	767	336	202	756	331	293	1931	217	193	1595	248
Arrive On Green	0.12	0.22	0.22	0.11	0.21	0.21	0.17	0.42	0.42	0.22	0.72	0.72
Sat Flow, veh/h	1774	3539	1550	1774	3539	1549	1774	4640	521	1774	4430	689
Grp Volume(v), veh/h	219	653	247	184	544	121	276	793	415	177	810	414
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1549	1774	1695	1770	1774	1695	1729
Q Serve(g_s), s	21.0	31.9	26.7	18.5	25.7	12.0	27.7	32.1	32.2	17.5	23.1	23.1
Cycle Q Clear(g_c),s	21.0	31.9	26.7	18.5	25.7	12.0	27.7	32.1	32.2	17.5	23.1	23.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.40
Lane Grp Cap(c), veh/h	207	767	336	202	756	331	293	1411	737	193	1221	623
V/C Ratio(X)	1.06	0.85	0.74	0.91	0.72	0.37	0.94	0.56	0.56	0.92	0.66	0.66
Avail Cap(c_a), veh/h	207	767	336	207	767	336	306	1411	737	266	1221	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	79.5	67.7	65.7	78.9	65.7	60.4	74.3	40.0	40.1	69.6	19.4	19.4
Incr Delay (d2), s/veh	78.7	11.5	13.4	36.9	3.0	0.5	35.0	1.6	3.1	22.8	2.7	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	16.8	12.7	11.1	12.9	5.2	16.4	15.3	16.3	9.8	11.0	11.7
LnGrp Delay(d),s/veh	158.2	79.2	79.1	115.8	68.7	60.8	109.3	41.7	43.2	92.3	22.0	24.6
LnGrp LOS	F	E	E	F	E	E	F	D	D	F	C	C
ApproachVol, veh/h	1119				849				1484			
ApproachDelay, s/veh	94.6				77.8				54.7			
ApproachLOS	F				E				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.6	81.9	26.5	45.0	36.7	71.8	27.0	44.5				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	27.0	67.0	21.0	39.0	31.0	63.0	21.0	39.0				
Max Q Clear Time (g_c+l1), s	19.5	34.2	20.5	33.9	29.7	25.1	23.0	27.7				
Green Ext Time (p_c), s	0.1	8.9	0.0	2.0	0.0	9.5	0.0	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			61.3									
HCM 2010 LOS			E									

Existing PM Peak Hour

104: Federal Highway/US 1 & Atlantic Boulevard

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 105 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 64.1	Intersection LOS: E
Intersection Capacity Utilization 97.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



**P&Z**  
**PZ19-12000047**  
**11/18/2020**

## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	219	653	247	184	544	121	276	1208	177	1224
v/c Ratio	1.06	0.84	0.52	0.93	0.71	0.29	0.95	0.60	0.85	0.68
Control Delay	151.9	77.5	22.2	125.1	71.2	15.4	113.9	43.8	104.2	45.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	151.9	77.5	22.2	125.1	71.2	15.4	113.9	43.8	104.2	45.2
Queue Length 50th (ft)	~283	395	70	218	317	17	325	408	167	455
Queue Length 95th (ft)	#469	475	170	#374	388	79	#503	482	238	510
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	206	782	479	206	766	415	304	2028	265	1788
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	111
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.84	0.52	0.89	0.71	0.29	0.91	0.60	0.67	0.73

#### Intersection Summary




















~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

















# HCM 2010 Signalized Intersection Summary 105: NE 24th Avenue & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	793	10	141	691	22	20	32	25	12	15	30
Future Volume (veh/h)	81	793	10	141	691	22	20	32	25	12	15	30
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	90	881	11	157	768	24	22	36	28	13	17	33
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	623	2808	35	545	2773	87	50	57	38	70	78	111
Arrive On Green	0.02	0.78	0.78	0.06	1.00	1.00	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	1774	3578	45	1774	3500	109	307	801	535	529	1104	1570
Grp Volume(v), veh/h	90	436	456	157	388	404	86	0	0	30	0	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1853	1774	1770	1840	1643	0	0	1633	0	1570
Q Serve(g_s), s	1.6	11.2	11.2	3.1	0.0	0.0	5.3	0.0	0.0	0.0	0.0	3.2
Cycle Q Clear(g_c),s	1.6	11.2	11.2	3.1	0.0	0.0	8.1	0.0	0.0	2.4	0.0	3.2
Prop In Lane	1.00		0.02	1.00		0.06	0.26		0.33	0.43		1.00
Lane Grp Cap(c), veh/h	623	1389	1455	545	1402	1457	145	0	0	148	0	111
V/C Ratio(X)	0.14	0.31	0.31	0.29	0.28	0.28	0.59	0.00	0.00	0.20	0.00	0.30
Avail Cap(c_a), veh/h	757	1389	1455	599	1402	1457	272	0	0	273	0	235
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.43	0.43	0.43	0.95	0.95	0.95	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	4.9	4.9	3.4	0.0	0.0	72.8	0.0	0.0	70.2	0.0	70.5
Incr Delay (d2), s/veh	0.0	0.3	0.2	0.1	0.5	0.4	1.5	0.0	0.0	0.2	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.5	5.8	1.4	0.2	0.2	3.8	0.0	0.0	1.3	0.0	1.4
LnGrp Delay(d),s/veh	3.1	5.2	5.2	3.5	0.5	0.4	74.2	0.0	0.0	70.4	0.0	71.1
LnGrp LOS	A	A	A	A	A	A	E			E		E
ApproachVol, veh/h		982			949			86			63	
ApproachDelay, s/veh		5.0			1.0			74.2			70.8	
ApproachLOS		A			A			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	132.7		17.3	11.1	131.6		17.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time (g_c+l1), s	3.6	2.0		10.1	5.1	13.2		5.2				
Green Ext Time (p_c), s	0.0	5.6		0.2	0.1	6.6		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			8.0									
HCM 2010 LOS			A									

Existing PM Peak Hour

# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	81	793	141	691	20	32	12	15	30
Future Volume (vph)	81	793	141	691	20	32	12	15	30
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effect Green (s)	129.3	124.0	131.5	125.1		11.6		11.6	11.6
Actuated g/C Ratio	0.81	0.78	0.82	0.78		0.07		0.07	0.07
v/c Ratio	0.16	0.33	0.31	0.29		0.67		0.31	0.20
Control Delay	3.0	6.2	5.0	4.9		85.3		77.0	5.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	3.0	6.2	5.0	4.9		85.3		77.0	5.2
LOS	A	A	A	A		F		E	A
Approach Delay		5.9		4.9		85.3		39.4	
Approach LOS		A		A		F		D	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 9.7

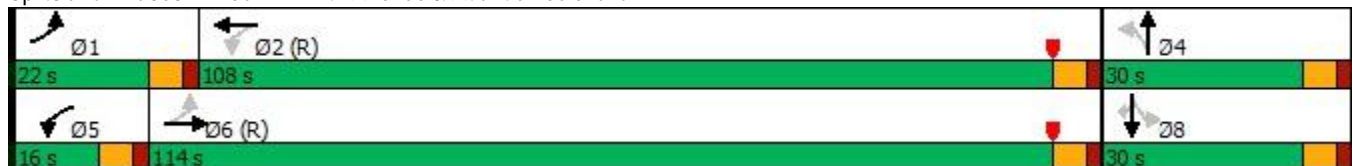
Intersection LOS: A

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

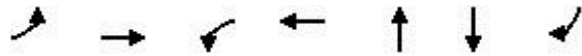
Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Existing PM Peak Hour

## Queues

### 105: NE 24th Avenue & Atlantic Boulevard

























Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	90	892	157	792	86	30	33
v/c Ratio	0.16	0.33	0.31	0.29	0.67	0.31	0.20
Control Delay	3.0	6.2	5.0	4.9	85.3	77.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	6.2	5.0	4.9	85.3	77.0	5.2
Queue Length 50th (ft)	12	129	21	96	76	30	0
Queue Length 95th (ft)	26	194	39	119	134	66	9
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity (vph)	656	2735	542	2749	250	200	285
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.33	0.29	0.29	0.34	0.15	0.12
Intersection Summary							

Existing PM Peak Hour

# HCM Signalized Intersection Capacity Analysis

## 106: Atlantic Boulevard & Harbor Drive

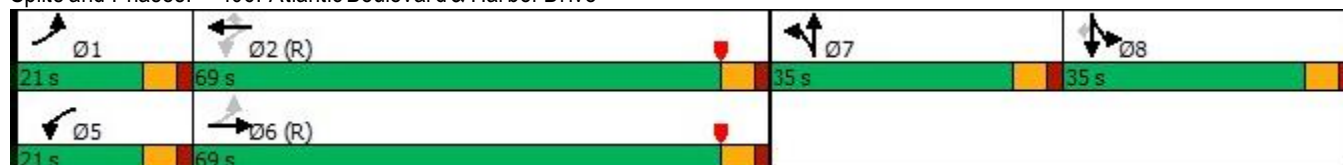
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	719	21	40	681	163	15	11	14	183	23	123
Future Volume (vph)	188	719	21	40	681	163	15	11	14	183	23	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94	1.00	0.98		1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1765	3517		1765	3539	1484	1770	1669		1770	1863	1528
Flt Permitted	0.31	1.00		0.33	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	576	3517		610	3539	1484	1770	1669		1770	1863	1528
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	204	782	23	43	740	177	16	12	15	199	25	134
RTOR Reduction (vph)	0	1	0	0	0	40	0	14	0	0	0	115
Lane Group Flow (vph)	204	804	0	43	740	137	16	13	0	199	25	19
Confl. Peds. (#/hr)	13		4	4		13	9		8	8		9
Confl. Bikes (#/hr)			3			3			2			3
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	114.0	103.8		102.4	98.0	98.0	5.5	5.5		22.3	22.3	22.3
Effective Green, g (s)	114.0	103.8		102.4	98.0	98.0	5.5	5.5		22.3	22.3	22.3
Actuated g/C Ratio	0.71	0.65		0.64	0.61	0.61	0.03	0.03		0.14	0.14	0.14
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	486	2281		422	2167	908	60	57		246	259	212
v/s Ratio Prot	c0.03	0.23		0.00	0.21		c0.01	0.01		c0.11	0.01	
v/s Ratio Perm	c0.27			0.06		0.09						0.01
v/c Ratio	0.42	0.35		0.10	0.34	0.15	0.27	0.22		0.81	0.10	0.09
Uniform Delay, d1	8.7	12.8		10.7	15.2	13.2	75.3	75.2		66.8	60.1	60.0
Progression Factor	0.69	0.73		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.4		0.0	0.4	0.4	0.9	0.7		16.6	0.1	0.1
Delay (s)	6.2	9.8		10.8	15.6	13.6	76.2	75.9		83.4	60.1	60.1
Level of Service	A	A		B	B	B	E	E		F	E	E
Approach Delay (s)		9.1			15.0			76.0			73.0	
Approach LOS		A			B			E			E	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		22.4										
HCM 2000 Volume to Capacity ratio		0.49										
Actuated Cycle Length (s)		160.0										
Intersection Capacity Utilization		63.7%										
Analysis Period (min)		15										
c Critical Lane Group												

Existing PM Peak Hour

106: Atlantic Boulevard & Harbor Drive

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 38 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 106: Atlantic Boulevard & Harbor Drive



**P&Z**  
**PZ19-12000047**  
**11/18/2020**



## Queues

### 106: Atlantic Boulevard & Harbor Drive























Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	204	805	43	740	177	16	27	199	25	134
v/c Ratio	0.42	0.34	0.10	0.34	0.18	0.22	0.32	0.81	0.10	0.41
Control Delay	8.4	10.4	9.4	16.9	7.7	80.6	52.6	90.3	58.0	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.4	9.4	16.9	7.7	80.6	52.6	90.3	58.0	12.1
Queue Length 50th (ft)	36	208	12	192	31	17	12	205	23	0
Queue Length 95th (ft)	52	301	31	295	86	43	48	284	52	61
Internal Link Dist (ft)		1130		512			236		622	
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity (vph)	525	2336	542	2194	958	320	316	322	339	388
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.34	0.08	0.34	0.18	0.05	0.09	0.62	0.07	0.35
Intersection Summary										

Existing PM Peak Hour

# HCM 2010 Signalized Intersection Summary

















## 101: Federal Highway/US 1 & NE 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	38	7	43	15	109	0	1504	49	64	1438	112
Future Volume (veh/h)	156	38	7	43	15	109	0	1504	49	64	1438	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	164	40	7	45	16	115	0	1583	52	67	1514	118
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	229	254	44	236	20	146	0	3222	106	276	3556	1081
Arrive On Green	0.09	0.17	0.17	0.03	0.11	0.11	0.00	1.00	1.00	0.02	0.70	0.70
Sat Flow, veh/h	1774	1539	269	1774	191	1376	0	5225	166	1774	5085	1546
Grp Volume(v), veh/h	164	0	47	45	0	131	0	1061	574	67	1514	118
Grp Sat Flow(s),veh/h/ln	1774	0	1808	1774	0	1568	0	1695	1833	1774	1695	1546
Q Serve(g_s), s	14.6	0.0	4.0	4.0	0.0	14.7	0.0	0.0	0.0	2.3	23.0	4.5
Cycle Q Clear(g_c),s	14.6	0.0	4.0	4.0	0.0	14.7	0.0	0.0	0.0	2.3	23.0	4.5
Prop In Lane	1.00		0.15	1.00		0.88	0.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	229	0	299	236	0	167	0	2160	1168	276	3556	1081
V/C Ratio(X)	0.72	0.00	0.16	0.19	0.00	0.79	0.00	0.49	0.49	0.24	0.43	0.11
Avail Cap(c_a), veh/h	229	0	442	271	0	322	0	2160	1168	343	3556	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	0.0	64.4	68.9	0.0	78.4	0.0	0.0	0.0	10.1	11.6	8.8
Incr Delay (d2), s/veh	8.9	0.0	0.1	0.1	0.0	3.1	0.0	0.5	0.9	0.2	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	0.0	2.0	2.0	0.0	6.5	0.0	0.2	0.3	1.1	10.8	2.0
LnGrp Delay(d),s/veh	72.3	0.0	64.5	69.0	0.0	81.5	0.0	0.5	0.9	10.3	12.0	9.0
LnGrp LOS	E		E	E		F		A	A	B	B	A
Approach Vol, veh/h	211			176			1635			1699		
Approach Delay, s/veh	70.6			78.3			0.7			11.7		
Approach LOS	E			E			A			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	6		7	8				
Phs Duration (G+Y+Rc),s	11.2	121.7	11.4	35.7	132.9		22.0	25.1				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0		6.0	6.0				
Max Green Setting (Gmax), s	11.0	90.0	9.0	44.0	108.0		16.0	37.0				
Max Q Clear Time (g_c+l1), s	4.3	2.0	6.0	6.0	25.0		16.6	16.7				
Green Ext Time (p_c),s	0.0	16.6	0.0	0.1	16.7		0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay	13.3											
HCM 2010 LOS	B											

Background PM Peak Hour

# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	156	38	43	15	1504	64	1438	112
Future Volume (vph)	156	38	43	15	1504	64	1438	112
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	22.0	50.0	15.0	43.0	97.0	18.0	115.0	115.0
Total Split (%)	12.2%	27.8%	8.3%	23.9%	53.9%	10.0%	63.9%	63.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	30.0	18.7	15.9	8.5	124.3	137.0	137.0	137.0
Actuatedg/C Ratio	0.17	0.10	0.09	0.05	0.69	0.76	0.76	0.76
v/c Ratio	0.86	0.24	0.33	0.71	0.47	0.33	0.39	0.10
Control Delay	106.0	70.2	69.8	38.3	4.5	10.1	7.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	106.0	70.2	69.8	38.3	4.6	10.1	7.9	1.2
LOS	F	E	E	D	A	B	A	A
Approach Delay		98.1		46.3	4.6		7.5	
Approach LOS		F		D	A		A	

### Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 136 (76%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 13.2

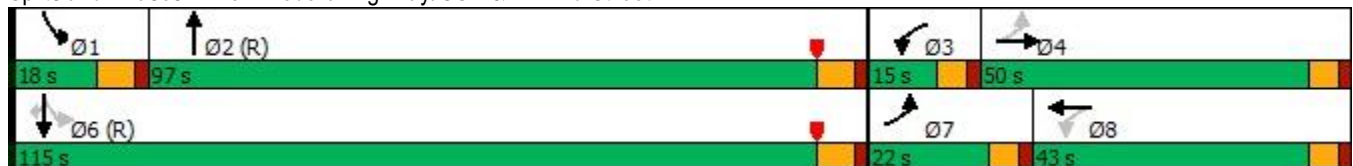
Intersection LOS: B

Intersection Capacity Utilization 73.3%

IC U Level of Service D

Analysis Period (min) 15

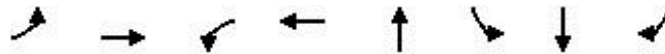
Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



Background PM Peak Hour

## Queues

### 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	47	45	131	1635	67	1514	118
v/c Ratio	0.86	0.24	0.33	0.71	0.47	0.33	0.39	0.10
Control Delay	106.0	70.2	69.8	38.3	4.5	10.1	7.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	106.0	70.2	69.8	38.3	4.6	10.1	7.9	1.2
Queue Length 50th (ft)	183	48	47	19	72	17	194	0
Queue Length 95th (ft)	#284	91	85	94	m90	37	263	19
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	193	447	152	417	3491	251	3870	1189
Starvation Cap Reductn	0	0	0	0	554	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.11	0.30	0.31	0.56	0.27	0.39	0.10

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.





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

HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 8.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	98	18	7	121	11	42	35	52	4	13	4
Future Vol, veh/h	8	98	18	7	121	11	42	35	52	4	13	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	102	19	7	126	11	44	36	54	4	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
ConflictingApproachLeft	SB	NB	EB	WB
ConflictingLanes Left	1	1	1	1
ConflictingApproachRight	NB	SB	WB	EB
ConflictingLanes Right	1	1	1	1
HCMControlDelay	8.2	8.4	8.3	7.8
HCMLOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	6%	5%	19%
Vol Thru, %	27%	79%	87%	62%
Vol Right, %	40%	15%	8%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	124	139	21
LT Vol	42	8	7	4
Through Vol	35	98	121	13
RT Vol	52	18	11	4
Lane Flow Rate	134	129	145	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.164	0.157	0.177	0.028
Departure Headway (Hd)	4.4	4.377	4.396	4.632
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	822	818	773
Service Time	2.42	2.396	2.414	2.658
HCM Lane V/C Ratio	0.164	0.157	0.177	0.028
HCM Control Delay	8.3	8.2	8.4	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.6	0.6	0.1

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection

Int Delay, s/veh 3.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 64 62 76 215 215 19

Future Vol, veh/h 64 62 76 215 215 19

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 0 100 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 82 82 82 82 82 82

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 78 76 93 262 262 23

Major/Minor Minor2 Major1 Major2

ConflictingFlow All 722 274 285 0 - 0

Stage 1 274 - - - - -

Stage 2 448 - - - - -

CriticalHdwy 6.42 6.22 4.12 - - -

CriticalHdwy Stg 1 5.42 - - - - -

CriticalHdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 394 765 1277 - - -

Stage 1 772 - - - - -

Stage 2 644 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 365 765 1277 - - -

Mov Cap-2 Maneuver 365 - - - - -

Stage 1 716 - - - - -

Stage 2 644 - - - - -

Approach EB NB SB

HCM Control Delay, s 13.9 2.1 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity(veh/h) 1277 - 365 765 - -

HCM Lane V/C Ratio 0.073 - 0.214 0.099 - -
























HCM Control Delay (s) 8 - 17.5 10.2 - -

HCM Lane LOS A - C B - -

HCM 95th %tile Q(veh) 0.2 - 0.8 0.3 - -

# HCM 2010 Signalized Intersection Summary





















## 104: Federal Highway/US 1 & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	675	255	193	560	123	282	1169	125	181	1105	172
Future Volume (veh/h)	224	675	255	193	560	123	282	1169	125	181	1105	172
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	233	703	266	201	583	128	294	1218	130	189	1151	179
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	767	336	207	767	336	306	1897	202	205	1551	241
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.17	0.41	0.41	0.23	0.70	0.70
Sat Flow, veh/h	1774	3539	1550	1774	3539	1549	1774	4666	498	1774	4431	689
Grp Volume(v), veh/h	233	703	266	201	583	128	294	885	463	189	881	449
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1549	1774	1695	1774	1774	1695	1729
Q Serve(g_s), s	21.0	34.9	29.2	20.3	27.8	12.7	29.6	37.7	37.7	18.7	29.2	29.2
CycleQ Clear(g_c),s	21.0	34.9	29.2	20.3	27.8	12.7	29.6	37.7	37.7	18.7	29.2	29.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.40
Lane Grp Cap(c), veh/h	207	767	336	207	767	336	306	1378	721	205	1187	605
V/C Ratio(X)	1.13	0.92	0.79	0.97	0.76	0.38	0.96	0.64	0.64	0.92	0.74	0.74
Avail Cap(c_a), veh/h	207	767	336	207	767	336	306	1378	721	266	1187	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	79.5	68.9	66.7	79.2	66.1	60.2	73.9	42.9	42.9	68.4	21.9	21.9
Incr Delay (d2), s/veh	100.5	17.6	17.2	52.7	4.1	0.5	41.0	2.3	4.4	25.8	3.9	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	19.0	14.1	13.0	14.0	5.5	18.0	18.1	19.4	10.6	14.1	15.0
LnGrp Delay(d),s/veh	180.0	86.5	83.9	131.9	70.2	60.7	114.9	45.2	47.2	94.2	25.8	29.4
LnGrp LOS	F	F	F	F	E	E	F	D	D	F	C	C
Approach Vol, veh/h	1202				912				1642			
Approach Delay, s/veh	104.0				82.5				58.2			
Approach LOS	F				F				E			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc),s	27.8	80.2	27.0	45.0	38.0	70.0	27.0	45.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	27.0	67.0	21.0	39.0	31.0	63.0	21.0	39.0				
Max Q Clear Time (g_c+l1), s	20.7	39.7	22.3	36.9	31.6	31.2	23.0	29.8				
Green Ext Time (p_c), s	0.1	9.8	0.0	1.0	0.0	10.2	0.0	2.4				
Intersection Summary												
HCM 2010 CtrlDelay	66.3											
HCM 2010 LOS	E											

Background PM Peak Hour

# Timings

## 104: Federal Highway/US 1 & Atlantic Boulevard

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	224	675	255	193	560	123	282	1169	181	1105
Future Volume (vph)	224	675	255	193	560	123	282	1169	181	1105
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	12.0	37.0	12.0	37.0
Total Split (s)	27.0	45.0	45.0	27.0	45.0	45.0	38.0	74.0	34.0	70.0
Total Split (%)	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%	21.1%	41.1%	18.9%	38.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.0	39.0	39.0	21.0	39.0	39.0	30.7	71.7	22.3	63.3
Actuated g/C Ratio	0.12	0.22	0.22	0.12	0.22	0.22	0.17	0.40	0.12	0.35
v/c Ratio	1.13	0.92	0.56	0.98	0.76	0.31	0.98	0.67	0.86	0.76
Control Delay	169.2	86.3	25.7	133.3	73.5	17.0	118.2	46.8	106.7	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	169.2	86.3	25.7	133.3	73.5	17.0	118.2	46.8	106.7	48.1
LOS	F	F	C	F	E	B	F	D	F	D
Approach Delay		88.9			78.8			59.5		55.4
Approach LOS		F			E			E		E

### Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 105 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 68.4

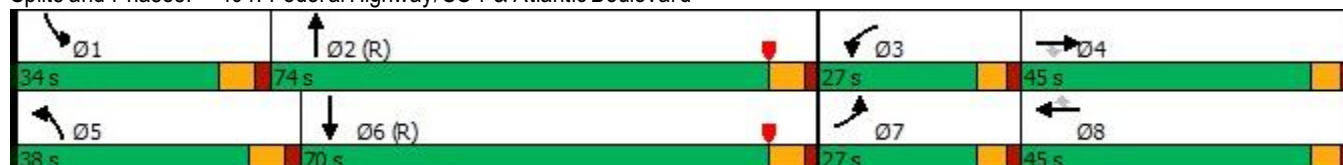
Intersection LOS: E

Intersection Capacity Utilization 99.0%

IC U Level of Service F

Analysis Period (min) 15

Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



Background PM Peak Hour

Incident Report  
**P&Z**

PZ19-12000047

11/18/2020



## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	703	266	201	583	128	294	1348	189	1330
v/c Ratio	1.13	0.92	0.56	0.98	0.76	0.31	0.98	0.67	0.86	0.76
Control Delay	169.2	86.3	25.7	133.3	73.5	17.0	118.2	46.8	106.7	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	169.2	86.3	25.7	133.3	73.5	17.0	118.2	46.8	106.7	48.1
Queue Length 50th (ft)	~317	432	93	241	344	24	350	479	180	510
Queue Length 95th (ft)	#508	#546	197	#420	419	88	#552	554	268	220
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	206	766	473	206	766	415	304	2003	265	1760
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	95
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.92	0.56	0.98	0.76	0.31	0.97	0.67	0.71	0.80

#### Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.




















Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# HCM 2010 Signalized Intersection Summary

















## 105: NE 24th Avenue & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	852	10	150	736	23	21	42	26	13	16	32
Future Volume (veh/h)	87	852	10	150	736	23	21	42	26	13	16	32
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	97	947	11	167	818	26	23	47	29	14	18	36
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	592	2779	32	511	2747	87	49	69	38	72	81	122
Arrive On Green	0.02	0.78	0.78	0.07	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1774	3582	42	1774	3498	111	281	894	487	515	1037	1571
Grp Volume(v), veh/h	97	468	490	167	414	430	99	0	0	32	0	36
Grp Sat Flow(s), veh/h/ln	1774	1770	1854	1774	1770	1840	1662	0	0	1553	0	1571
Q Serve(g_s), s	1.8	12.9	12.9	3.4	0.0	0.0	6.1	0.0	0.0	0.0	0.0	3.5
CycleQ Clear(g_c),s	1.8	12.9	12.9	3.4	0.0	0.0	9.3	0.0	0.0	2.6	0.0	3.5
Prop In Lane	1.00		0.02	1.00		0.06	0.23		0.29	0.44		1.00
Lane Grp Cap(c), veh/h	592	1373	1438	511	1390	1445	157	0	0	153	0	122
V/C Ratio(X)	0.16	0.34	0.34	0.33	0.30	0.30	0.63	0.00	0.00	0.21	0.00	0.30
Avail Cap(c_a), veh/h	726	1373	1438	562	1390	1445	274	0	0	267	0	236
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.30	0.30	0.30	0.94	0.94	0.94	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.4	5.5	5.5	3.8	0.0	0.0	72.3	0.0	0.0	69.3	0.0	69.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.5	0.5	1.6	0.0	0.0	0.3	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.3	6.6	1.6	0.2	0.2	4.4	0.0	0.0	1.3	0.0	1.5
LnGrp Delay(d),s/veh	3.4	5.7	5.7	3.9	0.5	0.5	73.8	0.0	0.0	69.5	0.0	70.2
LnGrp LOS	A	A	A	A	A	A	E			E		E
Approach Vol, veh/h	1055			1011			99			68		
Approach Delay, s/veh	5.5			1.1			73.8			69.9		
Approach LOS	A			A			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	131.6		18.4	11.5	130.1		18.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time (g_c+l1), s	3.8	2.0		11.3	5.4	14.9		5.5				
Green Ext Time (p_c), s	0.0	6.2		0.2	0.1	7.4		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				8.5								
HCM 2010 LOS				A								

Background PM Peak Hour

# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	87	852	150	736	21	42	13	16	32
Future Volume (vph)	87	852	150	736	21	42	13	16	32
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effect Green (s)	127.8	122.3	130.2	123.5		13.0		13.0	13.0
Actuated g/C Ratio	0.80	0.76	0.81	0.77		0.08		0.08	0.08
v/c Ratio	0.19	0.36	0.36	0.31		0.70		0.30	0.20
Control Delay	3.4	7.0	7.4	5.4		88.0		74.7	6.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	3.4	7.0	7.4	5.4		88.0		74.7	6.2
LOS	A	A	A	A		F		E	A
Approach Delay		6.6		5.7		88.0		38.5	
Approach LOS		A		A		F		D	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 28 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 10.8

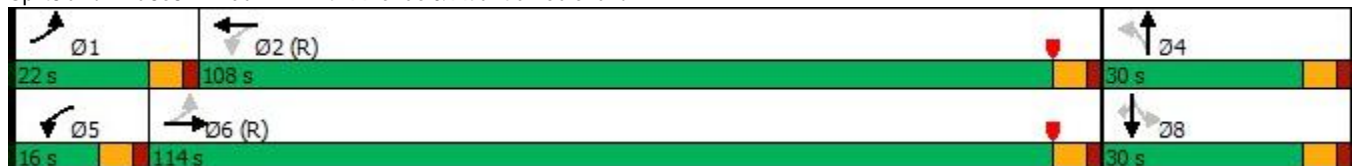
Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Background PM Peak Hour

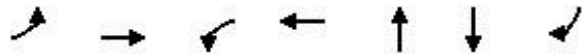
inc 0101-01-01 Report  
**P&Z**

PZ19-12000047

11/18/2020

## Queues























### 105: NE 24th Avenue & Atlantic Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	97	958	167	844	99	32	36
v/c Ratio	0.19	0.36	0.36	0.31	0.70	0.30	0.20
Control Delay	3.4	7.0	7.4	5.4	88.0	74.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	7.0	7.4	5.4	88.0	74.7	6.2
Queue Length 50th (ft)	14	151	24	104	91	32	0
Queue Length 95th (ft)	30	226	63	127	154	67	13
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity(vph)	623	2698	503	2714	252	195	285
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.36	0.33	0.31	0.39	0.16	0.13
Intersection Summary							

# HCM Signalized Intersection Capacity Analysis





















## 106: Atlantic Boulevard & Harbor Drive

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	770	22	43	725	173	16	19	15	195	24	130
Future Volume (vph)	201	770	22	43	725	173	16	19	15	195	24	130
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	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94	1.00	0.98		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	3518		1770	3539	1484	1770	1712		1770	1863	1528
Flt Permitted	0.29	1.00		0.30	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	532	3518		567	3539	1484	1770	1712		1770	1863	1528
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	218	837	24	47	788	188	17	21	16	212	26	141
RTOR Reduction (vph)	0	1	0	0	0	41	0	15	0	0	0	120
Lane Group Flow (vph)	218	860	0	47	788	147	17	22	0	212	26	21
Confl. Peds. (#/hr)	13		4	4		13	9		8	8		9
Confl. Bikes (#/hr)			3			3			2			3
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	112.6	102.0		100.2	95.6	95.6	6.0	6.0		23.4	23.4	23.4
Effective Green, g (s)	112.6	102.0		100.2	95.6	95.6	6.0	6.0		23.4	23.4	23.4
Actuated g/C Ratio	0.70	0.64		0.63	0.60	0.60	0.04	0.04		0.15	0.15	0.15
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	459	2242		389	2114	886	66	64		258	272	223
v/s Ratio Prot	c0.03	0.24		0.00	0.22		0.01	c0.01		c0.12	0.01	
v/s Ratio Perm	c0.30			0.07		0.10						0.01
v/c Ratio	0.47	0.38		0.12	0.37	0.17	0.26	0.34		0.82	0.10	0.09
Uniform Delay, d1	9.7	13.9		11.7	16.7	14.4	74.8	75.1		66.3	59.1	59.1
Progression Factor	0.68	0.71		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.5		0.1	0.5	0.4	0.8	1.1		17.8	0.1	0.1
Delay (s)	6.9	10.4		11.7	17.2	14.8	75.6	76.2		84.1	59.2	59.2
Level of Service	A	B		B	B	B	E	E		F	E	E
Approach Delay (s)		9.7			16.5			76.0			73.1	
Approach LOS		A			B			E			E	
Intersection Summary												
HCM 2000 Control Delay	23.3			HCM 2000 Level of Service			C					
HCM 2000 Volume to Capacity ratio	0.54											
Actuated Cycle Length (s)	160.0			Sum of lost time (s)			24.0					
Intersection Capacity Utilization	64.9%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

Background PM Peak Hour

# Timings

## 106: Atlantic Boulevard & Harbor Drive

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	201	770	43	725	173	16	19	195	24	130
Future Volume (vph)	201	770	43	725	173	16	19	195	24	130
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	2		7	7	8	8	
Permitted Phases	6		2		2					8
Detector Phase	1	6	5	2	2	7	7	8	8	8
Switch Phase										
Minimum Initial (s)	4.0	15.0	4.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	31.0	21.0	31.0	31.0	31.0	31.0	29.0	29.0	29.0
Total Split (s)	21.0	69.0	21.0	69.0	69.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	13.1%	43.1%	13.1%	43.1%	43.1%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	113.3	104.3	102.1	96.7	96.7	7.2	7.2	23.4	23.4	23.4
Actuated g/C Ratio	0.71	0.65	0.64	0.60	0.60	0.04	0.04	0.15	0.15	0.15
v/c Ratio	0.47	0.38	0.12	0.37	0.20	0.22	0.40	0.82	0.10	0.41
Control Delay	9.6	11.1	10.3	18.8	8.9	79.2	60.5	89.7	56.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	11.1	10.3	18.8	8.9	79.2	60.5	89.7	56.9	11.6
LOS	A	B	B	B	A	E	E	F	E	B
Approach Delay		10.8		16.6			66.4		58.4	
Approach LOS		B		B			E		E	

### Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 38 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 21.4

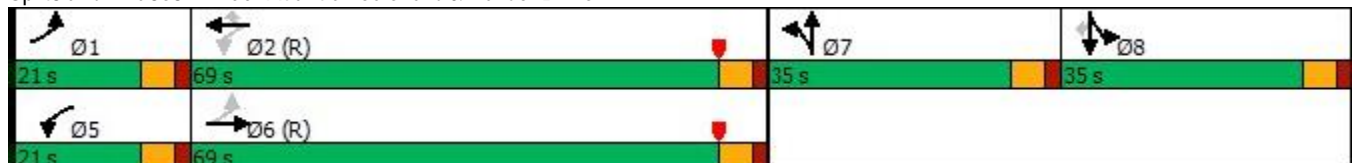
Intersection LOS: C

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 106: Atlantic Boulevard & Harbor Drive



Background PM Peak Hour

Incident Report

# P&Z

PZ19-12000047

11/18/2020

























# Queues

## 106: Atlantic Boulevard & Harbor Drive



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	218	861	47	788	188	17	37	212	26	141
v/c Ratio	0.47	0.38	0.12	0.37	0.20	0.22	0.40	0.82	0.10	0.41
Control Delay	9.6	11.1	10.3	18.8	8.9	79.2	60.5	89.7	56.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	11.1	10.3	18.8	8.9	79.2	60.5	89.7	56.9	11.6
Queue Length 50th (ft)	38	235	14	217	37	18	22	218	24	0
Queue Length 95th (ft)	55	341	35	336	100	45	62	299	52	63
Internal Link Dist (ft)		1130		512			236		622	
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity(vph)	494	2294	506	2139	937	320	324	325	342	396
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.38	0.09	0.37	0.20	0.05	0.11	0.65	0.08	0.36
Intersection Summary										

# HCM 2010 Signalized Intersection Summary 101: Federal Highway/US 1 & NE 2nd Street

















														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations								  			  			
Traffic Volume (veh/h)	156	38	7	43	15	121	0	1504	49	82	1438	112		
Future Volume (veh/h)	156	38	7	43	15	121	0	1504	49	82	1438	112		
Number	7	4	14	3	8	18	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.97	1.00		1.00	1.00		0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	0	1863	1900	1863	1863	1863		
Adj Flow Rate, veh/h	164	40	7	45	16	127	0	1583	52	86	1514	118		
Adj No. of Lanes	1	1	0	1	1	0	0	3	0	1	3	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2		
Cap, veh/h	227	264	46	244	20	157	0	3166	104	281	3523	1071		
Arrive On Green	0.09	0.17	0.17	0.03	0.11	0.11	0.00	1.00	1.00	0.03	0.69	0.69		
Sat Flow, veh/h	1774	1539	269	1774	175	1391	0	5225	166	1774	5085	1546		
Grp Volume(v), veh/h	164	0	47	45	0	143	0	1061	574	86	1514	118		
Grp Sat Flow(s),veh/h/ln	1774	0	1808	1774	0	1566	0	1695	1833	1774	1695	1546		
Q Serve(g_s), s	14.4	0.0	4.0	4.0	0.0	16.0	0.0	0.0	0.0	3.1	23.4	4.6		
Cycle Q Clear(g_c),s	14.4	0.0	4.0	4.0	0.0	16.0	0.0	0.0	0.0	3.1	23.4	4.6		
Prop In Lane	1.00		0.15	1.00		0.89	0.00		0.09	1.00		1.00		
Lane Grp Cap(c), veh/h	227	0	310	244	0	177	0	2122	1148	281	3523	1071		
V/C Ratio(X)	0.72	0.00	0.15	0.18	0.00	0.81	0.00	0.50	0.50	0.31	0.43	0.11		
Avail Cap(c_a), veh/h	227	0	442	280	0	322	0	2122	1148	340	3523	1071		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00		
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.62	0.62	1.00	1.00	1.00		
Uniform Delay (d), s/veh	62.5	0.0	63.4	67.9	0.0	78.0	0.0	0.0	0.0	10.6	12.1	9.2		
Incr Delay (d2), s/veh	9.4	0.0	0.1	0.1	0.0	3.4	0.0	0.5	1.0	0.2	0.4	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.7	0.0	2.0	2.0	0.0	7.1	0.0	0.2	0.3	1.5	11.1	2.0		
LnGrp Delay(d),s/veh	71.9	0.0	63.5	68.0	0.0	81.3	0.0	0.5	1.0	10.9	12.5	9.4		
LnGrp LOS	E		E	E		F		A	A	B	B	A		
Approach Vol, veh/h	211			188			1635			1718				
Approach Delay, s/veh	70.1			78.1			0.7			12.2				
Approach LOS	E			E			A			B				
Timer	1	2	3	4	5	6	7	8						
Assigned Phs	1	2	3	4			6	7	8					
Phs Duration (G+Y+Rc),s	12.0	119.7	11.4	36.9			131.7	22.0	26.3					
Change Period (Y+Rc),s	7.0	7.0	6.0	6.0			7.0	6.0	6.0					
Max Green Setting (Gmax), s	11.0	90.0	9.0	44.0			108.0	16.0	37.0					
Max Q Clear Time (g_c+l1), s	5.1	2.0	6.0	6.0			25.4	16.4	18.0					
Green Ext Time (p_c),s	0.0	16.6	0.0	0.1			16.7	0.0	0.5					
Intersection Summary														
HCM 2010 Ctrl Delay				13.7										
HCM 2010 LOS				B										

Future PM Peak Hour



# Timings

## 101: Federal Highway/US 1 & NE 2nd Street

								
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	156	38	43	15	1504	82	1438	112
Future Volume (vph)	156	38	43	15	1504	82	1438	112
Turn Type	pm+pt	NA	pm+pt	NA	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8	2	1	6	
Permitted Phases	4		8			6		6
Detector Phase	7	4	3	8	2	1	6	6
Switch Phase								
Minimum Initial (s)	4.0	6.0	4.0	6.0	12.0	4.0	12.0	12.0
Minimum Split (s)	15.0	34.0	10.0	34.0	25.0	11.0	25.0	25.0
Total Split (s)	22.0	50.0	15.0	43.0	97.0	18.0	115.0	115.0
Total Split (%)	12.2%	27.8%	8.3%	23.9%	53.9%	10.0%	63.9%	63.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	30.1	18.8	16.0	8.6	123.4	136.9	136.9	136.9
Actuatedg/C Ratio	0.17	0.10	0.09	0.05	0.69	0.76	0.76	0.76
v/c Ratio	0.86	0.24	0.33	0.73	0.47	0.41	0.39	0.10
Control Delay	105.9	70.0	69.5	37.5	4.6	11.7	7.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	105.9	70.0	69.5	37.5	4.7	11.7	7.9	1.2
LOS	F	E	E	D	A	B	A	A
Approach Delay		97.9		45.2	4.7		7.7	
Approach LOS		F		D	A		A	

### Intersection Summary

CycleLength: 180

ActuatedCycleLength: 180

Offset: 136 (76%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle:95

ControlType: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 13.3

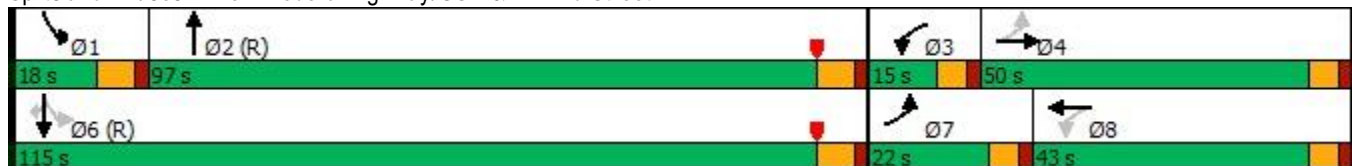
Intersection LOS: B

Intersection CapacityUtilization 75.0%

IC U Level of Service D

Analysis Period (min) 15

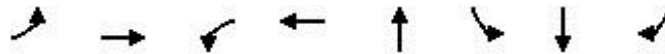
Splits and Phases: 101: Federal Highway/US 1 & NE 2nd Street



Future PM Peak Hour

# Queues

## 101: Federal Highway/US 1 & NE 2nd Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	47	45	143	1635	86	1514	118
v/c Ratio	0.86	0.24	0.33	0.73	0.47	0.41	0.39	0.10
Control Delay	105.9	70.0	69.5	37.5	4.6	11.7	7.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	105.9	70.0	69.5	37.5	4.7	11.7	7.9	1.2
Queue Length 50th (ft)	183	48	47	19	73	22	194	0
Queue Length 95th (ft)	#282	91	85	97	m91	46	265	19
Internal Link Dist (ft)		348		315	620		482	
Turn Bay Length (ft)	100		100			150		380
Base Capacity (vph)	193	447	153	426	3466	250	3867	1188
Starvation Cap Reductn	0	0	0	0	579	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.11	0.29	0.34	0.57	0.34	0.39	0.10

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

HCM 2010 AWSC  
102: NE 24th Avenue & NE 2nd Street

Intersection

Intersection Delay, s/veh 8.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	98	36	14	121	11	54	39	56	4	20	4
Future Vol, veh/h	8	98	36	14	121	11	54	39	56	4	20	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	102	38	15	126	11	56	41	58	4	21	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
ConflictingApproachLeft	SB	NB	EB	WB
ConflictingLanes Left	1	1	1	1
ConflictingApproachRight	NB	SB	WB	EB
ConflictingLanes Right	1	1	1	1
HCMControlDelay	8.4	8.6	8.6	8
HCMLOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	36%	6%	10%	14%
Vol Thru, %	26%	69%	83%	71%
Vol Right, %	38%	25%	8%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	142	146	28
LT Vol	54	8	14	4
Through Vol	39	98	121	20
RT Vol	56	36	11	4
Lane Flow Rate	155	148	152	29
Geometry Grp	1	1	1	1
Degree of Util (X)	0.194	0.181	0.19	0.038
Departure Headway (Hd)	4.497	4.397	4.503	4.746
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	817	797	754
Service Time	2.523	2.421	2.528	2.779
HCM Lane V/C Ratio	0.194	0.181	0.191	0.038
HCMControlDelay	8.6	8.4	8.6	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.7	0.7	0.1

Future PM Peak Hour

HCM 2010 TWSC  
103: Harbor Drive & NE 2nd Street

Intersection

Int Delay, s/veh 3.7

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 68 62 76 215 215 26

Future Vol, veh/h 68 62 76 215 215 26

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 0 100 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 82 82 82 82 82 82

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 83 76 93 262 262 32

Major/Minor Minor2 Major1 Major2

ConflictingFlow All 726 278 294 0 - 0

Stage 1 278 - - - - -

Stage 2 448 - - - - -

CriticalHdwy 6.42 6.22 4.12 - - -

CriticalHdwy Stg 1 5.42 - - - - -

CriticalHdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 391 761 1268 - - -

Stage 1 769 - - - - -

Stage 2 644 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 362 761 1268 - - -

Mov Cap-2 Maneuver 362 - - - - -

Stage 1 713 - - - - -

Stage 2 644 - - - - -

Approach EB NB SB

HCM Control Delay, s 14.3 2.1 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity(veh/h) 1268 - 362 761 - -

HCM Lane V/C Ratio 0.073 - 0.229 0.099 - -
























HCM Control Delay (s) 8.1 - 17.9 10.3 - -

HCM Lane LOS A - C B - -

HCM 95th %tile Q(veh) 0.2 - 0.9 0.3 - -

Future PM Peak Hour



























# HCM 2010 Signalized Intersection Summary 104: Federal Highway/US 1 & Atlantic Boulevard

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	693	255	210	572	123	282	1169	152	181	1105	172
Future Volume (veh/h)	224	693	255	210	572	123	282	1169	152	181	1105	172
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	233	722	266	219	596	128	294	1218	158	189	1151	179
Adj No. of Lanes	1	2	1	1	2	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	767	336	207	767	336	306	1853	240	205	1551	241
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.17	0.41	0.41	0.23	0.70	0.70
Sat Flow, veh/h	1774	3539	1550	1774	3539	1549	1774	4557	591	1774	4431	689
Grp Volume(v), veh/h	233	722	266	219	596	128	294	906	470	189	881	449
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1549	1774	1695	1757	1774	1695	1729
Q Serve(g_s), s	21.0	36.1	29.2	21.0	28.6	12.7	29.6	39.0	39.0	18.7	29.2	29.2
CycleQ Clear(g_c),s	21.0	36.1	29.2	21.0	28.6	12.7	29.6	39.0	39.0	18.7	29.2	29.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.40
Lane Grp Cap(c), veh/h	207	767	336	207	767	336	306	1378	715	205	1187	605
V/C Ratio(X)	1.13	0.94	0.79	1.06	0.78	0.38	0.96	0.66	0.66	0.92	0.74	0.74
Avail Cap(c_a),veh/h	207	767	336	207	767	336	306	1378	715	266	1187	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	79.5	69.4	66.7	79.5	66.4	60.2	73.9	43.3	43.3	68.4	21.9	21.9
Incr Delay (d2), s/veh	100.5	21.0	17.2	77.3	4.7	0.5	41.0	2.5	4.7	25.8	3.9	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	19.9	14.1	14.7	14.5	5.5	18.0	18.7	19.9	10.6	14.1	15.0
LnGrp Delay(d),s/veh	180.0	90.4	83.9	156.8	71.1	60.7	114.9	45.7	47.9	94.2	25.8	29.4
LnGrp LOS	F	F	F	F	E	E	F	D	D	F	C	C
Approach Vol, veh/h	1221				943			1670			1519	
Approach Delay, s/veh	106.1				89.6			58.5			35.4	
Approach LOS	F				F			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.8	80.2	27.0	45.0	38.0	70.0	27.0	45.0				
Change Period (Y+Rc), s	7.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	27.0	67.0	21.0	39.0	31.0	63.0	21.0	39.0				
Max Q Clear Time (g_c+l1), s	20.7	41.0	23.0	38.1	31.6	31.2	23.0	30.6				
Green Ext Time (p_c), s	0.1	9.9	0.0	0.5	0.0	10.2	0.0	2.4				
Intersection Summary												
HCM2010 CtrlDelay	68.3											
HCM2010 LOS	E											

Future PM Peak Hour

# Timings

## 104: Federal Highway/US 1 & Atlantic Boulevard

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		 			 			  		  
Traffic Volume (vph)	224	693	255	210	572	123	282	1169	181	1105
Future Volume (vph)	224	693	255	210	572	123	282	1169	181	1105
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	12.0	5.0	12.0
Minimum Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	12.0	37.0	12.0	37.0
Total Split (s)	27.0	45.0	45.0	27.0	45.0	45.0	38.0	74.0	34.0	70.0
Total Split (%)	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%	21.1%	41.1%	18.9%	38.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.0	39.0	39.0	21.0	39.0	39.0	30.7	71.7	22.3	63.3
Actuatedg/C Ratio	0.12	0.22	0.22	0.12	0.22	0.22	0.17	0.40	0.12	0.35
v/c Ratio	1.13	0.94	0.57	1.06	0.78	0.31	0.98	0.69	0.86	0.76
Control Delay	169.2	89.8	26.6	151.9	74.5	17.0	118.2	47.1	107.1	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	169.2	89.8	26.6	151.9	74.5	17.0	118.2	47.1	107.1	48.0
LOS	F	F	C	F	E	B	F	D	F	D
Approach Delay		91.2			84.7			59.6		55.4
Approach LOS		F			F			E		E

### Intersection Summary

CycleLength: 180

ActuatedCycleLength: 180

Offset: 105 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 120

ControlType: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 70.0

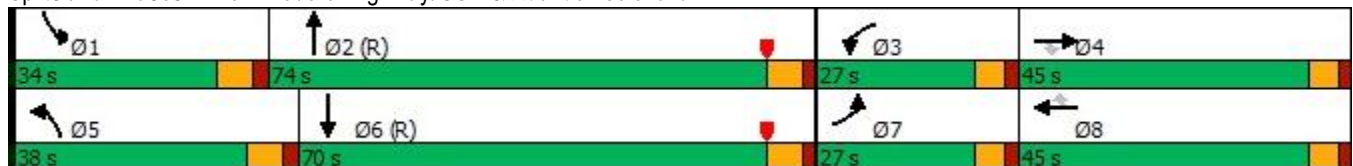
Intersection LOS: E

Intersection CapacityUtilization 100.0%

IC U Level of Service F

Analysis Period (min) 15

Splits and Phases: 104: Federal Highway/US 1 & Atlantic Boulevard



Future PM Peak Hour

## Queues

### 104: Federal Highway/US 1 & Atlantic Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	722	266	219	596	128	294	1376	189	1330
v/c Ratio	1.13	0.94	0.57	1.06	0.78	0.31	0.98	0.69	0.86	0.76
Control Delay	169.2	89.8	26.6	151.9	74.5	17.0	118.2	47.1	107.1	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	169.2	89.8	26.6	151.9	74.5	17.0	118.2	47.1	107.1	48.0
Queue Length 50th (ft)	~317	447	98	~283	353	24	350	493	180	510
Queue Length 95th (ft)	#508	#572	202	#469	428	88	#552	568	268	221
Internal Link Dist (ft)		321			2358			554		620
Turn Bay Length (ft)	200		215	420		150	400		470	
Base Capacity (vph)	206	766	470	206	766	415	304	1999	265	1760
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	95
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.94	0.57	1.06	0.78	0.31	0.97	0.69	0.71	0.80

#### Intersection Summary




















~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# HCM 2010 Signalized Intersection Summary 105: NE 24th Avenue & Atlantic Boulevard

















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	852	10	150	736	37	21	42	26	22	16	61
Future Volume (veh/h)	132	852	10	150	736	37	21	42	26	22	16	61
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	147	947	11	167	818	41	23	47	29	24	18	68
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	592	2756	32	507	2648	133	48	70	37	88	57	131
Arrive On Green	0.03	0.77	0.77	0.07	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1774	3582	42	1774	3425	172	246	838	449	634	684	1572
Grp Volume(v), veh/h	147	468	490	167	423	436	99	0	0	42	0	68
Grp Sat Flow(s),veh/h/ln	1774	1770	1854	1774	1770	1827	1534	0	0	1319	0	1572
Q Serve(g_s), s	2.9	13.3	13.3	3.5	0.0	0.0	5.7	0.0	0.0	0.0	0.0	6.6
CycleQ Clear(g_c),s	2.9	13.3	13.3	3.5	0.0	0.0	10.3	0.0	0.0	4.6	0.0	6.6
Prop In Lane	1.00		0.02	1.00		0.09	0.23		0.29	0.57		1.00
Lane Grp Cap(c), veh/h	592	1362	1427	507	1368	1413	156	0	0	145	0	131
V/C Ratio(X)	0.25	0.34	0.34	0.33	0.31	0.31	0.64	0.00	0.00	0.29	0.00	0.52
Avail Cap(c_a),veh/h	715	1362	1427	557	1368	1413	263	0	0	245	0	236
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.26	0.26	0.26	0.93	0.93	0.93	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.5	5.8	5.8	4.0	0.0	0.0	71.9	0.0	0.0	69.1	0.0	70.3
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.5	0.5	1.6	0.0	0.0	0.4	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.4	6.7	1.6	0.2	0.2	4.4	0.0	0.0	1.8	0.0	2.9
LnGrp Delay(d),s/veh	3.5	6.0	6.0	4.1	0.5	0.5	73.5	0.0	0.0	69.5	0.0	71.4
LnGrp LOS	A	A	A	A	A	A	E			E		E
Approach Vol, veh/h	1105			1026			99			110		
Approach Delay, s/veh	5.6			1.1			73.5			70.7		
Approach LOS	A			A			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	129.7		19.3	11.6	129.1		19.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	102.0		24.0	10.0	108.0		24.0				
Max Q Clear Time (g_c+l1), s	4.9	2.0		12.3	5.5	15.3		8.6				
Green Ext Time (p_c), s	0.1	6.3		0.2	0.1	7.4		0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay	9.6											
HCM 2010 LOS	A											

Future PM Peak Hour



# Timings

## 105: NE 24th Avenue & Atlantic Boulevard

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	132	852	150	736	21	42	22	16	61
Future Volume (vph)	132	852	150	736	21	42	22	16	61
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	4.0	15.0	4.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	24.0	10.0	24.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	22.0	114.0	16.0	108.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	13.8%	71.3%	10.0%	67.5%	18.8%	18.8%	18.8%	18.8%	18.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0		6.0	6.0
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	None
Act Effect Green (s)	128.7	122.3	129.3	122.6		13.0		13.0	13.0
Actuated g/C Ratio	0.80	0.76	0.81	0.77		0.08		0.08	0.08
v/c Ratio	0.28	0.36	0.36	0.32		0.70		0.47	0.36
Control Delay	4.0	7.0	7.3	5.6		88.0		85.2	18.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	4.0	7.0	7.3	5.6		88.0		85.2	18.8
LOS	A	A	A	A		F		F	B
Approach Delay		6.6		5.9		88.0		44.2	
Approach LOS		A		A		F		D	

### Intersection Summary

CycleLength: 160

ActuatedCycleLength: 160

Offset: 28 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Natural Cycle:65

ControlType: Actuated-Coordinated

Maximum v/c Ratio:0.70

Intersection Signal Delay: 11.5

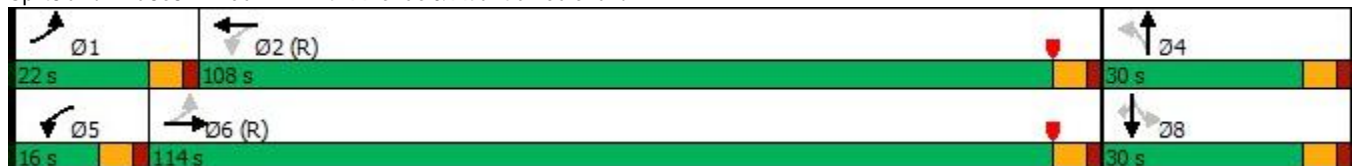
Intersection LOS: B

Intersection CapacityUtilization 59.3%

IC U Level of Service B

Analysis Period (min) 15

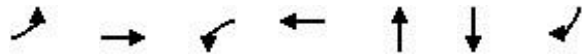
Splits and Phases: 105: NE 24th Avenue & Atlantic Boulevard



Future PM Peak Hour

## Queues























### 105: NE 24th Avenue & Atlantic Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	147	958	167	859	99	42	68
v/c Ratio	0.28	0.36	0.36	0.32	0.70	0.47	0.36
Control Delay	4.0	7.0	7.3	5.6	88.0	85.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	7.0	7.3	5.6	88.0	85.2	18.8
Queue Length 50th (ft)	21	151	24	106	91	43	0
Queue Length 95th (ft)	43	226	63	130	154	85	50
Internal Link Dist (ft)		2358		1130	314	620	
Turn Bay Length (ft)	180		215				200
Base Capacity(vph)	610	2698	503	2688	251	167	291
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.33	0.32	0.39	0.25	0.23
Intersection Summary							

# HCM Signalized Intersection Capacity Analysis













## 106: Atlantic Boulevard & Harbor Drive

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	779	22	43	739	173	16	19	15	195	24	130
Future Volume (vph)	201	779	22	43	739	173	16	19	15	195	24	130
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	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94	1.00	0.98		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	3518		1770	3539	1484	1770	1712		1770	1863	1528
Flt Permitted	0.28	1.00		0.30	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	521	3518		560	3539	1484	1770	1712		1770	1863	1528
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	218	847	24	47	803	188	17	21	16	212	26	141
RTOR Reduction (vph)	0	1	0	0	0	41	0	15	0	0	0	120
Lane Group Flow (vph)	218	870	0	47	803	147	17	22	0	212	26	21
Confl. Peds. (#/hr)	13		4	4		13	9		8	8		9
Confl. Bikes (#/hr)			3			3			2			3
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		7	7		8	8	
Permitted Phases	6			2		2						8
Actuated Green, G (s)	112.6	102.0		100.1	95.5	95.5	6.0	6.0		23.4	23.4	23.4
Effective Green, g (s)	112.6	102.0		100.1	95.5	95.5	6.0	6.0		23.4	23.4	23.4
Actuated g/C Ratio	0.70	0.64		0.63	0.60	0.60	0.04	0.04		0.15	0.15	0.15
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	453	2242		385	2112	885	66	64		258	272	223
v/s Ratio Prot	c0.03	0.25		0.00	0.23		0.01	c0.01		c0.12	0.01	
v/s Ratio Perm	c0.31			0.07		0.10						0.01
v/c Ratio	0.48	0.39		0.12	0.38	0.17	0.26	0.34		0.82	0.10	0.09
Uniform Delay, d1	9.9	14.0		11.7	16.8	14.4	74.8	75.1		66.3	59.1	59.1
Progression Factor	0.70	0.74		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.5		0.1	0.5	0.4	0.8	1.1		17.8	0.1	0.1
Delay (s)	7.2	10.8		11.8	17.3	14.8	75.6	76.2		84.1	59.2	59.2
Level of Service	A	B		B	B	B	E	E		F	E	E
Approach Delay (s)		10.1			16.6			76.0			73.1	
Approach LOS		B			B			E			E	
<b>Intersection Summary</b>												
HCM2000 Control Delay		23.5				HCM2000 Level of Service		C				
HCM2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		160.0				Sum of lost time (s)		24.0				
Intersection Capacity Utilization		64.9%				ICU Level of Service		C				
Analysis Period (min)		15										
c Critical Lane Group												

Future PM Peak Hour

106: Atlantic Boulevard & Harbor Drive

Intersection Summary	
CycleLength: 160	
ActuatedCycleLength: 160	
Offset: 38 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle:115	
ControlType: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection CapacityUtilization 64.9%	IC ULevel of Service C
Analysis Period (min) 15	

 Ø1  21 s	 Ø2 (R)  69 s	 Ø7  35 s	 Ø8  35 s
 Ø5  21 s	 Ø6 (R)  69 s		




## Queues

### 106: Atlantic Boulevard & Harbor Drive



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	218	871	47	803	188	17	37	212	26	141
v/c Ratio	0.48	0.38	0.12	0.38	0.20	0.22	0.40	0.82	0.10	0.41
Control Delay	9.9	11.5	10.3	18.9	8.9	79.2	60.5	89.7	56.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	11.5	10.3	18.9	8.9	79.2	60.5	89.7	56.9	11.6
Queue Length 50th (ft)	40	242	14	222	37	18	22	218	24	0
Queue Length 95th (ft)	58	348	35	345	100	45	62	299	52	63
Internal Link Dist (ft)		1130		512			236		622	
Turn Bay Length (ft)	190		150		100			140		140
Base Capacity (vph)	488	2295	502	2138	936	320	324	325	342	396
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.38	0.09	0.38	0.20	0.05	0.11	0.65	0.08	0.36
Intersection Summary										

HCM 2010 TWSC  
201: Driveway West




Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	21	32	160	50	20
Future Vol, veh/h	12	21	32	160	50	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	23	35	174	54	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	309	65	76	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	683	999	1523	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	666	999	1523	-	-	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.4	1.2		0		
HCM LOS	A					
Minor Lane/ Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1523	-	845	-	-	
HCM Lane V/CRatio	0.023	-	0.042	-	-	
HCM Control Delay (s)	7.4	0	9.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

Future PM Peak Hour

HCM 2010 TWSC  
202: NE 24th Avenue & Driveway East

Intersection

Int Delay, s/v eh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	8	184	27	12	59
Future Vol, veh/h	17	8	184	27	12	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	9	200	29	13	64

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	305	215	0
Stage 1	215	-	-
Stage 2	90	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	687	825	-
Stage 1	821	-	-
Stage 2	934	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	680	825	-
Mov Cap-2 Maneuver	680	-	-
Stage 1	813	-	-
Stage 2	934	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	721	1339
HCM Lane V/C Ratio	-	-	0.038	0.01
HCM Control Delay (s)	-	-	10.2	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Future PM Peak Hour

# **APPENDIX G**

## **Shared Parking Analysis**



**PZ19-12000047**  
**11/18/2020**



TABLE G-1a

POMPANO RESIDENTIAL (East Block) - All Uses SharedParking Except Reserved 1 Space per Residential Unit

SharedParking Analysis

Hour of Day	Spaces = 42		Spaces = 4		Spaces = 26		Spaces = 6		Spaces = 32		Spaces = 6		Spaces = 147		Spaces = 11		Spaces = 17		291
	Office (Employees)		Office (Visitors)		Retail (Customers)		Retail (Employees)		Rest. (Customers)		Rest. (Employees)		Residential (Reserved)		Residential (Residents)		Residential (Guests)		
	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Total
6:00 AM	3%	1	0%	0	1%	0	10%	1	25%	8	50%	3	100%	147	100%	11	0%	0	171
7:00 AM	30%	13	1%	0	5%	1	15%	1	50%	16	75%	5	100%	147	90%	10	10%	2	194
8:00 AM	75%	32	20%	1	15%	4	40%	2	60%	19	90%	5	100%	147	85%	9	20%	3	223
9:00 AM	95%	40	60%	2	35%	9	75%	5	75%	24	90%	5	100%	147	80%	9	20%	3	244
10:00 AM	100%	42	100%	4	65%	17	85%	5	85%	27	100%	6	100%	147	75%	8	20%	3	260
11:00 AM	100%	42	45%	2	85%	22	95%	6	90%	29	100%	6	100%	147	70%	8	20%	3	264
12:00 PM	90%	38	15%	1	95%	25	100%	6	100%	32	100%	6	100%	147	65%	7	20%	3	265
1:00 PM	90%	38	45%	2	100%	26	100%	6	90%	29	100%	6	100%	147	70%	8	20%	3	265
2:00 PM	100%	42	100%	4	95%	25	100%	6	50%	16	100%	6	100%	147	70%	8	20%	3	257
3:00 PM	100%	42	45%	2	90%	23	100%	6	45%	14	75%	5	100%	147	70%	8	20%	3	250
4:00 PM	90%	38	15%	1	90%	23	100%	6	45%	14	75%	5	100%	147	75%	8	20%	3	245
5:00 PM	50%	21	10%	0	95%	25	95%	6	75%	24	95%	6	100%	147	85%	9	40%	7	245
6:00 PM	25%	11	5%	0	95%	25	95%	6	80%	26	95%	6	100%	147	90%	10	60%	10	240
7:00 PM	10%	4	2%	0	95%	25	95%	6	80%	26	95%	6	100%	147	97%	11	100%	17	241
8:00 PM	7%	3	1%	0	80%	21	90%	5	80%	26	95%	6	100%	147	98%	11	100%	17	235
9:00 PM	3%	1	0%	0	50%	13	75%	5	60%	19	80%	5	100%	147	99%	11	100%	17	218
10:00 PM	1%	0	0%	0	30%	8	40%	2	55%	18	65%	4	100%	147	100%	11	100%	17	207
11:00 PM	0%	0	0%	0	10%	3	15%	1	50%	16	65%	4	100%	147	100%	11	80%	14	195
12:00 AM	0%	0	0%	0	0%	0	0%	0	25%	8	35%	2	100%	147	100%	11	50%	9	177

Source: Institute of Transportation Engineers and Urban Land Institute's Shared Parking

Land Use	Size	Pkg Rate	Total Parking Spaces	Employee/Resident		Customer/Visitor	
				% (1)	Spaces	% (1)	Spaces
Restaurant	5,000 sq. ft.	1 /30 sf	Spaces				
Restaurant cs	3,000 sq. ft.	1 /250 sf	Spaces				
Restaurant seats	150 seats	1 /4 seats	38 Spaces	15%	6	85%	32
Retail	10,819 sq. ft.	1 /333 sf	32 Spaces	20%	6	80%	26
Office	18,537 sq. ft.	1 /400 sf	46 Spaces	92%	42	8%	4
Residential (4)	147 units	/unit	175 Spaces	90%	158	10%	17
- Studio	7 units						
- 1 Bedroom	48 units						
- 2 Bedroom	77 units						
- 3/4 Bedroom	15 units						
Totals			291				

Shared Spaces =	265
Internal (2) =	-32
Multimodal (3) =	-3
Required Spaces =	230
Parking Provided =	282

- (1) Per ULI
- (2) Internal Trip Capture12%
- (3) Multimodal Trips1%
- (4) Per East Overlay District

TABLE G-1b

POMPANO RESIDENTIAL (West Block) - All Uses SharedParking Except Reserved 1 Space per Residential Unit

SharedParking Analysis

Hour of Day	Spaces = 58		Spaces = 5		Spaces = 12		Spaces = 3		Spaces = 32		Spaces = 6		Spaces = 208		Spaces = 4		Spaces = 24		352
	Office (Employees)		Office (Visitors)		Retail (Customers)		Retail (Employees)		Rest. (Customers)		Rest. (Employees)		Residential (Reserved)		Residential (Residents)		Residential (Guests)		Total
	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	
6:00 AM	3%	2	0%	0	1%	0	10%	0	25%	8	50%	3	100%	208	100%	4	0%	0	225
7:00 AM	30%	17	1%	0	5%	1	15%	0	50%	16	75%	5	100%	208	90%	4	10%	2	253
8:00 AM	75%	44	20%	1	15%	2	40%	1	60%	19	90%	5	100%	208	85%	3	20%	5	289
9:00 AM	95%	55	60%	3	35%	4	75%	2	75%	24	90%	5	100%	208	80%	3	20%	5	310
10:00 AM	100%	58	100%	5	65%	8	85%	3	85%	27	100%	6	100%	208	75%	3	20%	5	323
11:00 AM	100%	58	45%	2	85%	10	95%	3	90%	29	100%	6	100%	208	70%	3	20%	5	324
12:00 PM	90%	52	15%	1	95%	11	100%	3	100%	32	100%	6	100%	208	65%	3	20%	5	320
1:00 PM	90%	52	45%	2	100%	12	100%	3	90%	29	100%	6	100%	208	70%	3	20%	5	320
2:00 PM	100%	58	100%	5	95%	11	100%	3	50%	16	100%	6	100%	208	70%	3	20%	5	315
3:00 PM	100%	58	45%	2	90%	11	100%	3	45%	14	75%	5	100%	208	70%	3	20%	5	309
4:00 PM	90%	52	15%	1	90%	11	100%	3	45%	14	75%	5	100%	208	75%	3	20%	5	302
5:00 PM	50%	29	10%	1	95%	11	95%	3	75%	24	95%	6	100%	208	85%	3	40%	10	294
6:00 PM	25%	15	5%	0	95%	11	95%	3	80%	26	95%	6	100%	208	90%	4	60%	14	286
7:00 PM	10%	6	2%	0	95%	11	95%	3	80%	26	95%	6	100%	208	97%	4	100%	24	287
8:00 PM	7%	4	1%	0	80%	10	90%	3	80%	26	95%	6	100%	208	98%	4	100%	24	284
9:00 PM	3%	2	0%	0	50%	6	75%	2	60%	19	80%	5	100%	208	99%	4	100%	24	270
10:00 PM	1%	1	0%	0	30%	4	40%	1	55%	18	65%	4	100%	208	100%	4	100%	24	263
11:00 PM	0%	0	0%	0	10%	1	15%	0	50%	16	65%	4	100%	208	100%	4	80%	19	253
12:00 AM	0%	0	0%	0	0%	0	0%	0	25%	8	35%	2	100%	208	100%	4	50%	12	234

Source: Institute of Transportation Engineers and Urban Land Institute's Shared Parking

Land Use	Size	Pkg Rate	Total Parking Spaces	Employee/Resident		Customer/Visitor	
				% (1)	Spaces	% (1)	Spaces
Restaurant	5,000 sq. ft.	1 /30 sf	Spaces				
Restaurant cs	3,000 sq. ft.	1 /250 sf	Spaces				
Restaurant seats	150 seats	1 /4 seats	38 Spaces	15%	6	85%	32
Retail	5,034 sq. ft.	1 /333 sf	15 Spaces	20%	3	80%	12
Office	25,392 sq. ft.	1 /400 sf	63 Spaces	92%	58	8%	5
Residential (4)	208 units	/unit	236 Spaces	90%	212	10%	24
- Studio	23 units						
- 1 Bedroom	99 units						
- 2 Bedroom	73 units						
- 3/4 Bedroom	13 units						
Totals			352				

- (1) Per ULI
- (2) Internal Trip Capture7%
- (3) Multimodal Trips1%
- (4) Per East Overlay District

Shared Spaces =	324
Internal (2) =	-23
Multimodal (3) =	-3
Required Spaces =	298
Parking Provided =	360



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Traf Tech  
ENGINEERING, INC.