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Certificate of Authorization Number 3452



TRAFFIC IMPACT STATEMENT

**17150 BISCAYNE BOULEVARD
NORTH MIAMI BEACH, FLORIDA**

Prepared for:

CR Florida Venture, LLC
4675 MacArthur Court
Floor 15
Newport Beach, California 92660

Job No. 21-058

Date: April 13, 2021
Revised: June 16, 2021



Bryan G. Kelley, P.E.
FL Reg. No. 74006

1.0 SITE DATA

The subject parcel is located at 17150 Biscayne Boulevard in the City of North Miami Beach, Florida and contains approximately 0.68 acres. The proposed development on the currently unimproved site will consist of 4,402 S.F. of retail and 3,878 S.F. of a medicinal marijuana dispensary. Site access is proposed via a right in, right out only driveway connection to Biscayne Boulevard. For additional information on site layout, please refer to the site plan prepared by Joseph. B. Kaller and Associates PA. It should be noted a previous application for the subject site was approved in 2020 and consisted of 8,500 S.F. of retail. The purpose of this study is to update the traffic analysis with the proposed use. The site is located within the North Miami Beach Community Redevelopment Agency (CRA) boundaries.

2.0 TRAFFIC GENERATION

The traffic to be generated by the vested development has been calculated in accordance with the ITE Trip Generation Manual, 10th Edition. Per standard engineering practices, ITE Land Use Code # 820 (shopping center) was used for the trip generation calculations. Note the ITE fitted curve equation was not utilized for the A.M. peak hour commercial trip generation as the equation is not appropriate for retail with lower intensities. The pass-by rate was assumed at 34% per the current ITE pass-by rates for commercial developments. Table 1 shows the daily traffic generation and Tables 2 and 3 show the A.M. and P.M. peak hour traffic generation. The net traffic to be generated by the vested plan of development consisting of 8,500 S.F. of retail may be summarized as follows:

Vested Development

Daily Traffic Generation = 742 tpd
A.M. Peak Hour Traffic Generation (In/Out) = 5 pht (3 In/2 Out)
P.M. Peak Hour Traffic Generation (In/Out) = 58 pht (28 In/30 Out)

The traffic to be generated by the proposed development has been calculated using a combination of the ITE Trip Generation Manual, 10th Edition and rates used in the Zen Leaf Marijuana Dispensary Traffic Study completed by Caltran Group dated February 28, 2019. The rates derived in the Zen Leaf Marijuana Dispensary Traffic Study are attached to this report for reference. The net traffic to be generated by the proposed plan of development is shown in Tables 4-6 and may be summarized as follows:

Proposed Development

Daily Traffic Generation = 491 tpd
A.M. Peak Hour Traffic Generation (In/Out) = 8 pht (4 In/4 Out)
P.M. Peak Hour Traffic Generation (In/Out) = 41 pht (19 In/22 Out)

The net trip generation as a result of the proposed modified plan of development may be summarized as follows:

Trip Difference (Proposed – Vested)

Daily Traffic Generation	= -251 tpd
A.M. Peak Hour Traffic Generation (In/Out)	= 3 pht (1 In/2 Out)
P.M. Peak Hour Traffic Generation (In/Out)	= -17 pht (-9 In/-8 Out)

3.0 TRAFFIC ANALYSIS

To determine the impact on the local roadway network, a traffic operational analysis was completed for the following locations:

1. N.E. 172nd Street at Biscayne Boulevard
2. N.E. 172nd Street at Dixie Highway
3. Biscayne Boulevard at Site Driveway

Traffic counts collected on November 5th, 2019 were provided by the city for the subject signalized intersections. A peak season correction factor obtained from the FDOT Traffic Information Online of 1.07 was applied to each intersection. The historical traffic counts on Biscayne Boulevard near the site location were reviewed to determine an appropriate growth rate. The FDOT historical volumes showed a 0.84% growth rate. Therefore, a nominal growth rate of 1.0% was used to grow the traffic volumes to an estimated buildout year of 2023. Additionally, trips were added for the proposed 19,750 S.F. retail development located at 17450 Biscayne Boulevard, 5-Park, Soleste N. Miami Beach, Harbor Condominium, and Uptown Biscayne approved projects. The intersection development sheets are attached to this report.

The trip distribution for the subject property was derived by interpolating the Miami-Dade 2015 and 2045 TAZ Directional Distribution summary. The project trip distribution was then estimated on the surrounding roadway network to be consistent with these projections. Figure 1 attached to the report depicts the anticipated trip distribution for the project.

The operational analysis was performed using Synchro 10 software with HCS results. The existing cycle length, red, and yellow timings were used in the analysis. However, the green times were optimized for each of the phases as applicable). The Synchro printouts are attached to this report and the results are summarized below.

Operational Analysis – Biscayne Boulevard at N.E. 172nd Street

Scenario	Peak Hour	Delay (s/veh)	LOS
Existing Conditions	AM	38.2	D
	PM	40.3	D
Background Conditions	AM	41.7	D
	PM	47.7	D
Total Traffic Conditions	AM	41.7	D
	PM	48.9	D

Operational Analysis – Dixie Highway at N.E. 172nd Street

Scenario	Peak Hour	Delay (s/veh)	LOS
Existing Conditions	AM	22.1	C
	PM	17.4	B
Background Conditions	AM	31.3	C
	PM	24.5	C
Total Traffic Conditions	AM	31.3	C
	PM	25.1	C

Operational Analysis – Biscayne Boulevard at Site Driveway

Movement	Peak Hour	Delay (s/veh)	LOS
Eastbound Right	AM	10.1	B
	PM	10.9	B

As shown above, the overall intersections will operate at an acceptable Level of Service (LOS) during both peak hours for each of the scenarios. Further results including tables summarizing each individual movement delay, LOS, and 95th percentile queues are attached to this report. There are some individual movements at the intersections that are failing or the 95th percentile queue exceeds the storage length. A few of the movements that exceed the 95th percentile queue includes the eastbound left turn and the northbound left turn at the intersection of Biscayne Boulevard at 172nd Street and the westbound approach at the intersection of Dixie Highway at 172nd Street. These movements are background failures and not a result of the proposed project. As documented previously, the proposed project is a reduction of trips from the vested use and only has a minimal impact to the individual turning movements and overall intersections even when not considering the vested use trips.

In addition to the intersection analysis, the surrounding roadway network was reviewed to determine the project's impact. All roadway segments were shown to be insignificantly impacted by the proposed project.

4.0 DRIVEWAY ANALYSIS

As shown in Figure 2 attached to the report, the southbound P.M. peak hour right turns on Biscayne Boulevard at the site driveway is 28 vehicles. The FDOT Access Management Guidebook recommends dedicated right turn lanes at driveways when the peak hour trips are 80 vehicles or more for roadways with a 45 mph speed limit or less. Therefore, a right turn lane is not warranted at this location.

5.0 CONCLUSION

The attached tables document the daily, A.M. peak hour and P.M. peak hour traffic generation for the proposed development. The proposed development will generate 491 net daily trips, 8 net A.M. peak hour trips and 41 net P.M. peak hour trips and is also a reduction of daily and P.M. peak hour trips from the vested development. Based on the findings of this report, the intersection of Biscayne Boulevard at N.E. 172nd Street and N.E. 172nd Street at Dixie Highway will continue to operate at an acceptable Level of Service inclusive of the proposed development.

17150 Biscayne Boulevard

04/13/2021
Revised 06/16/2021

VESTED DEVELOPMENT

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips		
					In	Out	In	Out	Total	%	Total	In	Out	Total	%	Trips	In	Out	Total	
Gen. Commercial	820	8,500	S.F.	$\ln(T) = .68 \ln(X) + 5.57$					1,125			0			1,125	34.0%	383			742
		Grand Totals:							1,125			0			1,125	34%	383			742

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips			
					In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total	%	Trips	In	Out	Total
Gen. Commercial	820	8,500	S.F.	0.94	0.62	0.38	5	3	8	0.0%	0	0	0	5	3	8	34.0%	3	3	2	5
		Grand Totals:					5	3	8	0.0%	0	0	0	5	3	8	34%	3	3	2	5

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips			
					In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total	%	Trips	In	Out	Total
Gen. Commercial	820	8,500	S.F.	$\ln(T) = 0.74 \ln(X) + 2.89$	0.48	0.52	42	46	88	0.0%	0	0	0	42	46	88	34.0%	30	28	30	58
		Grand Totals:					42	46	88	0.0%	0	0	0	42	46	88	34%	30	28	30	58

Rates from ITE Trip Generation, 10th Edition

PROPOSED DEVELOPMENT

TABLE 4 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips		
					In	Out	In	Out	Total	%	In	Out	Total	%	Trips	In	Out	Total		
Gen. Commercial	820	4,402	S.F.	$\ln(T) = .68 \ln(X) + 5.57$			719			0			719			34.0%	244			475
Medicinal Marijuana Dispensary	N/A	3,878	S.F.	4.07			16			0			16			0%	0			16
Grand Totals:							735			0			735			33%	244			491

TABLE 5 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips			
					In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total	%	Trips	In	Out	Total
Gen. Commercial	820	4,402	S.F.	0.94	0.62	0.38	2	2	4	0.0%	0	0	0	2	2	4	34.0%	1	1	2	3
Medicinal Marijuana Dispensary	841	3,878	S.F.	1.40	0.50	0.50	3	2	5	0.0%	0	0	0	3	2	5	0%	0	3	2	5
Grand Totals:							5	4	9	0.0%	0	0	0	5	4	9	34%	1	4	4	8

TABLE 6 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split		Gross Trips			Internalization			External Trips			Pass-by		Net Trips			
					In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total	%	Trips	In	Out	Total
Gen. Commercial	820	4,402	S.F.	$\ln(T) = 0.74 \ln(X) + 2.89$	0.48	0.52	26	28	54	0.0%	0	0	0	26	28	54	34.0%	18	17	19	36
Medicinal Marijuana Dispensary	841	3,878	S.F.	1.33	0.50	0.50	2	3	5	0.0%	0	0	0	2	3	5	0%	0	2	3	5
Grand Totals:							28	31	59	0.0%	0	0	0	28	31	59	30%	18	19	22	41

General Commercial Rates from ITE Trip Generation, 10th Edition

Medicinal Marijuana Dispensary rates from Zen Leaf Marijuana Dispensary Traffic Study completed by Caltran Group dated February 28, 2019

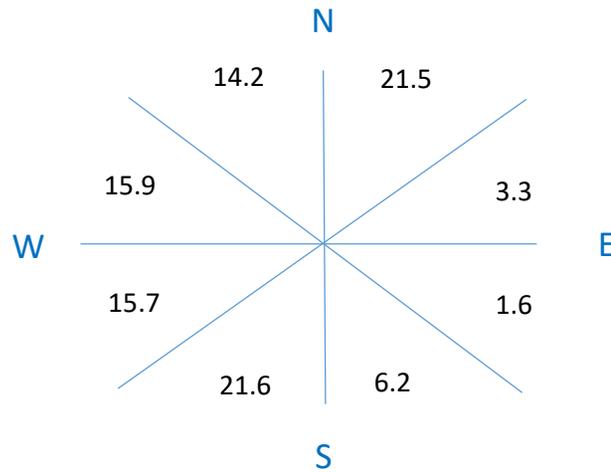
Directional Distribution

Year	NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW
2015	21.2	3.8	1.7	6	19.2	16.1	17.1	14.9
2045	21.8	3	1.6	6.3	23.4	15.4	14.9	13.7
2023	21.5	3.3	1.6	6.2	21.6	15.7	15.9	14.2

Notes:

2023 trip distribution determined by interpolating between 2015 and 2045

Trip distribution data taken from Miami-Dade MPO Directional Distribution Summary



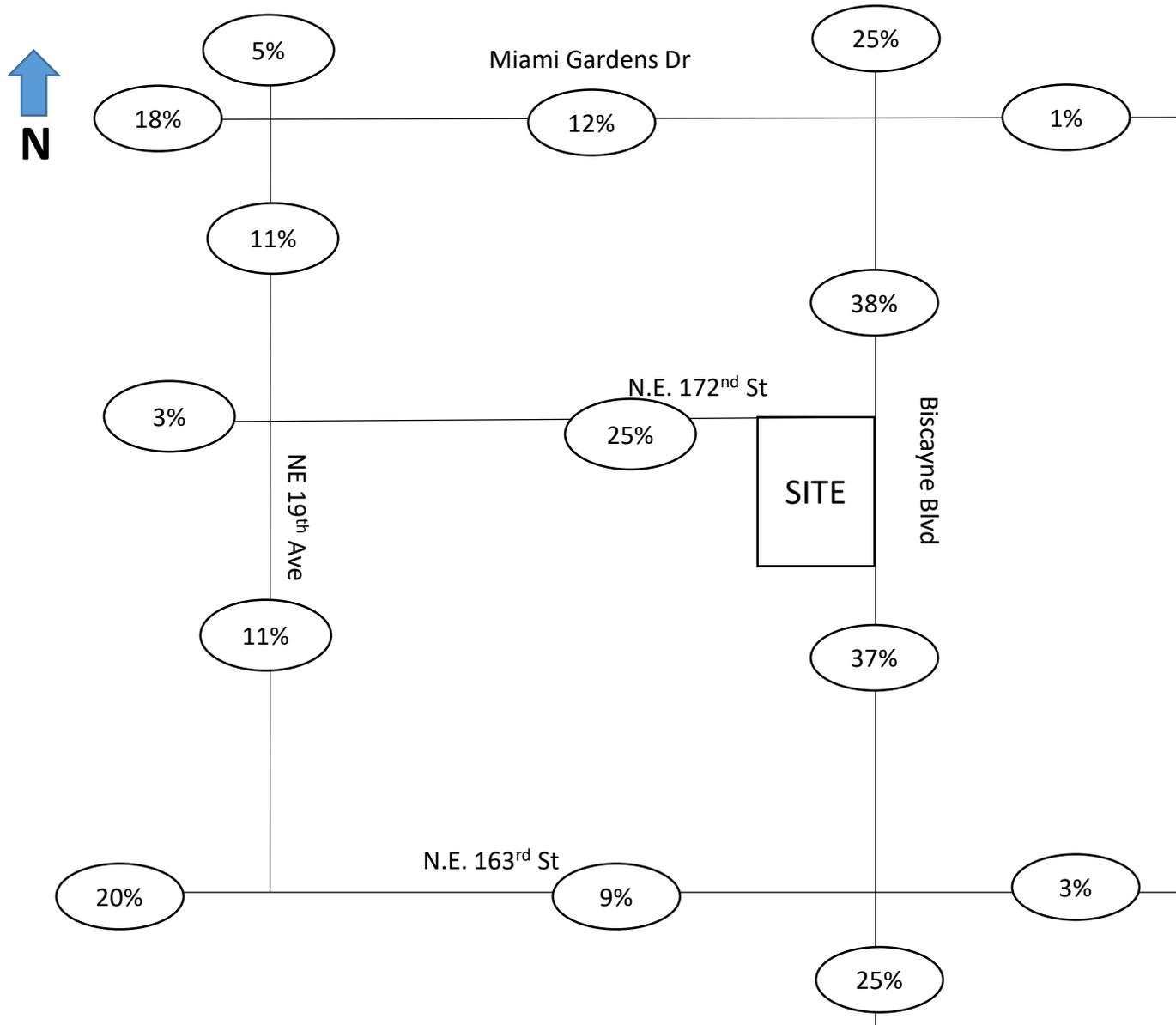
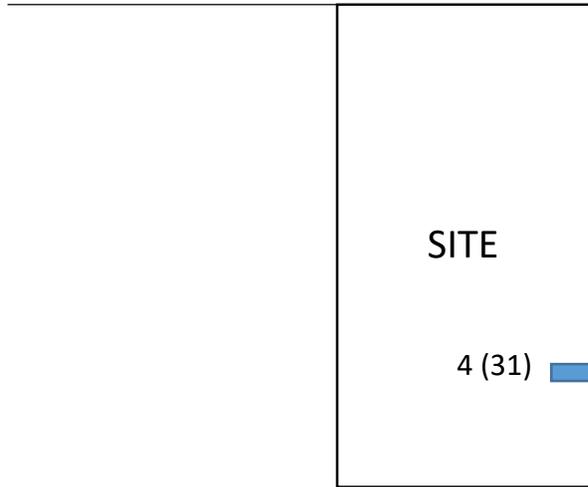


Figure 1 – Trip Distribution
 17150 Biscayne Boulevard
 Project # 21-058



N.E. 172nd Street



(28)
5

SITE

4 (31)

Biscayne Boulevard

Legend

XX AM Peak Hour
(XX) PM Peak Hour

Figure 2 – Driveway Volumes
17150 Biscayne Boulevard
Project # 21-058

OPERATIONAL ANALYSIS RESULTS

Biscayne Blvd at 172nd Street

Peak Hour	Scenario	Movement	Delay (sec/veh)	LOS	95th Queue (feet)	Storage Lane Length (feet)
AM	Existing	EBL	78.9	E	352	110
		EBT	69.3	E	249	110
		EB Approach	74.9	E	N/A	N/A
		WBL	85.4	F	88	50
		WBT	82.7	F	69	50
		WB Approach	83.7	F	N/A	N/A
		NBL	69.4	E	202	400
		NBT	23.7	C	452	N/A
		NB Approach	27.0	C	N/A	N/A
		SBL	20.2	C	34	200
		SBT	35.0	D	807	N/A
		SBR	24.3	C	165	N/A
		SB Approach	33.7	C	N/A	N/A
		Overall Intersection	38.2	D	N/A	N/A
	Background	EBL	79.2	E	374	110
		EBT	71.3	E	294	110
		EB Approach	76.0	E	N/A	N/A
		WBL	85.4	F	90	50
		WBT	82.6	F	68	50
		WB Approach	83.8	F	N/A	N/A
		NBL	73.1	E	243	400
		NBT	25.3	C	500	N/A
		NB Approach	29.2	C	N/A	N/A
		SBL	22.9	C	36	200
		SBT	40.7	D	900	N/A
		SBR	27.5	C	205	N/A
		SB Approach	39.1	D	N/A	N/A
		Overall Intersection	41.7	D	N/A	N/A
	Total	EBL	79.2	E	374	110
		EBT	71.3	E	294	110
		EB Approach	76.0	E	N/A	N/A
		WBL	85.4	F	90	50
		WBT	82.6	F	68	50
		WB Approach	83.8	F	N/A	N/A
		NBL	73.1	E	243	400
		NBT	25.3	C	500	N/A
NB Approach		29.2	C	N/A	N/A	
SBL		22.9	C	36	200	
SBT		40.7	D	900	N/A	
SBR		27.5	C	205	N/A	
SB Approach		39.1	D	N/A	N/A	
Overall Intersection		41.7	D	N/A	N/A	

OPERATIONAL ANALYSIS RESULTS

Dixie Highway at 172nd Street

Peak Hour	Scenario	Movement	Delay (sec/veh)	LOS	95th Queue (feet)	Storage Lane Length (feet)
AM	Existing	EB Approach	35.4	D	492	N/A
		WB Approach	12.4	B	93	150
		NBL	11.3	B	9	100
		NBT	21.3	C	212	N/A
		NB Approach	21.1	C	N/A	N/A
		SBL	15.8	B	49	120
		SBT	14.4	B	130	N/A
		SBR	11.4	B	16	N/A
		SB Approach	14.2	B	N/A	N/A
	Overall Intersection	22.1	C	N/A	N/A	
	Background	EB Approach	31.9	C	436	N/A
		WB Approach	11.0	B	79	150
		NBL	13.0	B	12	100
		NBT	56.6	E	420	N/A
		NB Approach	55.9	E	N/A	N/A
		SBL	29.0	C	90	120
		SBT	19.1	B	219	N/A
		SBR	12.9	B	23	N/A
		SB Approach	19.7	B	N/A	N/A
	Overall Intersection	31.3	C	N/A	N/A	
	Total	EB Approach	32.0	C	437	N/A
		WB Approach	11.0	B	79	150
		NBL	13.0	B	12	100
		NBT	56.6	E	420	N/A
		NB Approach	55.9	E	N/A	N/A
		SBL	29.0	C	90	120
		SBT	19.1	B	219	N/A
SBR		12.9	B	23	N/A	
SB Approach		19.7	B	N/A	N/A	
Overall Intersection	31.3	C	N/A	N/A		

OPERATIONAL ANALYSIS RESULTS

Biscayne Blvd at 172nd Street

Peak Hour	Scenario	Movement	Delay (sec/veh)	LOS	95th Queue (feet)	Storage Lane Length (feet)
PM	Existing	EBL	83.4	F	276	110
		EBT	68.5	E	83	110
		EB Approach	78.7	E	N/A	N/A
		WBL	80.1	F	37	50
		WBT	86.4	F	124	50
		WB Approach	85.6	F	N/A	N/A
		NBL	87.0	F	406	400
		NBT	24.8	C	702	N/A
		NB Approach	31.1	C	N/A	N/A
		SBL	26.7	C	51	200
		SBT	42.0	D	876	N/A
		SBR	32.6	C	328	N/A
		SB Approach	40.3	D	N/A	N/A
	Overall Intersection	40.3	D	N/A	N/A	
	Background	EBL	84.5	F	312	110
		EBT	67.1	E	91	110
		EB Approach	78.8	E	N/A	N/A
		WBL	80.0	F	14	50
		WBT	86.9	F	65	50
		WB Approach	86.0	F	N/A	N/A
		NBL	84.9	F	436	400
		NBT	29.7	C	813	N/A
		NB Approach	35.5	D	N/A	N/A
		SBL	34.3	C	95	200
		SBT	55.0	E	1151	N/A
		SBR	38.9	D	411	N/A
		SB Approach	52.2	D	N/A	N/A
	Overall Intersection	47.7	D	N/A	N/A	
	Total	EBL	84.5	F	312	110
		EBT	67.1	E	91	110
		EB Approach	78.7	E	N/A	N/A
		WBL	80.0	F	37	50
		WBT	86.9	F	126	50
		WB Approach	86.0	F	N/A	N/A
		NBL	86.7	F	458	400
		NBT	29.8	C	816	N/A
NB Approach		36.0	D	N/A	N/A	
SBL		34.6	C	95	200	
SBT		57.5	E	1155	N/A	
SBR		39.7	D	441	N/A	
SB Approach		54.4	D	N/A	N/A	
Overall Intersection	48.9	D	N/A	N/A		

OPERATIONAL ANALYSIS RESULTS

Dixie Highway at 172nd Street

Peak Hour	Scenario	Movement	Delay (sec/veh)	LOS	95th Queue (feet)	Storage Lane Length (feet)
PM	Existing	EB Approach	19.0	B	281	N/A
		WB Approach	14.6	B	176	150
		NBL	12.0	B	17	100
		NBT	21.6	C	219	N/A
		NB Approach	21.1	C	N/A	N/A
		SBL	19.1	B	64	120
		SBT	16.8	B	177	N/A
		SBR	12.0	B	32	N/A
		SB Approach	16.3	B	N/A	N/A
	Overall Intersection	17.4	B	N/A	N/A	
	Background	EB Approach	46.5	D	363	N/A
		WB Approach	18.9	B	199	150
		NBL	10.1	B	18	100
		NBT	24.4	C	367	N/A
		NB Approach	23.9	C	N/A	N/A
		SBL	32.4	C	100	120
		SBT	14.7	B	207	N/A
		SBR	10.2	B	37	N/A
		SB Approach	16.3	B	N/A	N/A
	Overall Intersection	24.5	C	N/A	N/A	
	Total	EB Approach	49.4	D	370	N/A
		WB Approach	19.0	B	201	150
		NBL	10.1	B	18	100
		NBT	24.4	C	367	N/A
		NB Approach	23.9	C	N/A	N/A
		SBL	32.4	C	100	120
		SBT	14.7	B	207	N/A
SBR		10.2	B	37	N/A	
SB Approach		16.3	B	N/A	N/A	
Overall Intersection	25.1	C	N/A	N/A		

Biscayne Boulevard at Site Driveway

Peak Hour	Scenario	Movement	Delay (sec/veh)	LOS	95th Queue (feet)	Storage Lane Length (feet)
AM	Total	Eastbound Right	10.1	B	0	N/A
PM	Total	Eastbound Right	10.9	B	4	N/A

APPENDIX A

ROADWAY LINK SIGNIFICANCE ANALYSIS

**PROJECT SIGNIFICANCE CALCULATION
PM PEAK HOUR**

2023 BUILD OUT

TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERIN 19

TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING)22

ROADWAY	FROM	TO	PM PEAK HOUR DIRECTIONAL				LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
			PROJECT DISTRIBUTION	PROJECT TRIPS	EXISTING LANES	CLASS			
BISCAYNE BOULEVARD	N. OF MIAMI GARDENS DR	MIAMI GARDENS DR	25%	5	8D	I	4040	0.12%	NO
BISCAYNE BOULEVARD	MIAMI GARDENS DR	NE 172ND ST	38%	8	8D	I	4040	0.20%	NO
BISCAYNE BOULEVARD	NE 172ND ST	NE 163RD ST	37%	8	8D	I	4040	0.20%	NO
BISCAYNE BOULEVARD	NE 163RD ST	S. OF 163RD ST	25%	5	8D	I	4040	0.12%	NO
NE 19TH AVENUE	N. OF MIAMI GARDENS DR	MIAMI GARDENS DR	5%	1	4D	II	1630	0.06%	NO
NE 19TH AVENUE	MIAMI GARDENS DR	NE 172ND ST	11%	2	4D	II	1630	0.12%	NO
NE 19TH AVENUE	NE 172ND ST	NE 163RD ST	11%	2	4D	II	1630	0.12%	NO
MIAMI GARDENS DRIVE	W. OF NE 19TH AVENUE	NE 19TH AVENUE	18%	4	4D	II	1630	0.25%	NO
MIAMI GARDENS DRIVE	NE 19TH AVENUE	BISCAYNE BOULEVARD	12%	3	4D	II	1630	0.18%	NO
MIAMI GARDENS DRIVE	BISCAYNE BOULEVARD	E. OF BISCAYNE BOULEVARD	1%	0	4D	II	1630	0.00%	NO
NE 172ND STREET	W. OF NE 19TH AVENUE	NE 19TH AVENUE	3%	1	2L	II	750	0.13%	NO
NE 172ND STREET	NE 19TH AVENUE	BISCAYNE BOULEVARD	25%	5	2L	II	750	0.67%	NO
NE 163RD STREET	W. OF NE 19TH AVENUE	NE 19TH AVENUE	20%	4	6D	II	2520	0.16%	NO
NE 163RD STREET	NE 19TH AVENUE	BISCAYNE BOULEVARD	9%	2	6D	II	2520	0.08%	NO
NE 163RD STREET	BISCAYNE BOULEVARD	E. OF BISCAYNE BOULEVARD	3%	1	6D	II	2520	0.04%	NO

Notes:

LOS D thresholds from 2020 FDOT Q/LOS Tables

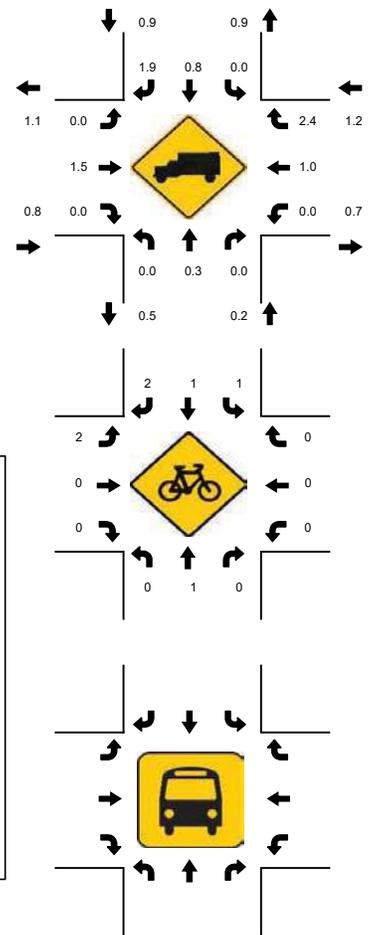
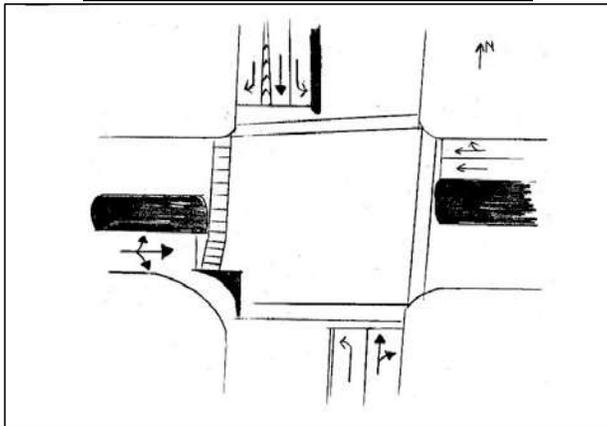
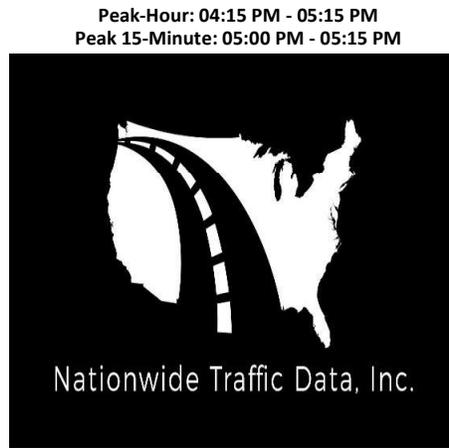
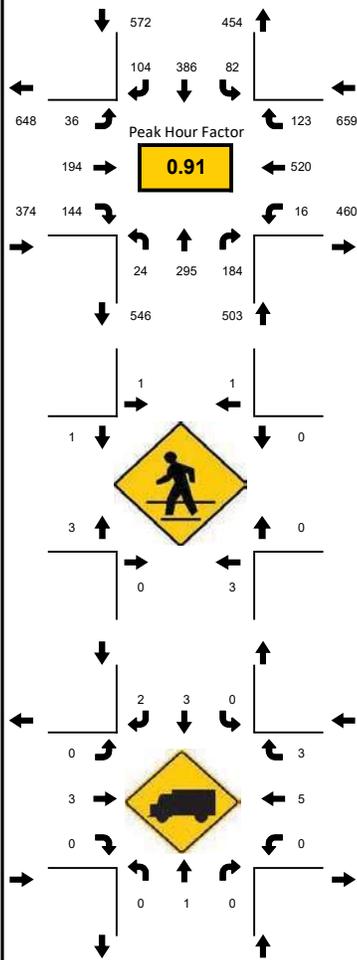
Less than 1.0% considered to be insignificant

APPENDIX B

TRAFFIC COUNTS

LOCATION: W Dixie Hwy & NE 172nd St
 CITY/STATE: Aventura, FL

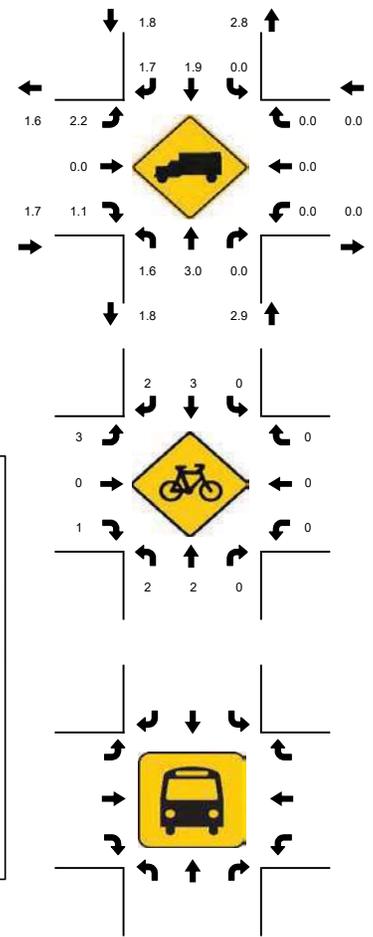
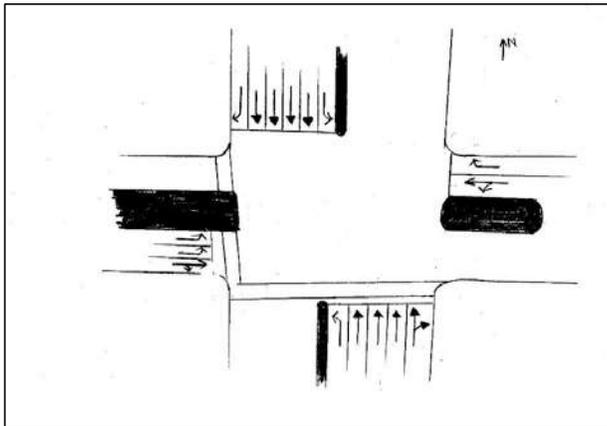
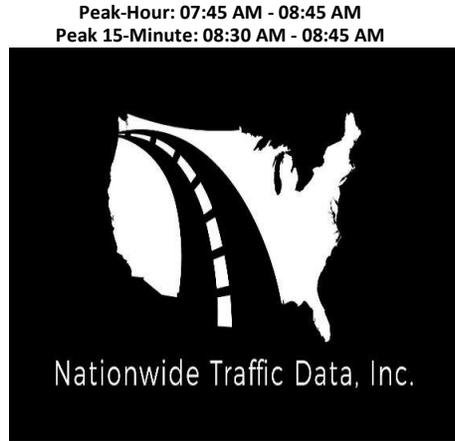
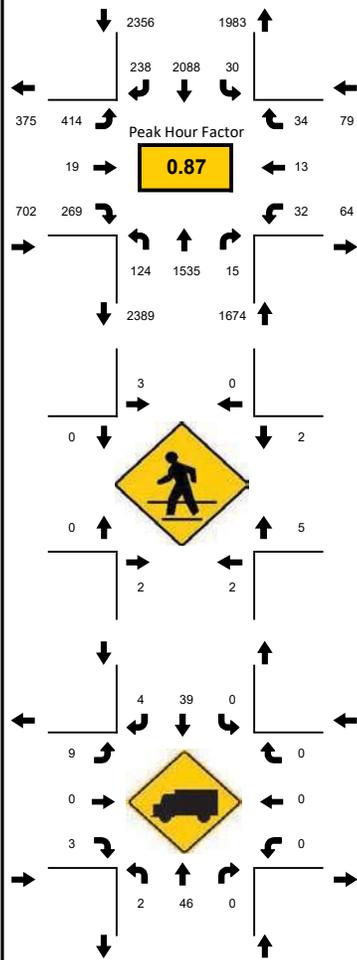
PROJECT ID: 19-1047-005
 DATE: 11/05/2019



15-Min Count Period Beginning At	W Dixie Hwy Northbound					W Dixie Hwy Southbound					NE 172nd St Eastbound					NE 172nd St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	5	81	45	0		20	71	22	0		10	42	36	0		6	131	26	0		495	2025
04:15 PM	5	66	49	0		22	97	25	0		6	48	36	0		5	120	28	0		507	2108
04:30 PM	7	70	48	0		17	94	28	0		15	47	41	0		3	134	26	0		530	2103
04:45 PM	5	74	40	0		18	90	26	0		8	49	30	0		3	117	33	0		493	2098
05:00 PM	7	85	47	0		24	105	25	1		7	50	37	0		5	149	36	0		578	2079
05:15 PM	9	65	39	0		26	78	27	0		11	44	39	1		5	131	27	0		502	1501
05:30 PM	5	74	57	0		24	90	35	0		7	35	39	1		4	128	26	0		525	999
05:45 PM	3	67	46	0		19	79	22	0		9	36	44	1		4	120	24	0		474	474
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	28	340	196	0		96	420	112	4		60	200	164	0		20	596	144	0		2380	
Heavy Trucks	0	4	0			0	8	8			0	8	0			0	8	8			44	
Pedestrians		4					4					8					0				16	
Bicycles	0	4	0			4	4	8			8	0	0			0	0	0			28	
Railroad																						
Stopped Buses																						

LOCATION: Biscayne Blvd & NE 172nd St
 CITY/STATE: Aventura, FL

PROJECT ID: 19-1047-006
 DATE: 11/05/2019



15-Min Count Period Beginning At	Biscayne Blvd Northbound					Biscayne Blvd Southbound					NE 172nd St Eastbound					NE 172nd St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	16	229	3	0		3	421	22	1		68	6	46	0		13	2	6	0		836	3971
07:15 AM	24	321	1	0		3	445	30	0		56	0	33	0		4	1	5	0		923	4341
07:30 AM	35	367	3	0		3	508	43	0		72	1	49	0		9	0	3	0		1093	4526
07:45 AM	38	340	5	1		8	498	67	0		86	3	56	0		7	1	9	0		1119	4811
08:00 AM	29	395	3	0		5	501	59	0		105	8	81	0		9	3	8	0		1206	4796
08:15 AM	22	340	0	0		2	476	58	0		112	5	69	0		11	5	8	0		1108	3590
08:30 AM	32	460	7	2		14	613	54	1		111	3	63	0		5	4	9	0		1378	2482
08:45 AM	28	364	5	0		2	425	58	1		129	9	59	0		5	5	14	0		1104	1104
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	152	1840	28	8		56	2452	268	4		448	32	324	0		44	20	36	0		5712	
Heavy Trucks	4	60	0			0	48	8			16	0	8			0	0	0			144	
Pedestrians		12					8					0					16				36	
Bicycles	4	4	0			0	8	8			8	0	4			0	0	0			36	
Railroad																						
Stopped Buses																						

APPENDIX C

INTERSECTION DEVELOPMENT WORKSHEETS

INTERSECTION DEVELOPMENT SHEET
17150 BISCAYNE BOULEVARD
BISCAYNE BOULEVARD AND N.E. 172ND STREET

NET TRIPS

	IN	OUT
AM	4	4
PM	19	22

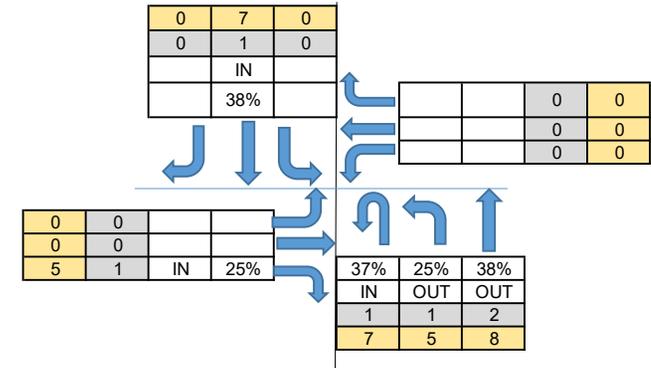
INPUT DATA

Comments:
 Growth Rate = 1.0% Peak Season = 1.07 Current Year = 2019 Buildout Year = 2023

AM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2019)	124	1535	15	30	2088	238	414	19	269	32	13	34
Peak Season Adjustment	9	107	1	2	146	17	29	1	19	2	1	2
1.0% Background Growth	3	33	0	1	45	5	9	0	6	1	0	1
2021 Existing Volume	135	1675	16	33	2279	260	452	21	294	35	14	37
1% Background Growth (2021-2023)	3	34	0	1	46	5	9	0	6	1	0	1
17450 Biscayne Project Trips	0	3	0	2	2	1	1	0	0	0	0	0
5 Park Trips	5	0	0	0	0	23	16	0	3	0	0	0
Soleste N. Miami Beach	5	26	0	0	15	0	0	0	3	0	0	0
Harbor Condominium	5	28	0	0	10	0	0	0	2	0	0	0
Uptown Biscayne	6	33	0	0	53	0	0	0	9	0	0	0
2023 Background Traffic	159	1799	17	35	2405	289	478	21	317	36	14	38
Project Traffic (17200)	2	2	0	0	1	0	0	0	1	0	0	0
2023 Total Traffic	161	1801	17	35	2406	289	478	21	318	36	14	38



INPUT DATA

Growth Rate = 1.0% Peak Season = 1.07 Current Year = 2019 Buildout Year = 2023

PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2019)	244	2125	24	36	2084	380	312	6	138	10	31	35
Peak Season Adjustment	17	149	2	3	146	27	22	0	10	1	2	2
1.0% Background Growth	5	46	1	1	45	8	7	0	3	0	1	1
2021 Existing Volume	266	2319	26	39	2275	415	341	7	151	11	34	38
1% Background Growth (2021-2023)	5	47	1	1	46	8	7	0	3	0	1	1
17450 Biscayne Project Trips	0	23	0	22	25	8	8	0	0	0	0	0
5 Park Trips	5	0	0	0	0	20	31	0	7	0	0	0
Soleste N. Miami Beach	2	12	0	0	13	0	0	0	2	0	0	0
Harbor Condominium	3	18	0	0	27	0	0	0	5	0	0	0
Uptown Biscayne	17	96	0	0	82	0	0	0	15	0	0	0
2023 Background Traffic	299	2515	27	62	2467	451	386	7	183	11	35	39
Project Traffic (17200)	12	8	0	0	7	0	0	0	5	0	0	0
2023 Total Traffic	311	2523	27	62	2474	451	386	7	188	11	35	39

INTERSECTION DEVELOPMENT SHEET
17150 BISCAYNE BOULEVARD
DIXIE HIGHWAY AND N.E. 172ND STREET

NET TRIPS

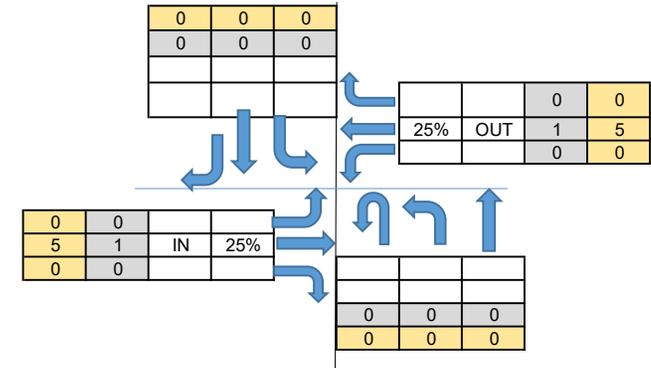
	IN	OUT
AM	4	4
PM	19	22

INPUT DATA				
Comments:	Growth Rate = 1.0%	Peak Season = 1.07	Current Year = 2019	Buildout Year = 2023

AM Peak Hour												
	INTERSECTION VOLUME DEVELOPMENT											
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2019)	9	275	216	67	311	65	31	450	77	6	301	53
Peak Season Adjustment	1	19	15	5	22	5	2	32	5	0	21	4
1.0% Background Growth	0	6	5	1	7	1	1	10	2	0	6	1
2021 Existing Volume	10	300	236	73	339	71	34	491	84	7	329	58
1% Background Growth (2021-2023)	0	6	5	1	7	1	1	10	2	0	7	1
17450 Biscayne Project Trips								1			1	
5 Park Trips		37	19		54				28		28	
Soleste N. Miami Beach								3			5	
Harbor Condominium								2			5	
Uptown Biscayne								9			6	
2023 Background Traffic	10	343	260	75	400	72	35	516	114	7	380	59
Project Traffic (17200)	0	0	0	0	0	0	0	1	0	0	1	0
2023 Total Traffic	10	343	260	75	400	72	35	517	114	7	381	59

INPUT DATA				
	Growth Rate = 1.0%	Peak Season = 1.07	Current Year = 2019	Buildout Year = 2023

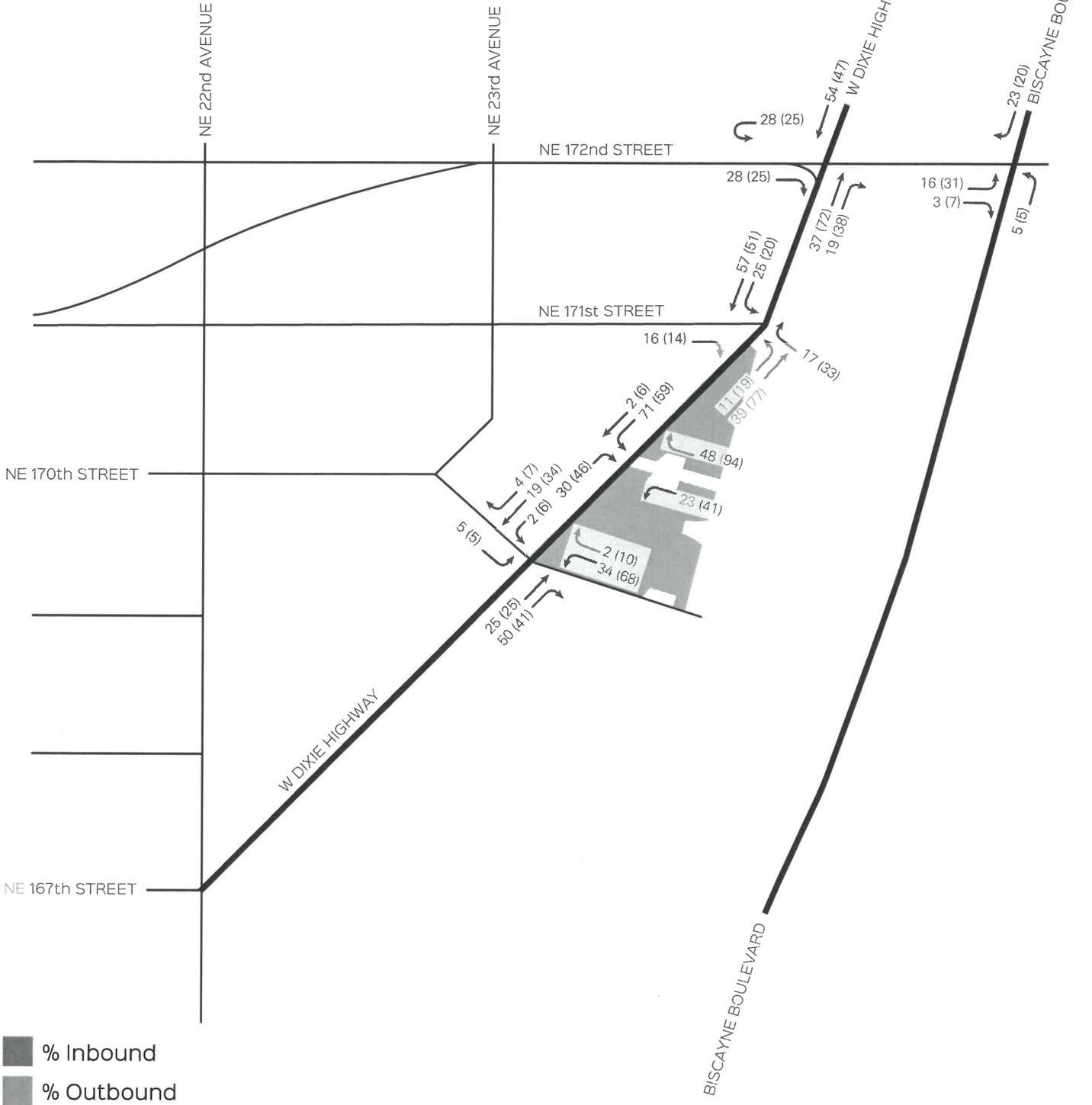
PM Peak Hour												
	INTERSECTION VOLUME DEVELOPMENT											
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2019)	24	295	184	82	386	104	36	194	144	16	520	123
Peak Season Adjustment	2	21	13	6	27	7	3	14	10	1	36	9
1.0% Background Growth	1	6	4	2	8	2	1	4	3	0	11	3
2021 Existing Volume	26	322	201	90	421	114	39	212	157	17	568	134
1% Background Growth (2021-2023)	1	6	4	2	8	2	1	4	3	0	11	3
17450 Biscayne Project Trips								8			8	
5 Park Trips		72	38		47				25		25	
Soleste N. Miami Beach								2			2	
Harbor Condominium								5			3	
Uptown Biscayne								15			17	
2023 Background Traffic	27	400	243	91	477	116	40	246	185	18	634	137
Project Traffic (17200)	0	0	0	0	0	0	0	5	0	0	5	0
2023 Total Traffic	27	400	243	91	477	116	40	251	185	18	639	137



APPENDIX D

COMMITTED PROJECTS

5 PARK
17071 WEST DIXIE HIGHWAY
TRAFFIC STUDY

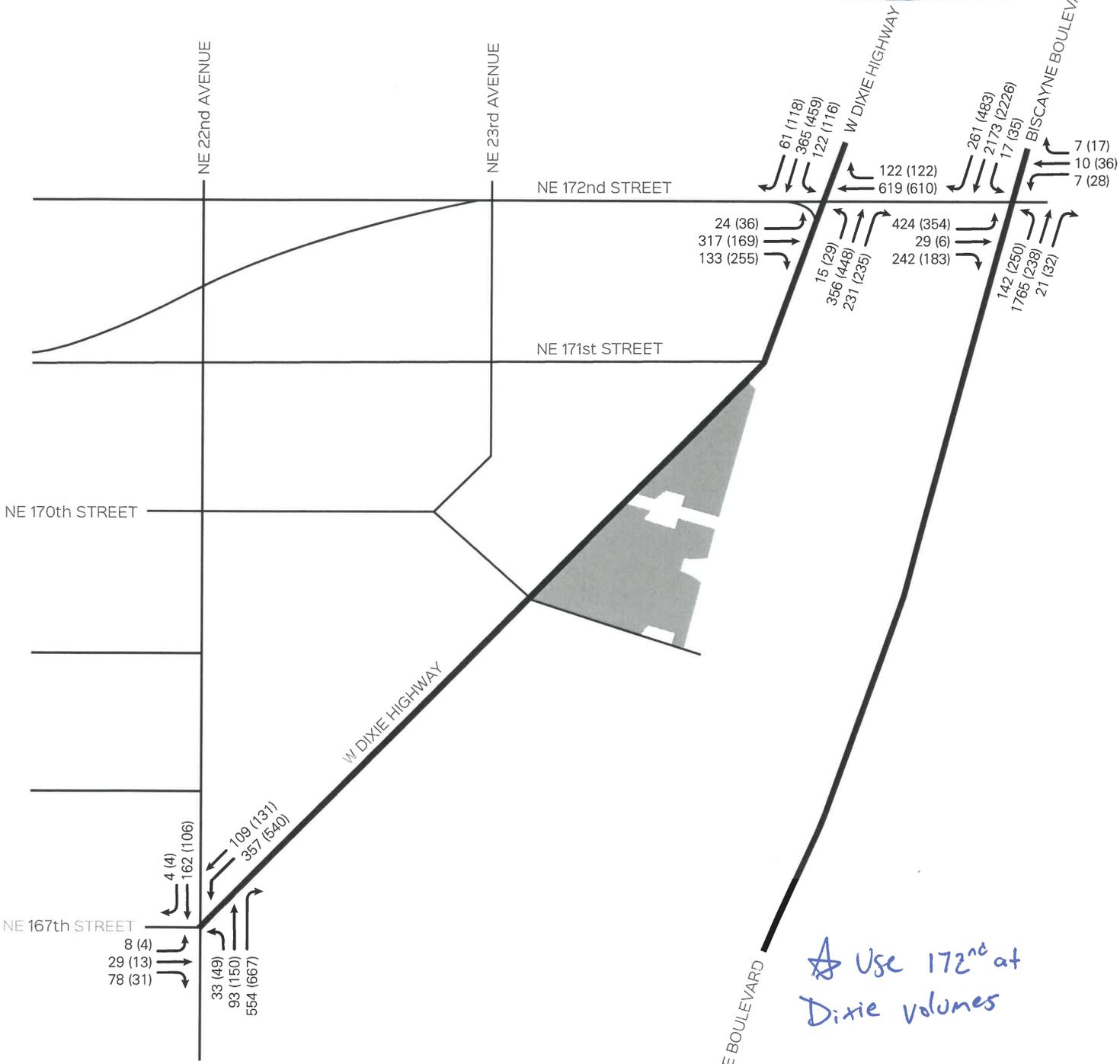


- % Inbound
- % Outbound
- Project Location

Exhibit 10
Project Trip Assignment



5 PARK
17071 WEST DIXIE HIGHWAY
TRAFFIC STUDY



☆ Use 172nd at Dixie volumes

00 AM Peak Hour
 (00) PM Peak Hour

■ Project Location

Exhibit 11

Future With Project AM and PM Peak Hour Traffic Volumes



INTERSECTION DEVELOPMENT SHEET
17450 BISCAYNE BOULEVARD
BISCAYNE BOULEVARD AND N.E. 172ND STREET

INPUT DATA			
Comments:	Growth Rate = 1.0%	Peak Season = 1.00	Current Year = 2018 Buildout Year = 2021

AM Peak Hour												
INTERSECTION VOLUME DEVELOPMENT												
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2018)	119	1647	33	27	2300	237	304	26	219	18	15	39
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
1.0% Background Growth	4	50	1	1	70	7	9	1	7	1	0	1
17200 Project Trips	1	0	0	0	1	0	1	0	0	0	0	0
5 Park Trips	5	0	0	0	0	23	16	0	3	0	0	0
Background Traffic Growth Used	10	50	1	1	71	30	26	1	10	1	0	1
Project Traffic (17450)	0	3	0	2	2	1	1	0	0	0	0	0
Total	129	1700	34	30	2373	268	331	27	229	19	15	40
Approach Total	1,863			2,671			587			74		

PM Peak Hour												
INTERSECTION VOLUME DEVELOPMENT												
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2018)	225	2051	25	34	2013	375	282	7	160	25	19	30
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
1.0% Background Growth	7	62	1	1	61	11	9	0	5	1	1	1
17200 Project Trips	17	0	0	0	11	0	12	0	4	0	0	0
5 Park Trips	5	0	0	0	0	20	31	0	7	0	0	0
Background Traffic Growth Used	29	62	1	1	72	31	52	0	16	1	1	1
Project Traffic (17450)	0	23	0	22	25	8	8	0	0	0	0	0
Total	254	2136	26	57	2110	414	342	7	176	26	20	31
Approach Total	2,416			2,581			525			76		

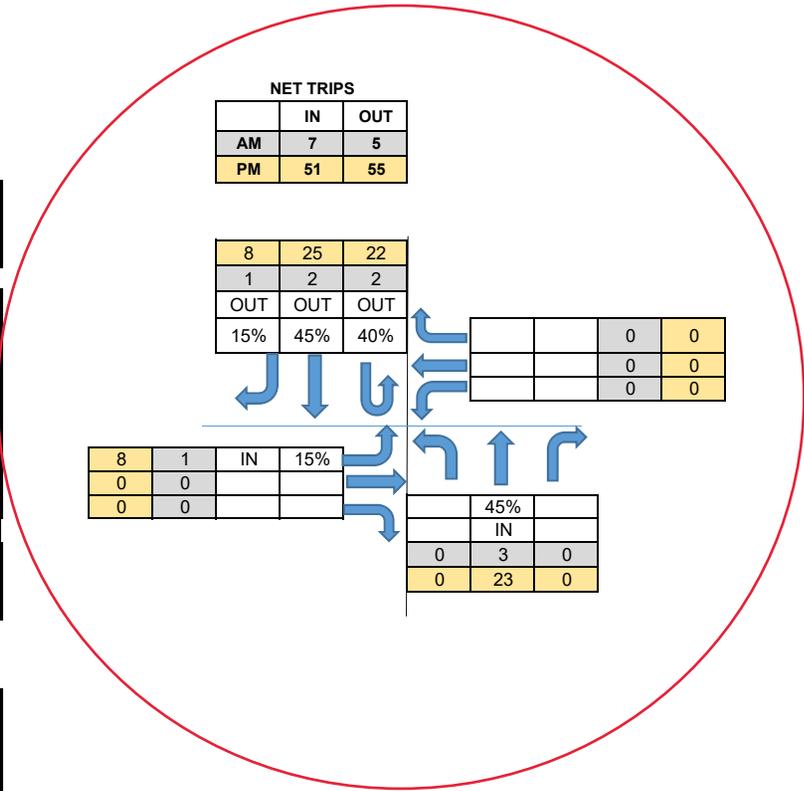
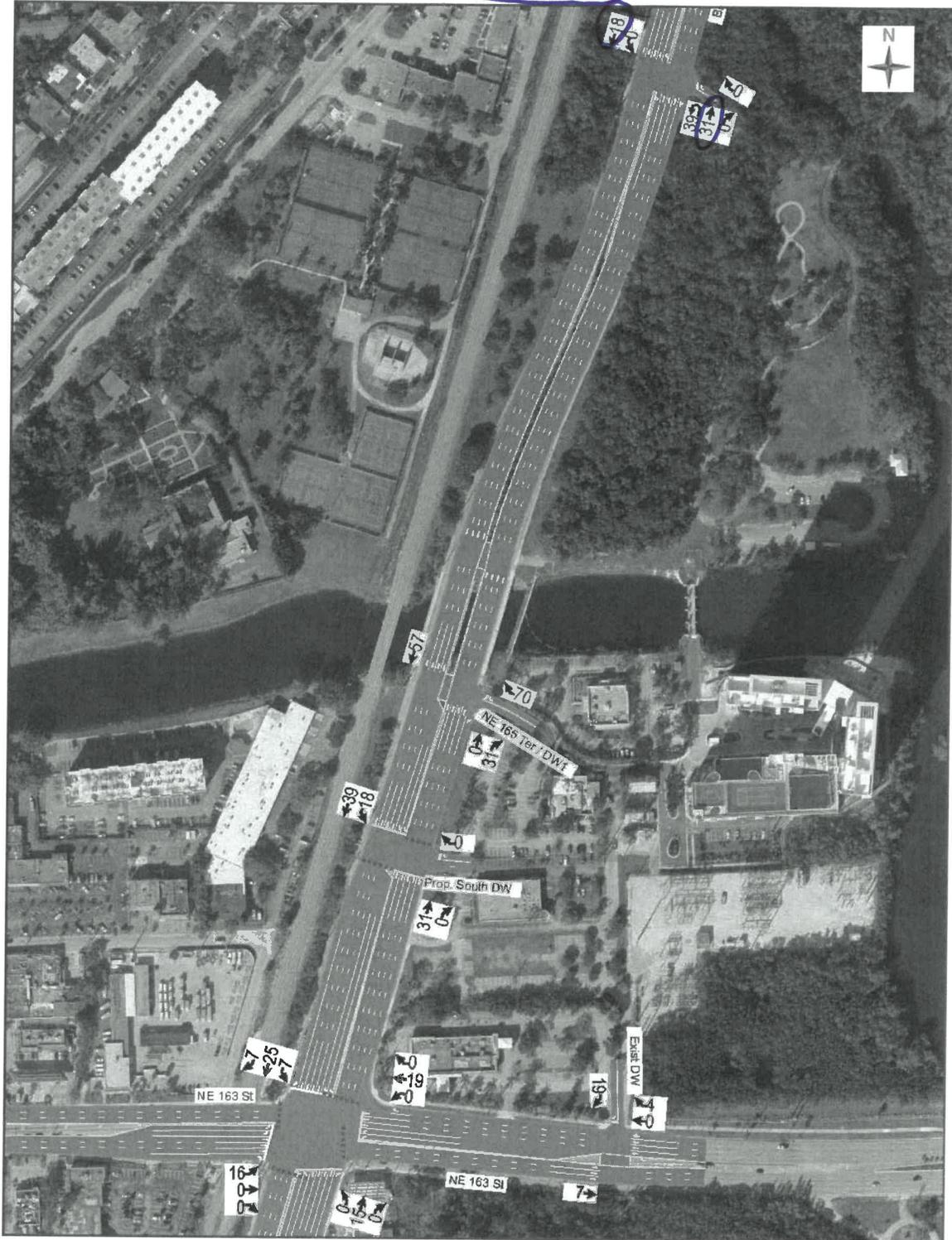


Figure 6: Site Traffic (Project Net Trips) - AM Peak Hour

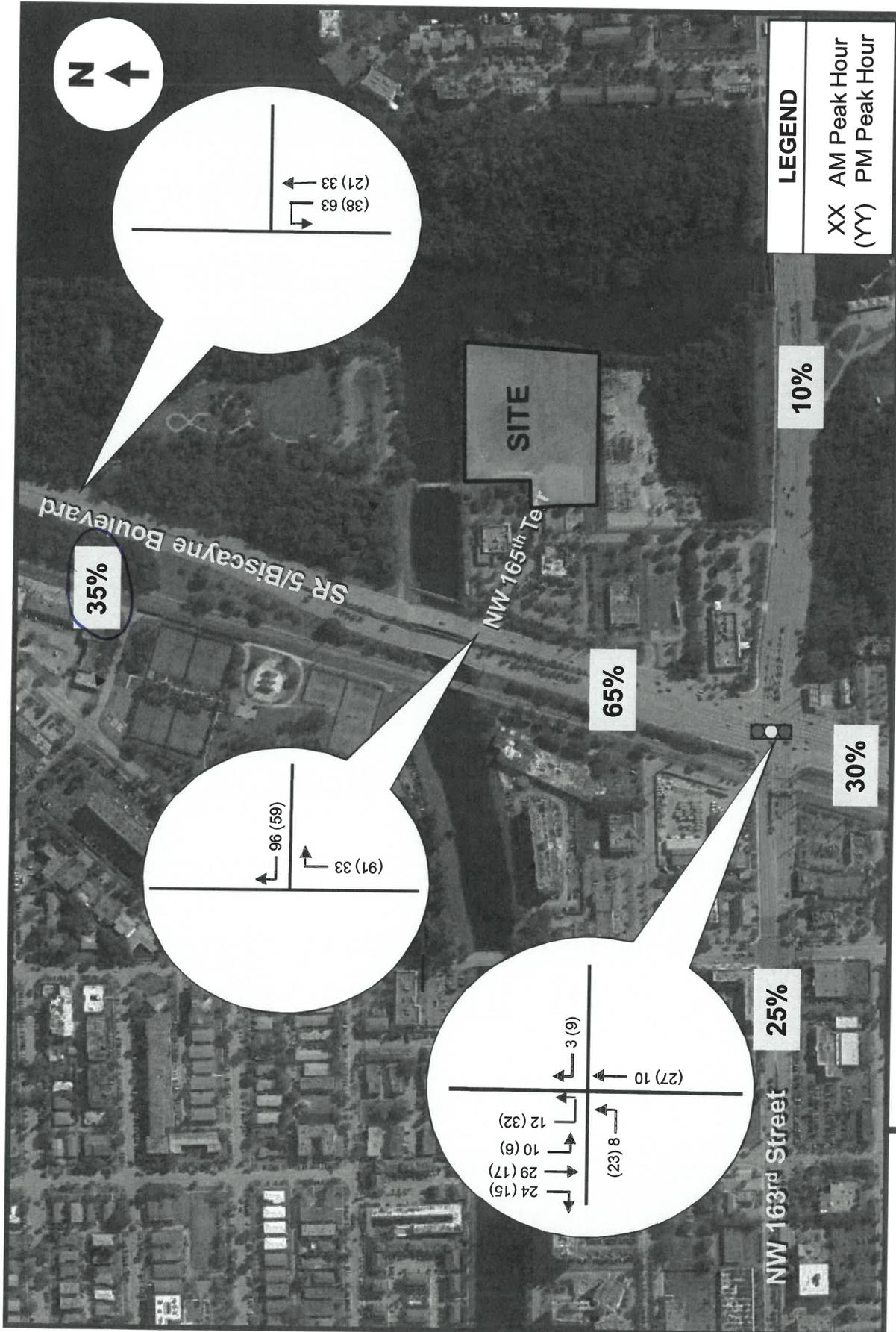


Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed residential development. The results of this effort are documented in Table 1.

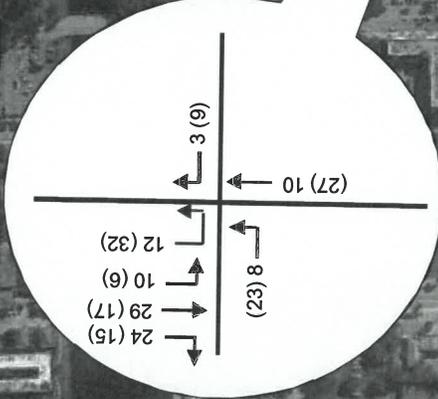
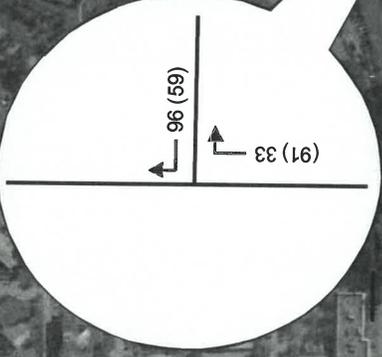
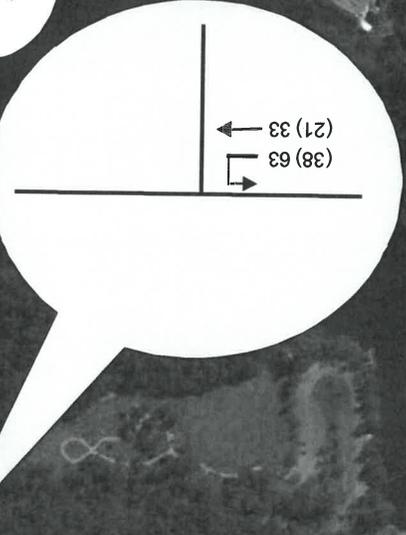
TABLE 1 Trip Generation Summary Harbour Condominium				
Land Use	Size	Number of Trips		
		Daily	AM Peak	PM Peak
Apartments	425 units	1,850	128	148
Marina	12 berths	433	1	2
Total		2,283	129	150

Source: ITE Trip Generation Manual (9th Edition)

As indicated in Table 1, the proposed residential development is anticipated to generate approximately 2,283 new daily trips, approximately 128 new AM peak hour trips (33 inbound and 96 outbound) and approximately 150 new trips (91 inbound and 59 outbound) during the typical afternoon peak hour.



35%



LEGEND	
XX	AM Peak Hour
(YY)	PM Peak Hour

FIGURE 4
Harbour Condominium
North Miami Beach, Florida

PROJECT TRAFFIC ASSIGNMENT

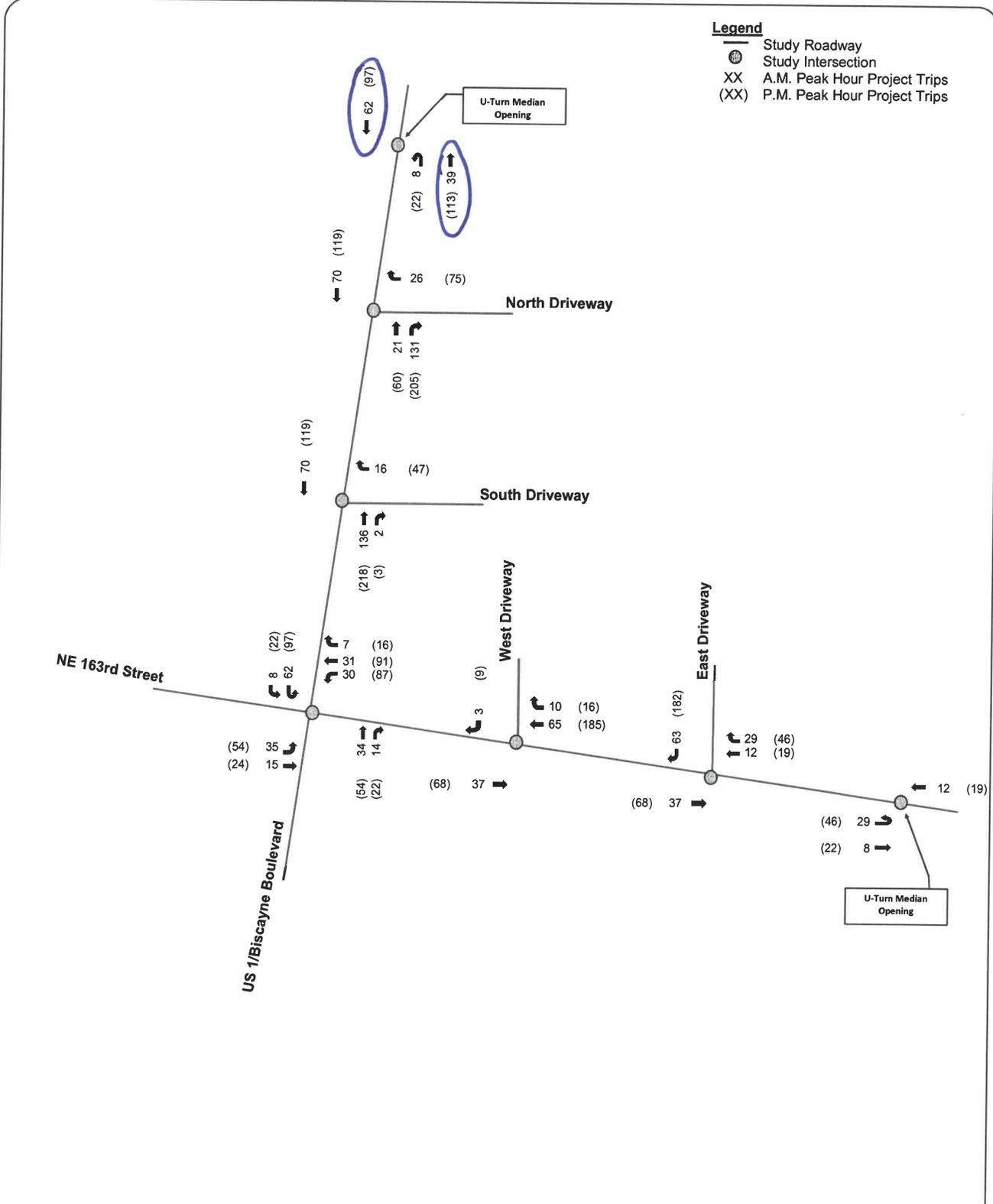


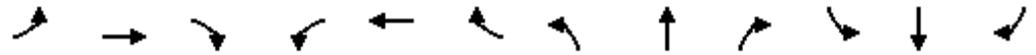
Figure 5
 Project Trip Assignment - Scenario 1
 A.M. and P.M. Peak Hours
 Uptown Biscayne
 North Miami Beach, Florida

APPENDIX E

SYNCHRO ANALYSIS

Lanes, Volumes, Timings
3: Biscayne Boulevard & 172nd Street

06/14/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	452	21	294	35	14	37	135	1675	16	33	2279	260
Future Volume (vph)	452	21	294	35	14	37	135	1675	16	33	2279	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.860			0.891			0.999				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1602	0	1770	1660	0	1770	6401	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.040			0.083		
Satd. Flow (perm)	3433	1602	0	1770	1660	0	75	6401	0	155	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		232			40			1				161
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			560				518
Travel Time (s)		7.2			7.3			12.7				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	491	23	320	38	15	40	147	1821	17	36	2477	283
Shared Lane Traffic (%)												
Lane Group Flow (vph)	491	343	0	38	55	0	147	1838	0	36	2477	283
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	43.0	43.0		26.0	26.0		26.0	96.0		15.0	85.0	85.0
Total Split (%)	23.9%	23.9%		14.4%	14.4%		14.4%	53.3%		8.3%	47.2%	47.2%
Maximum Green (s)	35.5	35.5		18.5	18.5		19.2	88.9		7.2	77.9	77.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	31.9	31.9		9.5	9.5		116.5	104.4		100.1	93.9	93.9
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.65	0.58		0.56	0.52	0.52
v/c Ratio	0.81	0.72		0.41	0.44		0.75	0.50		0.24	0.74	0.31
Control Delay	81.7	30.8		94.6	41.6		68.1	24.1		18.6	36.8	12.4

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/14/2021

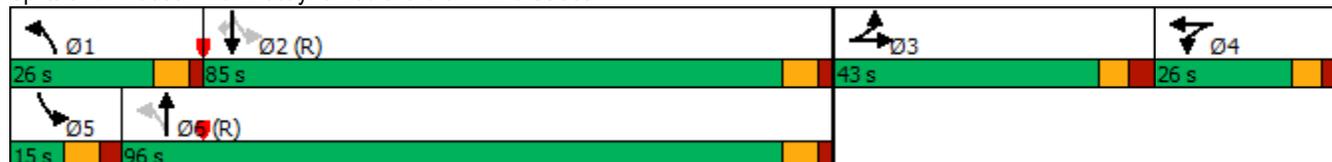


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	53.9	4.1		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	135.7	34.9		94.6	41.6		68.1	24.1		18.6	36.8	12.4
LOS	F	C		F	D		E	C		B	D	B
Approach Delay		94.2			63.3			27.3			34.1	
Approach LOS		F			E			C			C	
Queue Length 50th (ft)	288	126		44	17		120	381		15	663	76
Queue Length 95th (ft)	352	249		88	69		202	452		34	807	165
Internal Link Dist (ft)		238			240			480			438	
Turn Bay Length (ft)												
Base Capacity (vph)	677	502		181	206		235	3712		154	3343	902
Starvation Cap Reductn	244	94		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	1.13	0.84		0.21	0.27		0.63	0.50		0.23	0.74	0.31

Intersection Summary

Area Type:	Other
Cycle Length:	180
Actuated Cycle Length:	180
Offset:	0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	105
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	41.0
Intersection LOS:	D
Intersection Capacity Utilization	87.4%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis
 3: Biscayne Boulevard & 172nd Street

06/14/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	452	21	294	35	14	37	135	1675	16	33	2279	260
Future Volume (vph)	452	21	294	35	14	37	135	1675	16	33	2279	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1602		1770	1660		1770	6399		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.04	1.00		0.08	1.00	1.00
Satd. Flow (perm)	3433	1602		1770	1660		74	6399		154	6408	1583
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)	491	23	320	38	15	40	147	1821	17	36	2477	283
RTOR Reduction (vph)	0	191	0	0	38	0	0	0	0	0	0	77
Lane Group Flow (vph)	491	152	0	38	17	0	147	1838	0	36	2477	206
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	31.9	31.9		9.5	9.5		116.5	102.9		99.8	94.0	94.0
Effective Green, g (s)	31.9	31.9		9.5	9.5		116.5	102.9		99.8	94.0	94.0
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.65	0.57		0.55	0.52	0.52
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	608	283		93	87		195	3658		137	3346	826
v/s Ratio Prot	c0.14	0.09		c0.02	0.01		c0.07	0.29		0.01	0.39	
v/s Ratio Perm							c0.42			0.14		0.13
v/c Ratio	0.81	0.54		0.41	0.20		0.75	0.50		0.26	0.74	0.25
Uniform Delay, d1	71.1	67.3		82.5	81.6		54.2	23.2		19.2	33.5	23.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.8	2.0		2.9	1.1		15.2	0.5		1.0	1.5	0.7
Delay (s)	78.9	69.3		85.4	82.7		69.4	23.7		20.2	35.0	24.3
Level of Service	E	E		F	F		E	C		C	D	C
Approach Delay (s)		74.9			83.8			27.0			33.7	
Approach LOS		E			F			C			C	

Intersection Summary

HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	491	84	0	336	58	10	300	236	73	339	71
Future Volume (vph)	34	491	84	0	336	58	10	300	236	73	339	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.981			0.978			0.934				0.850
Fl _t Protected		0.997					0.950			0.950		
Satd. Flow (prot)	0	1822	0	0	3461	0	1770	1740	0	1770	1863	1583
Fl _t Permitted		0.955					0.464			0.227		
Satd. Flow (perm)	0	1745	0	0	3461	0	864	1740	0	423	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			33			95				77
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	37	534	91	0	365	63	11	326	257	79	368	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	662	0	0	428	0	11	583	0	79	368	77
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0			24.0		36.0	36.0		36.0	36.0	36.0
Total Split (%)	40.0%	40.0%			40.0%		60.0%	60.0%		60.0%	60.0%	60.0%
Maximum Green (s)	18.0	18.0			18.0		30.0	30.0		30.0	30.0	30.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		24.5			24.5		23.5	23.5		23.5	23.5	23.5

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021



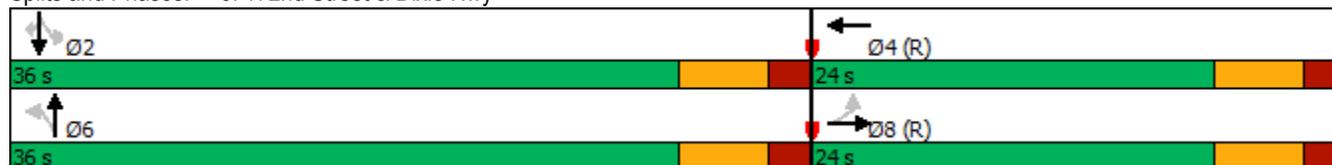
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.41			0.41		0.39	0.39		0.39	0.39	0.39
v/c Ratio		0.92			0.30		0.03	0.79		0.48	0.50	0.12
Control Delay		42.2			13.3		8.7	20.9		22.1	15.3	2.9
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		42.2			13.3		8.7	20.9		22.1	15.3	2.9
LOS		D			B		A	C		C	B	A
Approach Delay		42.2			13.3			20.6			14.5	
Approach LOS		D			B			C			B	
Queue Length 50th (ft)		219			49		2	146		20	95	0
Queue Length 95th (ft)		#492			93		9	212		49	130	16
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		720			1431		432	917		211	931	830
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		0.92			0.30		0.03	0.64		0.37	0.40	0.09

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	24.2
Intersection LOS:	C
Intersection Capacity Utilization:	98.3%
ICU Level of Service:	F
Analysis Period (min):	15

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

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis
6: 172nd Street & Dixie Hwy

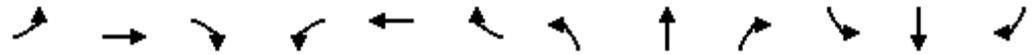
06/14/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	491	84	0	336	58	10	300	236	73	339	71
Future Volume (vph)	34	491	84	0	336	58	10	300	236	73	339	71
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.98			0.98		1.00	0.93		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1823			3461		1770	1740		1770	1863	1583
Flt Permitted		0.96			1.00		0.46	1.00		0.23	1.00	1.00
Satd. Flow (perm)		1747			3461		865	1740		424	1863	1583
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)	37	534	91	0	365	63	11	326	257	79	368	77
RTOR Reduction (vph)	0	8	0	0	20	0	0	58	0	0	0	47
Lane Group Flow (vph)	0	654	0	0	408	0	11	525	0	79	368	30
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		24.5			24.5		23.5	23.5		23.5	23.5	23.5
Effective Green, g (s)		24.5			24.5		23.5	23.5		23.5	23.5	23.5
Actuated g/C Ratio		0.41			0.41		0.39	0.39		0.39	0.39	0.39
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		713			1413		338	681		166	729	620
v/s Ratio Prot					0.12			c0.30			0.20	
v/s Ratio Perm		c0.37					0.01			0.19		0.02
v/c Ratio		0.92			0.29		0.03	0.77		0.48	0.50	0.05
Uniform Delay, d1		16.8			11.9		11.2	15.9		13.6	13.8	11.3
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		18.6			0.5		0.0	5.4		2.1	0.6	0.0
Delay (s)		35.4			12.4		11.3	21.3		15.8	14.4	11.4
Level of Service		D			B		B	C		B	B	B
Approach Delay (s)		35.4			12.4			21.1			14.2	
Approach LOS		D			B			C			B	
Intersection Summary												
HCM 2000 Control Delay			22.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			98.3%				ICU Level of Service			F		
Analysis Period (min)			15									

c Critical Lane Group

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

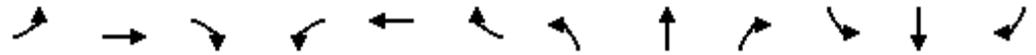
06/16/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	21	317	35	14	37	159	1799	17	35	2405	289
Future Volume (vph)	478	21	317	35	14	37	159	1799	17	35	2405	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.859			0.891			0.999				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1600	0	1770	1660	0	1770	6401	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.041			0.069		
Satd. Flow (perm)	3433	1600	0	1770	1660	0	76	6401	0	129	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		232			40			1				161
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			560				518
Travel Time (s)		7.2			7.3			12.7				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	520	23	345	38	15	40	173	1955	18	38	2614	314
Shared Lane Traffic (%)												
Lane Group Flow (vph)	520	368	0	38	55	0	173	1973	0	38	2614	314
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	43.0	43.0		26.0	26.0		26.0	96.0		15.0	85.0	85.0
Total Split (%)	23.9%	23.9%		14.4%	14.4%		14.4%	53.3%		8.3%	47.2%	47.2%
Maximum Green (s)	35.5	35.5		18.5	18.5		19.2	88.9		7.2	77.9	77.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	33.1	33.1		9.5	9.5		115.6	103.2		96.2	90.0	90.0
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.64	0.57		0.53	0.50	0.50
v/c Ratio	0.82	0.76		0.41	0.44		0.78	0.54		0.29	0.82	0.36
Control Delay	82.3	35.8		94.6	41.6		72.5	25.5		21.2	41.8	15.2

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/16/2021

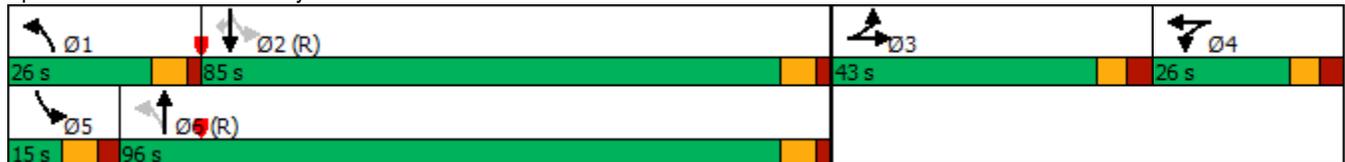


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	53.7	8.1		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	136.0	43.9		94.6	41.6		72.5	25.5		21.2	41.8	15.2
LOS	F	D		F	D		E	C		C	D	B
Approach Delay		97.8			63.3			29.3			38.7	
Approach LOS		F			E			C			D	
Queue Length 50th (ft)	305	158		44	17		151	431		16	764	105
Queue Length 95th (ft)	374	291		88	69		240	498		35	900	205
Internal Link Dist (ft)		238			240			480			438	
Turn Bay Length (ft)												
Base Capacity (vph)	677	501		181	206		244	3670		137	3203	871
Starvation Cap Reductn	257	98		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	1.24	0.91		0.21	0.27		0.71	0.54		0.28	0.82	0.36

Intersection Summary

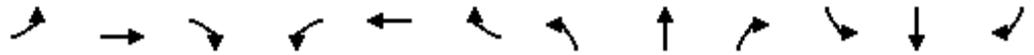
Area Type:	Other
Cycle Length:	180
Actuated Cycle Length:	180
Offset:	0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	115
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	44.4
Intersection LOS:	D
Intersection Capacity Utilization	90.6%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis
 3: Biscayne Boulevard & 172nd Street

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	21	317	35	14	37	159	1799	17	35	2405	289
Future Volume (vph)	478	21	317	35	14	37	159	1799	17	35	2405	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1601		1770	1660		1770	6399		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.04	1.00		0.07	1.00	1.00
Satd. Flow (perm)	3433	1601		1770	1660		77	6399		129	6408	1583
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)	520	23	345	38	15	40	173	1955	18	38	2614	314
RTOR Reduction (vph)	0	189	0	0	38	0	0	0	0	0	0	81
Lane Group Flow (vph)	520	179	0	38	17	0	173	1973	0	38	2614	234
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	33.1	33.1		9.5	9.5		115.3	101.7		95.8	90.0	90.0
Effective Green, g (s)	33.1	33.1		9.5	9.5		115.3	101.7		95.8	90.0	90.0
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.64	0.57		0.53	0.50	0.50
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	631	294		93	87		223	3615		121	3204	791
v/s Ratio Prot	c0.15	0.11		c0.02	0.01		c0.08	0.31		0.01	c0.41	
v/s Ratio Perm							0.42			0.16		0.15
v/c Ratio	0.82	0.61		0.41	0.20		0.78	0.55		0.31	0.82	0.30
Uniform Delay, d1	70.6	67.5		82.5	81.6		57.4	24.6		21.3	38.0	26.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.6	3.5		2.9	1.1		15.5	0.6		1.5	2.4	1.0
Delay (s)	79.2	71.0		85.4	82.7		72.9	25.2		22.8	40.4	27.3
Level of Service	E	E		F	F		E	C		C	D	C
Approach Delay (s)		75.8			83.8			29.1			38.8	
Approach LOS		E			F			C			D	

Intersection Summary

HCM 2000 Control Delay	41.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

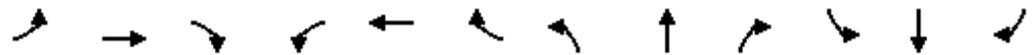
06/16/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (vph)	35	516	114	0	387	59	10	343	260	75	400	72
Future Volume (vph)	35	516	114	0	387	59	10	343	260	75	400	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.977			0.980			0.935				0.850
Fl _t Protected		0.997					0.950			0.950		
Satd. Flow (prot)	0	1814	0	0	3468	0	1770	1742	0	1770	1863	1583
Fl _t Permitted		0.955					0.354			0.190		
Satd. Flow (perm)	0	1738	0	0	3468	0	659	1742	0	354	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			37			70				78
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	38	561	124	0	421	64	11	373	283	82	435	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	723	0	0	485	0	11	656	0	82	435	78
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	33.0	33.0			33.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%		45.0%	45.0%	45.0%
Maximum Green (s)	27.0	27.0			27.0		21.0	21.0		21.0	21.0	21.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/16/2021

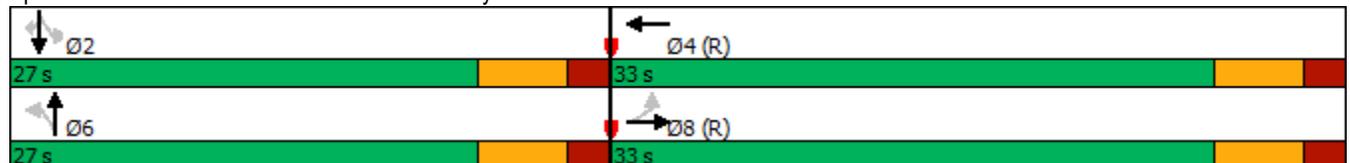


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.45			0.45		0.35	0.35		0.35	0.35	0.35
v/c Ratio		0.91			0.31		0.05	1.00		0.67	0.67	0.13
Control Delay		34.0			10.3		13.7	56.7		48.0	22.6	4.6
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.0			10.3		13.7	56.7		48.0	22.6	4.6
LOS		C			B		B	E		D	C	A
Approach Delay		34.0			10.3			56.0			23.7	
Approach LOS		C			B			E			C	
Queue Length 50th (ft)		223			51		3	~212		24	130	0
Queue Length 95th (ft)		#436			79		12	#420		#90	219	23
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		794			1580		230	655		123	652	604
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		0.91			0.31		0.05	1.00		0.67	0.67	0.13

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 32.8
 Intersection LOS: C
 Intersection Capacity Utilization 106.7%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis

6: 172nd Street & Dixie Hwy

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (vph)	35	516	114	0	387	59	10	343	260	75	400	72
Future Volume (vph)	35	516	114	0	387	59	10	343	260	75	400	72
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.98			0.98		1.00	0.94		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1815			3469		1770	1742		1770	1863	1583
Flt Permitted		0.95			1.00		0.35	1.00		0.19	1.00	1.00
Satd. Flow (perm)		1737			3469		659	1742		355	1863	1583
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)	38	561	124	0	421	64	11	373	283	82	435	78
RTOR Reduction (vph)	0	13	0	0	20	0	0	46	0	0	0	51
Lane Group Flow (vph)	0	710	0	0	465	0	11	611	0	82	435	27
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0
Effective Green, g (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.45			0.45		0.35	0.35		0.35	0.35	0.35
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		781			1561		230	609		124	652	554
v/s Ratio Prot					0.13			c0.35			0.23	
v/s Ratio Perm		c0.41					0.02			0.23		0.02
v/c Ratio		0.91			0.30		0.05	1.00		0.66	0.67	0.05
Uniform Delay, d1		15.4			10.5		12.9	19.5		16.5	16.5	12.9
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		16.5			0.5		0.1	37.1		12.5	2.6	0.0
Delay (s)		31.9			11.0		13.0	56.6		29.0	19.1	12.9
Level of Service		C			B		B	E		C	B	B
Approach Delay (s)		31.9			11.0			55.9			19.7	
Approach LOS		C			B			E			B	

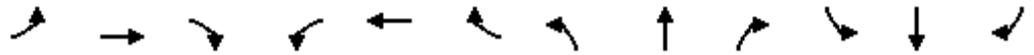
Intersection Summary

HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
3: Biscayne Boulevard & 172nd Street

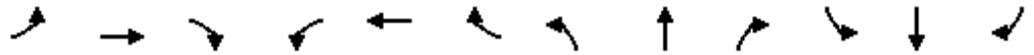
06/14/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	21	318	36	14	38	161	1801	17	35	2406	289
Future Volume (vph)	478	21	318	36	14	38	161	1801	17	35	2406	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.859			0.890			0.999				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1600	0	1770	1658	0	1770	6401	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.041			0.069		
Satd. Flow (perm)	3433	1600	0	1770	1658	0	76	6401	0	129	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		231			41			1				161
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			300				518
Travel Time (s)		7.2			7.3			6.8				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	520	23	346	39	15	41	175	1958	18	38	2615	314
Shared Lane Traffic (%)												
Lane Group Flow (vph)	520	369	0	39	56	0	175	1976	0	38	2615	314
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	43.0	43.0		26.0	26.0		26.0	96.0		15.0	85.0	85.0
Total Split (%)	23.9%	23.9%		14.4%	14.4%		14.4%	53.3%		8.3%	47.2%	47.2%
Maximum Green (s)	35.5	35.5		18.5	18.5		19.2	88.9		7.2	77.9	77.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	33.1	33.1		9.6	9.6		115.5	103.1		95.9	89.7	89.7
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.64	0.57		0.53	0.50	0.50
v/c Ratio	0.82	0.77		0.41	0.44		0.78	0.54		0.29	0.82	0.36
Control Delay	82.3	36.4		94.7	41.3		73.0	25.6		21.3	42.1	15.3

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/14/2021

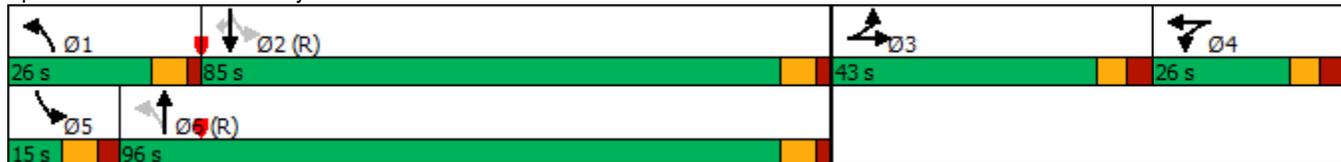


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	53.7	8.5		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	136.0	44.9		94.7	41.3		73.0	25.6		21.3	42.1	15.3
LOS	F	D		F	D		E	C		C	D	B
Approach Delay		98.2			63.2			29.5			39.0	
Approach LOS		F			E			C			D	
Queue Length 50th (ft)	305	161		46	17		153	432		17	768	106
Queue Length 95th (ft)	374	294		90	68		243	500		36	900	205
Internal Link Dist (ft)		238			240			220			438	
Turn Bay Length (ft)												
Base Capacity (vph)	677	500		181	207		245	3667		137	3193	869
Starvation Cap Reductn	257	98		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	1.24	0.92		0.22	0.27		0.71	0.54		0.28	0.82	0.36

Intersection Summary

Area Type:	Other
Cycle Length:	180
Actuated Cycle Length:	180
Offset:	0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	115
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	44.6
Intersection LOS:	D
Intersection Capacity Utilization	91.5%
ICU Level of Service	F
Analysis Period (min)	15

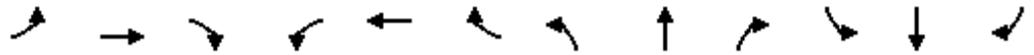
Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis

3: Biscayne Boulevard & 172nd Street

06/14/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	21	318	36	14	38	161	1801	17	35	2406	289
Future Volume (vph)	478	21	318	36	14	38	161	1801	17	35	2406	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.89		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1601		1770	1658		1770	6399		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.04	1.00		0.07	1.00	1.00
Satd. Flow (perm)	3433	1601		1770	1658		77	6399		128	6408	1583
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)	520	23	346	39	15	41	175	1958	18	38	2615	314
RTOR Reduction (vph)	0	189	0	0	39	0	0	0	0	0	0	81
Lane Group Flow (vph)	520	180	0	39	17	0	175	1976	0	38	2615	233
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	33.1	33.1		9.6	9.6		115.2	101.6		95.5	89.7	89.7
Effective Green, g (s)	33.1	33.1		9.6	9.6		115.2	101.6		95.5	89.7	89.7
Actuated g/C Ratio	0.18	0.18		0.05	0.05		0.64	0.56		0.53	0.50	0.50
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	631	294		94	88		225	3611		120	3193	788
v/s Ratio Prot	c0.15	0.11		c0.02	0.01		c0.08	0.31		0.01	c0.41	
v/s Ratio Perm							0.42			0.16		0.15
v/c Ratio	0.82	0.61		0.41	0.20		0.78	0.55		0.32	0.82	0.30
Uniform Delay, d1	70.6	67.6		82.5	81.5		57.6	24.7		21.4	38.3	26.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.6	3.8		3.0	1.1		15.5	0.6		1.5	2.5	1.0
Delay (s)	79.2	71.3		85.4	82.6		73.1	25.3		22.9	40.7	27.5
Level of Service	E	E		F	F		E	C		C	D	C
Approach Delay (s)		76.0			83.8			29.2			39.1	
Approach LOS		E			F			C			D	

Intersection Summary

HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

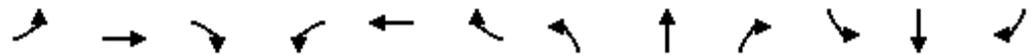
Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	517	114	0	388	59	10	343	260	75	400	72
Future Volume (vph)	35	517	114	0	388	59	10	343	260	75	400	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.977			0.980			0.935				0.850
Fl _t Protected		0.997					0.950			0.950		
Satd. Flow (prot)	0	1814	0	0	3468	0	1770	1742	0	1770	1863	1583
Fl _t Permitted		0.955					0.354			0.190		
Satd. Flow (perm)	0	1738	0	0	3468	0	659	1742	0	354	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			36			70				78
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	38	562	124	0	422	64	11	373	283	82	435	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	724	0	0	486	0	11	656	0	82	435	78
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	33.0	33.0			33.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%		45.0%	45.0%	45.0%
Maximum Green (s)	27.0	27.0			27.0		21.0	21.0		21.0	21.0	21.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021

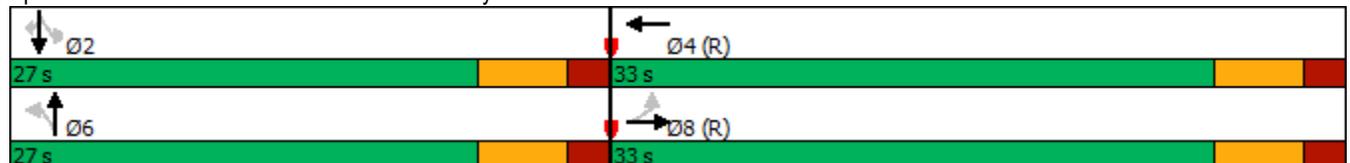


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.45			0.45		0.35	0.35		0.35	0.35	0.35
v/c Ratio		0.91			0.31		0.05	1.00		0.67	0.67	0.13
Control Delay		34.2			10.3		13.7	56.7		48.0	22.6	4.6
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.2			10.3		13.7	56.7		48.0	22.6	4.6
LOS		C			B		B	E		D	C	A
Approach Delay		34.2			10.3			56.0			23.7	
Approach LOS		C			B			E			C	
Queue Length 50th (ft)		224			51		3	~212		24	130	0
Queue Length 95th (ft)		#437			79		12	#420		#90	219	23
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		794			1580		230	655		123	652	604
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		0.91			0.31		0.05	1.00		0.67	0.67	0.13

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 32.9 Intersection LOS: C
 Intersection Capacity Utilization 106.8% ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis

6: 172nd Street & Dixie Hwy

06/14/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	517	114	0	388	59	10	343	260	75	400	72
Future Volume (vph)	35	517	114	0	388	59	10	343	260	75	400	72
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.98			0.98		1.00	0.94		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1815			3469		1770	1742		1770	1863	1583
Flt Permitted		0.95			1.00		0.35	1.00		0.19	1.00	1.00
Satd. Flow (perm)		1737			3469		659	1742		355	1863	1583
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)	38	562	124	0	422	64	11	373	283	82	435	78
RTOR Reduction (vph)	0	13	0	0	20	0	0	46	0	0	0	51
Lane Group Flow (vph)	0	711	0	0	466	0	11	611	0	82	435	27
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0
Effective Green, g (s)		27.0			27.0		21.0	21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.45			0.45		0.35	0.35		0.35	0.35	0.35
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		781			1561		230	609		124	652	554
v/s Ratio Prot					0.13			c0.35			0.23	
v/s Ratio Perm		c0.41					0.02			0.23		0.02
v/c Ratio		0.91			0.30		0.05	1.00		0.66	0.67	0.05
Uniform Delay, d1		15.4			10.5		12.9	19.5		16.5	16.5	12.9
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		16.6			0.5		0.1	37.1		12.5	2.6	0.0
Delay (s)		32.0			11.0		13.0	56.6		29.0	19.1	12.9
Level of Service		C			B		B	E		C	B	B
Approach Delay (s)		32.0			11.0			55.9			19.7	
Approach LOS		C			B			E			B	
Intersection Summary												
HCM 2000 Control Delay			31.3				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			106.8%				ICU Level of Service			G		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
 9: Biscayne Boulevard & Site Driveway

06/14/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	4	0	1979	2755	5
Future Volume (vph)	0	4	0	1979	2755	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86
Fr _t	0.865					
Fl _t Protected						
Satd. Flow (prot)	0	1611	0	6408	6408	0
Fl _t Permitted						
Satd. Flow (perm)	0	1611	0	6408	6408	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	168			279	300	
Travel Time (s)	3.8			6.3	6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	0	2151	2995	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	2151	3000	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.0%
Analysis Period (min)	15
	ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis

9: Biscayne Boulevard & Site Driveway

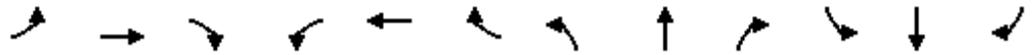
06/14/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations		↗		↑↑↑	↑↑↑					
Traffic Volume (veh/h)	0	4	0	1979	2755	5				
Future Volume (Veh/h)	0	4	0	1979	2755	5				
Sign Control	Stop			Free		Free				
Grade	0%			0%	0%					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Hourly flow rate (vph)	0	4	0	2151	2995	5				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type				None	None					
Median storage (veh)										
Upstream signal (ft)					300					
pX, platoon unblocked	0.65	0.65	0.65							
vC, conflicting volume	3535	751	3000							
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	2230	0	1411							
tC, single (s)	6.8	6.9	4.1							
tC, 2 stage (s)										
tF (s)	3.5	3.3	2.2							
p0 queue free %	100	99	100							
cM capacity (veh/h)	24	709	313							
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4	
Volume Total	4	538	538	538	538	856	856	856	433	
Volume Left	0	0	0	0	0	0	0	0	0	
Volume Right	4	0	0	0	0	0	0	0	5	
cSH	709	1700	1700	1700	1700	1700	1700	1700	1700	
Volume to Capacity	0.01	0.32	0.32	0.32	0.32	0.50	0.50	0.50	0.25	
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	0	
Control Delay (s)	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS	B									
Approach Delay (s)	10.1	0.0					0.0			
Approach LOS	B									
Intersection Summary										
Average Delay	0.0									
Intersection Capacity Utilization	50.0%			ICU Level of Service				A		
Analysis Period (min)	15									

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

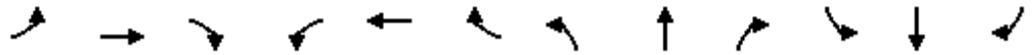
06/14/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	341	7	151	11	34	38	266	2319	26	39	2275	415
Future Volume (vph)	341	7	151	11	34	38	266	2319	26	39	2275	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.857			0.921			0.998				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1596	0	1770	1716	0	1770	6395	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.043			0.046		
Satd. Flow (perm)	3433	1596	0	1770	1716	0	80	6395	0	86	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164			24			2				230
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			560				518
Travel Time (s)		7.2			7.3			12.7				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	371	8	164	12	37	41	289	2521	28	42	2473	451
Shared Lane Traffic (%)												
Lane Group Flow (vph)	371	172	0	12	78	0	289	2549	0	42	2473	451
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	37.0	37.0		23.0	23.0		41.0	102.0		18.0	79.0	79.0
Total Split (%)	20.6%	20.6%		12.8%	12.8%		22.8%	56.7%		10.0%	43.9%	43.9%
Maximum Green (s)	29.5	29.5		15.5	15.5		34.2	94.9		10.2	71.9	71.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	24.8	24.8		11.2	11.2		122.2	109.7		92.8	86.4	86.4
Actuated g/C Ratio	0.14	0.14		0.06	0.06		0.68	0.61		0.52	0.48	0.48
v/c Ratio	0.78	0.48		0.11	0.61		0.89	0.65		0.38	0.80	0.51
Control Delay	86.9	14.5		79.8	75.6		85.7	25.5		34.0	43.6	18.7

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/14/2021

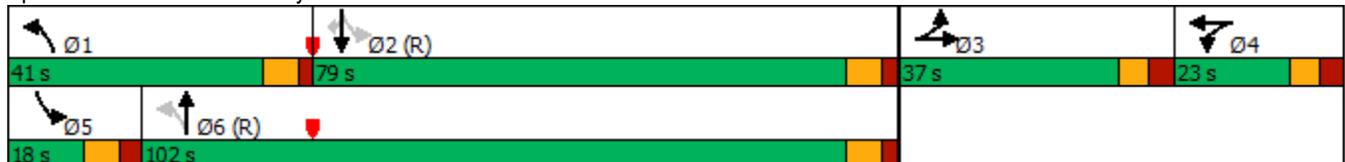


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	5.2	0.5		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	92.1	15.0		79.8	75.6		85.7	25.5		34.0	43.6	18.7
LOS	F	B		E	E		F	C		C	D	B
Approach Delay		67.7			76.2			31.6			39.7	
Approach LOS		E			E			C			D	
Queue Length 50th (ft)	221	8		14	63		285	576		16	724	178
Queue Length 95th (ft)	276	83		37	124		#406	702		51	876	328
Internal Link Dist (ft)		238			240			480			438	
Turn Bay Length (ft)												
Base Capacity (vph)	562	398		152	169		375	3897		141	3076	879
Starvation Cap Reductn	132	50		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.86	0.49		0.08	0.46		0.77	0.65		0.30	0.80	0.51

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 39.0
 Intersection LOS: D
 Intersection Capacity Utilization 81.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis

3: Biscayne Boulevard & 172nd Street

06/14/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	341	7	151	11	34	38	266	2319	26	39	2275	415
Future Volume (vph)	341	7	151	11	34	38	266	2319	26	39	2275	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1596		1770	1716		1770	6397		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.04	1.00		0.05	1.00	1.00
Satd. Flow (perm)	3433	1596		1770	1716		80	6397		86	6408	1583
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)	371	8	164	12	37	41	289	2521	28	42	2473	451
RTOR Reduction (vph)	0	141	0	0	23	0	0	1	0	0	0	120
Lane Group Flow (vph)	371	31	0	12	55	0	289	2548	0	42	2473	331
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	24.8	24.8		11.2	11.2		121.9	108.1		92.4	86.4	86.4
Effective Green, g (s)	24.8	24.8		11.2	11.2		121.9	108.1		92.4	86.4	86.4
Actuated g/C Ratio	0.14	0.14		0.06	0.06		0.68	0.60		0.51	0.48	0.48
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	472	219		110	106		323	3841		100	3075	759
v/s Ratio Prot	c0.11	0.02		0.01	c0.03		c0.14	0.40		0.01	0.39	
v/s Ratio Perm							c0.46			0.20		0.21
v/c Ratio	0.79	0.14		0.11	0.52		0.89	0.66		0.42	0.80	0.44
Uniform Delay, d1	75.0	68.2		79.7	81.8		61.6	23.9		23.9	39.6	30.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.4	0.3		0.4	4.6		25.4	0.9		2.8	2.3	1.8
Delay (s)	83.4	68.5		80.1	86.4		87.0	24.8		26.7	42.0	32.6
Level of Service	F	E		F	F		F	C		C	D	C
Approach Delay (s)		78.7			85.6			31.1			40.3	
Approach LOS		E			F			C			D	

Intersection Summary

HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	212	157	0	585	134	26	322	201	90	421	114
Future Volume (vph)	39	212	157	0	585	134	26	322	201	90	421	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.948			0.972			0.942				0.850
Fl _t Protected		0.995					0.950			0.950		
Satd. Flow (prot)	0	1757	0	0	3440	0	1770	1755	0	1770	1863	1583
Fl _t Permitted		0.875					0.358			0.238		
Satd. Flow (perm)	0	1545	0	0	3440	0	667	1755	0	443	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			48			72				75
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	42	230	171	0	636	146	28	350	218	98	458	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	782	0	28	568	0	98	458	124
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	25.0	25.0			25.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.7%	41.7%			41.7%		58.3%	58.3%		58.3%	58.3%	58.3%
Maximum Green (s)	19.0	19.0			19.0		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		24.8			24.8		23.2	23.2		23.2	23.2	23.2

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/14/2021



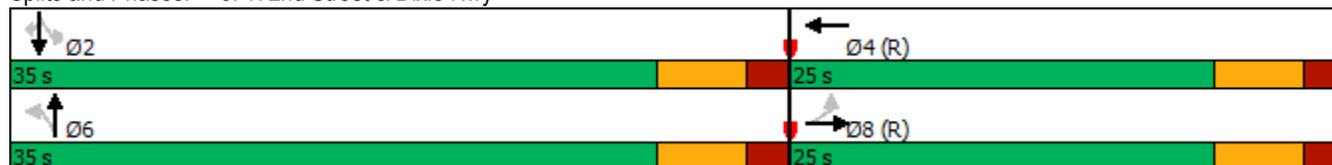
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.41			0.41		0.39	0.39		0.39	0.39	0.39
v/c Ratio		0.66			0.54		0.11	0.79		0.57	0.64	0.19
Control Delay		21.5			15.5		10.6	21.9		27.1	18.5	5.3
Queue Delay		0.0			0.2		0.0	0.0		0.0	0.0	0.0
Total Delay		21.5			15.7		10.6	21.9		27.1	18.5	5.3
LOS		C			B		B	C		C	B	A
Approach Delay		21.5			15.7			21.4			17.3	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)		110			103		6	149		26	127	11
Queue Length 95th (ft)		#281			176		17	219		64	177	32
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		671			1452		322	885		214	900	803
Starvation Cap Reductn		0			156		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		0.66			0.60		0.09	0.64		0.46	0.51	0.15

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	18.5
Intersection LOS:	B
Intersection Capacity Utilization:	97.5%
ICU Level of Service:	F
Analysis Period (min):	15

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

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis

6: 172nd Street & Dixie Hwy

06/14/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (vph)	39	212	157	0	585	134	26	322	201	90	421	114
Future Volume (vph)	39	212	157	0	585	134	26	322	201	90	421	114
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.95			0.97		1.00	0.94		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1757			3440		1770	1756		1770	1863	1583
Flt Permitted		0.87			1.00		0.36	1.00		0.24	1.00	1.00
Satd. Flow (perm)		1545			3440		667	1756		443	1863	1583
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)	42	230	171	0	636	146	28	350	218	98	458	124
RTOR Reduction (vph)	0	32	0	0	28	0	0	44	0	0	0	46
Lane Group Flow (vph)	0	411	0	0	754	0	28	524	0	98	458	78
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		24.8			24.8		23.2	23.2		23.2	23.2	23.2
Effective Green, g (s)		24.8			24.8		23.2	23.2		23.2	23.2	23.2
Actuated g/C Ratio		0.41			0.41		0.39	0.39		0.39	0.39	0.39
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		638			1421		257	678		171	720	612
v/s Ratio Prot					0.22			c0.30			0.25	
v/s Ratio Perm		c0.27					0.04			0.22		0.05
v/c Ratio		0.64			0.53		0.11	0.77		0.57	0.64	0.13
Uniform Delay, d1		14.1			13.2		11.8	16.1		14.5	15.0	11.9
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		4.9			1.4		0.2	5.5		4.6	1.8	0.1
Delay (s)		19.0			14.6		12.0	21.6		19.1	16.8	12.0
Level of Service		B			B		B	C		B	B	B
Approach Delay (s)		19.0			14.6			21.1			16.3	
Approach LOS		B			B			C			B	

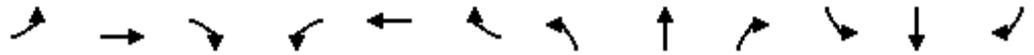
Intersection Summary

HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

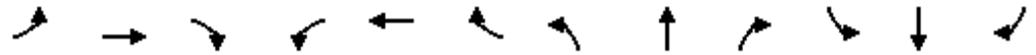
06/16/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	7	183	11	35	39	299	2515	27	62	2467	451
Future Volume (vph)	386	7	183	11	35	39	299	2515	27	62	2467	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.856			0.921			0.998				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1595	0	1770	1716	0	1770	6395	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.046			0.050		
Satd. Flow (perm)	3433	1595	0	1770	1716	0	86	6395	0	93	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		199			24			2				214
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			560				518
Travel Time (s)		7.2			7.3			12.7				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	420	8	199	12	38	42	325	2734	29	67	2682	490
Shared Lane Traffic (%)												
Lane Group Flow (vph)	420	207	0	12	80	0	325	2763	0	67	2682	490
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	37.0	37.0		23.0	23.0		49.0	102.0		18.0	71.0	71.0
Total Split (%)	20.6%	20.6%		12.8%	12.8%		27.2%	56.7%		10.0%	39.4%	39.4%
Maximum Green (s)	29.5	29.5		15.5	15.5		42.2	94.9		10.2	63.9	63.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	26.8	26.8		11.3	11.3		120.2	103.9		87.8	80.4	80.4
Actuated g/C Ratio	0.15	0.15		0.06	0.06		0.67	0.58		0.49	0.45	0.45
v/c Ratio	0.82	0.51		0.11	0.62		0.90	0.75		0.56	0.94	0.59
Control Delay	88.2	13.5		79.7	76.9		83.3	30.9		52.8	54.2	25.5

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/16/2021

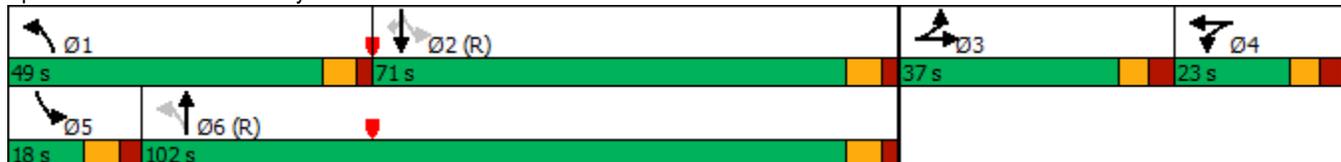


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	32.7	0.7		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	120.8	14.2		79.7	76.9		83.3	30.9		52.8	54.2	25.5
LOS	F	B		E	E		F	C		D	D	C
Approach Delay		85.6			77.3			36.4			49.8	
Approach LOS		F			E			D			D	
Queue Length 50th (ft)	250	8		14	65		327	698		28	885	251
Queue Length 95th (ft)	312	91		37	126		436	813		95	#1151	441
Internal Link Dist (ft)		238			240			480			438	
Turn Bay Length (ft)												
Base Capacity (vph)	562	427		152	169		451	3693		141	2862	825
Starvation Cap Reductn	158	62		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	1.04	0.57		0.08	0.47		0.72	0.75		0.48	0.94	0.59

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 47.5
 Intersection LOS: D
 Intersection Capacity Utilization 87.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

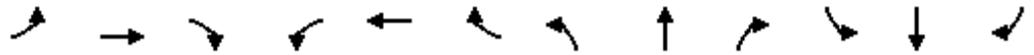
Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis

3: Biscayne Boulevard & 172nd Street

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	7	183	11	35	39	299	2515	27	62	2467	451
Future Volume (vph)	386	7	183	11	35	39	299	2515	27	62	2467	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1594		1770	1716		1770	6398		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.05	1.00		0.05	1.00	1.00
Satd. Flow (perm)	3433	1594		1770	1716		86	6398		93	6408	1583
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)	420	8	199	12	38	42	325	2734	29	67	2682	490
RTOR Reduction (vph)	0	169	0	0	22	0	0	1	0	0	0	119
Lane Group Flow (vph)	420	38	0	12	58	0	325	2762	0	67	2682	371
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	26.8	26.8		11.3	11.3		119.8	103.9		88.4	80.3	80.3
Effective Green, g (s)	26.8	26.8		11.3	11.3		119.8	103.9		88.4	80.3	80.3
Actuated g/C Ratio	0.15	0.15		0.06	0.06		0.67	0.58		0.49	0.45	0.45
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	511	237		111	107		363	3693		121	2858	706
v/s Ratio Prot	c0.12	0.02		0.01	c0.03		c0.16	0.43		0.02	c0.42	
v/s Ratio Perm							0.44			0.25		0.23
v/c Ratio	0.82	0.16		0.11	0.54		0.90	0.75		0.55	0.94	0.53
Uniform Delay, d1	74.3	66.8		79.6	81.8		61.6	28.3		28.9	47.5	36.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.3	0.3		0.4	5.1		23.4	1.4		5.4	7.5	2.8
Delay (s)	84.5	67.1		80.0	86.9		84.9	29.7		34.3	55.0	38.9
Level of Service	F	E		F	F		F	C		C	E	D
Approach Delay (s)		78.8			86.0			35.5			52.2	
Approach LOS		E			F			D			D	

Intersection Summary

HCM 2000 Control Delay	47.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/16/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	246	185	0	652	137	27	400	243	91	477	116
Future Volume (vph)	40	246	185	0	652	137	27	400	243	91	477	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.947			0.974			0.943				0.850
Fl _t Protected		0.996					0.950			0.950		
Satd. Flow (prot)	0	1757	0	0	3447	0	1770	1757	0	1770	1863	1583
Fl _t Permitted		0.792					0.335			0.166		
Satd. Flow (perm)	0	1397	0	0	3447	0	624	1757	0	309	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			43			70				55
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	43	267	201	0	709	149	29	435	264	99	518	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	858	0	29	699	0	99	518	126
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	25.0	25.0			25.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.7%	41.7%			41.7%		58.3%	58.3%		58.3%	58.3%	58.3%
Maximum Green (s)	19.0	19.0			19.0		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

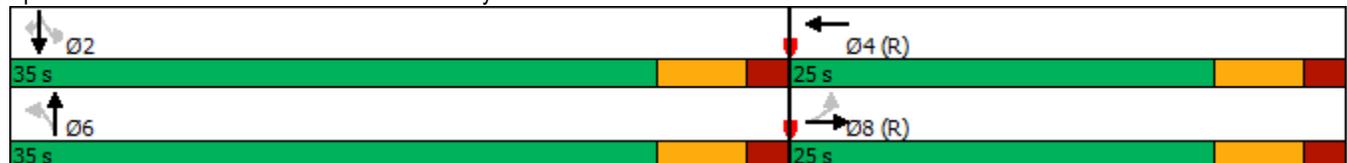
06/16/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.36			0.36		0.44	0.44		0.44	0.44	0.44
v/c Ratio		0.94			0.67		0.11	0.86		0.73	0.63	0.17
Control Delay		49.9			19.6		9.7	26.1		48.0	16.6	6.1
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		49.9			19.7		9.7	26.1		48.0	16.6	6.1
LOS		D			B		A	C		D	B	A
Approach Delay		49.9			19.7			25.4			19.0	
Approach LOS		D			B			C			B	
Queue Length 50th (ft)		~193			136		5	178		26	126	13
Queue Length 95th (ft)		#363			199		18	#367		#100	207	37
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		541			1274		301	885		149	900	793
Starvation Cap Reductn		0			14		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		0.94			0.68		0.10	0.79		0.66	0.58	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 26.4 Intersection LOS: C
 Intersection Capacity Utilization 109.8% ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis
6: 172nd Street & Dixie Hwy

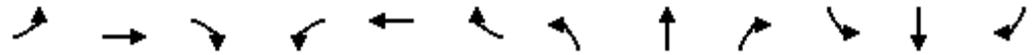
06/16/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	246	185	0	652	137	27	400	243	91	477	116
Future Volume (vph)	40	246	185	0	652	137	27	400	243	91	477	116
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.95			0.97		1.00	0.94		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1756			3447		1770	1757		1770	1863	1583
Flt Permitted		0.79			1.00		0.34	1.00		0.17	1.00	1.00
Satd. Flow (perm)		1396			3447		625	1757		308	1863	1583
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)	43	267	201	0	709	149	29	435	264	99	518	126
RTOR Reduction (vph)	0	36	0	0	27	0	0	39	0	0	0	31
Lane Group Flow (vph)	0	475	0	0	831	0	29	660	0	99	518	95
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3
Effective Green, g (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3
Actuated g/C Ratio		0.36			0.36		0.44	0.44		0.44	0.44	0.44
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		504			1246		273	770		135	816	693
v/s Ratio Prot					0.24			c0.38			0.28	
v/s Ratio Perm		c0.34					0.05			0.32		0.06
v/c Ratio		0.94			0.67		0.11	0.86		0.73	0.63	0.14
Uniform Delay, d1		18.5			16.1		9.9	15.2		13.9	13.1	10.1
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		27.9			2.8		0.2	9.3		18.5	1.6	0.1
Delay (s)		46.5			18.9		10.1	24.4		32.4	14.7	10.2
Level of Service		D			B		B	C		C	B	B
Approach Delay (s)		46.5			18.9			23.9			16.3	
Approach LOS		D			B			C			B	
Intersection Summary												
HCM 2000 Control Delay			24.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			109.8%				ICU Level of Service			H		
Analysis Period (min)			15									

c Critical Lane Group

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

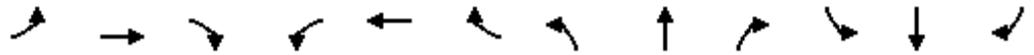
06/16/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	7	188	11	35	39	311	2523	27	62	2474	451
Future Volume (vph)	386	7	188	11	35	39	311	2523	27	62	2474	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	1.00	0.86	1.00
Fr _t		0.856			0.921			0.998				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1595	0	1770	1716	0	1770	6395	0	1770	6408	1583
Fl _t Permitted	0.950			0.950			0.046			0.050		
Satd. Flow (perm)	3433	1595	0	1770	1716	0	86	6395	0	93	6408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		204			24			2				214
Link Speed (mph)		30			30			30				30
Link Distance (ft)		318			320			307				518
Travel Time (s)		7.2			7.3			7.0				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	420	8	204	12	38	42	338	2742	29	67	2689	490
Shared Lane Traffic (%)												
Lane Group Flow (vph)	420	212	0	12	80	0	338	2771	0	67	2689	490
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Detector Phase	3	3		4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	18.0		5.0	18.0	18.0
Minimum Split (s)	22.5	22.5		22.5	22.5		11.8	25.1		12.8	25.1	25.1
Total Split (s)	37.0	37.0		23.0	23.0		49.0	102.0		18.0	71.0	71.0
Total Split (%)	20.6%	20.6%		12.8%	12.8%		27.2%	56.7%		10.0%	39.4%	39.4%
Maximum Green (s)	29.5	29.5		15.5	15.5		42.2	94.9		10.2	63.9	63.9
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	4.8
All-Red Time (s)	3.5	3.5		3.5	3.5		2.0	2.3		3.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	C-Min
Act Effct Green (s)	26.8	26.8		11.3	11.3		120.2	103.9		86.8	79.4	79.4
Actuated g/C Ratio	0.15	0.15		0.06	0.06		0.67	0.58		0.48	0.44	0.44
v/c Ratio	0.82	0.52		0.11	0.62		0.91	0.75		0.56	0.95	0.60
Control Delay	88.2	13.4		79.7	76.9		85.0	31.0		53.7	56.5	26.0

Lanes, Volumes, Timings
 3: Biscayne Boulevard & 172nd Street

06/16/2021

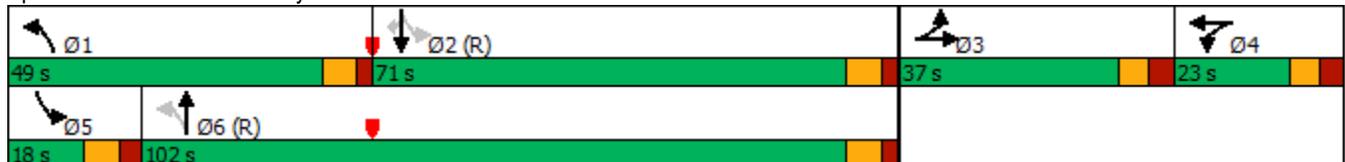


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	32.7	0.7		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	120.8	14.2		79.7	76.9		85.0	31.0		53.7	56.5	26.0
LOS	F	B		E	E		F	C		D	E	C
Approach Delay		85.1			77.3			36.9			51.8	
Approach LOS		F			E			D			D	
Queue Length 50th (ft)	250	8		14	65		343	702		29	902	255
Queue Length 95th (ft)	312	91		37	126		458	816		95	#1155	441
Internal Link Dist (ft)		238			240			227			438	
Turn Bay Length (ft)												
Base Capacity (vph)	562	431		152	169		451	3692		140	2825	817
Starvation Cap Reductn	158	61		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	1.04	0.57		0.08	0.47		0.75	0.75		0.48	0.95	0.60

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 48.5
 Intersection LOS: D
 Intersection Capacity Utilization 88.6%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Biscayne Boulevard & 172nd Street



HCM Signalized Intersection Capacity Analysis

3: Biscayne Boulevard & 172nd Street

06/16/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	7	188	11	35	39	311	2523	27	62	2474	451
Future Volume (vph)	386	7	188	11	35	39	311	2523	27	62	2474	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Lane Util. Factor	0.97	1.00		1.00	1.00		1.00	0.86		1.00	0.86	1.00
Frt	1.00	0.86		1.00	0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	1594		1770	1716		1770	6398		1770	6408	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.05	1.00		0.05	1.00	1.00
Satd. Flow (perm)	3433	1594		1770	1716		87	6398		94	6408	1583
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)	420	8	204	12	38	42	338	2742	29	67	2689	490
RTOR Reduction (vph)	0	174	0	0	22	0	0	1	0	0	0	120
Lane Group Flow (vph)	420	38	0	12	58	0	338	2770	0	67	2689	370
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	3		4	4		1	6		5	2	
Permitted Phases							6			2		2
Actuated Green, G (s)	26.8	26.8		11.3	11.3		119.8	103.9		87.4	79.3	79.3
Effective Green, g (s)	26.8	26.8		11.3	11.3		119.8	103.9		87.4	79.3	79.3
Actuated g/C Ratio	0.15	0.15		0.06	0.06		0.67	0.58		0.49	0.44	0.44
Clearance Time (s)	7.5	7.5		7.5	7.5		6.8	7.1		7.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	511	237		111	107		372	3693		121	2823	697
v/s Ratio Prot	c0.12	0.02		0.01	c0.03		c0.17	0.43		0.02	c0.42	
v/s Ratio Perm							0.44			0.24		0.23
v/c Ratio	0.82	0.16		0.11	0.54		0.91	0.75		0.55	0.95	0.53
Uniform Delay, d1	74.3	66.8		79.6	81.8		61.7	28.4		29.2	48.5	36.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.3	0.3		0.4	5.1		25.1	1.4		5.4	9.0	2.9
Delay (s)	84.5	67.1		80.0	86.9		86.7	29.8		34.6	57.5	39.7
Level of Service	F	E		F	F		F	C		C	E	D
Approach Delay (s)		78.7			86.0			36.0			54.4	
Approach LOS		E			F			D			D	
Intersection Summary												
HCM 2000 Control Delay			48.9				HCM 2000 Level of Service				D	
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			180.0				Sum of lost time (s)			29.9		
Intersection Capacity Utilization			88.6%				ICU Level of Service			E		
Analysis Period (min)			15									

c Critical Lane Group

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/16/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (vph)	40	251	185	0	657	137	27	400	243	91	477	116
Future Volume (vph)	40	251	185	0	657	137	27	400	243	91	477	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.948			0.974			0.943				0.850
Fl _t Protected		0.996					0.950			0.950		
Satd. Flow (prot)	0	1759	0	0	3447	0	1770	1757	0	1770	1863	1583
Fl _t Permitted		0.788					0.335			0.166		
Satd. Flow (perm)	0	1392	0	0	3447	0	624	1757	0	309	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			43			70				55
Link Speed (mph)		30			30			30				30
Link Distance (ft)		431			318			542				501
Travel Time (s)		9.8			7.2			12.3				11.4
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
Adj. Flow (vph)	43	273	201	0	714	149	29	435	264	99	518	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	517	0	0	863	0	29	699	0	99	518	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Detector Phase	8	8			4		6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0		24.0	24.0	24.0
Total Split (s)	25.0	25.0			25.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.7%	41.7%			41.7%		58.3%	58.3%		58.3%	58.3%	58.3%
Maximum Green (s)	19.0	19.0			19.0		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	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
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 Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max			C-Max		None	None		None	None	None
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	0
Act Effct Green (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3

Lanes, Volumes, Timings
6: 172nd Street & Dixie Hwy

06/16/2021

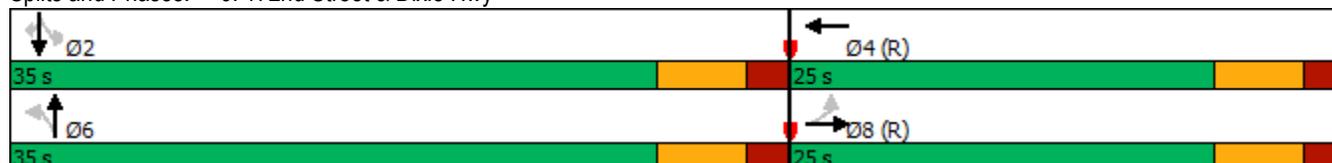


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.36			0.36		0.44	0.44		0.44	0.44	0.44
v/c Ratio		0.96			0.68		0.11	0.86		0.73	0.63	0.17
Control Delay		53.1			19.7		9.7	26.1		48.0	16.6	6.1
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		53.1			19.8		9.7	26.1		48.0	16.6	6.1
LOS		D			B		A	C		D	B	A
Approach Delay		53.1			19.8			25.4			19.0	
Approach LOS		D			B			C			B	
Queue Length 50th (ft)		~199			137		5	178		26	126	13
Queue Length 95th (ft)		#370			201		18	#367		#100	207	37
Internal Link Dist (ft)		351			238			462			421	
Turn Bay Length (ft)												
Base Capacity (vph)		539			1274		301	885		149	900	793
Starvation Cap Reductn		0			14		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		0.96			0.68		0.10	0.79		0.66	0.58	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 36 (60%), Referenced to phase 4:WBT and 8:EBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 27.1
 Intersection LOS: C
 Intersection Capacity Utilization 110.2%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: 172nd Street & Dixie Hwy



HCM Signalized Intersection Capacity Analysis

6: 172nd Street & Dixie Hwy

06/16/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	251	185	0	657	137	27	400	243	91	477	116
Future Volume (vph)	40	251	185	0	657	137	27	400	243	91	477	116
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
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	1.00
Frt		0.95			0.97		1.00	0.94		1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1758			3448		1770	1757		1770	1863	1583
Flt Permitted		0.79			1.00		0.34	1.00		0.17	1.00	1.00
Satd. Flow (perm)		1391			3448		625	1757		308	1863	1583
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)	43	273	201	0	714	149	29	435	264	99	518	126
RTOR Reduction (vph)	0	36	0	0	27	0	0	39	0	0	0	31
Lane Group Flow (vph)	0	481	0	0	836	0	29	660	0	99	518	95
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8						6			2		2
Actuated Green, G (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3
Effective Green, g (s)		21.7			21.7		26.3	26.3		26.3	26.3	26.3
Actuated g/C Ratio		0.36			0.36		0.44	0.44		0.44	0.44	0.44
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		503			1247		273	770		135	816	693
v/s Ratio Prot					0.24			c0.38			0.28	
v/s Ratio Perm		c0.35					0.05			0.32		0.06
v/c Ratio		0.96			0.67		0.11	0.86		0.73	0.63	0.14
Uniform Delay, d1		18.7			16.1		9.9	15.2		13.9	13.1	10.1
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		30.7			2.9		0.2	9.3		18.5	1.6	0.1
Delay (s)		49.4			19.0		10.1	24.4		32.4	14.7	10.2
Level of Service		D			B		B	C		C	B	B
Approach Delay (s)		49.4			19.0			23.9			16.3	
Approach LOS		D			B			C			B	
Intersection Summary												
HCM 2000 Control Delay			25.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			110.2%				ICU Level of Service			H		
Analysis Period (min)			15									

c Critical Lane Group

Lanes, Volumes, Timings
 9: Biscayne Boulevard & Site Driveway

06/16/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	31	0	2861	2645	28
Future Volume (vph)	0	31	0	2861	2645	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86
Fr _t		0.865			0.998	
Fl _t Protected						
Satd. Flow (prot)	0	1611	0	6408	6395	0
Fl _t Permitted						
Satd. Flow (perm)	0	1611	0	6408	6395	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	187			253	307	
Travel Time (s)	4.3			5.8	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	0	3110	2875	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	34	0	3110	2905	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.8%
Analysis Period (min)	15
	ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
 9: Biscayne Boulevard & Site Driveway

06/16/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	0	31	0	2861	2645	28				
Future Volume (Veh/h)	0	31	0	2861	2645	28				
Sign Control	Stop			Free		Free				
Grade	0%			0%		0%				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Hourly flow rate (vph)	0	34	0	3110	2875	30				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type				None	None					
Median storage (veh)										
Upstream signal (ft)					307					
pX, platoon unblocked	0.59	0.59	0.59							
vC, conflicting volume	3668	734	2905							
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	2078	0	796							
tC, single (s)	6.8	6.9	4.1							
tC, 2 stage (s)										
tF (s)	3.5	3.3	2.2							
p0 queue free %	100	95	100							
cM capacity (veh/h)	27	645	489							
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4	
Volume Total	34	778	778	778	778	821	821	821	441	
Volume Left	0	0	0	0	0	0	0	0	0	
Volume Right	34	0	0	0	0	0	0	0	30	
cSH	645	1700	1700	1700	1700	1700	1700	1700	1700	
Volume to Capacity	0.05	0.46	0.46	0.46	0.46	0.48	0.48	0.48	0.26	
Queue Length 95th (ft)	4	0	0	0	0	0	0	0	0	
Control Delay (s)	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS										
Approach Delay (s)	10.9	0.0					0.0			
Approach LOS										
Intersection Summary										
Average Delay			0.1							
Intersection Capacity Utilization			48.8%		ICU Level of Service				A	
Analysis Period (min)			15							

APPENDIX F

SIGNAL TIMING

TOD Schedule Report
for 3638: US 1&NE 172 St

Print Date:
2/2/2014

Print Time:
8:06 AM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
3638	US 1&NE 172 St	DOW-1		N/A	0	0	N/A	0	Max 0

Splits

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

Active Phase Bank: Phase Bank 1

<u>Phase</u>	<u>Walk</u>			<u>Don't Walk</u>			<u>Min Initial</u>			<u>Veh Ext</u>			<u>Max Limit</u>			<u>Max 2</u>			<u>Yellow</u>	<u>Red</u>								
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3										
1 NBL	0	-	0	0	-	0	5	-	5	-	5	2	-	2	-	2	12	-	12	-	12	35	-	35	-	35	4.8	2
2 SBT	0	-	0	0	-	0	18	-	18	-	18	1	-	1	-	1	30	-	30	-	30	0	-	0	-	0	4.8	2.3
3 EBT	0	-	0	0	-	0	7	-	7	-	7	2.5	-	2.5	-	2.5	20	-	20	-	20	40	-	40	-	40	4	3.5
4 WBT	0	-	0	0	-	0	7	-	7	-	7	2.5	-	2.5	-	2.5	7	-	7	-	7	7	-	7	-	7	4	3.5
5 -	0	-	0	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	0
6 NBT	0	-	0	0	-	0	18	-	18	-	18	1	-	1	-	1	30	-	30	-	30	0	-	0	-	0	4.8	2.3
7 -	0	-	0	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	0
8 -	0	-	0	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	-	0	-	0	0	0

Last In Service Date: unknown

Permitted Phases	
	<u>12345678</u>
Default	1234-6--
External Permit 0	-----
External Permit 1	-234-6--
External Permit 2	1234-6--

<u>Current</u> TOD Schedule	<u>Plan</u>	<u>Cycle</u>	<u>Green Time</u>								<u>Ring Offset</u>	<u>Offset</u>
			1 NBL	2 SBT	3 EBT	4 WBT	5 -	6 NBT	7 -	8 -		
1		125	6	56	29	6	0	68	0	0	0	26
2		150	9	77	29	6	0	93	0	0	0	64
3		180	9	97	39	6	0	113	0	0	0	117
4		90	6	26	24	6	0	38	0	0	0	71
5		180	9	97	39	6	0	113	0	0	0	117
6		180	9	97	39	6	0	113	0	0	0	38
7		180	9	97	39	6	0	113	0	0	0	90
8		180	9	97	39	6	0	113	0	0	0	117
9		180	9	97	39	6	0	113	0	0	0	117
10		180	9	117	19	6	0	134	0	0	0	137
11		180	9	112	24	6	0	129	0	0	0	132
12		120	16	42	27	6	0	65	0	0	0	108
13		120	16	42	27	6	0	65	0	0	0	30
14		90	6	31	19	6	0	43	0	0	0	39
15		120	16	42	27	6	0	65	0	0	0	30
16		125	6	66	19	6	0	78	0	0	0	24
17		180	9	117	19	6	0	134	0	0	0	137
18		135	6	76	19	6	0	88	0	0	0	103
19		135	6	66	29	6	0	78	0	0	0	120
20		180	9	117	19	6	0	134	0	0	0	137
21		135	6	67	28	6	0	79	0	0	0	1
25		120	14	51	18	8	0	72	0	0	0	11
26		135	17	63	18	8	0	87	0	0	0	130
27		160	27	71	25	8	0	105	0	0	0	6
28		100	10	42	11	8	0	59	0	0	0	22

<u>Local TOD Schedule</u>		
<u>Time</u>	<u>Plan</u>	<u>DOW</u>
0000	Free	Su M T W Th F S
0600	4	Su M T W Th F S
0630	1	M T W Th F
0700	7	M T W Th F
0800	7	Su S
0800	8	M T W Th F
0900	9	M T W Th F
0915	7	M T W Th F
1330	11	M T W Th F
1400	3	M T W Th F
1500	6	Su S
1530	5	M T W Th F
1615	6	M T W Th F
1900	7	Su S
2100	2	M T W Th
2200	2	Su
2200	4	M T W Th
2300	4	Su
2300	2	F S
2330	4	F S

<u>Current Time of Day Function</u>			
<u>Time</u>	<u>Function</u>	<u>Settings *</u>	<u>Day of Week</u>
0000	TOD OUTPUTS	-----	Su M T W Th F S
0600	TOD OUTPUTS	-----	Su M T W Th F S

<u>Local Time of Day Function</u>			
<u>Time</u>	<u>Function</u>	<u>Settings *</u>	<u>Day of Week</u>
0000	TOD OUTPUTS	-----	Su M T W Th F S
0600	TOD OUTPUTS	-----	Su M T W Th F S

<u>* Settings</u>
Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

TOD Schedule Report
for 2023: W Dixie Hwy&NE 172 St

Print Date: 2/13/2016
Print Time: 2:00 AM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
2023	W Dixie Hwy&NE 172 St	DOW-7	N/A	N/A	0	0	N/A	0	Max 0

Splits

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

Active Phase Bank: Phase Bank 1

Phase	Walk Phase Bank			Don't Walk			Min Initial			Veh Ext			Max Limit			Max 2			Yellow			Red		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 SBT	7	7	7	21	21	21	7	7	7	1	1	1	32	32	32	0	0	0	0	0	0	4	4	4
3 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 WBT	1	1	1	17	17	17	7	7	7	2.5	2.5	2.5	28	18	18	34	0	0	4	4	4	0	0	0
5 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 NBT	7	7	7	21	21	21	7	7	7	1	1	1	32	32	32	0	0	0	4	4	4	0	0	0
7 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 EBT	1	1	1	17	17	17	7	7	7	2.5	2.5	2.5	28	18	18	34	0	0	4	4	4	0	0	0

Last In Service Date: unknown

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

Current TOD Schedule	Plan	Green Time								Ring Offset	Offset	
		1	2	3	4	5	6	7	8			
25		60	0	28	0	20	0	28	0	20	0	56
26		67	0	34	0	21	0	34	0	21	0	24
27		80	0	34	0	34	0	34	0	34	0	55
28		50	0	28	0	10	0	28	0	10	0	12

Local TOD Schedule	Plan	DOW
Time 0000	Free	Su M T W Th F S

TOD Schedule Report
for 2023: W Dixie Hwy&NE 172 St

Print Date:
2/13/2016

Print Time:
2:00 AM

Current Time of Day Function		Local Time of Day Function	
Time	Function	Time	Function
0000	TOD OUTPUTS	0000	TOD OUTPUTS
	Settings * ----- SuM T W ThF S		Settings * ----- SuM T W ThF S
<p>* Settings</p> <p>Blank - FREE - Phase Bank 1, Max 1 Blank - Plan - Phase Bank 1, Max 2 1 - Phase Bank 2, Max 1 2 - Phase Bank 2, Max 2 3 - Phase Bank 3, Max 1 4 - Phase Bank 3, Max 2 5 - EXTERNAL PERMIT 1 6 - EXTERNAL PERMIT 2 7 - X-PED OMIT 8 - TBA</p>			

No Calendar Defined/Enabled

No Calendar Defined/Enabled

APPENDIX G

TRIPS RATES

Shopping Center (820)

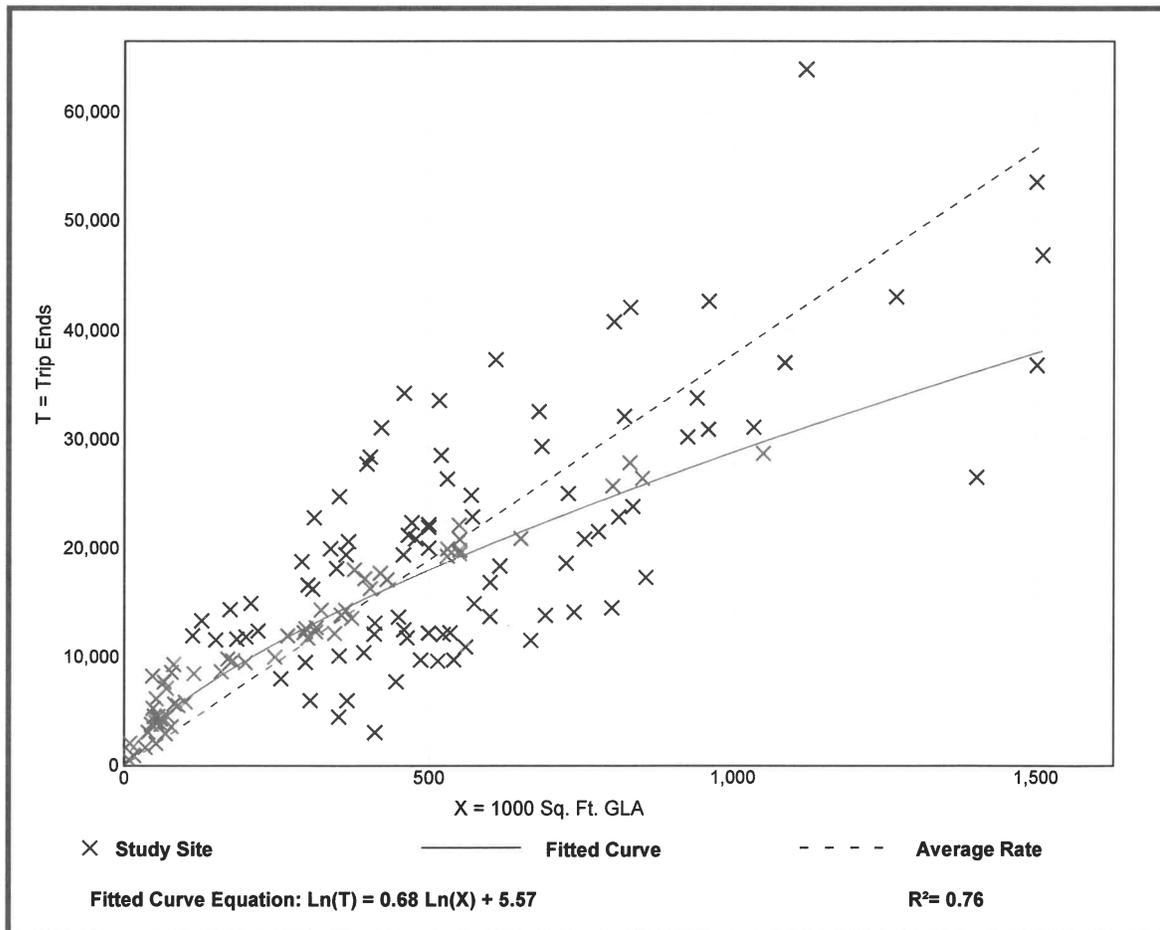
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
Avg. 1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



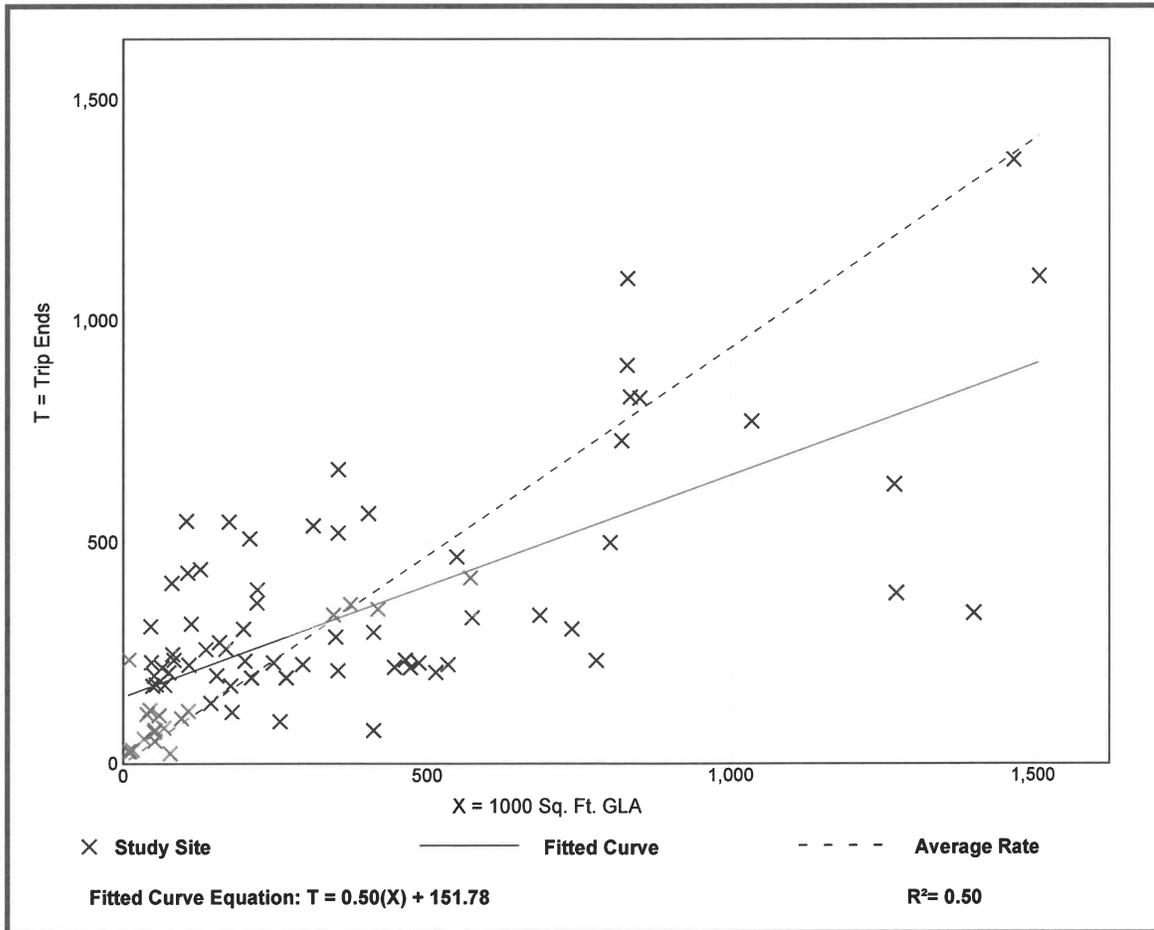
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 84
 Avg. 1000 Sq. Ft. GLA: 351
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



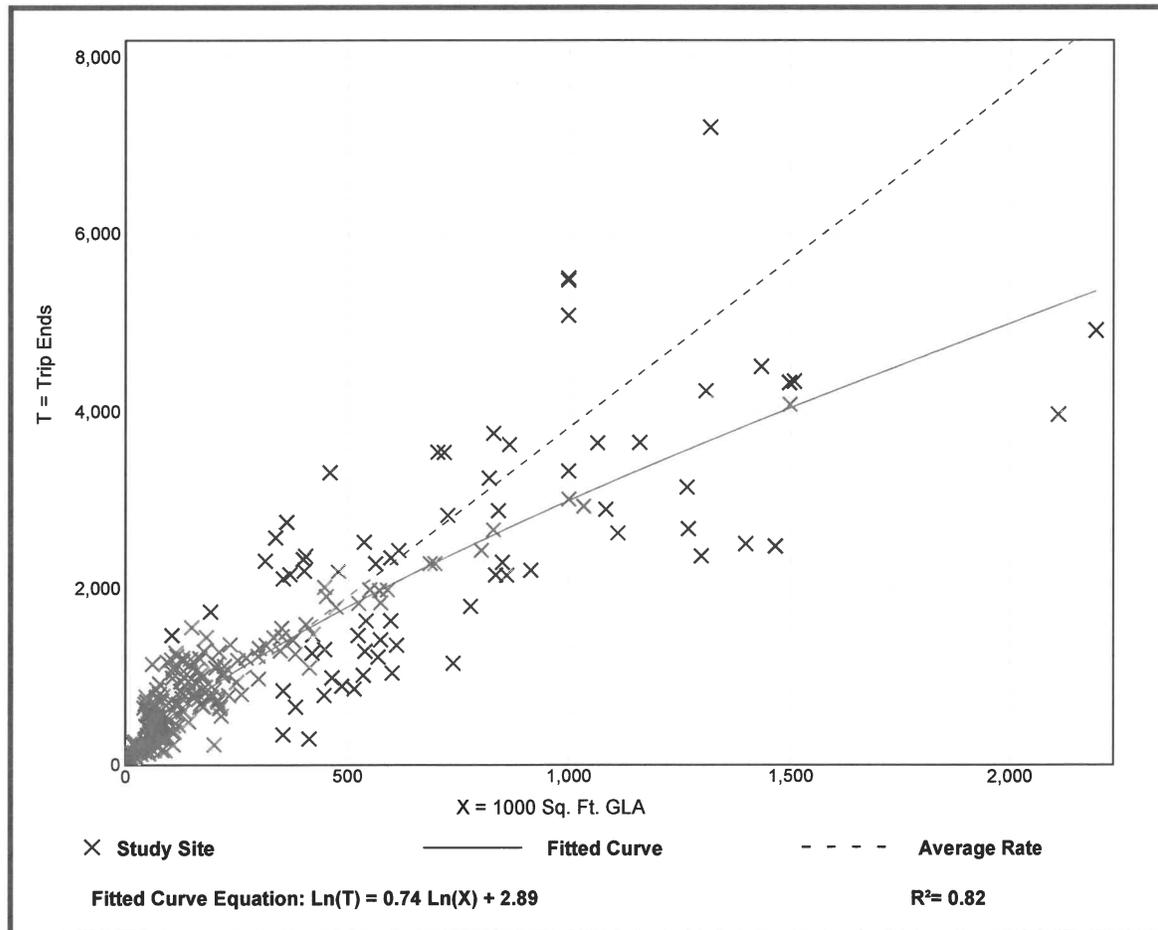
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 261
 Avg. 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



For the proposed land use (Marijuana Dispensary), the trip generation was conducted by collecting counts at three (3) marijuana dispensaries located in South Florida and developing the trip generation rates.

Counts were collected for two days (Tuesday and Wednesday) during typical business hours (11:00 AM to 6:00 PM). Using the collected data, trip generation rates, per 1,000 square feet of gross floor area, were derived for daily, AM, and PM peak hours. **Table 1** summarizes the trip generation rates obtained.

Table 1: Derived Trip Generation Rates for Proposed Land Use

Condition	Source	Code Description	Daily Trips	AM Peak Hour Trips, Weekday	PM Peak Hour Trips, Weekday
Proposed	Data Collection*	Marijuana Dispensary Equation	T = 4.07 X	T = 1.40 X (50% in/50% out)	T = 1.33 X (50% in/50% out)
		Where X = 1,000 square feet of gross floor area			

*See Appendix C for details.

State Laws for Medicinal Marijuana:

Since the ITE trip generation rates/equations are based on data collected from the states of Colorado and Oregon, it is important to highlight key differences in the law related to the use of marijuana in Colorado, Oregon, and Florida. The states of Colorado and Oregon allow both the medicinal and recreational consumption of marijuana; whereas the State of Florida allows the medicinal use only. Furthermore, the State of Colorado's law indicates that adults over the age of 21 can buy up to one (1) ounce of marijuana at a time whereas the State of Florida's law indicates that an authorized physician determines the amount necessary to treat a registered patient's authorized condition for 30 days. Therefore, the proposed dispensary is expected to have a limited number of patrons and have limited traffic generation.

A trip generation analysis was undertaken for the existing and proposed development. The results of this effort are documented in **Table 2**.

Table 2: ITE Trip Generation Analysis

Condition	ITE Analysis			Daily Trips Total	AM Peak Hour Trips, Weekday			PM Peak Hour Trips, Weekday		
	Code	Description	Value		In	Out	Total	In	Out	Total
Existing	ITE 861	Sporting Goods Store	5,233 sf	150	1	1	2	7	8	15
Proposed	Counts	Marijuana Dispensary	5,233 sf	21	4	4	8	3	4	7
Net New Trips (Proposed minus Existing)				- 129	3	3	6	-4	-4	-8

APPENDIX H

FDOT AND MPO DATA

HISTORICAL GROWTH RATE CALCULATION

FDOT STATION	ROADWAY	FROM	2010 AADT TRAFFIC	2019 AADT TRAFFIC	IND. (%)
87-0183	US-1	800' N. OF 172 ST	61,000	69,500	1.46%
87-5219	US-1	300' S. OF 163 ST	60,000	61,000	0.18%
			121,000	130,500	0.84%
ROWTH RATE USED =					1.0%

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	69500 C	N 35500	S 34000	9.00	54.60	2.30
2018	67000 C	N 33500	S 33500	9.00	54.30	2.00
2017	64500 C	N 31500	S 33000	9.00	55.00	4.50
2016	61500 C	N 31500	S 30000	9.00	54.50	5.10
2015	51500 C	N 24000	S 27500	9.00	54.70	4.20
2014	60000 C	N 29000	S 31000	9.00	54.50	5.10
2013	58500 C	N 25500	S 33000	9.00	52.40	5.20
2012	67000 C	N 35000	S 32000	9.00	55.70	5.80
2011	65000 C	N 33000	S 32000	9.00	55.10	4.50
2010	61000 C	N 30500	S 30500	8.98	54.08	4.40
2009	55000 C	N 27500	S 27500	8.99	53.24	3.40
2008	54000 C	N 27000	S 27000	9.09	55.75	3.70
2007	63500 C	N 31500	S 32000	8.01	54.34	3.10
2006	61000 C	N 30000	S 31000	7.97	54.22	4.90
2005	65500 C	N 33000	S 32500	8.80	53.80	1.80
2004	72500 C	N 39000	S 33500	9.00	53.30	6.20

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
 2019 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	61000 C	N 30000	S 31000	9.00	54.60	2.20
2018	59500 C	N 29500	S 30000	9.00	54.30	2.40
2017	63500 C	N 31500	S 32000	9.00	55.00	2.30
2016	63500 C	N 31000	S 32500	9.00	54.50	2.00
2015	60000 C	N 29500	S 30500	9.00	54.70	2.00
2014	55000 C	N 25500	S 29500	9.00	54.50	4.90
2013	54000 C	N 25000	S 29000	9.00	52.40	3.50
2012	64000 C	N 31000	S 33000	9.00	55.70	4.80
2011	61500 C	N 30500	S 31000	9.00	55.10	3.90
2010	60000 C	N 30000	S 30000	8.98	54.08	3.90
2009	60500 C	N 29500	S 31000	8.99	53.24	3.40
2008	55000 C	N 27000	S 28000	9.09	55.75	4.70
2007	60500 C	N 29000	S 31500	8.01	54.34	5.90
2006	58000 C	N 29000	S 29000	7.97	54.22	4.20
2005	57500 C	N 28500	S 29000	8.80	53.80	7.70
2004	50000 C	N 24000	S 26000	9.00	53.30	7.70

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

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.92
 PSCF

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.99	1.08
* 2	01/05/2020 - 01/11/2020	0.94	1.02
* 3	01/12/2020 - 01/18/2020	0.88	0.96
* 4	01/19/2020 - 01/25/2020	0.88	0.96
* 5	01/26/2020 - 02/01/2020	0.87	0.95
* 6	02/02/2020 - 02/08/2020	0.86	0.93
* 7	02/09/2020 - 02/15/2020	0.85	0.92
* 8	02/16/2020 - 02/22/2020	0.88	0.96
* 9	02/23/2020 - 02/29/2020	0.90	0.98
*10	03/01/2020 - 03/07/2020	0.93	1.01
*11	03/08/2020 - 03/14/2020	0.95	1.03
*12	03/15/2020 - 03/21/2020	0.98	1.07
*13	03/22/2020 - 03/28/2020	1.06	1.15
14	03/29/2020 - 04/04/2020	1.13	1.23
15	04/05/2020 - 04/11/2020	1.21	1.32
16	04/12/2020 - 04/18/2020	1.28	1.39
17	04/19/2020 - 04/25/2020	1.24	1.35
18	04/26/2020 - 05/02/2020	1.19	1.29
19	05/03/2020 - 05/09/2020	1.15	1.25
20	05/10/2020 - 05/16/2020	1.11	1.21
21	05/17/2020 - 05/23/2020	1.09	1.18
22	05/24/2020 - 05/30/2020	1.07	1.16
23	05/31/2020 - 06/06/2020	1.05	1.14
24	06/07/2020 - 06/13/2020	1.04	1.13
25	06/14/2020 - 06/20/2020	1.02	1.11
26	06/21/2020 - 06/27/2020	1.03	1.12
27	06/28/2020 - 07/04/2020	1.04	1.13
28	07/05/2020 - 07/11/2020	1.05	1.14
29	07/12/2020 - 07/18/2020	1.05	1.14
30	07/19/2020 - 07/25/2020	1.04	1.13
31	07/26/2020 - 08/01/2020	1.03	1.12
32	08/02/2020 - 08/08/2020	1.02	1.11
33	08/09/2020 - 08/15/2020	1.01	1.10
34	08/16/2020 - 08/22/2020	1.01	1.10
35	08/23/2020 - 08/29/2020	1.01	1.10
36	08/30/2020 - 09/05/2020	1.01	1.10
37	09/06/2020 - 09/12/2020	1.01	1.10
38	09/13/2020 - 09/19/2020	1.01	1.10
39	09/20/2020 - 09/26/2020	1.00	1.09
40	09/27/2020 - 10/03/2020	0.99	1.08
41	10/04/2020 - 10/10/2020	0.98	1.07
42	10/11/2020 - 10/17/2020	0.97	1.05
43	10/18/2020 - 10/24/2020	0.97	1.05
44	10/25/2020 - 10/31/2020	0.98	1.07
45	11/01/2020 - 11/07/2020	0.98	1.07
46	11/08/2020 - 11/14/2020	0.99	1.08
47	11/15/2020 - 11/21/2020	0.99	1.08
48	11/22/2020 - 11/28/2020	0.99	1.08
49	11/29/2020 - 12/05/2020	0.99	1.08
50	12/06/2020 - 12/12/2020	0.99	1.08
51	12/13/2020 - 12/19/2020	0.99	1.08
52	12/20/2020 - 12/26/2020	0.94	1.02
53	12/27/2020 - 12/31/2020	0.88	0.96

* PEAK SEASON

27-FEB-2021 10:30:06

830UPD

6_8700_PKSEASON.TXT

DIRECTIONAL TRIP DISTRIBUTION REPORT

Miami-Dade 2015 Base Year Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
79	2979	Trips	191	104	78	284	397	273	195	326	1,875
79	2979	Percent	10.4	5.6	4.3	15.4	21.5	14.8	10.6	17.6	
80	2980	Trips	8,681	2,809	1,368	5,932	13,818	10,867	8,744	14,261	73,625
80	2980	Percent	13.1	4.2	2.1	8.9	20.8	16.4	13.2	21.5	
81	2981	Trips	1,647	1,897	537	1,291	2,397	1,683	1,326	1,826	13,373
81	2981	Percent	13.1	15.1	4.3	10.2	19.0	13.4	10.5	14.5	
82	2982	Trips	4	8	0	8	11	5	14	3	54
82	2982	Percent	7.7	14.8	0.0	14.8	21.1	9.3	26.2	5.9	
83	2983	Trips	273	57	13	127	235	168	102	126	1,111
83	2983	Percent	24.8	5.2	1.2	11.6	21.4	15.3	9.3	11.4	
84	2984	Trips	432	452	108	276	747	592	444	462	3,632
84	2984	Percent	12.3	12.9	3.1	7.9	21.3	16.8	12.6	13.1	
85	2985	Trips	261	89	194	118	388	325	270	362	2,042
85	2985	Percent	13.0	4.4	9.7	5.9	19.3	16.2	13.5	18.0	
86	2986	Trips	771	180	89	332	764	741	432	552	3,920
86	2986	Percent	20.0	4.7	2.3	8.6	19.8	19.2	11.2	14.3	
87	2987	Trips	570	56	151	125	505	344	317	381	2,512
87	2987	Percent	23.3	2.3	6.2	5.1	20.6	14.0	13.0	15.6	
88	2988	Trips	474	50	21	119	300	208	162	216	1,570
88	2988	Percent	30.6	3.2	1.3	7.7	19.4	13.4	10.5	13.9	
89	2989	Trips	331	79	39	34	347	282	145	213	1,495
89	2989	Percent	22.5	5.4	2.6	2.3	23.6	19.2	9.9	14.5	
90	2990	Trips	4,146	286	429	825	3,640	2,975	2,072	3,514	19,467
90	2990	Percent	23.2	1.6	2.4	4.6	20.4	16.6	11.6	19.6	
91	2991	Trips	259	269	65	347	858	1,335	524	1,228	5,195
91	2991	Percent	5.3	5.5	1.3	7.1	17.6	27.3	10.7	25.1	
92	2992	Trips	349	364	45	275	580	901	348	802	3,879
92	2992	Percent	9.5	9.9	1.2	7.5	15.8	24.6	9.5	21.9	
93	2993	Trips	195	74	12	52	224	221	153	156	1,098
93	2993	Percent	18.0	6.8	1.1	4.8	20.6	20.3	14.0	14.4	
94	2994	Trips	701	165	38	164	564	493	412	394	2,980
94	2994	Percent	23.9	5.6	1.3	5.6	19.2	16.8	14.1	13.5	
95	2995	Trips	1,157	251	112	411	943	782	652	644	5,051
95	2995	Percent	23.4	5.1	2.3	8.3	19.0	15.8	13.2	13.0	
96	2996	Trips	334	88	58	100	222	229	226	189	1,480
96	2996	Percent	23.1	6.1	4.0	6.9	15.4	15.9	15.6	13.1	
97	2997	Trips	364	65	29	103	330	278	294	257	1,751
97	2997	Percent	21.2	3.8	1.7	6.0	19.2	16.1	17.1	14.9	
98	2998	Trips	388	202	52	214	475	336	344	343	2,414
98	2998	Percent	16.5	8.6	2.2	9.1	20.2	14.3	14.6	14.6	
99	2999	Trips	3,253	1,254	599	1,888	3,041	2,026	1,990	2,271	16,984
99	2999	Percent	19.9	7.7	3.7	11.6	18.6	12.4	12.2	13.9	
100	3000	Trips	1,054	1,070	420	946	1,241	1,166	758	737	7,600
100	3000	Percent	14.3	14.5	5.7	12.8	16.8	15.8	10.3	10.0	
101	3001	Trips	1,050	272	61	208	446	420	463	772	3,735
101	3001	Percent	28.4	7.4	1.7	5.6	12.1	11.4	12.5	20.9	
102	3002	Trips	1,000	1,037	351	727	1,353	1,013	956	831	7,620
102	3002	Percent	13.8	14.3	4.8	10.0	18.6	13.9	13.2	11.4	
103	3003	Trips	535	384	275	305	768	438	327	391	3,487
103	3003	Percent	15.6	11.2	8.0	8.9	22.4	12.8	9.6	11.4	
104	3004	Trips	817	817	333	688	1,488	854	412	712	6,219
104	3004	Percent	13.4	13.3	5.4	11.2	24.3	14.0	6.7	11.6	

DIRECTIONAL TRIP DISTRIBUTION REPORT

Miami-Dade 2045 Cost Feasible Plan Direction Trip Distribution Summary											
TAZ of Origin		Trips / Percent	Cardinal Directions								Total Trips
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
79	2979	Trips	432	111	79	570	940	474	311	510	3,577
79	2979	Percent	12.6	3.3	2.3	16.6	27.4	13.8	9.1	14.9	
80	2980	Trips	9,844	1,997	1,773	7,477	20,304	14,012	10,711	17,394	92,886
80	2980	Percent	11.8	2.4	2.1	9.0	24.3	16.8	12.8	20.8	
81	2981	Trips	1,842	1,762	455	1,081	3,190	2,037	1,539	1,744	14,144
81	2981	Percent	13.5	12.9	3.3	7.9	23.4	14.9	11.3	12.8	
82	2982	Trips	83	40	16	29	96	76	43	67	449
82	2982	Percent	18.5	8.8	3.5	6.4	21.3	16.9	9.7	15.0	
83	2983	Trips	377	47	26	111	348	272	152	160	1,501
83	2983	Percent	25.3	3.2	1.7	7.5	23.3	18.2	10.2	10.7	
84	2984	Trips	735	496	111	444	1,156	923	572	670	5,268
84	2984	Percent	14.4	9.7	2.2	8.7	22.6	18.1	11.2	13.1	
85	2985	Trips	290	76	195	158	538	388	266	307	2,249
85	2985	Percent	13.1	3.4	8.8	7.1	24.3	17.5	12.0	13.8	
86	2986	Trips	983	178	103	371	1,133	1,011	480	563	4,931
86	2986	Percent	20.4	3.7	2.1	7.7	23.5	21.0	10.0	11.7	
87	2987	Trips	890	81	242	222	904	629	429	529	4,032
87	2987	Percent	22.7	2.1	6.2	5.7	23.0	16.0	10.9	13.5	
88	2988	Trips	474	33	38	179	497	307	206	277	2,062
88	2988	Percent	23.6	1.6	1.9	8.9	24.7	15.3	10.2	13.8	
89	2989	Trips	359	73	61	68	402	399	199	286	1,883
89	2989	Percent	19.4	4.0	3.3	3.7	21.7	21.6	10.8	15.5	
90	2990	Trips	3,842	246	298	943	5,243	4,449	2,670	3,717	22,961
90	2990	Percent	18.0	1.2	1.4	4.4	24.5	20.8	12.5	17.4	
91	2991	Trips	311	248	41	363	1,180	1,730	706	1,403	6,349
91	2991	Percent	5.2	4.2	0.7	6.1	19.7	28.9	11.8	23.5	
92	2992	Trips	279	279	37	350	745	927	488	802	4,303
92	2992	Percent	7.1	7.1	1.0	9.0	19.1	23.7	12.5	20.5	
93	2993	Trips	197	19	2	75	255	244	176	174	1,145
93	2993	Percent	17.3	1.6	0.2	6.6	22.3	21.4	15.4	15.3	
94	2994	Trips	1,520	252	35	456	1,425	1,197	1,012	860	7,203
94	2994	Percent	22.5	3.7	0.5	6.8	21.1	17.7	15.0	12.7	
95	2995	Trips	1,340	181	119	476	1,334	974	745	709	6,013
95	2995	Percent	22.8	3.1	2.0	8.1	22.7	16.6	12.7	12.1	
96	2996	Trips	659	143	83	236	701	501	494	380	3,367
96	2996	Percent	20.6	4.5	2.6	7.4	21.9	15.7	15.5	11.9	
97	2997	Trips	674	92	48	196	724	476	461	424	3,226
97	2997	Percent	21.8	3.0	1.6	6.3	23.4	15.4	14.9	13.7	
98	2998	Trips	584	205	53	311	657	444	446	391	3,171
98	2998	Percent	18.9	6.6	1.7	10.1	21.3	14.4	14.4	12.7	
99	2999	Trips	3,843	1,448	804	1,816	3,592	2,286	2,527	2,624	19,836
99	2999	Percent	20.3	7.6	4.3	9.6	19.0	12.1	13.3	13.9	
100	3000	Trips	1,170	1,188	470	1,050	1,554	1,358	947	778	8,796
100	3000	Percent	13.7	14.0	5.5	12.3	18.3	15.9	11.1	9.1	
101	3001	Trips	1,373	134	82	208	663	517	510	941	4,546
101	3001	Percent	31.0	3.0	1.9	4.7	15.0	11.7	11.5	21.3	
102	3002	Trips	1,239	1,159	383	1,201	2,090	1,709	989	1,160	10,403
102	3002	Percent	12.5	11.7	3.9	12.1	21.1	17.2	10.0	11.7	
103	3003	Trips	566	483	242	390	1,115	701	423	486	4,574
103	3003	Percent	12.9	11.0	5.5	8.9	25.3	15.9	9.6	11.0	
104	3004	Trips	995	756	259	694	1,848	1,526	568	907	7,641
104	3004	Percent	13.2	10.0	3.4	9.2	24.5	20.2	7.5	12.0	