

11TH STREET & COLLINS AVENUE
 MIAMI BEACH, FLORIDA
 COUNTED BY: RICHARD MENDEZ
 SIGNALIZED

Traffic Survey Specialists, Inc.
 85 SE 4th Avenue, Unit 109
 Delray Beach, Florida 33483
 Phone (561) 272-3255

Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : 11STCOLL
 Page : 1

ALL VEHICLES

COLLINS AVENUE From North					11TH STREET From East				COLLINS AVENUE From South				11TH STREET From West							
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		Total
Date 06/10/16 -----																				
16:30	0	6	81	9	0	2	7	5	0	13	104	4	0	6	9	6				252
16:45	0	8	86	1	0	1	11	5	0	7	96	4	0	7	12	7				245
17:00	0	1	72	12	0	2	11	9	0	12	108	5	0	12	7	5				256
17:15	0	4	89	9	0	2	7	8	0	13	104	4	0	10	13	8				271
Hr Total	0	19	328	31	0	7	36	27	0	45	412	17	0	35	41	26				1024
17:30	0	10	99	2	0	4	8	4	0	11	74	4	0	8	8	2				234
17:45	0	3	94	7	0	4	13	6	0	7	96	2	1	6	5	6				250
18:00	0	3	90	3	0	5	7	7	0	5	100	5	0	3	9	5				242
18:15	0	5	108	5	0	1	6	3	0	8	104	1	0	4	8	4				257
Hr Total	0	21	391	17	0	14	34	20	0	31	374	12	1	21	30	17				983
18:30	0	5	107	9	0	7	5	5	0	6	97	7	0	5	7	6				266
18:45	0	7	104	9	0	1	9	13	0	13	97	1	0	8	12	4				278
Hr Total	0	12	211	18	0	8	14	18	0	19	194	8	0	13	19	10				544

TOTAL	0	52	930	66	0	29	84	65	0	95	980	37	1	69	90	53				2551

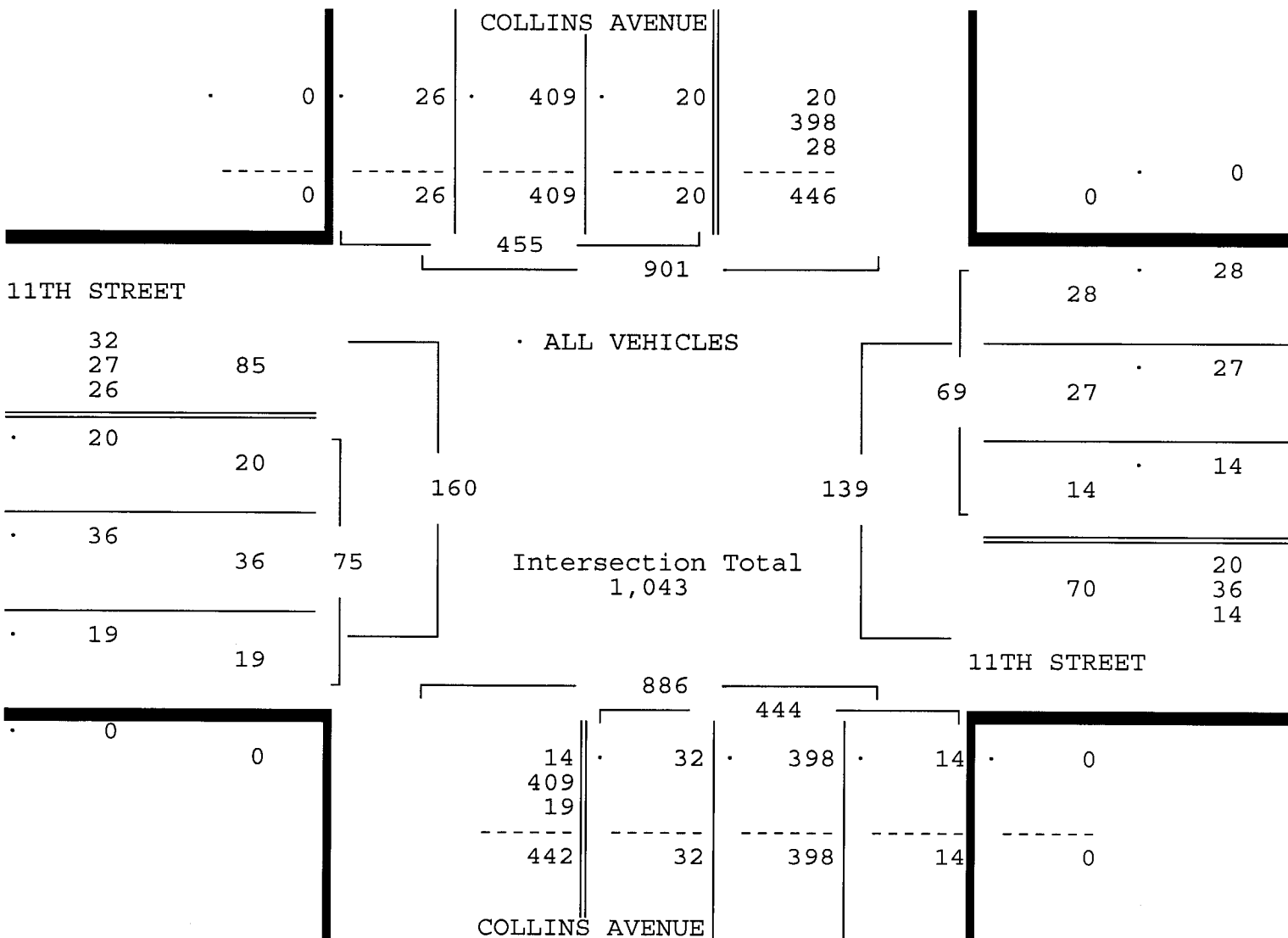
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ALL VEHICLES

COLLINS AVENUE From North				11TH STREET From East				COLLINS AVENUE From South				11TH STREET From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 06/10/16																
Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 19:00 on 06/10/16																
Peak start 18:00				18:00				18:00				18:00				
Volume	0	20	409	26	0	14	27	28	0	32	398	14	0	20	36	19
Percent	0%	4%	90%	6%	0%	20%	39%	41%	0%	7%	90%	3%	0%	27%	48%	25%
Pk total	455				69				444				75			
Highest	18:30				18:45				18:15				18:45			
Volume	0	5	107	9	0	1	9	13	0	8	104	1	0	8	12	4
Hi total	121				23				113				24			
PHF	.94				.75				.98				.78			



11TH STREET & COLLINS AVENUE
 MIAMI BEACH, FLORIDA
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 SIGNALIZED

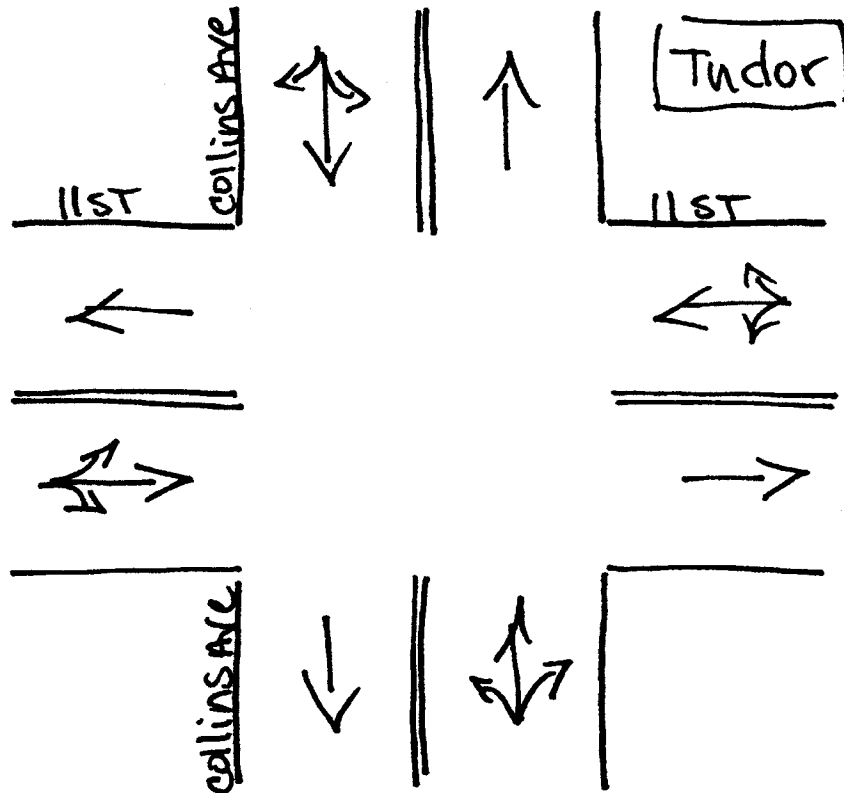
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PEDESTRIANS & BIKES

COLLINS AVENUE				11TH STREET				COLLINS AVENUE				11TH STREET				Total	
From North				From East				From South				From West					
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds		
Date 06/10/16																	
16:30	0	0	0	23	0	0	0	29	0	2	0	16	0	0	0	17	87
16:45	0	1	0	32	0	0	0	54	0	0	0	18	0	0	0	33	138
17:00	0	2	0	37	0	3	0	50	0	1	0	41	0	0	0	52	186
17:15	0	1	0	31	0	0	0	55	0	1	0	25	0	4	0	36	153
Hr Total	0	4	0	123	0	3	0	188	0	4	0	100	0	4	0	138	564
17:30	0	0	0	55	0	1	0	60	0	1	0	29	0	1	0	57	204
17:45	0	0	0	51	0	1	0	49	0	0	0	32	0	3	0	49	185
18:00	0	1	0	46	0	0	0	61	0	1	0	20	0	1	0	67	197
18:15	0	0	0	49	0	0	0	65	0	1	0	27	0	3	0	63	208
Hr Total	0	1	0	201	0	2	0	235	0	3	0	108	0	8	0	236	794
18:30	0	0	0	48	0	0	0	59	0	1	0	33	0	5	0	79	225
18:45	0	1	0	73	0	1	0	70	0	0	0	16	0	0	0	48	209
Hr Total	0	1	0	121	0	1	0	129	0	1	0	49	0	5	0	127	434
TOTAL	0	6	0	445	0	6	0	552	0	8	0	257	0	17	0	501	1792

↑
North



Miami Beach, Florida
March 04, 2012
drawn by: Luis Palomino
signalized

OK
3-2-2013

PARKING GARAGE & COLLINS AVENUE
 MIAMI BEACH, FLORIDA
 COUNTED BY: JOHN FLOOD
 NOT SIGNALIZED

Traffic Survey Specialists, Inc.
 85 SE 4th Avenue, Unit 109
 Delray Beach, Florida 33483
 Phone (561) 272-3255

Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : GARAGA1A
 Page : 1

ALL VEHICLES

COLLINS AVENUE From North					PARKING GARAGE From East					COLLINS AVENUE From South					----- From West					
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		
Date 06/10/16																				
16:30	0	3	84	0	0	1	0	6		0	0	117	1		0	0	0	0		212
16:45	0	0	94	0	0	0	0	4		0	0	108	1		0	0	0	0		207
17:00	1	0	77	0	0	0	0	6		1	0	115	3		0	0	0	0		203
17:15	0	1	98	0	0	3	0	8		0	0	109	1		0	0	0	0		220
Hr Total	1	4	353	0	0	4	0	24		1	0	449	6		0	0	0	0		842
17:30	0	1	104	0	0	4	0	5		0	0	85	2		0	0	0	0		201
17:45	0	1	106	0	0	2	0	5		0	0	100	1		0	0	0	0		215
18:00	1	4	97	0	0	1	0	9		0	0	100	2		0	0	0	0		214
18:15	0	1	112	0	0	1	0	5		0	0	107	2		0	0	0	0		228
Hr Total	1	7	419	0	0	8	0	24		0	0	392	7		0	0	0	0		858
18:30	1	6	118	0	0	1	0	2		1	0	103	1		0	0	0	0		233
18:45	0	1	105	0	0	1	0	3		0	0	110	1		0	0	0	0		221
Hr Total	1	7	223	0	0	2	0	5		1	0	213	2		0	0	0	0		454
TOTAL	3	18	995	0	0	14	0	53		2	0	1054	15		0	0	0	0		2154

PARKING GARAGE & COLLINS AVENUE
 MIAMI BEACH, FLORIDA
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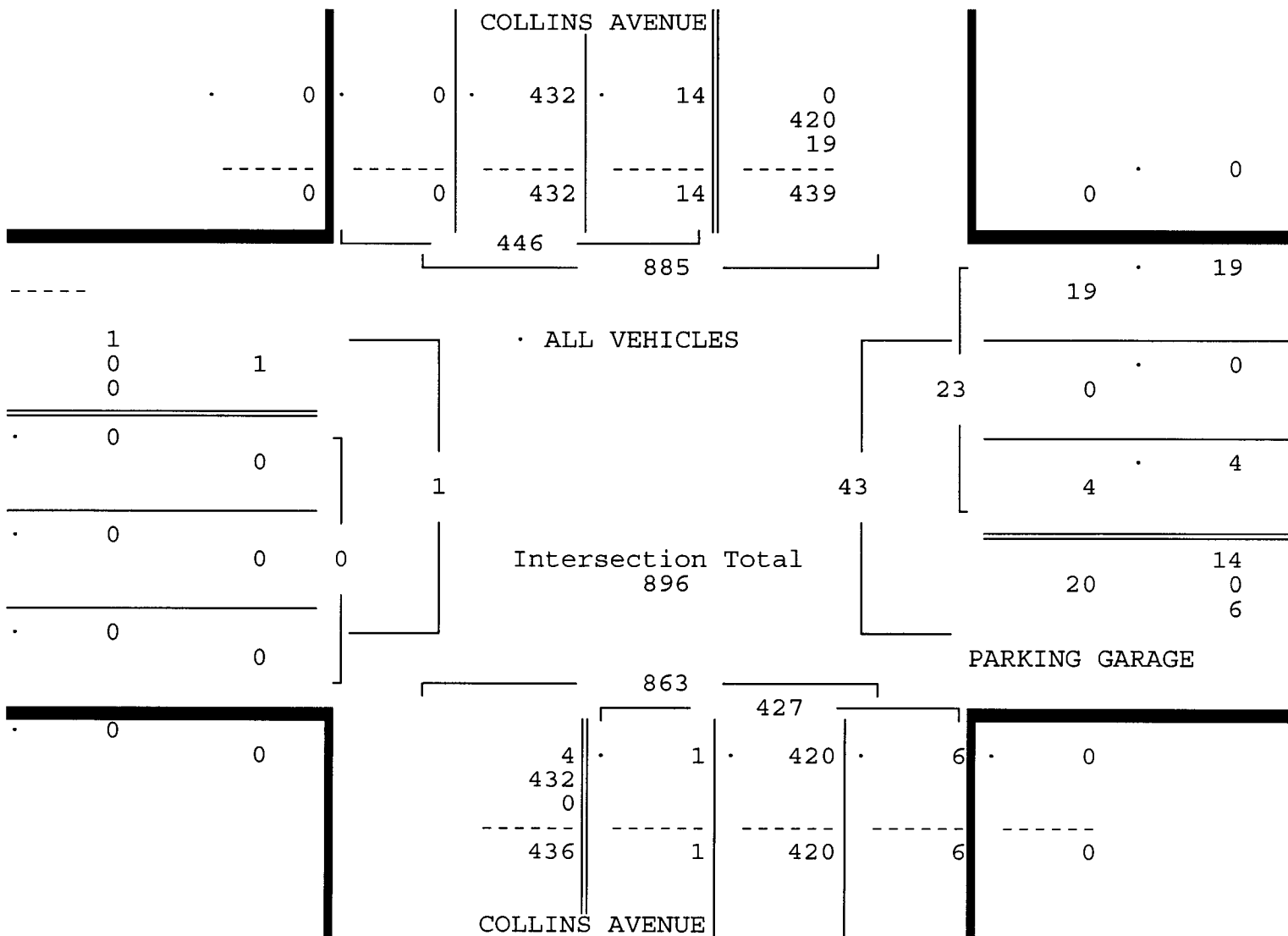
ALL VEHICLES

COLLINS AVENUE From North				PARKING GARAGE From East				COLLINS AVENUE From South				From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	

Date 06/10/16

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 19:00 on 06/10/16

Peak start	18:00				18:00				18:00				18:00			
Volume	2	12	432	0	0	4	0	19	1	0	420	6	0	0	0	0
Percent	0%	3%	97%	0%	0%	17%	0%	83%	0%	0%	98%	1%	0%	0%	0%	0%
Pk total	446				23				427				0			
Highest	18:30				18:00				18:45				16:30			
Volume	1	6	118	0	0	1	0	9	0	0	110	1	0	0	0	0
Hi total	125				10				111				0			
PHF	.89				.58				.96				.0			



PARKING GARAGE & COLLINS AVENUE
 MIAMI BEACH, FLORIDA
 COUNTED BY: JOHN FLOOD
 NOT SIGNALIZED

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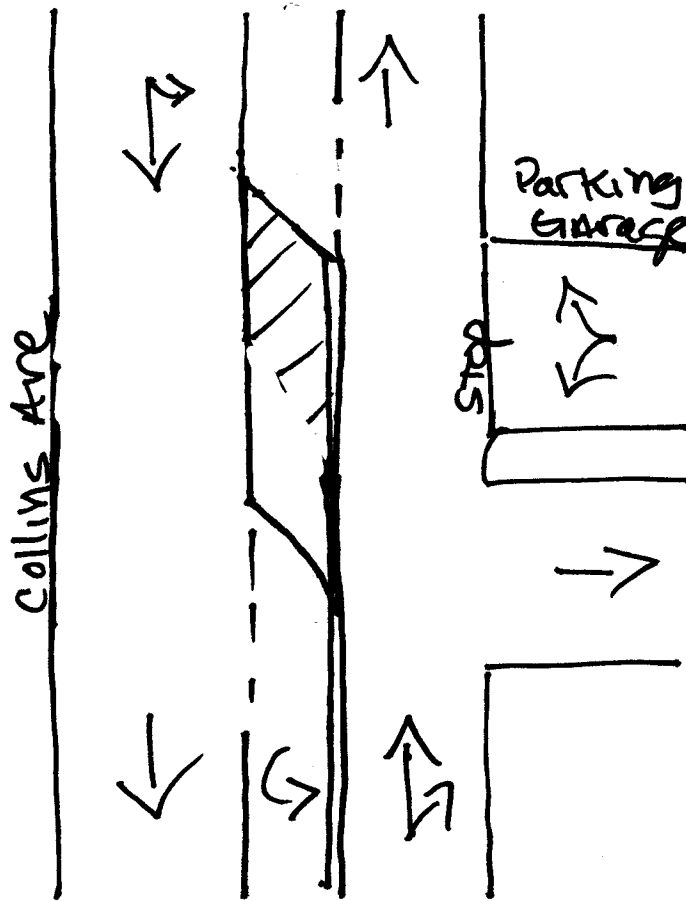
Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : GARAGA1A
 Page : 1

PEDESTRIANS & BIKES

COLLINS AVENUE					PARKING GARAGE					COLLINS AVENUE					-----					
From North					From East					From South					From West					
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total			
Date 06/10/16 -----																				
16:30	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41			
16:45	0	0	0	0	0	1	0	51	0	0	0	0	0	0	0	0	52			
17:00	0	0	0	0	0	2	0	43	0	0	0	0	0	0	0	0	45			
17:15	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	50			
Hr Total	0	0	0	0	0	3	0	185	0	0	0	0	0	0	0	0	188			
17:30	0	0	0	0	0	1	0	63	0	0	0	0	0	0	0	0	64			
17:45	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	70			
18:00	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60			
18:15	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73			
Hr Total	0	0	0	0	0	1	0	266	0	0	0	0	0	0	0	0	267			
18:30	0	0	0	0	0	2	0	62	0	0	0	0	0	0	0	0	64			
18:45	0	0	0	0	0	1	0	68	0	0	0	0	0	0	0	0	69			
Hr Total	0	0	0	0	0	3	0	130	0	0	0	0	0	0	0	0	133			

TOTAL	0	0	0	0	0	7	0	581	0	0	0	0	0	0	0	0	588			

↑
North



Miami bch, Florida
June 10, 2016
Drawn by: Luis Palomino
NOT signalized

10TH STREET & A1A
 MIAMI BEACH, FLORIDA
 COUNTED BY: LUIS PALOMINO
 SIGNALIZED

Traffic Survey Specialists, Inc.
 85 SE 4th Avenue, Unit 109
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 Phone (561) 272-3255

Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : 10ST_A1A
 Page : 1

ALL VEHICLES

A1A From North					10TH STREET From East				A1A From South				10TH STREET From West							
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		Total
Date 06/10/16 -----																				
16:30	0	1	84	2	0	4	13	13		0	6	92	6		0	6	18	3		248
16:45	0	5	84	4	0	6	8	10		0	3	97	0		1	8	18	7		251
17:00	0	7	68	3	0	1	17	17		0	9	93	5		0	4	6	5		235
17:15	0	7	77	11	0	5	12	3		0	3	97	5		0	7	4	7		238
Hr Total	0	20	313	20	0	16	50	43		0	21	379	16		1	25	46	22		972
17:30	0	4	98	7	0	3	6	5		0	3	79	7		0	5	14	7		238
17:45	0	6	100	4	0	6	16	9		0	6	86	4		0	4	7	9		257
18:00	0	5	91	6	0	11	6	6		0	2	89	6		0	5	3	5		235
18:15	0	9	96	7	0	2	10	5		0	5	99	8		0	3	9	1		254
Hr Total	0	24	385	24	0	22	38	25		0	16	353	25		0	17	33	22		984
18:30	0	7	87	7	0	2	10	10		0	6	81	2		0	5	6	4		227
18:45	1	4	86	6	0	6	7	7		0	6	94	7		0	5	9	11		249
Hr Total	1	11	173	13	0	8	17	17		0	12	175	9		0	10	15	15		476

TOTAL	1	55	871	57	0	46	105	85		0	49	907	50		1	52	94	59		2432

10TH STREET & A1A
 MIAMI BEACH, FLORIDA
 COUNTED BY: LUIS PALOMINO
 SIGNALIZED

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 Page : 2

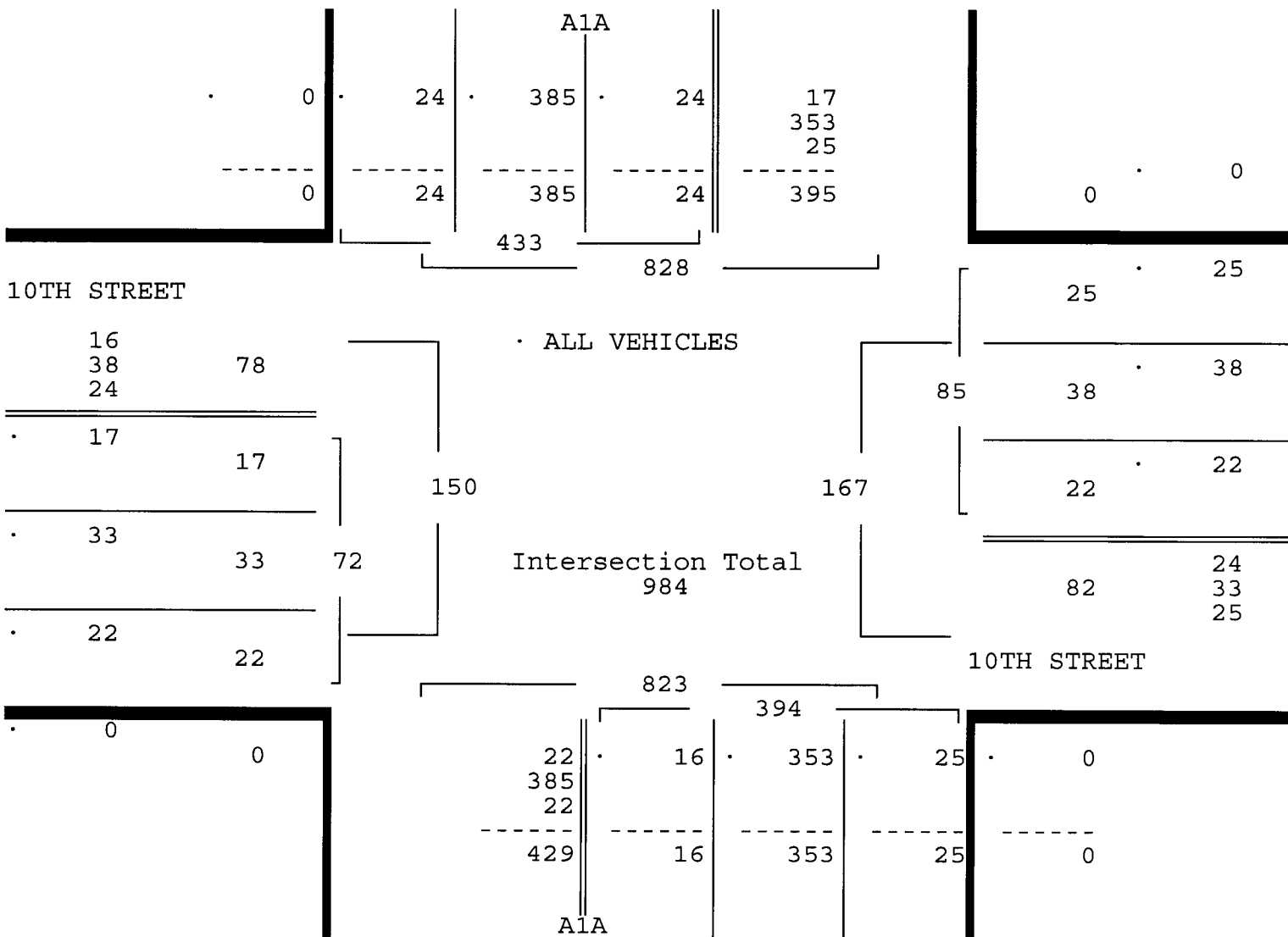
ALL VEHICLES

A1A From North				10TH STREET From East				A1A From South				10TH STREET From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	

Date 06/10/16

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 19:00 on 06/10/16

Peak start 17:30				17:30				17:30				17:30				
Volume	0	24	385	24	0	22	38	25	0	16	353	25	0	17	33	22
Percent	0%	6%	89%	6%	0%	26%	45%	29%	0%	4%	90%	6%	0%	24%	46%	31%
Pk total	433				85				394				72			
Highest	18:15				17:45				18:15				17:30			
Volume	0	9	96	7	0	6	16	9	0	5	99	8	0	5	14	7
Hi total	112				31				112				26			
PHF	.97				.69				.88				.69			



10TH STREET & A1A
 MIAMI BEACH, FLORIDA
 COUNTED BY: LUIS PALOMINO
 SIGNALIZED

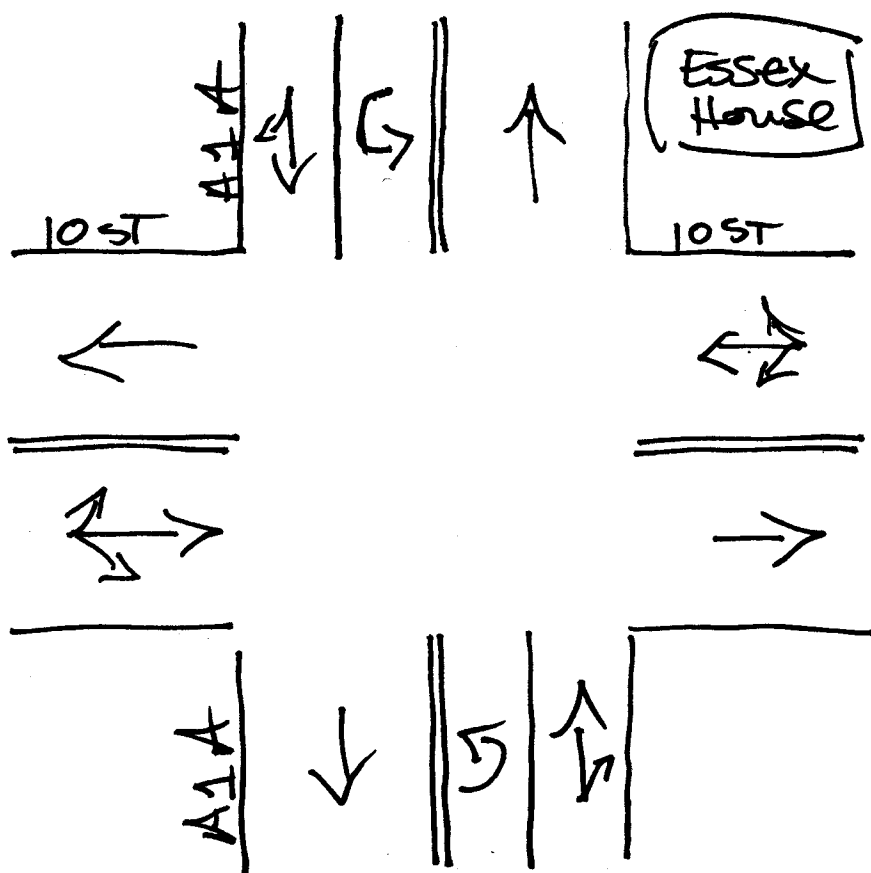
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 Page : 1

PEDESTRIANS & BIKES

A1A From North					10TH STREET From East					A1A From South					10TH STREET From West					
Left	BIKES	Right	Peds		Left	BIKES	Right	Peds		Left	BIKES	Right	Peds		Left	BIKES	Right	Peds		
Date 06/10/16																				
16:30	0	0	0	12	0	0	0	43	0	0	0	17	0	0	0	17		89		
16:45	0	0	0	15	0	0	0	55	0	0	0	6	0	0	0	24		100		
17:00	0	2	0	27	0	2	0	34	0	1	0	24	0	0	0	46		136		
17:15	0	0	0	17	0	1	0	44	0	1	0	23	0	3	0	41		130		
Hr Total	0	2	0	71	0	3	0	176	0	2	0	70	0	3	0	128		455		
17:30	0	0	0	21	0	0	0	58	0	0	0	17	0	2	0	66		164		
17:45	0	0	0	35	0	1	0	52	0	5	0	29	0	3	0	53		178		
18:00	0	0	0	21	0	0	0	54	0	1	0	39	0	1	0	65		181		
18:15	0	1	0	28	0	0	0	61	0	0	0	8	0	3	0	57		158		
Hr Total	0	1	0	105	0	1	0	225	0	6	0	93	0	9	0	241		681		
18:30	0	0	0	7	0	1	0	55	0	0	0	16	0	4	0	58		141		
18:45	0	0	0	0	0	1	0	42	0	0	0	9	0	0	0	60		112		
Hr Total	0	0	0	7	0	2	0	97	0	0	0	25	0	4	0	118		253		
TOTAL	0	3	0	183	0	6	0	498	0	8	0	188	0	16	0	487		1389		

North



Miami bch, Florida
June 10, 2016
drawn by: Luis Palomino
signaled

9TH STREET & A1A
 MIAMI BEACH, FLORIDA
 COUNTED BY: ADAM JOHNSON
 SIGNALIZED

Traffic Survey Specialists, Inc.
 85 SE 4th Avenue, Unit 109
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Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : 9STR_A1A
 Page : 1

ALL VEHICLES

A1A From North					9TH STREET From East				A1A From South				9TH STREET From West							
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		Total
Date 06/10/16 -----																				
16:30	1	10	72	7	0	4	11	1	0	6	101	13	0	3	13	10				252
16:45	0	11	76	5	0	3	15	7	0	3	86	3	1	4	18	8				240
17:00	0	9	67	5	0	8	15	10	0	3	94	9	0	7	12	7				246
17:15	0	7	74	4	0	5	4	13	0	8	88	6	0	3	16	4				232
Hr Total	1	37	289	21	0	20	45	31	0	20	369	31	1	17	59	29				970
17:30	0	11	83	4	0	5	13	6	0	5	78	6	0	5	15	7				238
17:45	0	11	95	11	0	3	8	12	0	5	74	11	0	7	15	12				264
18:00	1	8	93	4	0	6	10	11	0	9	86	7	0	6	10	8				259
18:15	0	6	87	4	0	9	16	17	0	10	93	12	0	7	6	11				278
Hr Total	1	36	358	23	0	23	47	46	0	29	331	36	0	25	46	38				1039
18:30	0	8	95	6	0	7	11	8	1	5	84	8	0	3	8	3				247
18:45	0	10	98	8	0	11	10	5	0	3	103	10	0	10	5	11				284
Hr Total	0	18	193	14	0	18	21	13	1	8	187	18	0	13	13	14				531

TOTAL	2	91	840	58	0	61	113	90	1	57	887	85	1	55	118	81				2540

9TH STREET & A1A
 MIAMI BEACH, FLORIDA
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 SIGNALIZED

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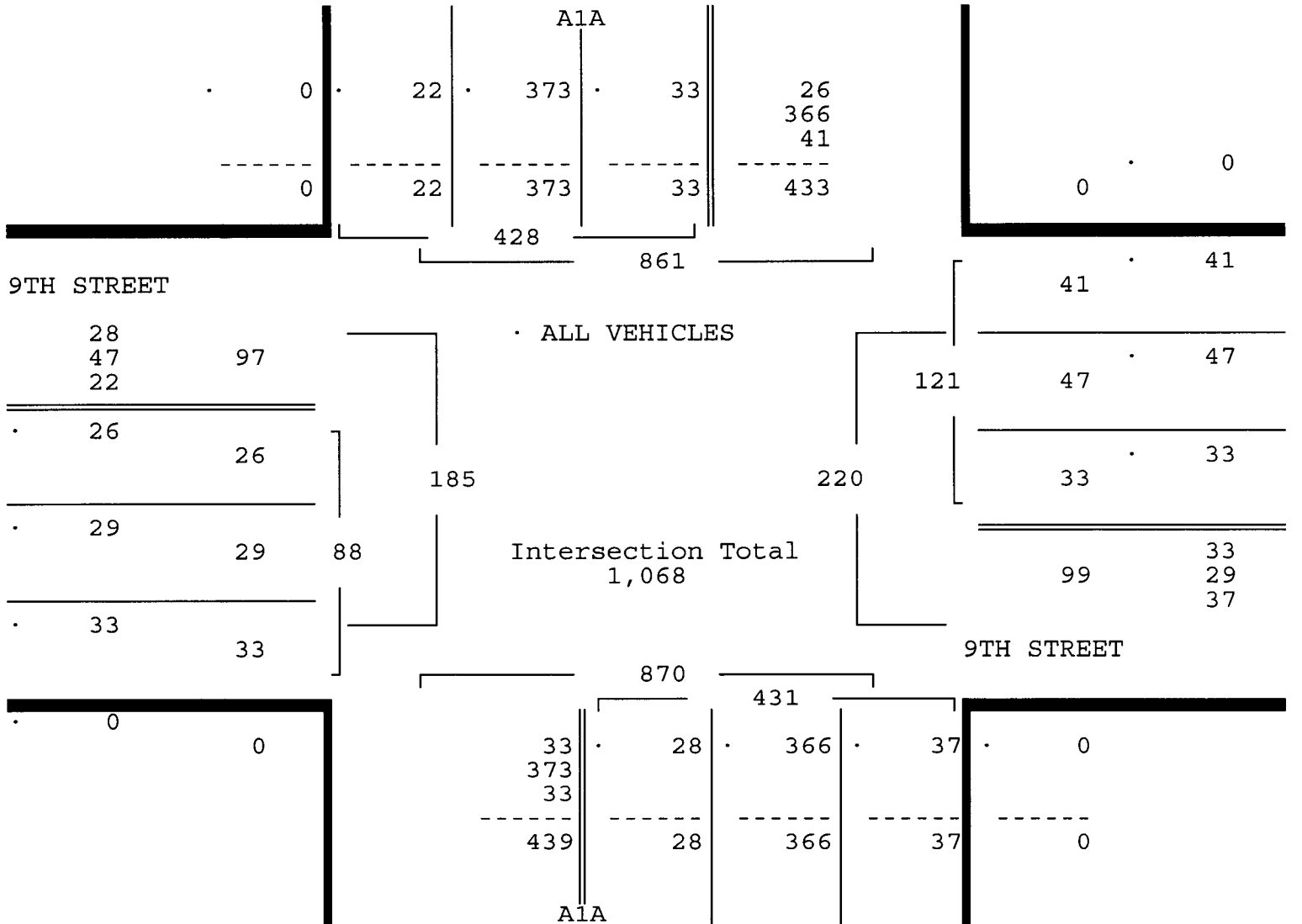
ALL VEHICLES

A1A From North				9TH STREET From East				A1A From South				9TH STREET From West				Total
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	

Date 06/10/16

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 19:00 on 06/10/16

Peak start 18:00					18:00					18:00					18:00				
Volume	1	32	373	22	0	33	47	41	1	27	366	37	0	26	29	33			
Percent	0%	7%	87%	5%	0%	27%	39%	34%	0%	6%	85%	9%	0%	30%	33%	38%			
Pk total	428				121				431				88						
Highest	18:45				18:15				18:45				18:45						
Volume	0	10	98	8	0	9	16	17	0	3	103	10	0	10	5	11			
Hi total	116				42				116				26						
PHF	.92				.72				.93				.85						



9TH STREET & A1A
 MIAMI BEACH, FLORIDA
 COUNTED BY: ADAM JOHNSON
 SIGNALIZED

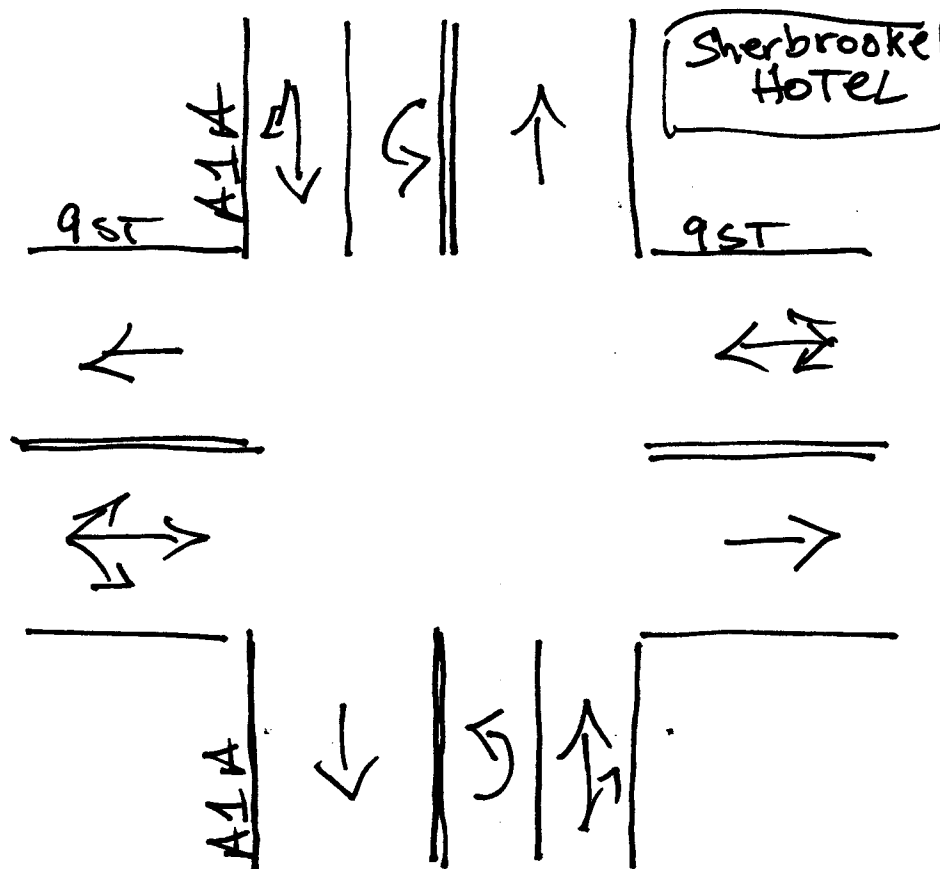
Traffic Survey Specialists, Inc.
 85 SE 4th Avenue, Unit 109
 Delray Beach, Florida 33483
 Phone (561) 272-3255

Site Code : 00160129
 Start Date: 06/10/16
 File I.D. : 9STR_A1A
 Page : 1

PEDESTRIANS & BIKES

A1A From North				9TH STREET From East				A1A From South				9TH STREET From West					
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total	
Date 06/10/16																	
16:30	0	0	0	25	0	0	0	37	0	1	0	18	0	0	0	43	124
16:45	0	1	0	12	0	0	0	29	0	1	0	18	0	0	0	42	103
17:00	0	2	0	13	0	0	0	34	0	2	0	21	0	0	0	47	119
17:15	0	0	0	8	0	0	0	26	0	1	0	38	0	1	0	28	102
Hr Total	0	3	0	58	0	0	0	126	0	5	0	95	0	1	0	160	448
17:30	0	2	0	12	0	0	0	32	0	0	0	14	0	0	0	36	96
17:45	0	0	0	34	0	0	0	49	0	0	0	41	0	0	0	48	172
18:00	0	0	0	15	0	0	0	33	0	0	0	31	0	0	0	63	142
18:15	0	0	0	15	0	0	0	26	0	0	0	48	0	0	0	72	161
Hr Total	0	2	0	76	0	0	0	140	0	0	0	134	0	0	0	219	571
18:30	0	0	0	33	0	0	0	87	0	1	0	24	0	0	0	50	195
18:45	0	0	0	22	0	0	0	43	0	0	0	50	0	0	0	63	178
Hr Total	0	0	0	55	0	0	0	130	0	1	0	74	0	0	0	113	373
TOTAL	0	5	0	189	0	0	0	396	0	6	0	303	0	1	0	492	1392

North ↑



Miami Bch, Florida

June 10, 2016

Drawn by: Luis Palomino

Signalized

APPENDIX D

Peak Season Conversion Factors, Historical Traffic Data, and Committed Developments

2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8700 MIAMI-DADE NORTH

WEEK	DATES	SF	MOCF: 0.97 PSCF
1	01/01/2014 - 01/04/2014	1.03	1.06
2	01/05/2014 - 01/11/2014	1.03	1.06
3	01/12/2014 - 01/18/2014	1.03	1.06
4	01/19/2014 - 01/25/2014	1.02	1.05
5	01/26/2014 - 02/01/2014	1.01	1.04
6	02/02/2014 - 02/08/2014	0.99	1.02
* 7	02/09/2014 - 02/15/2014	0.98	1.01
* 8	02/16/2014 - 02/22/2014	0.97	1.00
* 9	02/23/2014 - 03/01/2014	0.97	1.00
*10	03/02/2014 - 03/08/2014	0.97	1.00
*11	03/09/2014 - 03/15/2014	0.97	1.00
*12	03/16/2014 - 03/22/2014	0.97	1.00
*13	03/23/2014 - 03/29/2014	0.97	1.00
*14	03/30/2014 - 04/05/2014	0.97	1.00
*15	04/06/2014 - 04/12/2014	0.97	1.00
*16	04/13/2014 - 04/19/2014	0.97	1.00
*17	04/20/2014 - 04/26/2014	0.98	1.01
*18	04/27/2014 - 05/03/2014	0.98	1.01
*19	05/04/2014 - 05/10/2014	0.99	1.02
20	05/11/2014 - 05/17/2014	0.99	1.02
21	05/18/2014 - 05/24/2014	1.00	1.03
22	05/25/2014 - 05/31/2014	1.00	1.03
23	06/01/2014 - 06/07/2014	1.00	1.03
24	06/08/2014 - 06/14/2014	1.01	1.04
25	06/15/2014 - 06/21/2014	1.01	1.04
26	06/22/2014 - 06/28/2014	1.02	1.05
27	06/29/2014 - 07/05/2014	1.02	1.05
28	07/06/2014 - 07/12/2014	1.03	1.06
29	07/13/2014 - 07/19/2014	1.04	1.07
30	07/20/2014 - 07/26/2014	1.03	1.06
31	07/27/2014 - 08/02/2014	1.03	1.06
32	08/03/2014 - 08/09/2014	1.02	1.05
33	08/10/2014 - 08/16/2014	1.02	1.05
34	08/17/2014 - 08/23/2014	1.01	1.04
35	08/24/2014 - 08/30/2014	1.01	1.04
36	08/31/2014 - 09/06/2014	1.01	1.04
37	09/07/2014 - 09/13/2014	1.02	1.05
38	09/14/2014 - 09/20/2014	1.02	1.05
39	09/21/2014 - 09/27/2014	1.01	1.04
40	09/28/2014 - 10/04/2014	1.01	1.04
41	10/05/2014 - 10/11/2014	1.00	1.03
42	10/12/2014 - 10/18/2014	0.99	1.02
43	10/19/2014 - 10/25/2014	1.01	1.04
44	10/26/2014 - 11/01/2014	1.03	1.06
45	11/02/2014 - 11/08/2014	1.05	1.08
46	11/09/2014 - 11/15/2014	1.07	1.10
47	11/16/2014 - 11/22/2014	1.09	1.12
48	11/23/2014 - 11/29/2014	1.08	1.11
49	11/30/2014 - 12/06/2014	1.06	1.09
50	12/07/2014 - 12/13/2014	1.05	1.08
51	12/14/2014 - 12/20/2014	1.03	1.06
52	12/21/2014 - 12/27/2014	1.03	1.06
53	12/28/2014 - 12/31/2014	1.03	1.06

* PEAK SEASON

09-MAR-2015 16:07:55

830UPD

6_8700_PKSEASON.TXT

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5159 - SR AIA/COLLINS AV, 200' N 5 ST(MIAMI BEACH)

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2014	13400 C	N	6500	S	6900	9.00	54.50	5.10
2013	16400 C	N	7400	S	9000	9.00	52.40	6.10
2012	16700 C	N	7100	S	9600	9.00	55.70	8.40
2011	13600 C	N	6900	S	6700	9.00	55.10	7.50
2010	12900 C	N	6200	S	6700	8.98	54.08	8.80
2009	15300 C	N	7600	S	7700	8.99	53.24	8.40
2008	13600 C	N	6300	S	7300	9.09	55.75	5.30
2007	14300 C	N	6500	S	7800	8.01	54.34	4.90
2006	13100 C	N	5800	S	7300	7.97	54.22	2.20
2005	16100 C	N	7300	S	8800	8.80	53.80	5.50
2004	17400 C	N	8400	S	9000	9.00	53.30	8.20
2003	16200 C	N	7000	S	9200	8.80	53.40	4.90
2002	17000 C	N	8200	S	8800	9.80	52.30	2.60
2001	17600 C	N	8800	S	8800	8.20	53.50	3.00
2000	20100 C	N	8100	S	12000	8.20	53.10	3.50
1999	18600 C	N	9100	S	9500	9.10	52.70	3.20

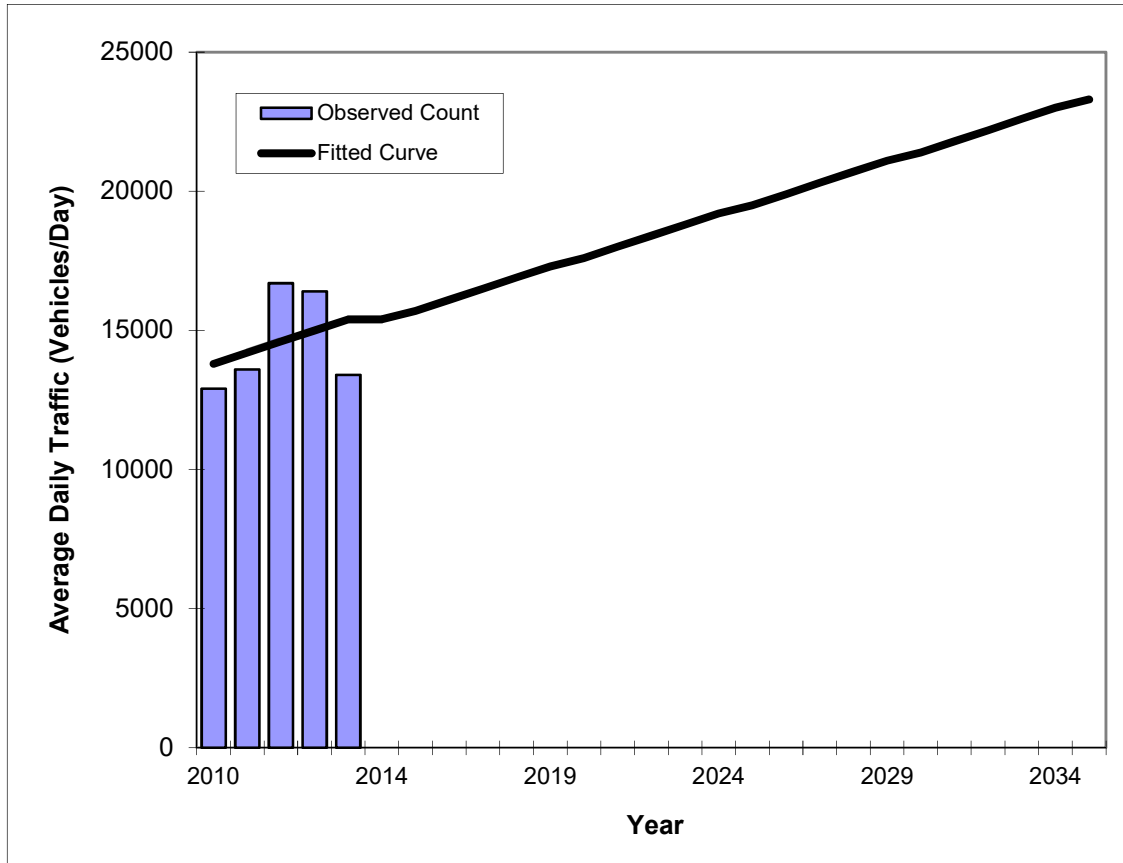
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

COLLINS AVENUE -- 200' FT N OF 5 ST

PIN#	0
Location	2

County:	Miami-Dade
Station #:	8414
Highway:	COLLINS AVENUE



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	12900	13800
2011	13600	14200
2012	16700	14600
2013	16400	15000
2014	13400	15400
2016 Opening Year Trend		
2016	N/A	16100
2017 Mid-Year Trend		
2017	N/A	16500
2018 Design Year Trend		
2018	N/A	16900
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	380
Trend R-squared:	11.12%
Trend Annual Historic Growth Rate:	2.90%
Trend Growth Rate (2014 to Design Year):	2.44%
Printed:	15-Jun-16
Straight Line Growth Option	

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8414 - WASHINGTON AVE, 200 FT N OF 12 ST (2011 OFF SYSTEM CYCLE)

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2014	21000 C		N 10000		S 11000	9.00	59.30	13.90
2013	18700 F		N 9200		S 9500	9.00	58.90	16.20
2012	18700 C		N 9200		S 9500	9.00	59.70	16.00

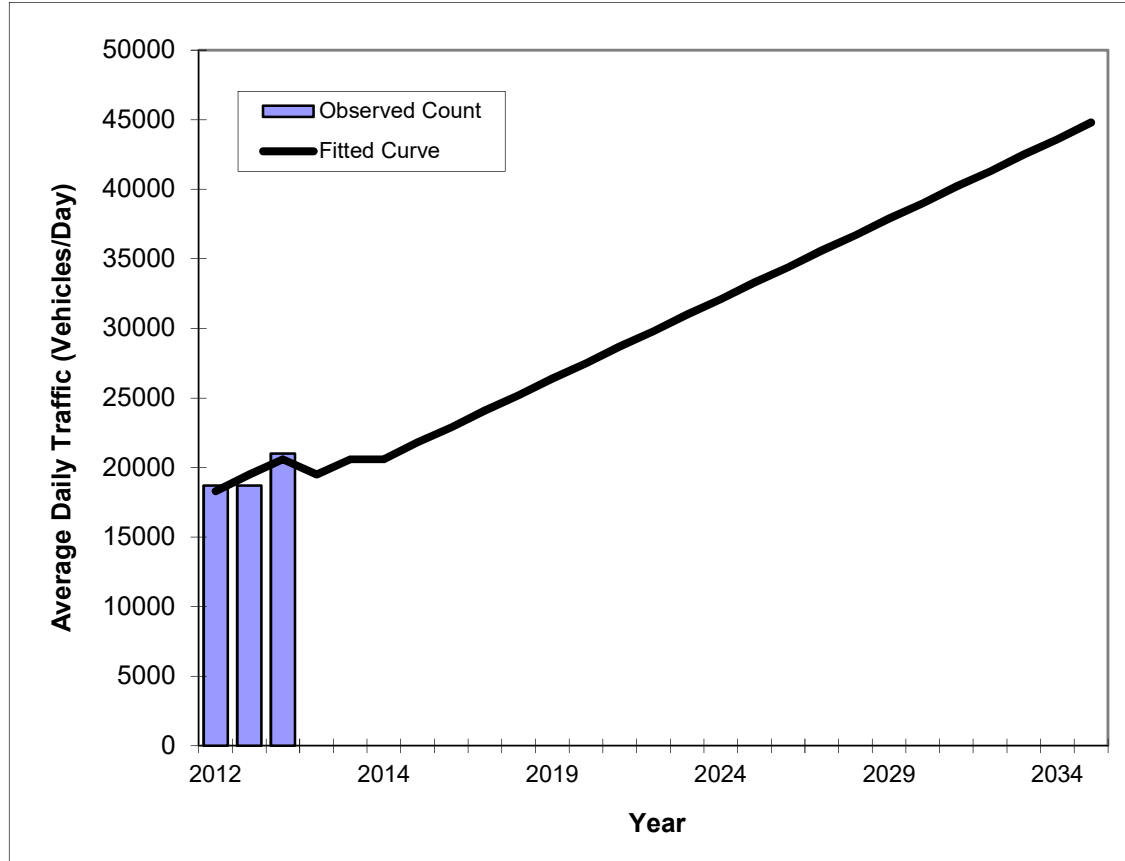
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

WASHINGTON AVE -- 200' FT N OF 12 ST

PIN#	0
Location	2

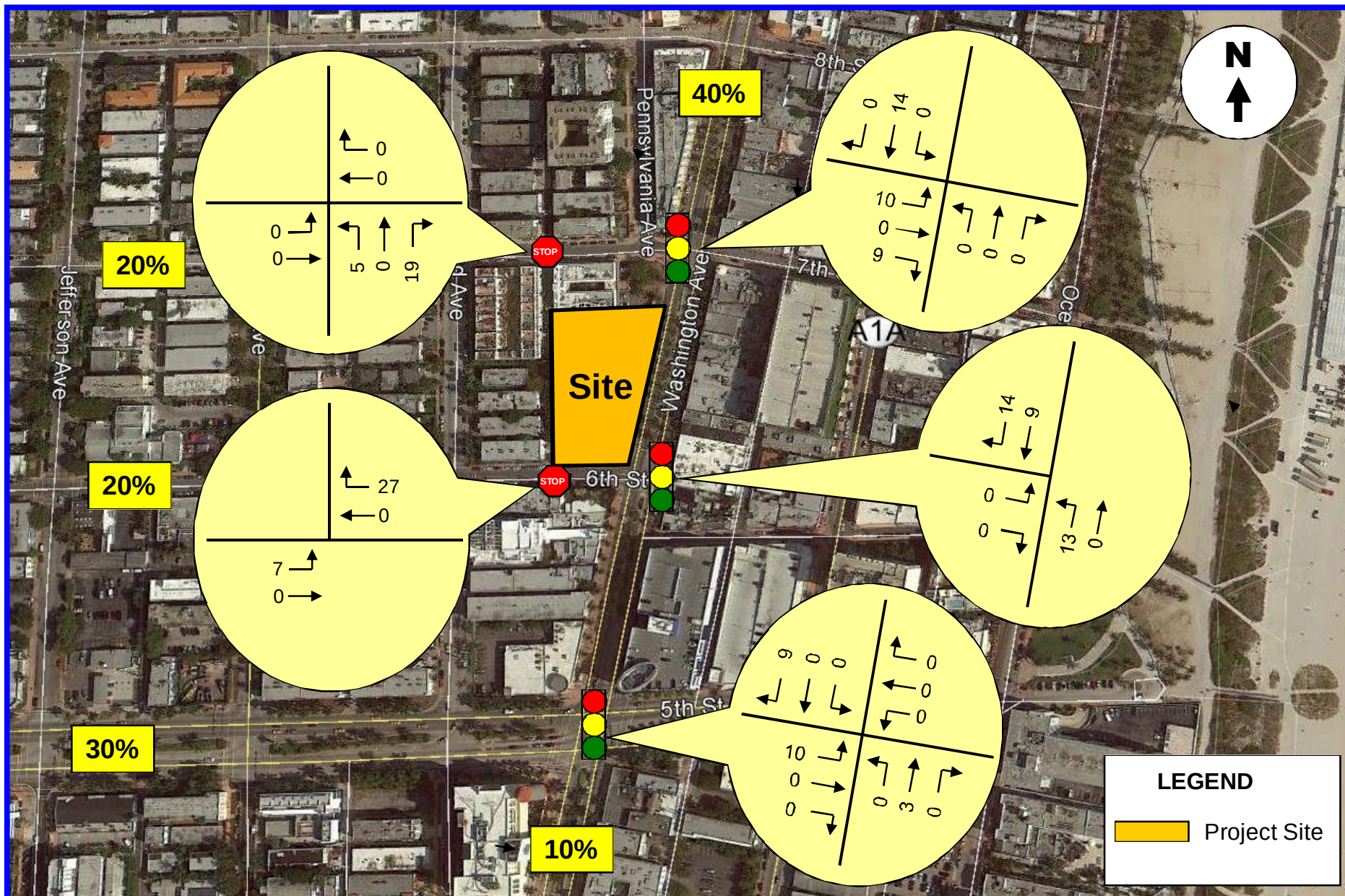
County:	Miami-Dade
Station #:	8414
Highway:	WASHINGTON AVE

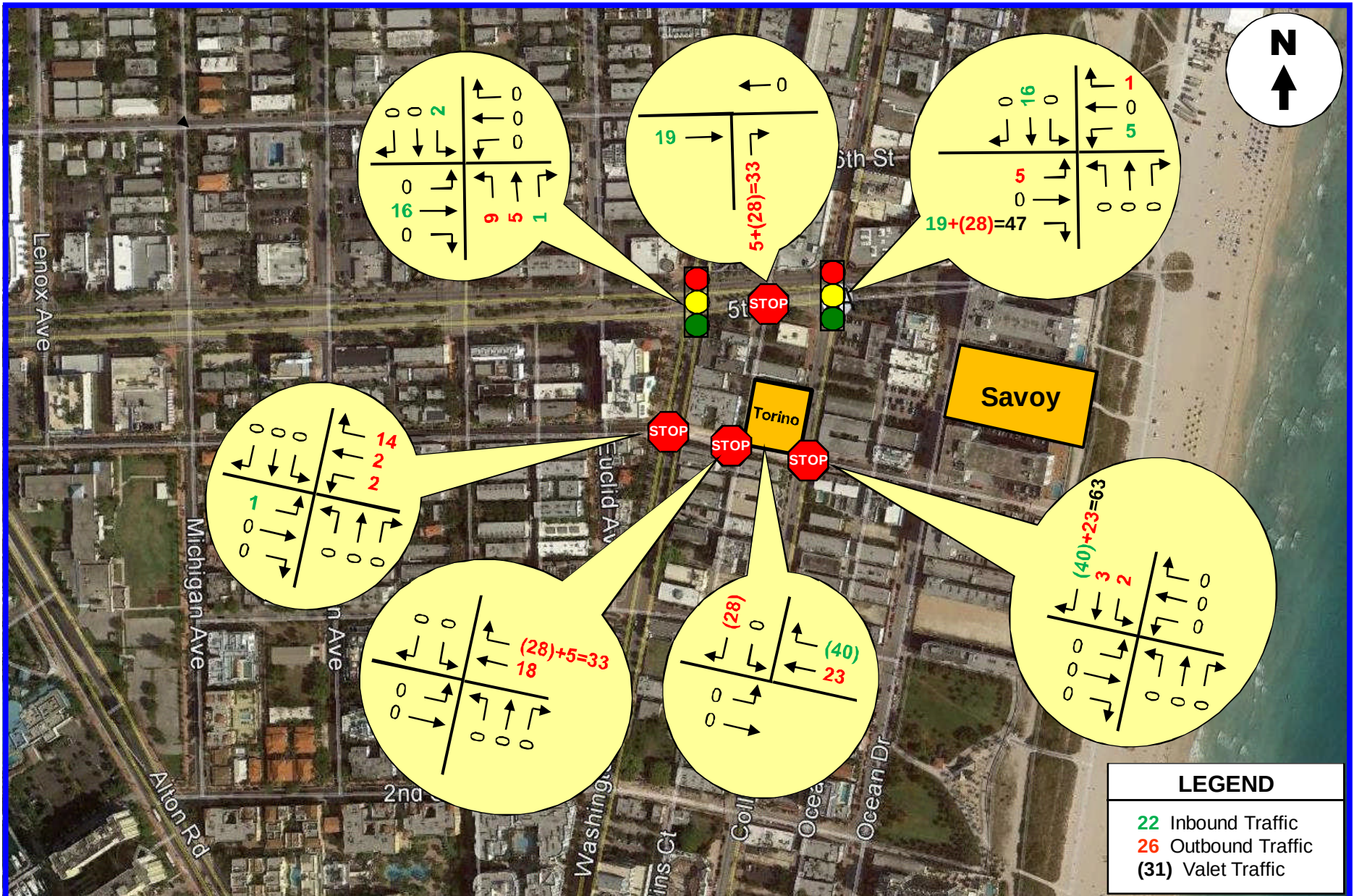


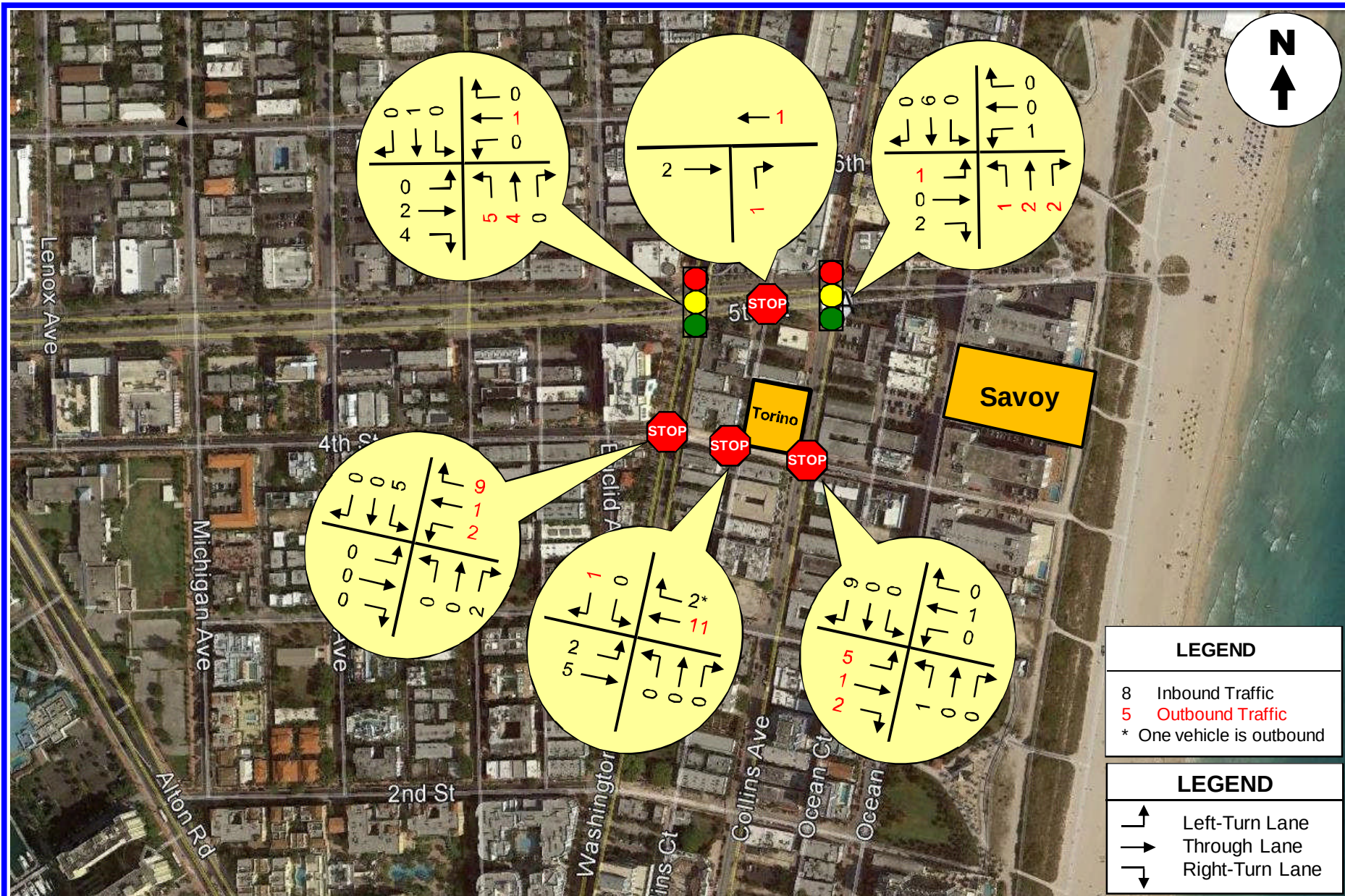
Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	18700	18300
2013	18700	19500
2014	21000	20600
2016 Opening Year Trend		
2016	N/A	22900
2017 Mid-Year Trend		
2017	N/A	24100
2018 Design Year Trend		
2018	N/A	25200
TRANPLAN Forecasts/Trends		

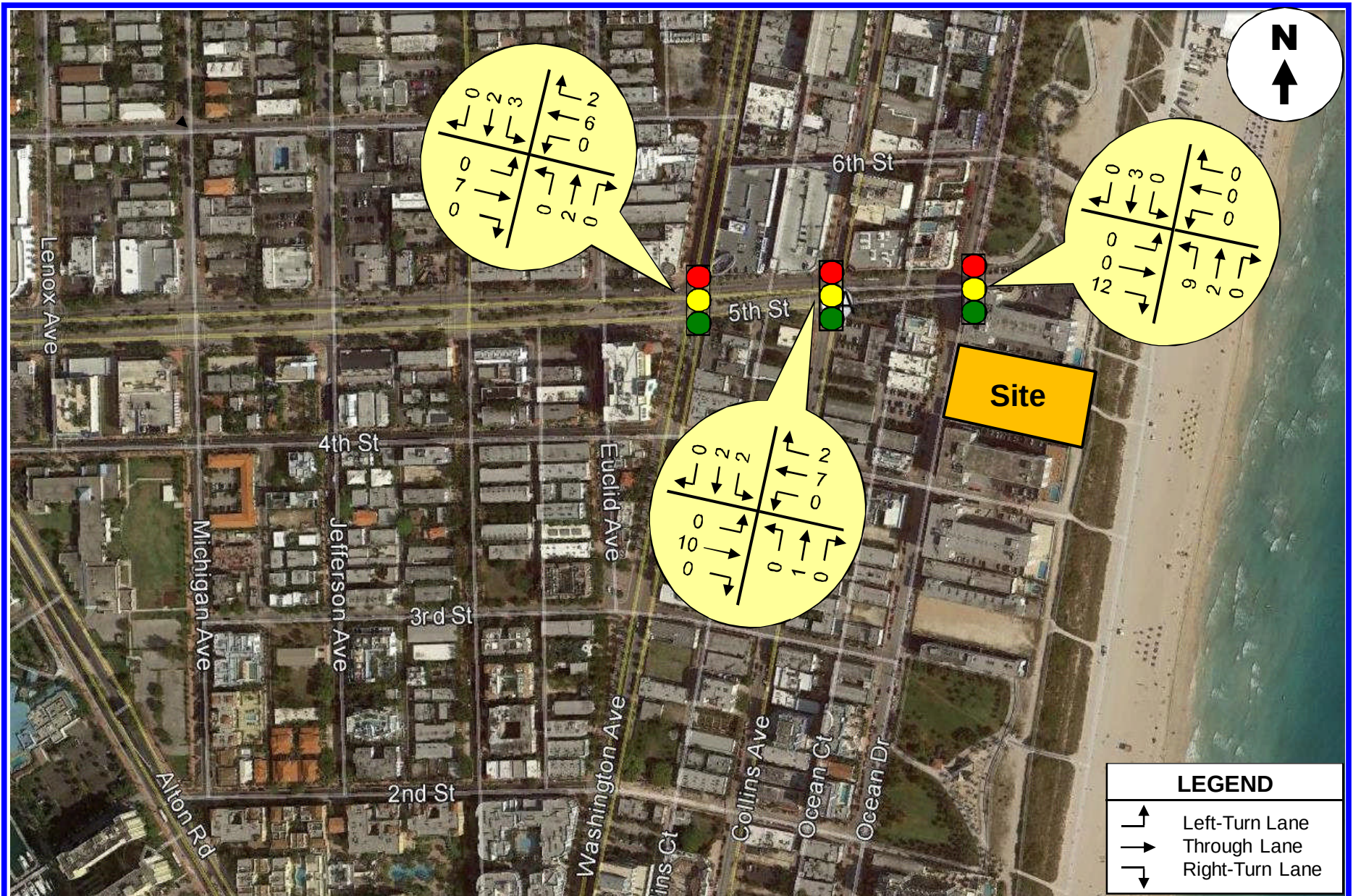
** Annual Trend Increase:	1,150
Trend R-squared:	75.00%
Trend Annual Historic Growth Rate:	6.28%
Trend Growth Rate (2014 to Design Year):	5.58%
Printed:	15-Jun-16
Straight Line Growth Option	

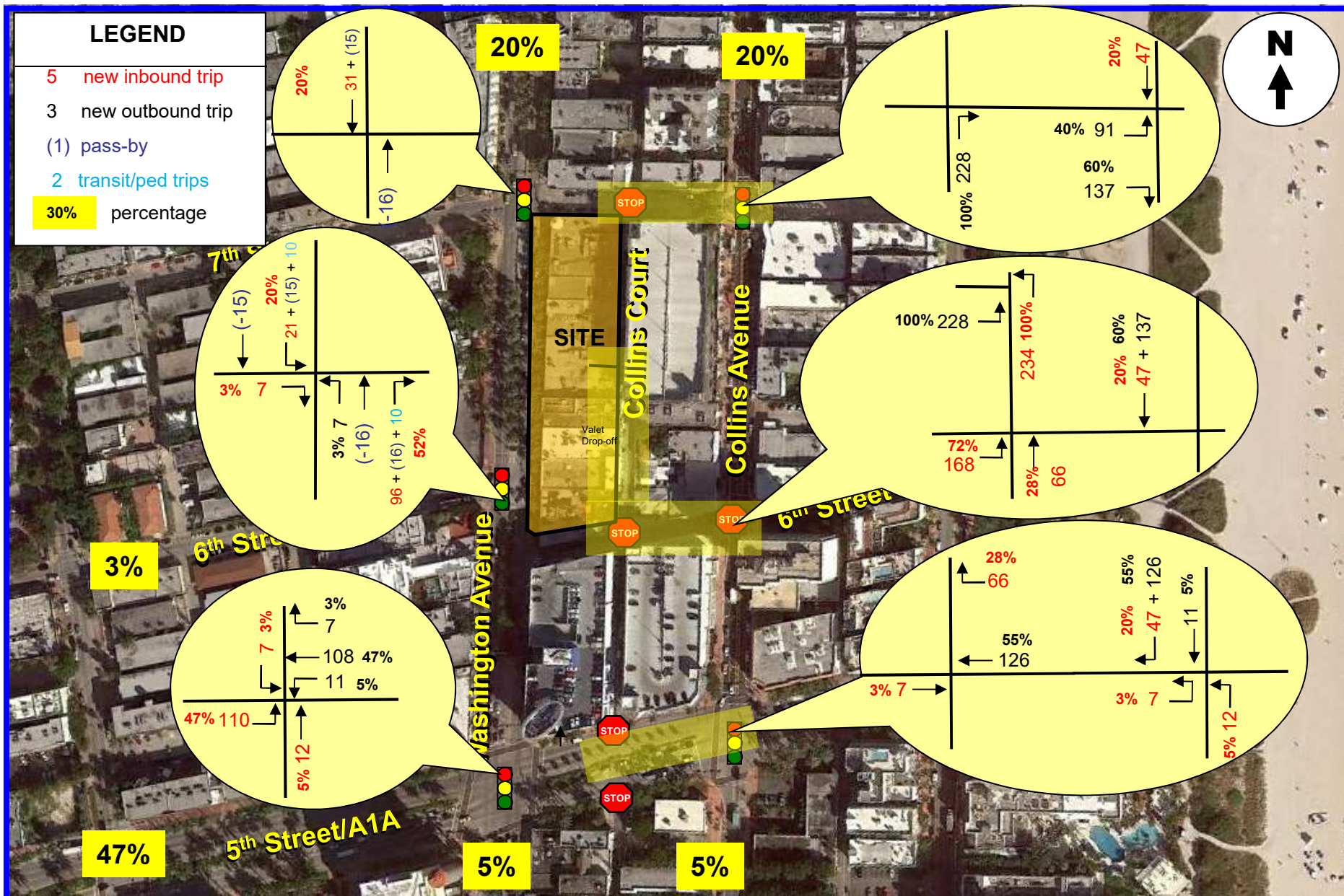
*Axle-Adjusted











APPENDIX E

Future Turning Movement Volumes

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Washington Avenue and 11th Street PM Peak Hour

Description	Washington Avenue Northbound			Washington Avenue Southbound			11th Street Eastbound			11th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	27	579	25	32	503	34	60	68	51	17	56	43
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	28	602	26	33	523	35	62	71	53	18	58	45
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition		10			14							
• The Torino (400 Collins Avenue)		9			3							
• The Savoy Hotel		4			5							
• 601 Washington					46							
2018 Background Traffic	30	674	28	36	634	38	67	76	57	19	63	48
915 Washington												
- Trips	24	24			30				30			
- Valet Parking Trips										75		
- Pass-by Trips												
- Ped/Transit												
2018 Total Traffic	54	698	28	36	664	38	67	76	87	94	63	48

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Washington Avenue and 10th Street PM Peak Hour

Description	Washington Avenue Northbound			Washington Avenue Southbound			10th Street Eastbound			10th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	25	546	32	22	529	21	25	46	22	28	46	34
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	26	568	33	23	550	22	26	48	23	29	48	35
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition		10			14							
• The Torino (400 Collins Avenue)		9			3							
• The Savoy Hotel		4			5							
• 601 Washington					46							
2018 Background Traffic	28	637	36	25	663	24	28	52	25	31	52	38
915 Washington												
- Trips					60				23	24	19	48
- Valet Parking Trips					75							
- Pass-by Trips												
- Ped/Transit												
2018 Total Traffic	28	637	36	25	798	24	28	52	48	55	71	86

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Washington Avenue and 9th Street PM Peak Hour

Description	Washington Avenue Northbound			Washington Avenue Southbound			9th Street Eastbound			9th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	31	541	47	41	509	28	16	39	38	21	36	41
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	32	563	49	43	529	29	17	41	40	22	37	43
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition		10			14							
• The Torino (400 Collins Avenue)		9			3							
• The Savoy Hotel		4			5							
• 601 Washington					46							
2018 Background Traffic	35	632	53	46	641	31	18	44	43	24	40	46
915 Washington												
- Trips			8	58	6	18		22				
- Valet Parking Trips				75								
- Pass-by Trips				13	-13							
- Ped/Transit				12								
2018 Total Traffic	35	632	61	204	634	49	18	66	43	24	40	46

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Court and 9th Street PM Peak Hour

Description	Collins Court Northbound			Collins Court Southbound			9th Street Eastbound			9th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	2						2	91	1	15	95	4
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	2	0	0	0	0	0	2	95	1	16	99	4
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)												
• The Savoy Hotel												
• 601 Washington												
2018 Background Traffic	2	0	0	0	0	0	2	102	1	17	107	4
915 Washington												
- Trips							113					38
- Valet Parking Trips							75					
- Pass-by Trips												
2018 Total Traffic	2	0	0	0	0	0	190	102	1	17	107	42

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Court and 10th Street PM Peak Hour

Description	Collins Court Northbound			Collins Court Southbound			10th Street Eastbound			10th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	9	3	4				10	93		0	92	1
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	9	3	4	0	0	0	10	97	0	0	96	1
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)												
• The Savoy Hotel												
• 601 Washington												
2018 Background Traffic	10	3	4	0	0	0	11	105	0	0	103	1
915 Washington												
- Trips	91		30									
- Valet Parking Trips			75									
- Pass-by Trips												
2018 Total Traffic	101	3	109	0	0	0	11	105	0	0	103	1

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Avenue and 11th Street PM Peak Hour

Description	Collins Avenue Northbound			Collins Avenue Southbound			11th Street Eastbound			11th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	32	398	14	20	409	26	20	36	19	14	27	28
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	33	414	15	21	425	27	21	37	20	15	28	29
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)		8			22							
• The Savoy Hotel		3			4							
• 601 Washington		91			47							
2018 Background Traffic	36	550	16	22	533	29	22	40	21	16	30	31
915 Washington												
- Trips		24			30							
- Valet Parking Trips	75											
- Pass-by Trips												
2018 Total Traffic	111	574	16	22	563	29	22	40	21	16	30	31

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Avenue and Parking Garage PM Peak Hour

Description	Collins Avenue Northbound			Collins Avenue Southbound			Eastbound			Parking Garage Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)		420	6	14	432	0						23
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	0	437	6	15	449	0	0	0	0	0	0	24
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)		8			22							
• The Savoy Hotel		3			4							
• 601 Washington		91			47							
2018 Background Traffic	0	574	7	16	559	0	0	0	0	0	0	26
915 Washington												
- Trips		30			24							
- Valet Parking Trips			75									75
- Pass-by Trips												
2018 Total Traffic	0	604	82	16	583	0	0	0	0	0	0	101

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Avenue and 10th Street PM Peak Hour

Description	Collins Avenue Northbound			Collins Avenue Southbound			10th Street Eastbound			10th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	16	353	25	24	385	24	17	33	22	22	38	25
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	17	367	26	25	400	25	18	34	23	23	40	26
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)		8			22							
• The Savoy Hotel		3			4							
• 601 Washington		91			47							
2018 Background Traffic	18	499	28	27	506	27	19	37	25	25	43	28
915 Washington												
- Trips					30		24		6			
- Valet Parking Trips							75					
- Pass-by Trips												
2018 Total Traffic	18	499	28	27	536	27	118	37	31	25	43	28

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Collins Avenue and 9th Street PM Peak Hour

Description	Collins Avenue Northbound			Collins Avenue Southbound			9th Street Eastbound			9th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (6/10/2016)	28	366	37	33	373	22	26	29	33	33	47	41
Season Adjustment Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
2016 Peak Season Traffic	29	381	38	34	388	23	27	30	34	34	49	43
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Committed Developments:												
• The Anglers Hotel addition												
• The Torino (400 Collins Avenue)		8			22							
• The Savoy Hotel		3			4							
• 601 Washington		91			47							
2018 Background Traffic	31	514	42	37	493	25	29	33	37	37	53	46
915 Washington												
- Trips	8				6	30						
- Valet Parking Trips												
- Pass-by Trips												
2018 Total Traffic	39	514	42	37	499	55	29	33	37	37	53	46

APPENDIX F

Intersection Capacity Analyses

HCM 2010 Signalized Intersection Summary

1: Washington Avenue & 11 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔			↔	
Traffic Volume (veh/h)	62	71	53	18	58	45	28	602	26	33	523	35
Future Volume (veh/h)	62	71	53	18	58	45	28	602	26	33	523	35
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.92	0.95		0.92	0.98		0.87	0.95		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86
Adj Sat Flow, veh/h/ln	1700	1667	1700	1700	1667	1700	1176	1667	1700	1700	1667	1700
Adj Flow Rate, veh/h	64	73	55	19	60	46	29	621	27	34	539	36
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	125	77	87	235	161	355	1811	79	104	1484	98
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	1.00	1.00	1.00	0.59	0.59	0.59
Sat Flow, veh/h	223	418	258	137	787	538	578	3069	133	102	2515	165
Grp Volume(v), veh/h	192	0	0	125	0	0	29	320	328	339	0	270
Grp Sat Flow(s),veh/h/ln	899	0	0	1463	0	0	578	1583	1619	1541	0	1241
Q Serve(g_s), s	9.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	10.3
Cycle Q Clear(g_c), s	9.2	0.0	0.0	5.7	0.0	0.0	11.2	0.0	0.0	9.4	0.0	10.3
Prop In Lane	0.33		0.29	0.15		0.37	1.00		0.08	0.10		0.13
Lane Grp Cap(c), veh/h	0	0	0	483	0	0	355	934	955	953	0	733
V/C Ratio(X)	0.00	0.00	0.00	0.26	0.00	0.00	0.08	0.34	0.34	0.36	0.00	0.37
Avail Cap(c_a), veh/h	0	0	0	533	0	0	355	934	955	953	0	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.88	0.00	0.00	0.97	0.97	0.97	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.1	0.0	0.0	1.1	0.0	0.0	9.5	0.0	9.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.4	1.0	1.0	1.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	0.0	0.2	0.3	0.3	4.6	0.0	3.7
LnGrp Delay(d),s/veh	0.0	0.0	0.0	24.2	0.0	0.0	1.5	1.0	1.0	10.5	0.0	11.1
LnGrp LOS				C			A	A	A	B		B
Approach Vol, veh/h		192			125			677			609	
Approach Delay, s/veh		0.0			24.2			1.0			10.8	
Approach LOS		A			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		58.1		31.9		58.1		31.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		30.0		50.0		30.0				
Max Q Clear Time (g_c+I1), s		13.2		7.7		12.3		11.2				
Green Ext Time (p_c), s		3.3		1.2		3.3		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay				6.4								
HCM 2010 LOS				A								

Existing 2016

HCM 2010 Signalized Intersection Summary

2: Washington Avenue & 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	48	23	29	48	35	26	568	33	23	550	22
Future Volume (veh/h)	26	48	23	29	48	35	26	568	33	23	550	22
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.98		0.92	0.98		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	30	55	26	33	55	40	30	645	38	26	625	25
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	164	66	98	143	87	614	2121	125	598	2169	87
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	281	875	354	256	762	463	761	3024	178	739	3093	124
Grp Volume(v), veh/h	111	0	0	128	0	0	30	337	346	26	320	330
Grp Sat Flow(s), veh/h	1510	0	0	1480	0	0	761	1583	1618	739	1583	1633
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.27		0.23	0.26		0.31	1.00		0.11	1.00		0.08
Lane Grp Cap(c), veh/h	334	0	0	328	0	0	614	1110	1135	598	1110	1145
V/C Ratio(X)	0.33	0.00	0.00	0.39	0.00	0.00	0.05	0.30	0.30	0.04	0.29	0.29
Avail Cap(c_a), veh/h	449	0	0	442	0	0	614	1110	1135	598	1110	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.97	0.97	0.97	0.96	0.96	0.96
Uniform Delay (d), s/veh	51.9	0.0	0.0	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.7	0.7	0.1	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2
LnGrp Delay(d), s/veh	32.2	0.0	0.0	32.7	0.0	0.0	0.1	0.7	0.7	0.1	0.6	0.6
LnGrp LOS	C			C			A	A	A	A	A	A
Approach Vol, veh/h	111			128			713			676		
Approach Delay, s/veh	32.2			32.7			0.7			0.6		
Approach LOS	C			C			A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		68.1		21.9		68.1		21.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		56.0		24.0		56.0		24.0				
Max Q Clear Time (g_c+I1), s		12.9		8.6		2.0		7.5				
Green Ext Time (p_c), s		3.2		0.5		3.2		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				5.3								
HCM 2010 LOS				A								

Existing 2016

HCM 2010 Signalized Intersection Summary

3: Washington Avenue & 9 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	41	40	22	37	43	32	563	49	43	529	29
Future Volume (veh/h)	17	41	40	22	37	43	32	563	49	43	529	29
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.92		0.88	0.92		0.88	0.94		0.83	0.98		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Adj Sat Flow, veh/h	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	18	43	42	23	39	45	33	586	51	45	551	30
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	197	169	111	172	171	511	1556	135	431	1734	94
Arrive On Green	0.00	0.29	0.29	0.29	0.29	0.29	0.57	0.57	0.57	0.00	1.00	0.14
Sat Flow, veh/h	162	675	576	215	590	584	782	2709	235	769	3019	164
Grp Volume(v), veh/h	103	0	0	107	0	0	33	341	296	45	288	293
Grp Sat Flow(s), veh/h	1414	0	0	1388	0	0	782	1583	1360	769	1583	1599
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.8	10.5	10.6	5.3	0.0	2.0
Cycle Q Clear(g_c), s	5.1	0.0	0.0	5.0	0.0	0.0	3.8	10.5	10.6	15.9	0.0	2.0
Prop In Lane	0.17		0.41	0.21		0.42	1.00		0.17	1.00		0.10
Lane Grp Cap(c), veh/h	480	0	0	455	0	0	511	909	781	431	909	918
V/C Ratio(X)	0.22	0.00	0.00	0.24	0.00	0.00	0.06	0.38	0.38	0.10	0.32	0.32
Avail Cap(c_a), veh/h	486	0	0	480	0	0	511	909	781	431	909	918
HCM Platoon Ratio	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	2.00	0.25
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	26.1	0.0	0.0	24.3	0.0	0.0	9.4	10.4	10.4	32.4	0.0	1.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.2	1.2	1.4	0.5	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.0	0.0	0.0	0.4	4.9	4.2	0.1	0.2	1.1
LnGrp Delay(d),s/veh	26.2	0.0	0.0	24.4	0.0	0.0	9.7	11.6	11.8	32.9	0.9	2.7
LnGrp LOS	C			C			A	B	B	C	A	A
Approach Vol, veh/h	103			107			670			626		
Approach Delay, s/veh	26.2			24.4			11.6			4.0		
Approach LOS	C			C			B			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.7		32.3		57.7		32.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		50.0		28.0		50.0		28.0				
Max Q Clear Time (g_c+I1), s		17.9		7.0		12.6		7.1				
Green Ext Time (p_c), s		2.8		0.5		2.9		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								

Existing 2016

HCM 2010 TWSC
4: Collins Ct & 9 Street

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	95	1	16	99	4	2	0	0	0	0	0
Future Vol, veh/h	2	95	1	16	99	4	2	0	0	0	0	0
Conflicting Peds, #/hr	40	0	96	96	0	40	6	0	14	14	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	114	1	19	119	5	2	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	124	0	0	130	0	0	294	297	225
Stage 1	-	-	-	-	-	-	134	134	-
Stage 2	-	-	-	-	-	-	160	163	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1463	-	-	1455	-	-	697	615	814
Stage 1	-	-	-	-	-	-	892	785	-
Stage 2	-	-	-	-	-	-	869	763	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1346	-	-	1339	-	-	623	0	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	623	0	-
Stage 1	-	-	-	-	-	-	880	0	-
Stage 2	-	-	-	-	-	-	787	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	1	10.8
HCM LOS			B

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	623	1346	-	-	1339	-	-
HCM Lane V/C Ratio	0.004	0.002	-	-	0.014	-	-
HCM Control Delay (s)	10.8	7.7	0	-	7.7	0	-
HCM Lane LOS	B	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

HCM 2010 TWSC
5: Collins Ct & 10 Street

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	97	0	0	96	1	9	3	4	0	0	0
Future Vol, veh/h	10	97	0	0	96	1	9	3	4	0	0	0
Conflicting Peds, #/hr	28	0	0	0	0	28	9	0	8	8	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	105	0	0	104	1	10	3	4	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	105	0	0	114	0	0	241	241	142			
Stage 1	-	-	-	-	-	-	136	136	-			
Stage 2	-	-	-	-	-	-	105	105	-			
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22			
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-			
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318			
Pot Cap-1 Maneuver	1486	-	-	1475	-	-	747	660	906			
Stage 1	-	-	-	-	-	-	890	784	-			
Stage 2	-	-	-	-	-	-	919	808	-			
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1451	-	-	1441	-	-	718	0	878			
Mov Cap-2 Maneuver	-	-	-	-	-	-	718	0	-			
Stage 1	-	-	-	-	-	-	876	0	-			
Stage 2	-	-	-	-	-	-	898	0	-			
Approach	EB			WB			NB					
HCM Control Delay, s	0.7			0			9.8					
HCM LOS							A					
Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR					
Capacity (veh/h)	761	1451	-	-	1441	-	-					
HCM Lane V/C Ratio	0.023	0.007	-	-	-	-	-					
HCM Control Delay (s)	9.8	7.5	0	-	0	-	-					
HCM Lane LOS	A	A	A	-	A	-	-					
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-					

HCM 2010 Signalized Intersection Summary

6: Collins Avenue & 11 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	37	20	15	28	29	33	414	15	21	425	27
Future Volume (veh/h)	21	37	20	15	28	29	33	414	15	21	425	27
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.61		0.44	0.60		0.44	0.99		0.87	0.94		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	23	40	22	16	30	31	35	445	16	23	457	29
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	88	42	52	66	57	646	1210	44	720	1169	74
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	1.00	1.00	1.00	0.76	0.76	0.76
Sat Flow, veh/h	214	604	286	126	449	387	894	1589	57	873	1535	97
Grp Volume(v), veh/h	85	0	0	77	0	0	35	0	461	23	0	486
Grp Sat Flow(s),veh/h/ln	1104	0	0	961	0	0	894	0	1647	873	0	1632
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	0.7	0.0	0.0	0.8	0.0	13.1
Cycle Q Clear(g_c), s	8.1	0.0	0.0	8.7	0.0	0.0	13.9	0.0	0.0	0.8	0.0	13.1
Prop In Lane	0.27		0.26	0.21		0.40	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	197	0	0	174	0	0	646	0	1254	720	0	1243
V/C Ratio(X)	0.43	0.00	0.00	0.44	0.00	0.00	0.05	0.00	0.37	0.03	0.00	0.39
Avail Cap(c_a), veh/h	234	0	0	208	0	0	646	0	1254	720	0	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	0.0	51.3	0.0	0.0	0.9	0.0	0.0	3.8	0.0	5.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.8	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	2.6	0.0	0.0	0.2	0.0	0.3	0.2	0.0	6.1
LnGrp Delay(d),s/veh	51.3	0.0	0.0	51.9	0.0	0.0	1.1	0.0	0.8	3.9	0.0	6.2
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h	85				77				496		509	
Approach Delay, s/veh	51.3				51.9				0.8		6.1	
Approach LOS	D				D				A		A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	105.0		25.0		105.0		25.0					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	94.0		24.0		94.0		24.0					
Max Q Clear Time (g_c+I1), s	15.1		10.7		15.9		10.1					
Green Ext Time (p_c), s	2.4		0.5		2.4		0.6					
Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									

Existing 2016

HCM 2010 TWSC
7: Collins Avenue & Parking Garage

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	24	437	6	15	449
Future Vol, veh/h	0	24	437	6	15	449
Conflicting Peds, #/hr	0	0	0	263	263	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	455	6	16	468

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	957	721	0
Stage 1	458	-	-
Stage 2	499	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	286	427	1100
Stage 1	637	-	-
Stage 2	610	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	218	333	859
Mov Cap-2 Maneuver	218	-	-
Stage 1	637	-	-
Stage 2	464	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	333	859	-
HCM Lane V/C Ratio	-	-	0.075	0.018	-
HCM Control Delay (s)	-	-	16.7	9.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

HCM 2010 Signalized Intersection Summary

8: Collins Avenue & 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↵	↵		↵	↵	
Traffic Volume (veh/h)	18	34	23	23	40	26	17	367	26	25	400	25
Future Volume (veh/h)	18	34	23	23	40	26	17	367	26	25	400	25
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.78		0.69	0.79		0.70	0.95		0.87	0.94		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	19	36	24	24	42	27	18	386	27	26	421	26
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	122	71	80	121	68	708	1128	79	730	1139	70
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	0.99	0.99	0.99
Sat Flow, veh/h	224	669	390	246	663	372	888	1523	107	910	1538	95
Grp Volume(v), veh/h	79	0	0	93	0	0	18	0	413	26	0	447
Grp Sat Flow(s),veh/h/ln	1283	0	0	1281	0	0	888	0	1630	910	0	1633
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.8
Cycle Q Clear(g_c), s	6.4	0.0	0.0	7.7	0.0	0.0	0.9	0.0	0.0	0.1	0.0	0.8
Prop In Lane	0.24		0.30	0.26		0.29	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	268	0	0	268	0	0	708	0	1207	730	0	1210
V/C Ratio(X)	0.29	0.00	0.00	0.35	0.00	0.00	0.03	0.00	0.34	0.04	0.00	0.37
Avail Cap(c_a), veh/h	281	0	0	281	0	0	708	0	1207	730	0	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.54	0.00	0.54	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.1	0.0	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.6
LnGrp Delay(d),s/veh	46.3	0.0	0.0	46.8	0.0	0.0	0.0	0.0	0.4	0.3	0.0	1.1
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		79			93			431			473	
Approach Delay, s/veh		46.3			46.8			0.4			1.1	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		101.3		28.7		101.3		28.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		95.0		25.0		95.0		25.0				
Max Q Clear Time (g_c+I1), s		2.8		9.7		2.9		8.4				
Green Ext Time (p_c), s		2.1		0.4		2.1		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			8.1									
HCM 2010 LOS			A									

Existing 2016

HCM 2010 Signalized Intersection Summary

9: Collins Avenue & 9 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	30	34	34	49	43	29	381	38	34	388	23
Future Volume (veh/h)	27	30	34	34	49	43	29	381	38	34	388	23
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.88		0.81	0.87		0.82	0.89		0.67	0.89		0.67
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	29	32	36	36	52	46	31	405	40	36	413	24
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	217	210	195	259	200	211	540	53	222	575	33
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.38	0.38	0.38	0.13	0.13	0.13
Sat Flow, veh/h	318	498	482	286	595	460	846	1422	140	837	1513	88
Grp Volume(v), veh/h	97	0	0	134	0	0	31	0	445	36	0	437
Grp Sat Flow(s), veh/h	1298	0	0	1341	0	0	846	0	1562	837	0	1601
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	16.1	2.7	0.0	17.1
Cycle Q Clear(g_c), s	2.7	0.0	0.0	3.7	0.0	0.0	19.2	0.0	16.1	18.8	0.0	17.1
Prop In Lane	0.30		0.37	0.27		0.34	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	637	0	0	654	0	0	211	0	594	222	0	609
V/C Ratio(X)	0.15	0.00	0.00	0.20	0.00	0.00	0.15	0.00	0.75	0.16	0.00	0.72
Avail Cap(c_a), veh/h	637	0	0	654	0	0	279	0	721	290	0	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.95	0.00	0.95
Uniform Delay (d), s/veh	0.0	0.0	0.0	11.4	0.0	0.0	26.3	0.0	17.5	33.6	0.0	25.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.7	0.0	0.0	0.2	0.0	3.2	0.2	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.6	0.0	0.0	0.5	0.0	7.3	0.6	0.0	7.9
LnGrp Delay(d),s/veh	1.6	0.0	0.0	12.1	0.0	0.0	26.5	0.0	20.6	33.8	0.0	27.3
LnGrp LOS	B			B			C		C	C		C
Approach Vol, veh/h	97			134			476			473		
Approach Delay, s/veh	11.6			12.1			21.0			27.8		
Approach LOS	B			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	34.3		30.7		34.3		30.7					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	23.0		30.0		23.0		30.0					
Max Q Clear Time (g_c+I1), s	14.5		21.2		5.7		20.8					
Green Ext Time (p_c), s	0.6		3.5		0.6		3.6					
Intersection Summary												
HCM 2010 Ctrl Delay				21.9								
HCM 2010 LOS				C								

Existing 2016

HCM 2010 Signalized Intersection Summary

1: Washington Avenue & 11 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Volume (veh/h)	67	76	57	19	63	48	30	674	28	36	634	38
Future Volume (veh/h)	67	76	57	19	63	48	30	674	28	36	634	38
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.92	0.95		0.92	0.99		0.87	0.96		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86
Adj Sat Flow, veh/h/ln	1700	1667	1700	1700	1667	1700	1176	1667	1700	1700	1667	1700
Adj Flow Rate, veh/h	69	78	59	20	65	49	31	695	29	37	654	39
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	124	77	86	239	161	312	1810	75	96	1502	88
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	1.00	1.00	1.00	0.59	0.59	0.59
Sat Flow, veh/h	223	413	255	134	795	535	523	3076	128	88	2552	150
Grp Volume(v), veh/h	206	0	0	134	0	0	31	357	367	405	0	325
Grp Sat Flow(s),veh/h/ln	891	0	0	1464	0	0	523	1583	1621	1544	0	1247
Q Serve(g_s), s	10.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	13.1
Cycle Q Clear(g_c), s	10.0	0.0	0.0	6.1	0.0	0.0	14.5	0.0	0.0	11.9	0.0	13.1
Prop In Lane	0.33		0.29	0.15		0.37	1.00		0.08	0.09		0.12
Lane Grp Cap(c), veh/h	0	0	0	486	0	0	312	932	954	952	0	734
V/C Ratio(X)	0.00	0.00	0.00	0.28	0.00	0.00	0.10	0.38	0.38	0.43	0.00	0.44
Avail Cap(c_a), veh/h	0	0	0	533	0	0	312	932	954	952	0	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.87	0.00	0.00	0.96	0.96	0.96	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.2	0.0	0.0	1.8	0.0	0.0	10.1	0.0	10.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.6	1.1	1.1	1.4	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.6	0.0	0.0	0.3	0.3	0.3	5.8	0.0	4.8
LnGrp Delay(d),s/veh	0.0	0.0	0.0	24.3	0.0	0.0	2.4	1.1	1.1	11.5	0.0	12.2
LnGrp LOS				C			A	A	A	B		B
Approach Vol, veh/h		206			134			755			730	
Approach Delay, s/veh		0.0			24.3			1.2			11.8	
Approach LOS		A			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		58.0		32.0		58.0		32.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		30.0		50.0		30.0				
Max Q Clear Time (g_c+I1), s		16.5		8.1		15.1		12.0				
Green Ext Time (p_c), s		4.0		1.3		4.0		1.3				
Intersection Summary												
HCM 2010 Ctrl Delay				7.0								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary

2: Washington Avenue & 10 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	52	25	31	52	38	28	637	36	25	663	24
Future Volume (veh/h)	28	52	25	31	52	38	28	637	36	25	663	24
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.98		0.92	0.98		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	32	59	28	35	59	43	32	724	41	28	753	27
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	167	68	99	145	89	553	2118	120	559	2171	78
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	281	876	356	255	763	466	677	3032	172	686	3108	111
Grp Volume(v), veh/h	119	0	0	137	0	0	32	378	387	28	383	397
Grp Sat Flow(s), veh/h	1518	0	0	1483	0	0	677	1583	1620	686	1583	1636
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.9	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.27		0.24	0.26		0.31	1.00		0.11	1.00		0.07
Lane Grp Cap(c), veh/h	329	0	0	332	0	0	553	1106	1132	559	1106	1143
V/C Ratio(X)	0.35	0.00	0.00	0.41	0.00	0.00	0.06	0.34	0.34	0.05	0.35	0.35
Avail Cap(c_a), veh/h	450	0	0	443	0	0	553	1106	1132	559	1106	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.96	0.96	0.96	0.92	0.92	0.92
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.8	0.8	0.2	0.8	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2
LnGrp Delay(d), s/veh	32.1	0.0	0.0	32.7	0.0	0.0	0.2	0.8	0.8	0.2	0.8	0.8
LnGrp LOS	C			C			A	A	A	A	A	A
Approach Vol, veh/h	119			137			797			808		
Approach Delay, s/veh	32.1			32.7			0.8			0.8		
Approach LOS	C			C			A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		67.9		22.1		67.9		22.1				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		56.0		24.0		56.0		24.0				
Max Q Clear Time (g_c+I1), s		12.9		9.1		2.0		7.9				
Green Ext Time (p_c), s		3.9		0.5		3.9		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				5.1								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary

3: Washington Avenue & 9 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↵	↕		↵	↕	
Traffic Volume (veh/h)	18	44	43	24	40	46	35	632	53	46	641	31
Future Volume (veh/h)	18	44	43	24	40	46	35	632	53	46	641	31
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.92		0.88	0.92		0.88	0.95		0.83	0.98		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Adj Sat Flow, veh/h	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	19	46	45	25	42	48	36	658	55	48	668	32
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	198	169	113	173	170	467	1561	130	396	1747	84
Arrive On Green	0.00	0.29	0.29	0.29	0.29	0.29	0.57	0.57	0.57	0.00	1.00	0.14
Sat Flow, veh/h	160	676	578	218	590	579	708	2720	227	722	3045	146
Grp Volume(v), veh/h	110	0	0	115	0	0	36	382	331	48	347	353
Grp Sat Flow(s), veh/h	1418	0	0	1388	0	0	708	1583	1364	722	1583	1607
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	12.2	12.3	6.0	0.0	2.4
Cycle Q Clear(g_c), s	5.4	0.0	0.0	5.4	0.0	0.0	4.6	12.2	12.3	18.3	0.0	2.4
Prop In Lane	0.17		0.41	0.22		0.42	1.00		0.17	1.00		0.09
Lane Grp Cap(c), veh/h	481	0	0	455	0	0	467	909	783	396	909	922
V/C Ratio(X)	0.24	0.00	0.00	0.25	0.00	0.00	0.08	0.42	0.42	0.12	0.38	0.38
Avail Cap(c_a), veh/h	486	0	0	480	0	0	467	909	783	396	909	922
HCM Platoon Ratio	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	2.00	0.25
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	26.2	0.0	0.0	24.4	0.0	0.0	9.7	10.8	10.8	34.5	0.0	1.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.3	1.4	1.7	0.6	1.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	2.2	0.0	0.0	0.5	5.7	5.0	0.1	0.3	1.2
LnGrp Delay(d), s/veh	26.3	0.0	0.0	24.5	0.0	0.0	10.0	12.2	12.5	35.0	1.2	2.7
LnGrp LOS	C			C			B	B	B	D	A	A
Approach Vol, veh/h	110			115			749			748		
Approach Delay, s/veh	26.3			24.5			12.2			4.1		
Approach LOS	C			C			B			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.6		32.4		57.6		32.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		50.0		28.0		50.0		28.0				
Max Q Clear Time (g_c+I20.3		7.4		7.4		14.3		7.4				
Green Ext Time (p_c), s		3.5		0.5		3.5		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								

HCM 2010 TWSC
4: Collins Ct & 9 Street

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	102	1	17	107	4	2	0	0	0	0	0
Future Vol, veh/h	2	102	1	17	107	4	2	0	0	0	0	0
Conflicting Peds, #/hr	40	0	96	96	0	40	6	0	14	14	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	123	1	20	129	5	2	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	134	0	0	138	0	0	314	317	233
Stage 1	-	-	-	-	-	-	142	142	-
Stage 2	-	-	-	-	-	-	172	175	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1451	-	-	1446	-	-	679	599	806
Stage 1	-	-	-	-	-	-	885	779	-
Stage 2	-	-	-	-	-	-	858	754	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1335	-	-	1330	-	-	606	0	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	0	-
Stage 1	-	-	-	-	-	-	873	0	-
Stage 2	-	-	-	-	-	-	777	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	1	11
HCM LOS			B

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	606	1335	-	-	1330	-	-
HCM Lane V/C Ratio	0.004	0.002	-	-	0.015	-	-
HCM Control Delay (s)	11	7.7	0	-	7.7	0	-
HCM Lane LOS	B	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

HCM 2010 TWSC
5: Collins Ct & 10 Street

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	11	105	0	0	103	1	10	3	4	0	0	0
Future Vol, veh/h	11	105	0	0	103	1	10	3	4	0	0	0
Conflicting Peds, #/hr	28	0	0	0	0	28	9	0	8	8	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	114	0	0	112	1	11	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	113	0	0	123	0	0	260	260	151
Stage 1	-	-	-	-	-	-	147	147	-
Stage 2	-	-	-	-	-	-	113	113	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1476	-	-	1464	-	-	729	645	895
Stage 1	-	-	-	-	-	-	880	775	-
Stage 2	-	-	-	-	-	-	912	802	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1442	-	-	1430	-	-	700	0	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	700	0	-
Stage 1	-	-	-	-	-	-	866	0	-
Stage 2	-	-	-	-	-	-	891	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	10
HCM LOS			B

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	741	1442	-	-	1430	-	-
HCM Lane V/C Ratio	0.025	0.008	-	-	-	-	-
HCM Control Delay (s)	10	7.5	0	-	0	-	-
HCM Lane LOS	B	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-

HCM 2010 Signalized Intersection Summary
6: Collins Avenue & 11 Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↵	↵		↵	↵	
Traffic Volume (veh/h)	22	40	21	16	30	31	36	550	16	22	533	29
Future Volume (veh/h)	22	40	21	16	30	31	36	550	16	22	533	29
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.62		0.44	0.61		0.44	1.00		0.87	0.95		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1700	1667	1700	1700	1667	1700	1667	1667	1700	1667	1667	1700
Adj Flow Rate, veh/h	24	43	23	17	32	33	39	591	17	24	573	31
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	90	42	52	67	57	560	1222	35	643	1183	64
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	1.00	1.00	1.00	0.76	0.76	0.76
Sat Flow, veh/h	212	619	285	128	455	393	811	1604	46	771	1553	84
Grp Volume(v), veh/h	90	0	0	82	0	0	39	0	608	24	0	604
Grp Sat Flow(s),veh/h/ln	1116	0	0	977	0	0	811	0	1651	771	0	1637
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	1.2	0.0	0.0	1.0	0.0	18.1
Cycle Q Clear(g_c), s	8.6	0.0	0.0	9.1	0.0	0.0	19.3	0.0	0.0	1.0	0.0	18.1
Prop In Lane	0.27		0.26	0.21		0.40	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	198	0	0	176	0	0	560	0	1257	643	0	1247
V/C Ratio(X)	0.45	0.00	0.00	0.47	0.00	0.00	0.07	0.00	0.48	0.04	0.00	0.48
Avail Cap(c_a), veh/h	236	0	0	210	0	0	560	0	1257	643	0	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	0.0	51.5	0.0	0.0	1.8	0.0	0.0	3.8	0.0	5.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	0.2	0.0	1.3	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	2.8	0.0	0.0	0.3	0.0	0.5	0.2	0.0	8.5
LnGrp Delay(d),s/veh	51.5	0.0	0.0	52.2	0.0	0.0	2.0	0.0	1.3	3.9	0.0	7.2
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		90			82			647			628	
Approach Delay, s/veh		51.5			52.2			1.4			7.1	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		105.0		25.0		105.0		25.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		94.0		24.0		94.0		24.0				
Max Q Clear Time (g_c+I1), s		20.1		11.1		21.3		10.6				
Green Ext Time (p_c), s		3.4		0.6		3.4		0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			9.9									
HCM 2010 LOS			A									

HCM 2010 TWSC
7: Collins Avenue & Parking Garage

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	26	574	7	16	559
Future Vol, veh/h	0	26	574	7	16	559
Conflicting Peds, #/hr	0	0	0	263	263	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	598	7	17	582
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1218	865	0	0	605	0
Stage 1	602	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	199	353	-	-	973	-
Stage 1	547	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	150	276	-	-	760	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.5	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	276	760	-	
HCM Lane V/C Ratio	-	-	0.098	0.022	-	
HCM Control Delay (s)	-	-	19.5	9.8	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	