

HCM Signalized Intersection Capacity Analysis  
 1: NE 6 Ave & NE 167 St

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↔	↑↑↓		↔	↑↑↓		↔	↑↑↓		↔	↑↑↓
Traffic Volume (vph)	12	87	1591	135	114	1692	281	131	503	81	158	536
Future Volume (vph)	12	87	1591	135	114	1692	281	131	503	81	158	536
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.1		6.0	6.1		6.4	7.4		6.4	7.4
Lane Util. Factor		1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95
Frt		1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.99
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	5026		1770	4977		1770	3465		1770	3500
Flt Permitted		0.05	1.00		0.07	1.00		0.18	1.00		0.11	1.00
Satd. Flow (perm)		85	5026		133	4977		332	3465		214	3500
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	12	88	1607	136	115	1709	284	132	508	82	160	541
RTOR Reduction (vph)	0	0	5	0	0	11	0	0	7	0	0	3
Lane Group Flow (vph)	0	100	1738	0	115	1982	0	132	583	0	160	581
Turn Type	pm+pt	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA
Protected Phases	5	5	2		1	6		3	8		7	4
Permitted Phases	2	2			6			8			4	
Actuated Green, G (s)		117.8	106.6		119.8	107.6		51.9	37.4		58.7	40.8
Effective Green, g (s)		117.8	106.6		119.8	107.6		51.9	37.4		58.7	40.8
Actuated g/C Ratio		0.59	0.53		0.60	0.54		0.26	0.19		0.29	0.20
Clearance Time (s)		6.0	6.1		6.0	6.1		6.4	7.4		6.4	7.4
Vehicle Extension (s)		2.0	1.0		2.0	1.0		2.0	2.5		2.0	2.5
Lane Grp Cap (vph)		144	2678		179	2677		190	647		202	714
v/s Ratio Prot		0.04	0.35		c0.04	c0.40		0.05	c0.17		c0.07	c0.17
v/s Ratio Perm		0.37			0.35			0.13			0.16	
v/c Ratio		0.69	0.65		0.64	0.74		0.69	0.90		0.79	0.81
Uniform Delay, d1		42.1	33.3		27.8	35.5		60.7	79.5		57.7	76.0
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		11.1	1.2		5.8	1.9		8.6	15.8		17.7	6.9
Delay (s)		53.2	34.6		33.5	37.4		69.3	95.3		75.4	82.9
Level of Service		D	C		C	D		E	F		E	F
Approach Delay (s)			35.6			37.2			90.6			81.2
Approach LOS			D			D			F			F

Intersection Summary

HCM 2000 Control Delay	49.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	200.0	Sum of lost time (s)	25.9
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 1: NE 6 Ave & NE 167 St

851 NE 167 Street  
 Existing Condition - PM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	43
Future Volume (vph)	43
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.99
Adj. Flow (vph)	43
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Timings  
1: NE 6 Ave & NE 167 St

851 NE 167 Street  
Existing Condition - PM Peak Hour



Lane Group	EBU	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	87	1591	114	1692	131	503	158	536
Future Volume (vph)	12	87	1591	114	1692	131	503	158	536
Turn Type	pm+pt	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	5	5	2	1	6	3	8	7	4
Permitted Phases	2	2		6		8		4	
Detector Phase	5	5	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	11.0	35.1	11.0	35.1	11.4	41.4	11.4	41.4
Total Split (s)	22.0	22.0	110.0	22.0	110.0	23.0	45.0	23.0	45.0
Total Split (%)	11.0%	11.0%	55.0%	11.0%	55.0%	11.5%	22.5%	11.5%	22.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.1	2.0	2.1	2.0	3.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.1	6.0	6.1	6.4	7.4	6.4	7.4
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)		117.9	106.6	120.0	107.7	52.8	37.4	59.7	40.8
Actuated g/C Ratio		0.59	0.53	0.60	0.54	0.26	0.19	0.30	0.20
v/c Ratio		0.70	0.65	0.64	0.74	0.69	0.90	0.79	0.82
Control Delay		62.4	35.4	41.3	38.1	69.6	95.8	77.9	84.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		62.4	35.4	41.3	38.1	69.6	95.8	77.9	84.8
LOS		E	D	D	D	E	F	E	F
Approach Delay			36.9		38.3		91.0		83.4
Approach LOS			D		D		F		F

Intersection Summary

Cycle Length: 200  
 Actuated Cycle Length: 200  
 Offset: 187 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 51.0  
 Intersection Capacity Utilization 91.3%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 1: NE 6 Ave & NE 167 St

Ø1	Ø2 (R)	Ø3	Ø4
22 s	110 s	23 s	45 s
Ø5	Ø6 (R)	Ø7	Ø8
22 s	110 s	23 s	45 s

Queues  
1: NE 6 Ave & NE 167 St

851 NE 167 Street  
Existing Condition - PM Peak Hour



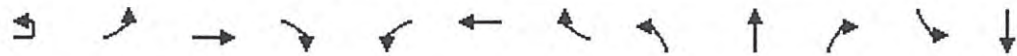
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	1743	115	1993	132	590	160	584
v/c Ratio	0.70	0.65	0.64	0.74	0.69	0.90	0.79	0.82
Control Delay	62.4	35.4	41.3	38.1	69.6	95.8	77.9	84.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	35.4	41.3	38.1	69.6	95.8	77.9	84.8
Queue Length 50th (ft)	71	616	62	751	126	396	156	382
Queue Length 95th (ft)	141	656	128	805	197	#504	#295	#495
Internal Link Dist (ft)		1120		1241		270		985
Turn Bay Length (ft)	295		245		200		200	
Base Capacity (vph)	186	2727	212	2728	212	678	207	723
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.64	0.54	0.73	0.62	0.87	0.77	0.81

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis  
 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↔	↑↑↑		↔	↑↑↑		↔	↑		↔	↑
Traffic Volume (vph)	14	79	1691	26	76	1965	99	147	96	51	173	104
Future Volume (vph)	14	79	1691	26	76	1965	99	147	96	51	173	104
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		5.7	7.0		5.7	7.0
Lane Util. Factor		1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.99		1.00	0.95		1.00	0.96
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	5074		1770	5049		1770	1766		1770	1786
Flt Permitted		0.05	1.00		0.08	1.00		0.53	1.00		0.39	1.00
Satd. Flow (perm)		85	5074		148	5049		979	1766		726	1786
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	15	82	1761	27	79	2047	103	153	100	53	180	108
RTOR Reduction (vph)	0	0	1	0	0	3	0	0	13	0	0	9
Lane Group Flow (vph)	0	97	1787	0	79	2147	0	153	140	0	180	140
Turn Type	custom	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA
Protected Phases		5	2		1	6		3	8		7	4
Permitted Phases	5	2			6			8			4	
Actuated Green, G (s)		95.3	87.3		93.3	86.3		29.3	15.8		32.7	17.5
Effective Green, g (s)		95.3	87.3		93.3	86.3		29.3	15.8		32.7	17.5
Actuated g/C Ratio		0.64	0.58		0.62	0.58		0.20	0.11		0.22	0.12
Clearance Time (s)		6.0	6.0		6.0	6.0		5.7	7.0		5.7	7.0
Vehicle Extension (s)		2.0	1.0		2.0	1.0		2.0	2.5		2.0	2.5
Lane Grp Cap (vph)		143	2953		167	2904		262	186		264	208
v/s Ratio Prot		c0.04	0.35		0.02	c0.43		0.05	0.08		c0.07	0.08
v/s Ratio Perm		0.39			0.27			0.06			c0.08	
v/c Ratio		0.68	0.61		0.47	0.74		0.58	0.75		0.68	0.67
Uniform Delay, d1		29.1	20.2		15.5	23.5		53.2	65.2		51.3	63.5
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		9.6	0.9		0.8	1.7		2.1	14.9		5.7	7.6
Delay (s)		38.7	21.2		16.3	25.3		55.3	80.1		56.9	71.1
Level of Service		D	C		B	C		E	F		E	E
Approach Delay (s)			22.1			24.9			67.7			63.3
Approach LOS			C			C			E			E

Intersection Summary

HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	24.7
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
 Existing Condition - PM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	39
Future Volume (vph)	39
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	41
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Timings  
2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
Existing Condition - PM Peak Hour



Lane Group	EBU	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	79	1691	76	1965	147	96	173	104
Future Volume (vph)	14	79	1691	76	1965	147	96	173	104
Turn Type	custom	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases		5	2	1	6	3	8	7	4
Permitted Phases	5	2		6		8		4	
Detector Phase	5	5	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	11.0	31.0	11.0	31.0	10.7	26.0	10.7	26.0
Total Split (s)	15.0	15.0	92.0	15.0	92.0	17.0	26.0	17.0	26.0
Total Split (%)	10.0%	10.0%	61.3%	10.0%	61.3%	11.3%	17.3%	11.3%	17.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.7	4.0	3.7	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	5.7	7.0	5.7	7.0
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	C-Min	None	None	None	None
Act Effect Green (s)		95.4	87.4	93.3	86.3	30.6	15.8	34.0	17.5
Actuated g/C Ratio		0.64	0.58	0.62	0.58	0.20	0.11	0.23	0.12
v/c Ratio		0.67	0.60	0.48	0.74	0.56	0.77	0.67	0.69
Control Delay		49.1	22.0	19.8	26.3	54.2	83.1	59.5	75.7
Queue Delay		0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
Total Delay		49.1	22.0	19.8	32.1	54.2	83.1	59.5	75.7
LOS		D	C	B	C	D	F	E	E
Approach Delay			23.4		31.7		68.7		66.8
Approach LOS			C		C		E		E

Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 68 (45%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 33.2  
 Intersection Capacity Utilization 83.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

15 s	92 s	17 s	26 s
15 s	92 s	17 s	26 s



Queues  
 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	97	1788	79	2150	153	153	180	149
v/c Ratio	0.67	0.60	0.48	0.74	0.56	0.77	0.67	0.69
Control Delay	49.1	22.0	19.8	26.3	54.2	83.1	59.5	75.7
Queue Delay	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
Total Delay	49.1	22.0	19.8	32.1	54.2	83.1	59.5	75.7
Queue Length 50th (ft)	43	417	27	578	120	133	143	131
Queue Length 95th (ft)	#113	463	45	620	192	212	#236	210
Internal Link Dist (ft)		1241		493		490		175
Turn Bay Length (ft)	205		140		80			
Base Capacity (vph)	160	3024	190	3006	275	237	270	239
Starvation Cap Reductn	0	0	0	802	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.59	0.42	0.98	0.56	0.65	0.67	0.62

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis  
 3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	130	1823	1960	36	0	144
Future Volume (vph)	130	1823	1960	36	0	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0			7.0
Lane Util. Factor	1.00	0.91	0.91			1.00
Flt	1.00	1.00	1.00			0.86
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	5085	5072			1611
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	5085	5072			1611
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	138	1939	2085	38	0	153
RTOR Reduction (vph)	0	0	0	0	0	2
Lane Group Flow (vph)	138	1939	2123	0	0	151
Turn Type	Prot	NA	NA			pt+ov
Protected Phases	5 7	2	6			7 5
Permitted Phases						
Actuated Green, G (s)	25.7	125.3	114.3			25.7
Effective Green, g (s)	18.7	125.3	114.3			25.7
Actuated g/C Ratio	0.12	0.82	0.75			0.17
Clearance Time (s)		6.0	6.0			
Vehicle Extension (s)		2.0	2.0			
Lane Grp Cap (vph)	217	4191	3814			272
v/s Ratio Prot	0.08	0.38	c0.42			c0.09
v/s Ratio Perm						
v/c Ratio	0.64	0.46	0.56			0.56
Uniform Delay, d1	63.4	3.8	8.0			57.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	4.4	0.4	0.6			1.4
Delay (s)	67.8	4.2	8.6			59.3
Level of Service	E	A	A			E
Approach Delay (s)		8.4	8.6		59.3	
Approach LOS		A	A		E	

Intersection Summary

HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	152.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings

3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street  
Existing Condition - PM Peak Hour



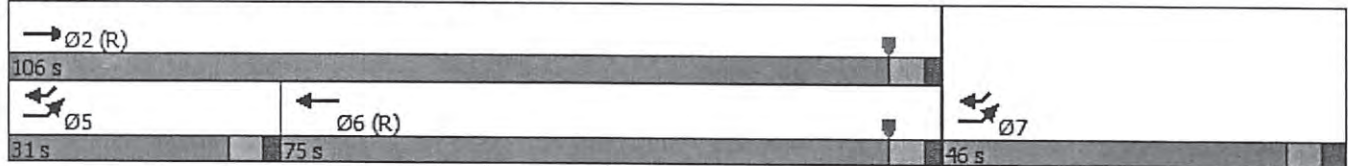
Lane Group	EBL	EBT	WBT	SWR	Ø5	Ø7
Lane Configurations	↖	↑↑↑	↑↑↑↗	↗		
Traffic Volume (vph)	130	1823	1960	144		
Future Volume (vph)	130	1823	1960	144		
Turn Type	Prot	NA	NA	pt+ov		
Protected Phases	5 7	2	6	7 5	5	7
Permitted Phases						
Detector Phase	5 7	2	6	7 5		
Switch Phase						
Minimum Initial (s)		16.0	16.0		5.0	5.0
Minimum Split (s)		24.0	24.0		24.0	46.0
Total Split (s)		106.0	75.0		31.0	46.0
Total Split (%)		69.7%	49.3%		20%	30%
Yellow Time (s)		4.0	4.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	3.0
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		6.0	6.0			
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode		C-Min	C-Min		None	None
Act Effct Green (s)	25.7	125.3	114.3	24.7		
Actuated g/C Ratio	0.17	0.82	0.75	0.16		
v/c Ratio	0.46	0.46	0.56	0.58		
Control Delay	61.1	4.5	9.1	66.4		
Queue Delay	0.0	0.6	0.0	0.0		
Total Delay	61.1	5.1	9.1	66.4		
LOS	E	A	A	E		
Approach Delay		8.8	9.1			
Approach LOS		A	A			

Intersection Summary

Cycle Length: 152  
 Actuated Cycle Length: 152  
 Offset: 87 (57%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 11.0  
 Intersection Capacity Utilization 58.4%  
 Analysis Period (min) 15

Intersection LOS: B  
ICU Level of Service B

Splits and Phases: 3: N Miami Beach Blvd & NE 800 Blk



Queues  
 3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	138	1939	2123	153
v/c Ratio	0.46	0.46	0.56	0.58
Control Delay	61.1	4.5	9.1	66.4
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	61.1	5.1	9.1	66.4
Queue Length 50th (ft)	126	160	289	141
Queue Length 95th (ft)	186	245	397	208
Internal Link Dist (ft)		493	885	
Turn Bay Length (ft)	240			
Base Capacity (vph)	532	4191	3813	475
Starvation Cap Reductn	0	1669	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.77	0.56	0.32

Intersection Summary

HCM Signalized Intersection Capacity Analysis  
 4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
 Existing Condition - PM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	95	138	46	48	140	21	28	55	1649	89	1	138
Future Volume (vph)	95	138	46	48	140	21	28	55	1649	89	1	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	4.0	8.0	8.0			6.0	7.0			6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	0.98			1.00	0.99			1.00
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1826			1770	5046			1770
Fl <sub>t</sub> Permitted	0.47	1.00	1.00	0.55	1.00			0.07	1.00			0.07
Satd. Flow (perm)	877	1863	1583	1029	1826			123	5046			135
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	102	148	49	52	151	23	30	59	1773	96	1	148
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	3	0	0	0
Lane Group Flow (vph)	102	148	49	52	171	0	0	89	1866	0	0	149
Turn Type	Perm	NA	Free	Perm	NA		custom	pm+pt	NA		custom	pm+pt
Protected Phases		8			4			5	2			1
Permitted Phases	8		Free	4			5	2			1	6
Actuated Green, G (s)	21.2	21.2	150.0	21.2	21.2			101.7	93.7			113.8
Effective Green, g (s)	21.2	21.2	150.0	21.2	21.2			101.7	93.7			113.8
Actuated g/C Ratio	0.14	0.14	1.00	0.14	0.14			0.68	0.62			0.76
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0	7.0			6.0
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.0	1.0			2.0
Lane Grp Cap (vph)	123	263	1583	145	258			171	3152			256
v/s Ratio Prot		0.08			0.09			0.03	0.37			c0.05
v/s Ratio Perm	c0.12		0.03	0.05				0.32				0.39
v/c Ratio	0.83	0.56	0.03	0.36	0.66			0.52	0.59			0.58
Uniform Delay, d1	62.6	60.1	0.0	58.3	61.0			12.2	16.8			20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			1.00
Incremental Delay, d2	34.2	2.2	0.0	1.1	5.6			1.3	0.8			2.2
Delay (s)	96.9	62.3	0.0	59.4	66.6			13.5	17.6			22.7
Level of Service	F	E	A	E	E			B	B			C
Approach Delay (s)		63.9			64.9				17.4			
Approach LOS		E			E				B			

Intersection Summary

HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
 Existing Condition - PM Peak Hour



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	1882	40
Future Volume (vph)	1882	40
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.0	
Lane Util. Factor	0.91	
Fr <sub>t</sub>	1.00	
Fl <sub>t</sub> Protected	1.00	
Satd. Flow (prot)	5069	
Fl <sub>t</sub> Permitted	1.00	
Satd. Flow (perm)	5069	
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	2024	43
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2066	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	99.8	
Effective Green, g (s)	99.8	
Actuated g/C Ratio	0.67	
Clearance Time (s)	7.0	
Vehicle Extension (s)	1.0	
Lane Grp Cap (vph)	3372	
v/s Ratio Prot	c0.41	
v/s Ratio Perm		
v/c Ratio	0.61	
Uniform Delay, d1	14.2	
Progression Factor	1.00	
Incremental Delay, d2	0.8	
Delay (s)	15.0	
Level of Service	B	
Approach Delay (s)	15.5	
Approach LOS	B	
Intersection Summary		

Timings  
4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
Existing Condition - PM Peak Hour

Lane Group	NBL	NBT	NBR	SBL	SBT	SEU	SEL	SET	NWU	NWL	NWT
Lane Configurations											
Traffic Volume (vph)	95	138	46	48	140	28	55	1649	1	138	1882
Future Volume (vph)	95	138	46	48	140	28	55	1649	1	138	1882
Turn Type	Perm	NA	Free	Perm	NA	custom	pm+pt	NA	custom	pm+pt	NA
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		Free	4		5	2		1	6	
Detector Phase	8	8		4	4	5	5	2	1	1	6
Switch Phase											
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	5.0	7.0	5.0	5.0	7.0
Minimum Split (s)	33.0	33.0		33.0	33.0	11.0	11.0	32.0	11.0	11.0	32.0
Total Split (s)	33.0	33.0		33.0	33.0	23.0	23.0	94.0	23.0	23.0	94.0
Total Split (%)	22.0%	22.0%		22.0%	22.0%	15.3%	15.3%	62.7%	15.3%	15.3%	62.7%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	4.0		4.0	4.0	2.0	2.0	3.0	2.0	2.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	8.0	8.0		8.0	8.0		6.0	7.0		6.0	7.0
Lead/Lag						Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min	None	None	C-Min
Act Effct Green (s)	21.2	21.2	150.0	21.2	21.2		102.7	93.7		114.3	99.8
Actuated g/C Ratio	0.14	0.14	1.00	0.14	0.14		0.68	0.62		0.76	0.67
v/c Ratio	0.83	0.56	0.03	0.36	0.67		0.52	0.59		0.58	0.61
Control Delay	105.8	67.1	0.0	62.7	71.1		25.0	19.1		26.4	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	105.8	67.1	0.0	62.7	71.1		25.0	19.1		26.4	16.4
LOS	F	E	A	E	E		C	B		C	B
Approach Delay		69.3			69.1			19.3			17.1
Approach LOS		E			E			B			B

Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 113 (75%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 23.9  
 Intersection Capacity Utilization 80.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 4: NE 10 Ave & N Miami Beach Blvd

Ø1 23 s	Ø2 (R) 94 s	Ø4 33 s
Ø5 23 s	Ø6 (R) 94 s	Ø8 33 s

Queues  
4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
Existing Condition - PM Peak Hour



Lane Group	NBL	NBT	NBR	SBL	SBT	SEL	SET	NWL	NWT
Lane Group Flow (vph)	102	148	49	52	174	89	1869	149	2067
v/c Ratio	0.83	0.56	0.03	0.36	0.67	0.52	0.59	0.58	0.61
Control Delay	105.8	67.1	0.0	62.7	71.1	25.0	19.1	26.4	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.8	67.1	0.0	62.7	71.1	25.0	19.1	26.4	16.4
Queue Length 50th (ft)	98	137	0	47	160	19	379	44	383
Queue Length 95th (ft)	160	198	0	87	227	73	538	128	570
Internal Link Dist (ft)		197			362		885		231
Turn Bay Length (ft)	90		70	195		210		180	
Base Capacity (vph)	152	324	1583	179	321	278	3205	292	3383
Starvation Cap Reductn	0	0	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	0.67	0.46	0.03	0.29	0.54	0.32	0.58	0.51	0.61

Intersection Summary



**Intersection**

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕	↕↕		↕	↕↕	
Traffic Vol, veh/h	1	2	3	16	4	244	3	808	45	239	760	12
Future Vol, veh/h	1	2	3	16	4	244	3	808	45	239	760	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	3	16	4	252	3	833	46	246	784	12

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1707	2167	398	1747	2150	440	796	0	0	879	0	0
Stage 1	1282	1282	-	862	862	-	-	-	-	-	-	-
Stage 2	425	885	-	885	1288	-	-	-	-	-	-	-
Critical Hdwy	5	5	5	5	5	5	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	196	117	745	189	119	716	822	-	-	764	-	-
Stage 1	175	234	-	316	370	-	-	-	-	-	-	-
Stage 2	578	361	-	306	233	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	79	745	138	80	716	822	-	-	764	-	-
Mov Cap-2 Maneuver	92	79	-	138	80	-	-	-	-	-	-	-
Stage 1	174	159	-	315	369	-	-	-	-	-	-	-
Stage 2	369	360	-	204	158	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	30.2		19.2			0		2.8		
HCM LOS	D		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	822	-	-	149	521	764	-
HCM Lane V/C Ratio	0.004	-	-	0.042	0.522	0.323	-
HCM Control Delay (s)	9.4	-	-	30.2	19.2	11.9	-
HCM Lane LOS	A	-	-	D	C	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3	1.4	-

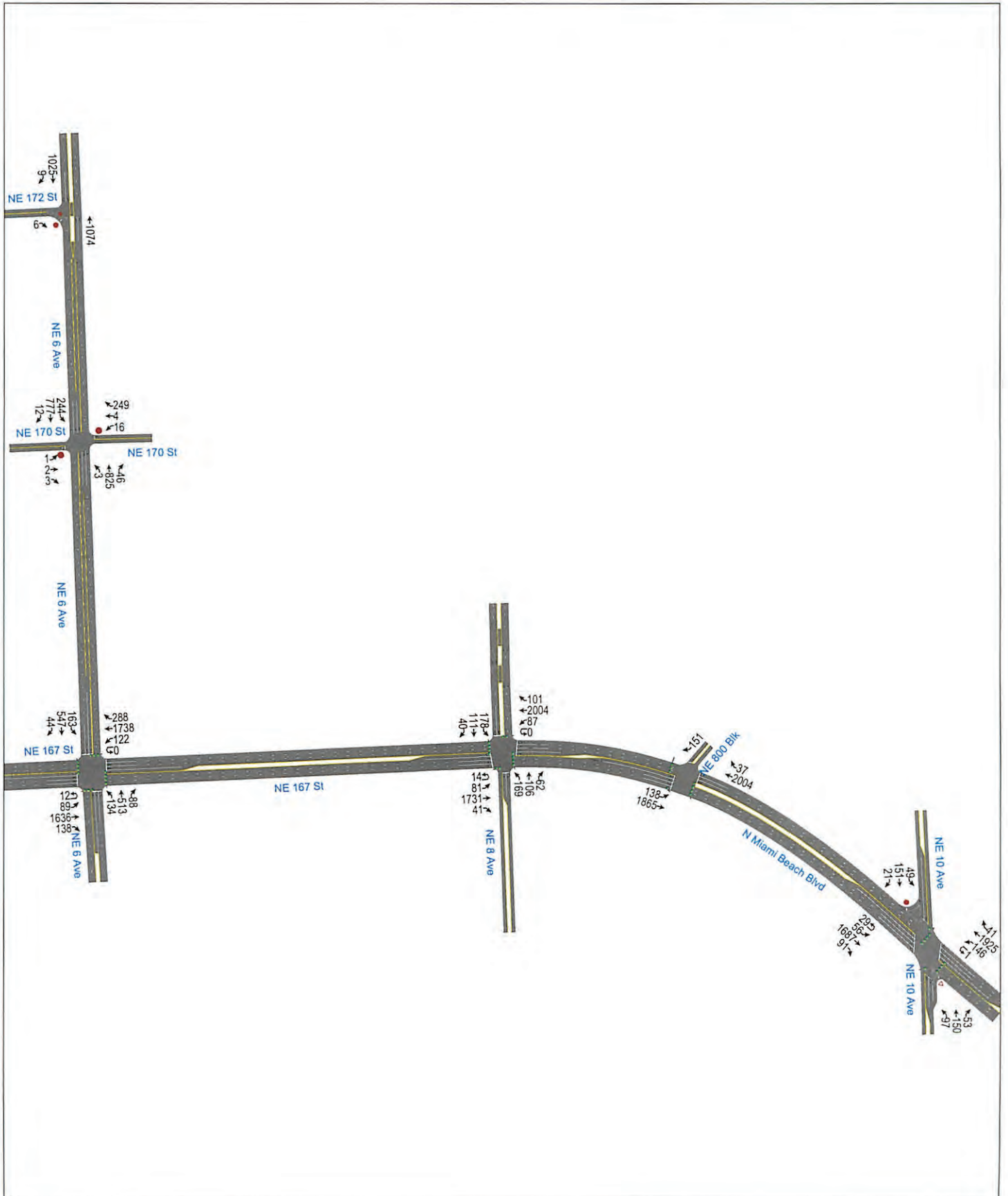
**Intersection**

Int Delay, s/veh	0					
<b>Movement</b>	<b>EBL</b>	<b>EBR</b>	<b>NBL</b>	<b>NBT</b>	<b>SBT</b>	<b>SBR</b>
Lane Configurations		↗		↕↕	↕↗	
Traffic Vol, veh/h	0	6	0	1052	1003	9
Future Vol, veh/h	0	6	0	1052	1003	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	1096	1045	9

<b>Major/Minor</b>	<b>Minor2</b>	<b>Major1</b>	<b>Major2</b>
Conflicting Flow All	-	527	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	496	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	496	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

<b>Approach</b>	<b>EB</b>	<b>NB</b>	<b>SB</b>
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

<b>Minor Lane/Major Mvmt</b>	<b>NBT EBLn1</b>	<b>SBT</b>	<b>SBR</b>
Capacity (veh/h)	-	496	-
HCM Lane V/C Ratio	-	0.013	-
HCM Control Delay (s)	-	12.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0	-



# HCM Signalized Intersection Capacity Analysis

1: NE 6 Ave & NE 167 St

851 NE 167 Street

Future Condition w/o Project - PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↔	↑↑↑		↔	↑↑↑		↔	↑↑		↔	↑↑
Traffic Volume (vph)	12	89	1636	138	122	1738	288	134	513	88	163	547
Future Volume (vph)	12	89	1636	138	122	1738	288	134	513	88	163	547
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.1		6.0	6.1		6.4	7.4		6.4	7.4
Lane Util. Factor		1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95
Frt		1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.99
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	5026		1770	4977		1770	3461		1770	3500
Flt Permitted		0.04	1.00		0.06	1.00		0.16	1.00		0.10	1.00
Satd. Flow (perm)		75	5026		121	4977		298	3461		189	3500
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	12	90	1653	139	123	1756	291	135	518	89	165	553
RTOR Reduction (vph)	0	0	5	0	0	11	0	0	7	0	0	3
Lane Group Flow (vph)	0	102	1787	0	123	2036	0	135	600	0	165	594
Turn Type	pm+pt	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA
Protected Phases	5	5	2		1	6		3	8		7	4
Permitted Phases	2	2			6			8			4	
Actuated Green, G (s)		117.9	106.4		120.3	107.6		52.0	37.4		58.0	40.4
Effective Green, g (s)		117.9	106.4		120.3	107.6		52.0	37.4		58.0	40.4
Actuated g/C Ratio		0.59	0.53		0.60	0.54		0.26	0.19		0.29	0.20
Clearance Time (s)		6.0	6.1		6.0	6.1		6.4	7.4		6.4	7.4
Vehicle Extension (s)		2.0	1.0		2.0	1.0		2.0	2.5		2.0	2.5
Lane Grp Cap (vph)		141	2673		177	2677		184	647		193	707
v/s Ratio Prot		0.04	0.36		c0.04	c0.41		0.05	c0.17		c0.07	0.17
v/s Ratio Perm		0.38			0.37			0.14			c0.17	
v/c Ratio		0.72	0.67		0.69	0.76		0.73	0.93		0.85	0.84
Uniform Delay, d1		49.1	34.0		31.4	36.1		60.9	80.0		58.6	76.7
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		14.4	1.3		9.2	2.1		12.2	19.4		28.1	8.5
Delay (s)		63.5	35.3		40.5	38.2		73.2	99.3		86.6	85.2
Level of Service		E	D		D	D		E	F		F	F
Approach Delay (s)			36.9			38.4			94.6			85.5
Approach LOS			D			D			F			F

Intersection Summary			
HCM 2000 Control Delay	51.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	200.0	Sum of lost time (s)	25.9
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 1: NE 6 Ave & NE 167 St

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	44
Future Volume (vph)	44
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Fr	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.99
Adj. Flow (vph)	44
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Timings  
1: NE 6 Ave & NE 167 St

851 NE 167 Street  
Future Condition w/o Project - PM Peak Hour



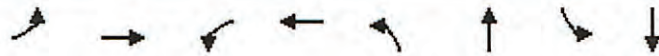
Lane Group	EBU	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	89	1636	122	1738	134	513	163	547
Future Volume (vph)	12	89	1636	122	1738	134	513	163	547
Turn Type	pm+pt	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	5	5	2	1	6	3	8	7	4
Permitted Phases	2	2		6		8		4	
Detector Phase	5	5	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	11.0	35.1	11.0	35.1	11.4	41.4	11.4	41.4
Total Split (s)	22.0	22.0	110.0	22.0	110.0	23.0	45.0	23.0	45.0
Total Split (%)	11.0%	11.0%	55.0%	11.0%	55.0%	11.5%	22.5%	11.5%	22.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4
All-Red Time (s)	2.0	2.0	2.1	2.0	2.1	2.0	3.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.1	6.0	6.1	6.4	7.4	6.4	7.4
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)		118.0	106.4	120.4	107.6	53.0	37.4	59.0	40.4
Actuated g/C Ratio		0.59	0.53	0.60	0.54	0.26	0.19	0.30	0.20
v/c Ratio		0.72	0.67	0.69	0.76	0.73	0.93	0.85	0.84
Control Delay		70.9	35.8	50.3	38.7	73.8	99.3	88.7	87.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		70.9	35.8	50.3	38.7	73.8	99.3	88.7	87.3
LOS		E	D	D	D	E	F	F	F
Approach Delay			37.7		39.3		94.7		87.6
Approach LOS			D		D		F		F

Intersection Summary

Cycle Length: 200  
 Actuated Cycle Length: 200  
 Offset: 187 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 52.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 93.2%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 1: NE 6 Ave & NE 167 St





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	102	1792	123	2047	135	607	165	597
v/c Ratio	0.72	0.67	0.69	0.76	0.73	0.93	0.85	0.84
Control Delay	70.9	35.8	50.3	38.7	73.8	99.3	88.7	87.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.9	35.8	50.3	38.7	73.8	99.3	88.7	87.3
Queue Length 50th (ft)	82	669	75	816	127	405	158	386
Queue Length 95th (ft)	151	683	150	840	200	#528	#327	#514
Internal Link Dist (ft)		1120		1241		270		985
Turn Bay Length (ft)	295		245		200		200	
Base Capacity (vph)	181	2702	206	2707	204	668	197	710
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.66	0.60	0.76	0.66	0.91	0.84	0.84

**Intersection Summary**

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

HCM Signalized Intersection Capacity Analysis  
 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	14	81	1731	41	87	2004	101	169	106	62	178	111
Future Volume (vph)	14	81	1731	41	87	2004	101	169	106	62	178	111
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		5.7	7.0		5.7	7.0
Lane Util. Factor		1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.99		1.00	0.94		1.00	0.96
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	5068		1770	5049		1770	1759		1770	1788
Flt Permitted		0.05	1.00		0.07	1.00		0.48	1.00		0.36	1.00
Satd. Flow (perm)		88	5068		127	5049		890	1759		670	1788
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	15	84	1803	43	91	2088	105	176	110	65	185	116
RTOR Reduction (vph)	0	0	2	0	0	4	0	0	14	0	0	9
Lane Group Flow (vph)	0	99	1844	0	91	2189	0	176	161	0	185	149
Turn Type	custom	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA
Protected Phases		5	2		1	6		3	8		7	4
Permitted Phases	5	2			6			8			4	
Actuated Green, G (s)		92.9	84.6		91.5	83.9		32.2	17.5		34.0	18.4
Effective Green, g (s)		92.9	84.6		91.5	83.9		32.2	17.5		34.0	18.4
Actuated g/C Ratio		0.62	0.56		0.61	0.56		0.21	0.12		0.23	0.12
Clearance Time (s)		6.0	6.0		6.0	6.0		5.7	7.0		5.7	7.0
Vehicle Extension (s)		2.0	1.0		2.0	1.0		2.0	2.5		2.0	2.5
Lane Grp Cap (vph)		147	2858		160	2824		277	205		266	219
v/s Ratio Prot		c0.04	0.36		0.03	c0.43		0.06	c0.09		c0.07	0.08
v/s Ratio Perm		0.38			0.32			0.07			0.09	
v/c Ratio		0.67	0.65		0.57	0.78		0.64	0.78		0.70	0.68
Uniform Delay, d1		30.0	22.4		18.3	25.7		51.5	64.4		50.4	63.0
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		9.2	1.1		2.8	2.2		3.5	17.1		6.2	7.7
Delay (s)		39.1	23.6		21.1	27.9		54.9	81.5		56.6	70.7
Level of Service		D	C		C	C		D	F		E	E
Approach Delay (s)			24.3			27.6			68.2			63.1
Approach LOS			C			C			E			E

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	24.7
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group





Movement	SBR
Lane Configurations	
Traffic Volume (vph)	40
Future Volume (vph)	40
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	42
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Timings  
2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
Future Condition w/o Project - PM Peak Hour



Lane Group	EBU	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	81	1731	87	2004	169	106	178	111
Future Volume (vph)	14	81	1731	87	2004	169	106	178	111
Turn Type	custom	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases		5	2	1	6	3	8	7	4
Permitted Phases	5	2		6		8		4	
Detector Phase	5	5	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	7.0	5.0	7.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.0	11.0	31.0	11.0	31.0	10.7	26.0	10.7	26.0
Total Split (s)	15.0	15.0	92.0	15.0	92.0	17.0	26.0	17.0	26.0
Total Split (%)	10.0%	10.0%	61.3%	10.0%	61.3%	11.3%	17.3%	11.3%	17.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.7	4.0	3.7	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	5.7	7.0	5.7	7.0
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	C-Min	None	None	None	None
Act Effect Green (s)		92.9	84.6	91.5	83.9	33.5	17.5	35.3	18.4
Actuated g/C Ratio		0.62	0.56	0.61	0.56	0.22	0.12	0.24	0.12
v/c Ratio		0.67	0.65	0.57	0.78	0.62	0.80	0.68	0.69
Control Delay		49.2	24.4	29.8	28.9	55.4	83.6	58.7	75.0
Queue Delay		0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0
Total Delay		49.2	24.4	29.8	36.6	55.4	83.6	58.7	75.0
LOS		D	C	C	D	E	F	E	E
Approach Delay			25.7		36.3		69.5		66.2
Approach LOS			C		D		E		E

Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 68 (45%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 36.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 86.0%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

15 s	92 s	17 s	26 s
15 s	92 s	17 s	26 s

Queues  
 2: NE 8 Ave & NE 167 St/N Miami Beach Blvd

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour



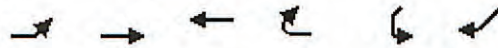
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	99	1846	91	2193	176	175	185	158
v/c Ratio	0.67	0.65	0.57	0.78	0.62	0.80	0.68	0.69
Control Delay	49.2	24.4	29.8	28.9	55.4	83.6	58.7	75.0
Queue Delay	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0
Total Delay	49.2	24.4	29.8	36.6	55.4	83.6	58.7	75.0
Queue Length 50th (ft)	46	468	33	633	136	153	144	139
Queue Length 95th (ft)	#116	480	72	634	220	#261	#271	222
Internal Link Dist (ft)		1241		493		490		175
Turn Bay Length (ft)	205		140		80			
Base Capacity (vph)	161	2980	177	2967	286	242	272	244
Starvation Cap Reductn	0	0	0	749	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.62	0.51	0.99	0.62	0.72	0.68	0.65

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis  
 3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations	↔	↑↑↑	↑↑↑			↔
Traffic Volume (vph)	138	1865	2004	37	0	151
Future Volume (vph)	138	1865	2004	37	0	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0			7.0
Lane Util. Factor	1.00	0.91	0.91			1.00
Frt	1.00	1.00	1.00			0.86
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	5085	5072			1611
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	5085	5072			1611
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	147	1984	2132	39	0	161
RTOR Reduction (vph)	0	0	1	0	0	1
Lane Group Flow (vph)	147	1984	2170	0	0	160
Turn Type	Prot	NA	NA			pt+ov
Protected Phases	5 7	2	6			7 5
Permitted Phases						
Actuated Green, G (s)	26.5	124.5	113.5			26.5
Effective Green, g (s)	19.5	124.5	113.5			26.5
Actuated g/C Ratio	0.13	0.82	0.75			0.17
Clearance Time (s)		6.0	6.0			
Vehicle Extension (s)		2.0	2.0			
Lane Grp Cap (vph)	227	4165	3787			280
v/s Ratio Prot	0.08	0.39	c0.43			c0.10
v/s Ratio Perm						
v/c Ratio	0.65	0.48	0.57			0.57
Uniform Delay, d1	63.0	4.1	8.5			57.5
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	4.7	0.4	0.6			1.8
Delay (s)	67.7	4.5	9.2			59.3
Level of Service	E	A	A			E
Approach Delay (s)		8.8	9.2		59.3	
Approach LOS		A	A		E	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	152.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings

3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street

Future Condition w/o Project - PM Peak Hour

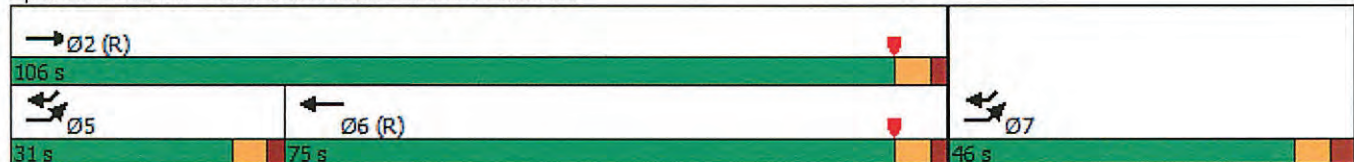


Lane Group	EBL	EBT	WBT	SWR	Ø5	Ø7
Lane Configurations						
Traffic Volume (vph)	138	1865	2004	151		
Future Volume (vph)	138	1865	2004	151		
Turn Type	Prot	NA	NA	pt+ov		
Protected Phases	5 7	2	6	7 5	5	7
Permitted Phases						
Detector Phase	5 7	2	6	7 5		
Switch Phase						
Minimum Initial (s)		16.0	16.0		5.0	5.0
Minimum Split (s)		24.0	24.0		24.0	46.0
Total Split (s)		106.0	75.0		31.0	46.0
Total Split (%)		69.7%	49.3%		20%	30%
Yellow Time (s)		4.0	4.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	3.0
Lost Time Adjust (s)		0.0	0.0			
Total Lost Time (s)		6.0	6.0			
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode		C-Min	C-Min		None	None
Act Effect Green (s)	26.5	124.5	113.5	25.5		
Actuated g/C Ratio	0.17	0.82	0.75	0.17		
v/c Ratio	0.48	0.48	0.57	0.60		
Control Delay	60.9	4.8	9.7	66.7		
Queue Delay	0.0	0.6	0.0	0.0		
Total Delay	60.9	5.5	9.7	66.7		
LOS	E	A	A	E		
Approach Delay		9.3	9.7			
Approach LOS		A	A			

Intersection Summary

Cycle Length: 152  
 Actuated Cycle Length: 152  
 Offset: 87 (57%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 11.6  
 Intersection Capacity Utilization 59.7%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 3: N Miami Beach Blvd & NE 800 Blk



Queues  
 3: N Miami Beach Blvd & NE 800 Blk

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour
























Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	147	1984	2171	161
v/c Ratio	0.48	0.48	0.57	0.60
Control Delay	60.9	4.8	9.7	66.7
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	60.9	5.5	9.7	66.7
Queue Length 50th (ft)	134	173	308	149
Queue Length 95th (ft)	196	264	423	217
Internal Link Dist (ft)		493	885	
Turn Bay Length (ft)	240			
Base Capacity (vph)	540	4166	3787	482
Starvation Cap Reductn	0	1625	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.78	0.57	0.33

Intersection Summary

HCM Signalized Intersection Capacity Analysis  
 4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	97	150	53	49	151	21	29	56	1687	91	1	146
Future Volume (vph)	97	150	53	49	151	21	29	56	1687	91	1	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	4.0	8.0	8.0			6.0	7.0			6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	0.98			1.00	0.99			1.00
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1828			1770	5046			1770
Fl <sub>t</sub> Permitted	0.46	1.00	1.00	0.53	1.00			0.06	1.00			0.07
Satd. Flow (perm)	850	1863	1583	980	1828			112	5046			122
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	104	161	57	53	162	23	31	60	1814	98	1	157
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	4	0	0	0
Lane Group Flow (vph)	104	161	57	53	182	0	0	91	1908	0	0	158
Turn Type	Perm	NA	Free	Perm	NA		custom	pm+pt	NA		custom	pm+pt
Protected Phases		8			4			5	2			1
Permitted Phases	8		Free	4			5	2			1	6
Actuated Green, G (s)	22.8	22.8	150.0	22.8	22.8			99.7	91.4			112.2
Effective Green, g (s)	22.8	22.8	150.0	22.8	22.8			99.7	91.4			112.2
Actuated g/C Ratio	0.15	0.15	1.00	0.15	0.15			0.66	0.61			0.75
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0	7.0			6.0
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.0	1.0			2.0
Lane Grp Cap (vph)	129	283	1583	148	277			166	3074			253
v/s Ratio Prot		0.09			0.10			0.03	0.38			c0.06
v/s Ratio Perm	c0.12		0.04	0.05				0.33				0.40
v/c Ratio	0.81	0.57	0.04	0.36	0.66			0.55	0.62			0.62
Uniform Delay, d1	61.5	59.0	0.0	57.0	59.9			14.2	18.4			27.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			1.00
Incremental Delay, d2	28.8	2.1	0.0	1.1	4.9			2.0	1.0			3.4
Delay (s)	90.3	61.2	0.0	58.1	64.8			16.2	19.4			31.4
Level of Service	F	E	A	E	E			B	B			C
Approach Delay (s)		59.7			63.3				19.2			
Approach LOS		E			E				B			

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
 Future Condition w/o Project - PM Peak Hour



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	1925	41
Future Volume (vph)	1925	41
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.0	
Lane Util. Factor	0.91	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5069	
Flt Permitted	1.00	
Satd. Flow (perm)	5069	
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	2070	44
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2113	0
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	97.9	
Effective Green, g (s)	97.9	
Actuated g/C Ratio	0.65	
Clearance Time (s)	7.0	
Vehicle Extension (s)	1.0	
Lane Grp Cap (vph)	3308	
v/s Ratio Prot	c0.42	
v/s Ratio Perm		
v/c Ratio	0.64	
Uniform Delay, d1	15.5	
Progression Factor	1.00	
Incremental Delay, d2	1.0	
Delay (s)	16.5	
Level of Service	B	
Approach Delay (s)	17.5	
Approach LOS	B	
Intersection Summary		


























Timings

4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street

Future Condition w/o Project - PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SEU	SEL	SET	NWU	NWL	NWT	
Lane Configurations												
Traffic Volume (vph)	97	150	53	49	151	29	56	1687	1	146	1925	
Future Volume (vph)	97	150	53	49	151	29	56	1687	1	146	1925	
Turn Type	Perm	NA	Free	Perm	NA	custom	pm+pt	NA	custom	pm+pt	NA	
Protected Phases		8			4		5	2		1	6	
Permitted Phases	8		Free	4		5	2		1	6		
Detector Phase	8	8		4	4	5	5	2	1	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	5.0	7.0	5.0	5.0	7.0	
Minimum Split (s)	33.0	33.0		33.0	33.0	11.0	11.0	32.0	11.0	11.0	32.0	
Total Split (s)	33.0	33.0		33.0	33.0	23.0	23.0	94.0	23.0	23.0	94.0	
Total Split (%)	22.0%	22.0%		22.0%	22.0%	15.3%	15.3%	62.7%	15.3%	15.3%	62.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	4.0	4.0		4.0	4.0	2.0	2.0	3.0	2.0	2.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	8.0	8.0		8.0	8.0		6.0	7.0		6.0	7.0	
Lead/Lag						Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	22.8	22.8	150.0	22.8	22.8		100.8	91.4		112.8	97.8	
Actuated g/C Ratio	0.15	0.15	1.00	0.15	0.15		0.67	0.61		0.75	0.65	
v/c Ratio	0.81	0.57	0.04	0.36	0.66		0.54	0.62		0.62	0.64	
Control Delay	100.5	65.6	0.0	61.1	68.8		30.1	21.0		33.3	18.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	100.5	65.6	0.0	61.1	68.8		30.1	21.0		33.3	18.1	
LOS	F	E	A	E	E		C	C		C	B	
Approach Delay		65.3			67.1			21.4			19.2	
Approach LOS		E			E			C			B	

Intersection Summary










Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 113 (75%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 25.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 82.0%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 4: NE 10 Ave & N Miami Beach Blvd



Queues  
4: NE 10 Ave & N Miami Beach Blvd

851 NE 167 Street  
Future Condition w/o Project - PM Peak Hour

									
Lane Group	NBL	NBT	NBR	SBL	SBT	SEL	SET	NWL	NWT
Lane Group Flow (vph)	104	161	57	53	185	91	1912	158	2114
v/c Ratio	0.81	0.57	0.04	0.36	0.66	0.54	0.62	0.62	0.64
Control Delay	100.5	65.6	0.0	61.1	68.8	30.1	21.0	33.3	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.5	65.6	0.0	61.1	68.8	30.1	21.0	33.3	18.1
Queue Length 50th (ft)	100	148	0	47	169	21	413	65	419
Queue Length 95th (ft)	161	211	0	87	238	83	580	150	617
Internal Link Dist (ft)		197			362		885		231
Turn Bay Length (ft)	90		70	195		210		180	
Base Capacity (vph)	152	334	1583	175	330	269	3160	284	3333
Starvation Cap Reductn	0	0	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	0.68	0.48	0.04	0.30	0.56	0.34	0.61	0.56	0.63
Intersection Summary									

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	1	2	3	16	4	249	3	825	46	244	777	12
Future Vol, veh/h	1	2	3	16	4	249	3	825	46	244	777	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	3	16	4	257	3	851	47	252	801	12

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1745	2215	407	1787	2198	449	813	0	0	898	0	0
Stage 1	1311	1311	-	881	881	-	-	-	-	-	-	-
Stage 2	434	904	-	906	1317	-	-	-	-	-	-	-
Critical Hdwy	5	5	5	5	5	5	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	189	112	739	181	114	710	810	-	-	752	-	-
Stage 1	168	227	-	308	363	-	-	-	-	-	-	-
Stage 2	570	354	-	297	225	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	86	74	739	130	75	710	810	-	-	752	-	-
Mov Cap-2 Maneuver	86	74	-	130	75	-	-	-	-	-	-	-
Stage 1	167	151	-	307	362	-	-	-	-	-	-	-
Stage 2	358	353	-	194	150	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	31.9		20.2			0		2.9		
HCM LOS	D		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	810	-	-	140	510	752	-	-
HCM Lane V/C Ratio	0.004	-	-	0.044	0.544	0.335	-	-
HCM Control Delay (s)	9.5	-	-	31.9	20.2	12.2	-	-
HCM Lane LOS	A	-	-	D	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.2	1.5	-	-

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	6	0	1074	1025	9
Future Vol, veh/h	0	6	0	1074	1025	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	1119	1068	9

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	539	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	487	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	487	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	-	487	-
HCM Lane V/C Ratio	-	0.013	-
HCM Control Delay (s)	-	12.5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0	-

