



APPENDIX B

INTERSECTION ANALYSIS

PALM BEACH SYNAGOGUE

10/05/2024

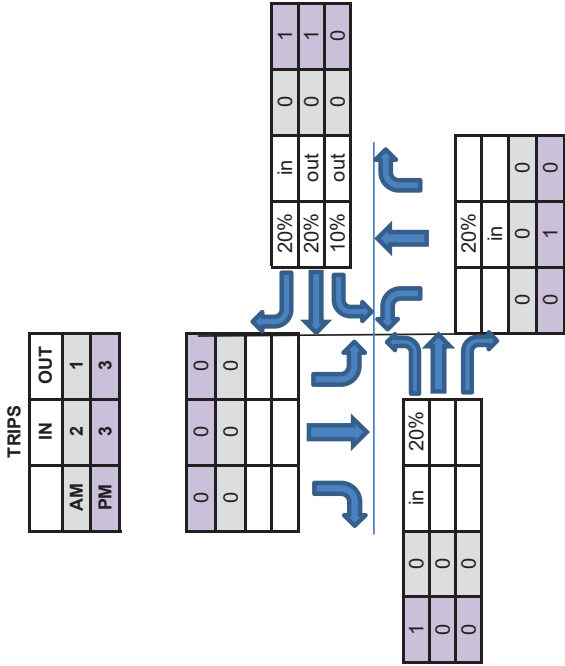
CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
BRADLEY PLACE AT ROYAL POINCIANA WAY

INPUT DATA									
Growth Rate = 2.33%		Peak Season = 1.00		Current Year = 2024		Buildout Year = 2028			

	AM Peak Hour											
	INTERSECTION VOLUME DEVELOPMENT											
	Northbound			Southbound			Eastbound			Westbound		
Existing Volume (2024)	73	195	63	0	82	220	464	679	156	84	313	71
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	7	19	6	0	8	21	45	66	15	8	30	7
1.0% Background Growth	3	8	3	0	3	9	19	28	6	3	13	3
Major Projects Traffic	35	0	0	0	0	18	22	80	44	0	65	0
Background Traffic Used	38	8	3	0	3	27	41	108	50	3	78	3
2028 Background Traffic	111	203	66	0	85	247	505	787	206	87	391	74
Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0
Total	111	203	66	0	85	247	505	787	206	87	391	74

	PM Peak Hour											
	INTERSECTION VOLUME DEVELOPMENT											
	Northbound			Southbound			Eastbound			Westbound		
Existing Volume (2024)	234	188	76	0	120	563	295	372	106	97	640	44
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	23	18	7	0	12	54	28	36	10	9	62	4
1.0% Background Growth	10	8	3	0	5	23	12	15	4	4	26	2
Major Projects Traffic	57	0	0	0	0	29	23	85	47	0	105	0
Background Traffic Used	67	8	3	0	5	52	35	100	51	4	131	2
2028 Background Traffic	301	196	79	0	125	615	330	472	157	101	771	46
Project Traffic	0	1	0	0	0	0	1	0	0	0	1	1
Total	301	197	79	0	125	615	331	472	157	101	772	47

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

Bradley N. of Royal Poinciana Way

AM	82
PM	101
Cocoanut Row S. of Royal Poinciana Way	
AM	106
PM	137
Royal Poinciana Way E. of Cocoanut Row	
AM	194
PM	240
Royal Poinciana Way W. of Cocoanut Row	
AM	341
PM	436

CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
COUNTY ROAD AT ROYAL POINCIANA WAY

INPUT DATA									
Growth Rate = 2.33%		Peak Season = 1.00		Current Year = 2024		Buildout Year = 2028			

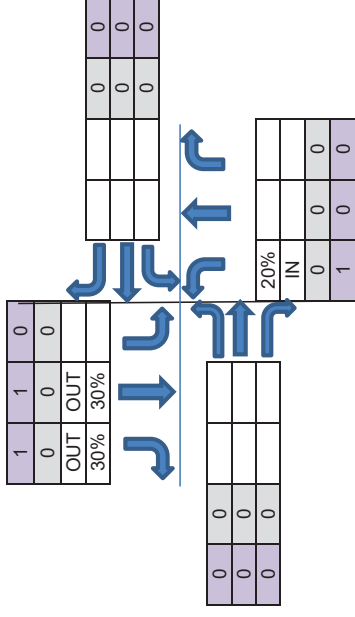
AM Peak Hour													
INTERSECTION VOLUME DEVELOPMENT													
Northbound				Southbound				Eastbound				Westbound	
Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Right
212	475	42		0	339	234		325	115	200		14	38
Existing Volume (2024)				0				0				0	
Peak Season Adjustment				0				0				0	
Background Traffic Growth				20				46				4	
1.0% Background Growth				9				19				2	
Major Projects Traffic				69				2				0	
Background Traffic Used				21				2				0	
2028 Background Traffic				290				496				44	
Project Traffic				0				0				0	
Total				290				496				44	

PM Peak Hour													
INTERSECTION VOLUME DEVELOPMENT													
Northbound				Southbound				Eastbound				Westbound	
Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Right
217	364	32		0	502	375		200	66	228		42	87
Existing Volume (2024)				0				0				0	
Peak Season Adjustment				0				0				0	
Background Traffic Growth				21				35				3	
1.0% Background Growth				9				15				1	
Major Projects Traffic				105				2				0	
Background Traffic Used				114				17				1	
2028 Background Traffic				331				381				33	
Project Traffic				1				0				0	
Total				332				381				33	

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study

TRIPS

	IN	OUT
AM	2	1
PM	3	3



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

County Rd N. of Royal Poinciana Way

AM	112
PM	137

County Rd S. of Royal Poinciana Way

AM	197
PM	250

Royal Poinciana Way W. of County Rd

AM	282
PM	350

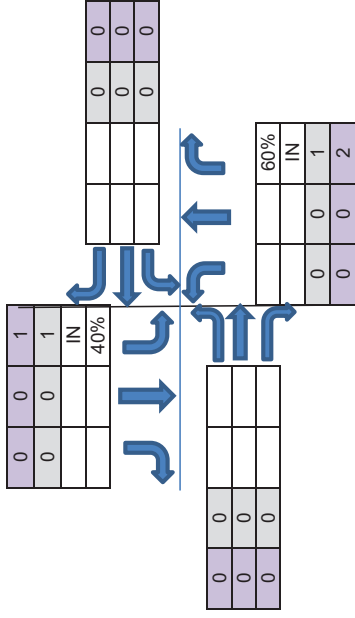
CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
SUNSET AVENUE AND BRADLEY PLACE

INPUT DATA				
Growth Rate = 2.33%	Peak Season = 1.00	Current Year = 2024	Buildout Year = 2028	

AM Peak Hour												
INTERSECTION VOLUME DEVELOPMENT												
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2024)	20	530	190	6	288	2	3	5	10	0	0	0
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	2	51	18	1	28	0	0	0	1	0	0	0
1.0% Background Growth	1	22	8	0	12	0	0	0	0	0	0	0
Major Projects Traffic	0	0	0	0	0	0	0	0	6	0	0	0
Background Traffic Used	2	51	18	1	28	0	0	0	1	0	0	0
2028 Background Traffic	22	581	208	7	316	2	3	5	11	0	0	0
Project Traffic	0	0	1	1	0	0	0	0	0	0	0	0
Total	22	581	209	8	316	2	3	5	11	0	0	0

102
49

TRIPS			
	IN	OUT	
AM	2	1	
PM	3	3	



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

Bradley N. of Sunset Ave

AM	79
PM	91

Bradley S. of Sunset Ave
 AM 100
 PM 117

Sunset Ave E. of Bradley Place
 AM 19
 PM 22

INTERSECTION VOLUME DEVELOPMENT												
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volume (2024)	36	283	213	12	648	7	2	2	28	0	0	0
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	3	27	21	1	63	1	0	0	3	0	0	0
1.0% Background Growth	1	11	9	0	26	0	0	0	1	0	0	0
Major Projects Traffic	0	14	3	0	17	0	0	0	0	0	0	0
Background Traffic Used	3	27	21	1	63	1	0	0	3	0	0	0
2028 Background Traffic	39	310	234	13	711	8	2	2	31	0	0	0
Project Traffic	0	0	2	1	0	0	0	0	0	0	0	0
Total	39	310	236	14	711	8	2	2	31	0	0	0

119
84

Note:
 Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
 Major project traffic from Paramount Traffic Study



SYNCHRO PRINTOUTS

EXISTING (2024) CONDITIONS

HCM 6th TWSC
3: Bradley Place & Sunset Ave

08/19/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑	↕	↕	↑	
Traffic Vol, veh/h	3	5	10	0	0	0	20	530	190	6	288	2
Future Vol, veh/h	3	5	10	0	0	0	20	530	190	6	288	2
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	11	0	0	0	21	558	200	6	303	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1016	1116	304	305	0	0	758	0	0
Stage 1	316	316	-	-	-	-	-	-	-
Stage 2	700	800	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	264	208	736	1256	-	-	853	-	-
Stage 1	739	655	-	-	-	-	-	-	-
Stage 2	493	397	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	258	0	736	1256	-	-	853	-	-
Mov Cap-2 Maneuver	258	0	-	-	-	-	-	-	-
Stage 1	726	0	-	-	-	-	-	-	-
Stage 2	490	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.2	0.2	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	516	853	-	-
HCM Lane V/C Ratio	0.017	-	-	0.037	0.007	-	-
HCM Control Delay (s/veh)	7.9	-	-	12.2	9.3	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

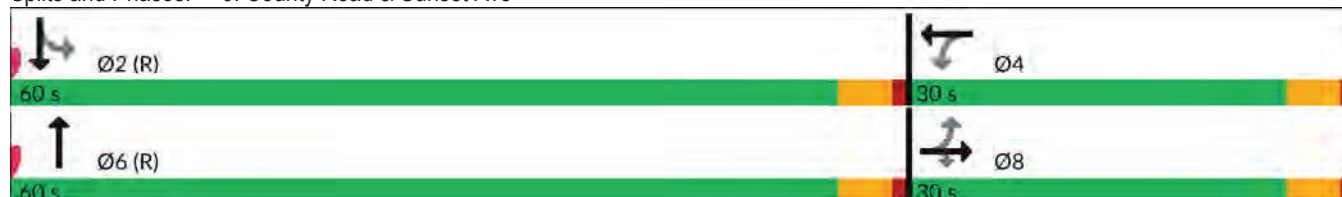
Timings

6: County Road & Sunset Ave

08/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	9	88	16	0	818	9	456
Future Volume (vph)	16	9	88	16	0	818	9	456
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.07	0.03	0.27		0.11	0.32		0.19
Control Delay (s/veh)	32.8	31.8	9.7		19.7	4.0		3.5
Queue Delay	0.0	0.0	0.0		0.0	0.2		0.0
Total Delay (s/veh)	32.8	31.8	9.7		19.7	4.3		3.5
LOS	C	C	A		B	A		A
Approach Delay (s/veh)		14.7			19.7	4.3		3.5
Approach LOS		B			B	A		A
Intersection Summary								
Cycle Length: 90								
Actuated Cycle Length: 90								
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.32								
Intersection Signal Delay (s/veh): 5.1					Intersection LOS: A			
Intersection Capacity Utilization 49.1%					ICU Level of Service A			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	17	9	93	28	893	489
v/c Ratio	0.07	0.03	0.27	0.11	0.32	0.19
Control Delay (s/veh)	32.8	31.8	9.7	19.7	4.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	32.8	31.8	9.7	19.7	4.3	3.5
Queue Length 50th (ft)	8	4	0	5	55	37
Queue Length 95th (ft)	27	18	41	28	94	52
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	390	527	515	439	2772	2617
Starvation Cap Reductn	0	0	0	0	1024	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.02	0.18	0.06	0.51	0.19
Intersection Summary						

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	9	88	16	0	10	0	818	30	9	456	0
Future Volume (veh/h)	16	9	88	16	0	10	0	818	30	9	456	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	17	9	93	17	0	11	0	861	32	9	480	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	0	2	2	2	2	0
Cap, veh/h	313	304	257	190	15	91	0	2577	96	60	2516	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1404	1870	1585	771	94	560	0	3587	130	25	3496	0
Grp Volume(v), veh/h	17	9	93	28	0	0	0	438	455	260	229	0
Grp Sat Flow(s),veh/h/ln	1404	1870	1585	1425	0	0	0	1777	1847	1819	1617	0
Q Serve(g_s), s	0.0	0.4	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0
Cycle Q Clear(g_c), s	0.7	0.4	4.7	1.2	0.0	0.0	0.0	0.0	0.0	3.8	3.9	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.03		0.00
Lane Grp Cap(c), veh/h	313	304	257	296	0	0	0	1311	1362	1383	1193	0
V/C Ratio(X)	0.05	0.03	0.36	0.09	0.00	0.00	0.00	0.33	0.33	0.19	0.19	0.00
Avail Cap(c_a), veh/h	483	530	449	464	0	0	0	1311	1362	1383	1193	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.76	0.76	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.9	31.7	33.5	32.1	0.0	0.0	0.0	0.0	0.0	3.6	3.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.1	0.0	0.0	0.0	0.5	0.5	0.3	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.3	3.3	0.9	0.0	0.0	0.0	0.3	0.3	2.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.8	34.4	32.2	0.0	0.0	0.0	0.5	0.5	3.9	4.0	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h	119			28			893			489		
Approach Delay, s/veh	33.8			32.2			0.5			3.9		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	70.9			19.1			70.9			19.1		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.5			25.5			55.5			25.5		
Max Q Clear Time (g_c+I1), s	5.9			3.2			2.0			6.7		
Green Ext Time (p_c), s	3.3			0.1			7.0			0.3		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				4.8								
HCM 6th LOS				A								

Timings

9: Bradley Place & Royal Poinciana Way

08/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	464	679	84	313	71	73	195	82	220
Future Volume (vph)	464	679	84	313	71	73	195	82	220
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effect Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.69	0.66	0.25	0.29	0.13	0.17	0.49	0.23	0.29
Control Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
LOS	C	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		28.0		19.5			22.9	9.7	
Approach LOS		C		B			C	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 76

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 23.3

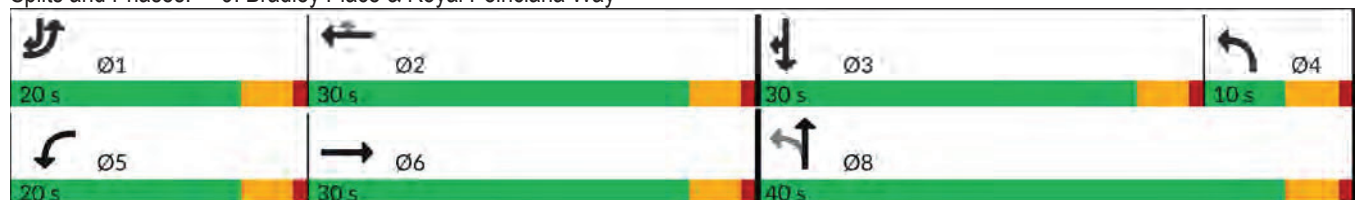
Intersection LOS: C

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Queues

9: Bradley Place & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	488	879	88	329	75	77	271	86	232
v/c Ratio	0.69	0.66	0.25	0.29	0.13	0.17	0.49	0.23	0.29
Control Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Length 50th (ft)	117	197	37	63	0	27	97	36	0
Queue Length 95th (ft)	168	267	77	96	9	57	166	75	27
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1337	363	1196	618	448	854	629	940
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	0.69	0.66	0.24	0.28	0.12	0.17	0.32	0.14	0.25
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	464	679	156	84	313	71	73	195	63	0	82	220
Future Volume (vph)	464	679	156	84	313	71	73	195	63	0	82	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3440		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3440		1770	3539	1583	1306	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	488	715	164	88	329	75	77	205	66	0	86	232
RTOR Reduction (vph)	0	19	0	0	0	51	0	15	0	0	0	141
Lane Group Flow (vph)	488	860	0	88	329	24	77	256	0	0	86	91
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1285		261	1135	508	424	548			361	623
v/s Ratio Prot	c0.14	c0.25		0.05	0.09		0.01	c0.14			0.05	0.06
v/s Ratio Perm						0.02	0.05					
v/c Ratio	0.71	0.67		0.34	0.29	0.05	0.18	0.47			0.24	0.15
Uniform Delay, d1	29.0	20.4		29.8	19.8	18.2	20.0	21.9			26.5	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	6.1	2.8		0.8	0.1	0.0	0.2	0.6			0.3	0.1
Delay (s)	35.2	23.2		30.6	19.9	18.3	20.2	22.6			26.9	15.3
Level of Service	D	C		C	B	B	C	C			C	B
Approach Delay (s/veh)		27.4			21.6			22.0			18.4	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			24.4									
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			77.9									
Intersection Capacity Utilization			61.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

08/19/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	325	115	200	14	38	8	212	475	339		
Future Volume (vph)	325	115	200	14	38	8	212	475	339		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		8.4	8.4		48.5	48.5		
Actuated g/C Ratio	0.26	0.26	0.26		0.09	0.09		0.54	0.54		
v/c Ratio	0.53	0.53	0.38		0.38	0.03		0.64	0.32		
Control Delay (s/veh)	34.3	34.0	6.2		45.1	0.3		18.8	6.5		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	34.3	34.0	6.2		45.1	0.3		18.8	6.6		
LOS	C	C	A		D	A		B	A		
Approach Delay (s/veh)		25.4			39.4			18.8	6.6		
Approach LOS		C			D			B	A		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 18.0

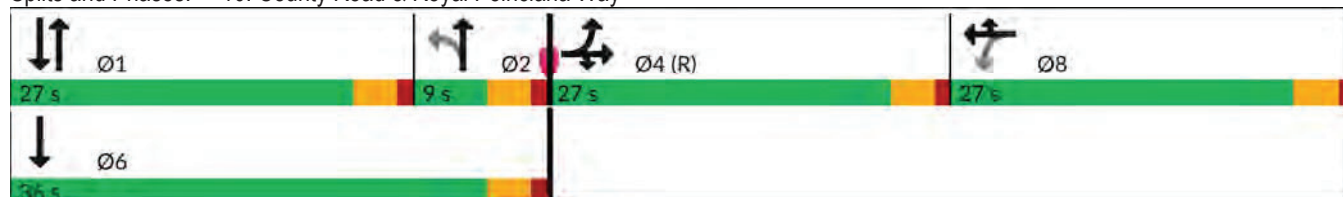
Intersection LOS: B

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 10: County Road & Royal Poinciana Way



Queues

10: County Road & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	229	234	211	55	8	767	603
v/c Ratio	0.53	0.53	0.38	0.38	0.03	0.64	0.32
Control Delay (s/veh)	34.3	34.0	6.2	45.1	0.3	18.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	34.3	34.0	6.2	45.1	0.3	18.8	6.6
Queue Length 50th (ft)	117	121	0	30	0	157	32
Queue Length 95th (ft)	194	198	53	65	0	244	60
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	441	561	399	485	1195	1890
Starvation Cap Reductn	0	0	0	0	0	0	529
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.53	0.38	0.14	0.02	0.64	0.44
Intersection Summary							

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	115	200	14	38	8	212	475	42	0	339	234
Future Volume (vph)	325	115	200	14	38	8	212	475	42	0	339	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.99			1.00	
Satd. Flow (prot)	1681	1728	1583		1838	1583		3458			3323	
Flt Permitted	0.95	0.98	1.00		0.84	1.00		0.63			1.00	
Satd. Flow (perm)	1681	1728	1583		1562	1583		2210			3323	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	342	121	211	15	40	8	223	500	44	0	357	246
RTOR Reduction (vph)	0	0	159	0	0	7	0	4	0	0	99	0
Lane Group Flow (vph)	229	234	52	0	55	1	0	763	0	0	504	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		7.3	7.3		48.5			48.5	
Effective Green, g (s)	22.2	22.2	22.2		7.3	7.3		48.5			48.5	
Actuated g/C Ratio	0.25	0.25	0.25		0.08	0.08		0.54			0.54	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		126	128		1190			1790	
v/s Ratio Prot	c0.14	0.14	0.03			0.00					0.15	
v/s Ratio Perm					c0.04			c0.35				
v/c Ratio	0.55	0.55	0.13		0.44	0.01		0.64			0.28	
Uniform Delay, d1	29.6	29.5	26.4		39.4	38.0		14.6			11.3	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	5.2	5.0	0.7		2.4	0.0		1.2			0.1	
Delay (s)	34.8	34.6	27.1		41.8	38.0		15.8			8.7	
Level of Service	C	C	C		D	D		B			A	
Approach Delay (s/veh)		32.3			41.3			15.8			8.7	
Approach LOS		C			D			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			19.8				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			66.2%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC
3: Bradley Place & Sunset Ave

08/19/2024

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↕	↕	↕	↕	
Traffic Vol, veh/h	2	2	28	0	0	0	36	283	213	12	648	7
Future Vol, veh/h	2	2	28	0	0	0	36	283	213	12	648	7
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	29	0	0	0	38	298	224	13	682	7

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1198	1310	686	689	0	0	522	0	0
Stage 1	712	712	-	-	-	-	-	-	-
Stage 2	486	598	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	205	159	447	905	-	-	1044	-	-
Stage 1	486	436	-	-	-	-	-	-	-
Stage 2	618	491	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	194	0	447	905	-	-	1044	-	-
Mov Cap-2 Maneuver	194	0	-	-	-	-	-	-	-
Stage 1	466	0	-	-	-	-	-	-	-
Stage 2	611	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	14.5	0.6	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	905	-	-	411	1044	-	-
HCM Lane V/C Ratio	0.042	-	-	0.082	0.012	-	-
HCM Control Delay (s/veh)	9.2	-	-	14.5	8.5	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0	-	-

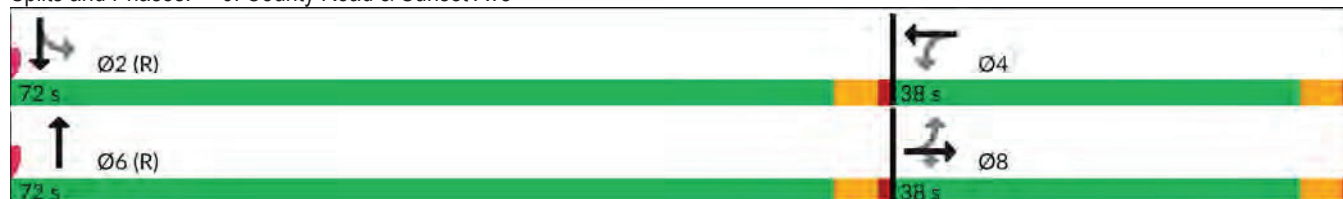
Timings

6: County Road & Sunset Ave

08/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	3	124	11	0	538	3	742
Future Volume (vph)	54	3	124	11	0	538	3	742
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.30	0.01	0.40		0.12	0.21		0.30
Control Delay (s/veh)	47.8	41.3	11.3		26.4	3.7		3.7
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	47.8	41.3	11.3		26.4	4.1		3.8
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		22.7			26.4	4.1		3.8
Approach LOS		C			C	A		A
Intersection Summary								
Cycle Length: 110								
Actuated Cycle Length: 110								
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.40								
Intersection Signal Delay (s/veh): 6.5					Intersection LOS: A			
Intersection Capacity Utilization 56.8%					ICU Level of Service B			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	57	3	131	26	583	784
v/c Ratio	0.30	0.01	0.40	0.12	0.21	0.30
Control Delay (s/veh)	47.8	41.3	11.3	26.4	3.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	47.8	41.3	11.3	26.4	4.1	3.8
Queue Length 50th (ft)	37	2	0	7	37	67
Queue Length 95th (ft)	78	11	55	33	95	85
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	573	484	2757	2639
Starvation Cap Reductn	0	0	0	0	1549	0
Spillback Cap Reductn	0	0	6	0	0	180
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.01	0.23	0.05	0.48	0.32
Intersection Summary						

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	3	124	11	0	13	0	538	16	3	742	0
Future Volume (veh/h)	54	3	124	11	0	13	0	538	16	3	742	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	57	3	131	12	0	14	0	566	17	3	781	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	0	2	2	2	2	0
Cap, veh/h	261	255	216	123	17	107	0	2755	83	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1400	1870	1585	552	121	785	0	3616	106	2	3567	0
Grp Volume(v), veh/h	57	3	131	26	0	0	0	285	298	420	364	0
Grp Sat Flow(s),veh/h/ln	1400	1870	1585	1459	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.1	0.2	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
Cycle Q Clear(g_c), s	3.6	0.2	8.6	1.5	0.0	0.0	0.0	0.0	0.0	6.9	7.0	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	261	255	216	246	0	0	0	1389	1448	1493	1264	0
V/C Ratio(X)	0.22	0.01	0.61	0.11	0.00	0.00	0.00	0.21	0.21	0.28	0.29	0.00
Avail Cap(c_a), veh/h	497	570	483	485	0	0	0	1389	1448	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.75	0.75	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.5	41.1	44.7	41.7	0.0	0.0	0.0	0.0	0.0	3.4	3.4	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.2	0.0	0.0	0.0	0.3	0.2	0.5	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.1	6.3	1.1	0.0	0.0	0.0	0.2	0.2	4.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.9	41.1	47.5	41.9	0.0	0.0	0.0	0.3	0.2	3.8	3.9	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h	191			26			583			784		
Approach Delay, s/veh	46.0			41.9			0.2			3.9		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	90.5			19.5			90.5			19.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	67.5			33.5			67.5			33.5		
Max Q Clear Time (g_c+I1), s	9.0			3.5			2.0			10.6		
Green Ext Time (p_c), s	5.9			0.1			4.0			0.6		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	8.3											
HCM 6th LOS	A											

Timings

9: Bradley Place & Royal Poinciana Way

08/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	295	372	97	640	44	234	188	120	563
Future Volume (vph)	295	372	97	640	44	234	188	120	563
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.8	35.1	15.4	29.7	29.7	36.1	36.1	25.9	41.7
Actuated g/C Ratio	0.17	0.37	0.16	0.31	0.31	0.38	0.38	0.27	0.44
v/c Ratio	0.55	0.39	0.36	0.61	0.08	0.50	0.40	0.25	0.78
Control Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
LOS	D	C	D	C	A	C	C	C	B
Approach Delay (s/veh)		31.7		31.1			24.4	20.8	
Approach LOS		C		C			C	C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 95.3

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 27.5

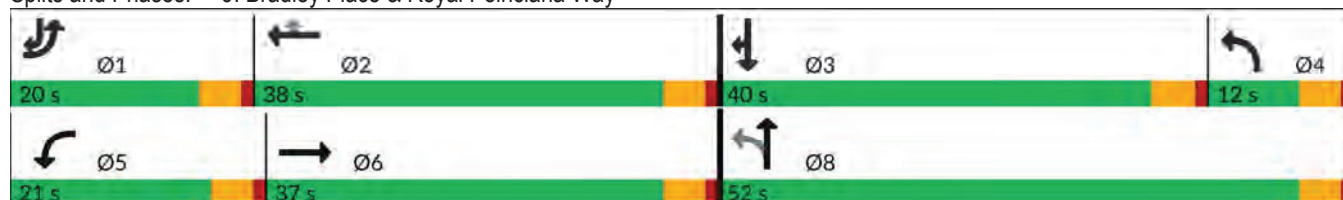
Intersection LOS: C

Intersection Capacity Utilization 76.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Queues

9: Bradley Place & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	311	504	102	674	46	246	278	126	593
v/c Ratio	0.55	0.39	0.36	0.61	0.08	0.50	0.40	0.25	0.78
Control Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Length 50th (ft)	93	118	58	182	0	109	114	61	175
Queue Length 95th (ft)	152	188	118	271	0	175	184	109	287
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	568	1282	311	1265	632	533	915	706	893
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	0.55	0.39	0.33	0.53	0.07	0.46	0.30	0.18	0.66
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	372	106	97	640	44	234	188	76	0	120	563
Future Volume (vph)	295	372	106	97	640	44	234	188	76	0	120	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3421		1770	3539	1583	1770	1782			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.66	1.00			1.00	1.00
Satd. Flow (perm)	3433	3421		1770	3539	1583	1226	1782			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	392	112	102	674	46	246	198	80	0	126	593
RTOR Reduction (vph)	0	22	0	0	0	31	0	14	0	0	0	69
Lane Group Flow (vph)	311	482	0	102	674	15	246	264	0	0	126	524
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.1		11.6	30.9	30.9	36.1	36.1			25.9	41.7
Effective Green, g (s)	15.8	35.1		11.6	30.9	30.9	36.1	36.1			25.9	41.7
Actuated g/C Ratio	0.16	0.36		0.12	0.32	0.32	0.37	0.37			0.27	0.43
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	563	1246		213	1135	507	491	668			501	685
v/s Ratio Prot	0.09	c0.14		0.06	c0.19		c0.03	0.15			0.07	c0.33
v/s Ratio Perm						0.01	0.16					
v/c Ratio	0.55	0.39		0.48	0.59	0.03	0.50	0.39			0.25	0.77
Uniform Delay, d1	37.0	22.6		39.5	27.4	22.4	24.0	22.1			27.6	23.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	3.9	0.9		1.7	0.8	0.0	0.8	0.4			0.3	5.1
Delay (s)	40.9	23.6		41.2	28.3	22.4	24.8	22.5			27.9	28.3
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		30.2			29.6			23.6			28.2	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)	28.3			HCM 2000 Level of Service			C					
HCM 2000 Volume to Capacity ratio	0.68											
Actuated Cycle Length (s)	96.3			Sum of lost time (s)			18.0					
Intersection Capacity Utilization	76.8%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

08/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6	
Lane Configurations												
Traffic Volume (vph)	200	66	228	42	87	16	217	364	502			
Future Volume (vph)	200	66	228	42	87	16	217	364	502			
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA			
Protected Phases	4	4	4		8	8		1 2	1 6	1	6	
Permitted Phases				8			2					
Detector Phase	4	4	4	8	8	8	2	1 2	1 6			
Switch Phase												
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0	
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0						
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0						
Lead/Lag							Lag			Lead		
Lead-Lag Optimize?							Yes			Yes		
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None	
Act Effct Green (s)	28.1	28.1	28.1		14.6	14.6		55.3	55.3			
Actuated g/C Ratio	0.26	0.26	0.26		0.13	0.13		0.50	0.50			
v/c Ratio	0.32	0.32	0.41		0.65	0.06		1.10dl	0.52			
Control Delay (s/veh)	38.2	38.1	7.1		59.2	0.4		25.4	22.4			
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.4			
Total Delay (s/veh)	38.2	38.1	7.1		59.2	0.4		25.4	23.8			
LOS	D	D	A		E	A		C	C			
Approach Delay (s/veh)		23.8			52.7			25.4	23.8			
Approach LOS		C			D			C	C			

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 26.2

Intersection LOS: C

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: County Road & Royal Poinciana Way



Queues

10: County Road & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	139	141	240	136	17	645	923
v/c Ratio	0.32	0.32	0.41	0.65	0.06	1.10dl	0.52
Control Delay (s/veh)	38.2	38.1	7.1	59.2	0.4	25.4	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Total Delay (s/veh)	38.2	38.1	7.1	59.2	0.4	25.4	23.8
Queue Length 50th (ft)	89	90	0	92	0	156	230
Queue Length 95th (ft)	153	155	65	149	0	251	302
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	440	582	330	401	916	1803
Starvation Cap Reductn	0	0	0	0	0	0	640
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.41	0.41	0.04	0.70	0.79

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	66	228	42	87	16	217	364	32	0	502	375
Future Volume (vph)	200	66	228	42	87	16	217	364	32	0	502	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.98	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1726	1583		1833	1583		3450			3312	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.52			1.00	
Satd. Flow (perm)	1681	1726	1583		1581	1583		1830			3312	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	69	240	44	92	17	228	383	34	0	528	395
RTOR Reduction (vph)	0	0	179	0	0	15	0	3	0	0	116	0
Lane Group Flow (vph)	139	141	61	0	136	2	0	642	0	0	807	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	28.0	28.0	28.0		14.6	14.6		55.4			55.4	
Effective Green, g (s)	28.0	28.0	28.0		14.6	14.6		55.4			55.4	
Actuated g/C Ratio	0.25	0.25	0.25		0.13	0.13		0.50			0.50	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	427	439	402		209	210		921			1668	
v/s Ratio Prot	c0.08	0.08	0.04			0.00					0.24	
v/s Ratio Perm					c0.09			c0.35				
v/c Ratio	0.33	0.32	0.15		0.65	0.01		1.10dl			0.48	
Uniform Delay, d1	33.3	33.3	31.8		45.3	41.4		20.9			17.9	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.63	
Incremental Delay, d2	2.0	1.9	0.8		7.1	0.0		2.3			0.2	
Delay (s)	35.3	35.2	32.6		52.3	41.4		23.2			29.4	
Level of Service	D	D	C		D	D		C			C	
Approach Delay (s/veh)		34.0			51.1			23.2			29.4	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			30.2				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			67.2%				ICU Level of Service			C		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												



SYNCHRO PRINTOUTS

BACKGROUND (2028) CONDITIONS

HCM 6th TWSC
3: Bradley Place & Sunset Ave

08/19/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑	↕	↕	↑	
Traffic Vol, veh/h	3	5	11	0	0	0	22	581	208	7	316	2
Future Vol, veh/h	3	5	11	0	0	0	22	581	208	7	316	2
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	12	0	0	0	23	612	219	7	333	2

Major/Minor	Minor2			Major1	Major2				
Conflicting Flow All	1116	1225	334	335	0	0	831	0	0
Stage 1	348	348	-	-	-	-	-	-	-
Stage 2	768	877	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	179	708	1224	-	-	801	-	-
Stage 1	715	634	-	-	-	-	-	-	-
Stage 2	458	366	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	224	0	708	1224	-	-	801	-	-
Mov Cap-2 Maneuver	224	0	-	-	-	-	-	-	-
Stage 1	701	0	-	-	-	-	-	-	-
Stage 2	454	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.8	0.2	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	484	801	-	-
HCM Lane V/C Ratio	0.019	-	-	0.041	0.009	-	-
HCM Control Delay (s/veh)	8	-	-	12.8	9.5	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

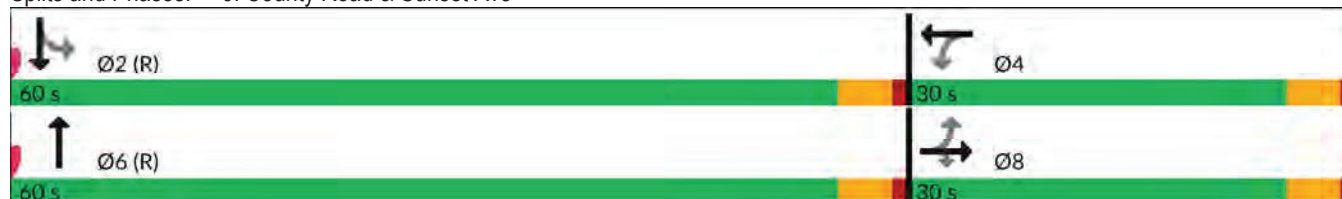
Timings

6: County Road & Sunset Ave

08/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	10	96	18	0	897	10	500
Future Volume (vph)	18	10	96	18	0	897	10	500
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.08	0.04	0.29		0.12	0.35		0.21
Control Delay (s/veh)	32.9	31.9	9.5		20.3	4.6		3.6
Queue Delay	0.0	0.0	0.0		0.0	0.3		0.0
Total Delay (s/veh)	32.9	31.9	9.5		20.3	5.0		3.6
LOS	C	C	A		C	A		A
Approach Delay (s/veh)		14.8			20.3	5.0		3.6
Approach LOS		B			C	A		A
Intersection Summary								
Cycle Length: 90								
Actuated Cycle Length: 90								
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.35								
Intersection Signal Delay (s/veh): 5.6					Intersection LOS: A			
Intersection Capacity Utilization 50.4%					ICU Level of Service A			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	19	11	101	31	979	537
v/c Ratio	0.08	0.04	0.29	0.12	0.35	0.21
Control Delay (s/veh)	32.9	31.9	9.5	20.3	4.6	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	32.9	31.9	9.5	20.3	5.0	3.6
Queue Length 50th (ft)	9	5	0	6	71	42
Queue Length 95th (ft)	29	20	43	31	111	58
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	389	527	520	436	2772	2600
Starvation Cap Reductn	0	0	0	0	1091	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.19	0.07	0.58	0.21
Intersection Summary						

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	96	18	0	11	0	897	33	10	500	0
Future Volume (veh/h)	18	10	96	18	0	11	0	897	33	10	500	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	19	11	101	19	0	12	0	944	35	11	526	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	0	2	2	2	2	0
Cap, veh/h	315	306	260	192	15	90	0	2573	95	64	2495	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1402	1870	1585	775	92	548	0	3588	130	30	3474	0
Grp Volume(v), veh/h	19	11	101	31	0	0	0	480	499	284	253	0
Grp Sat Flow(s),veh/h/ln	1402	1870	1585	1415	0	0	0	1777	1847	1802	1617	0
Q Serve(g_s), s	0.0	0.4	5.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s	0.8	0.4	5.1	1.4	0.0	0.0	0.0	0.0	0.0	4.3	4.4	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.04		0.00
Lane Grp Cap(c), veh/h	315	306	260	296	0	0	0	1308	1360	1368	1190	0
V/C Ratio(X)	0.06	0.04	0.39	0.10	0.00	0.00	0.00	0.37	0.37	0.21	0.21	0.00
Avail Cap(c_a), veh/h	483	530	449	462	0	0	0	1308	1360	1368	1190	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.8	31.7	33.6	32.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	0.0	0.0	0.5	0.4	0.3	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.4	3.6	1.0	0.0	0.0	0.0	0.3	0.3	2.5	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.7	34.6	32.2	0.0	0.0	0.0	0.5	0.4	4.0	4.1	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h	131			31			979			537		
Approach Delay, s/veh	33.9			32.2			0.5			4.1		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	70.8			19.2			70.8			19.2		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.5			25.5			55.5			25.5		
Max Q Clear Time (g_c+I1), s	6.4			3.4			2.0			7.1		
Green Ext Time (p_c), s	3.7			0.1			8.1			0.3		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	4.8											
HCM 6th LOS	A											

Timings

9: Bradley Place & Royal Poinciana Way

08/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	505	787	87	391	74	111	203	85	247
Future Volume (vph)	505	787	87	391	74	111	203	85	247
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effect Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
LOS	D	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		31.5		20.3			23.5	9.5	
Approach LOS		C		C			C	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 76

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 25.5

Intersection LOS: C

Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Queues

9: Bradley Place & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	532	1045	92	412	78	117	283	89	260
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Length 50th (ft)	129	251	39	82	0	42	103	38	2
Queue Length 95th (ft)	#200	#377	80	120	11	81	174	78	31
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1336	363	1196	618	447	854	629	949
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	0.75	0.78	0.25	0.34	0.13	0.26	0.33	0.14	0.27

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Future Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3429		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3429		1770	3539	1583	1303	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	532	828	217	92	412	78	117	214	69	0	89	260
RTOR Reduction (vph)	0	23	0	0	0	53	0	15	0	0	0	152
Lane Group Flow (vph)	532	1022	0	92	412	25	117	268	0	0	89	108
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1280		261	1135	508	423	548			361	623
v/s Ratio Prot	c0.15	c0.30		0.05	0.12		0.01	c0.15			0.05	0.07
v/s Ratio Perm						0.02	0.07					
v/c Ratio	0.77	0.80		0.35	0.36	0.05	0.28	0.49			0.25	0.17
Uniform Delay, d1	29.5	21.8		29.9	20.3	18.3	20.6	22.1			26.6	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	8.3	5.3		0.8	0.2	0.0	0.4	0.7			0.4	0.1
Delay (s)	37.8	27.1		30.7	20.5	18.3	21.0	22.8			26.9	15.5
Level of Service	D	C		C	C	B	C	C			C	B
Approach Delay (s/veh)		30.7			21.8			22.3			18.4	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			26.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			77.9			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			66.8%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

08/19/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	361	139	279	15	75	17	290	496	356		
Future Volume (vph)	361	139	279	15	75	17	290	496	356		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		10.3	10.3		46.8	46.8		
Actuated g/C Ratio	0.26	0.26	0.26		0.11	0.11		0.52	0.52		
v/c Ratio	0.60	0.61	0.47		0.50	0.06		0.89dl	0.36		
Control Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.3		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.5		
LOS	D	D	A		D	A		C	A		
Approach Delay (s/veh)		25.5			38.5			26.8	7.5		
Approach LOS		C			D			C	A		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 21.8

Intersection LOS: C

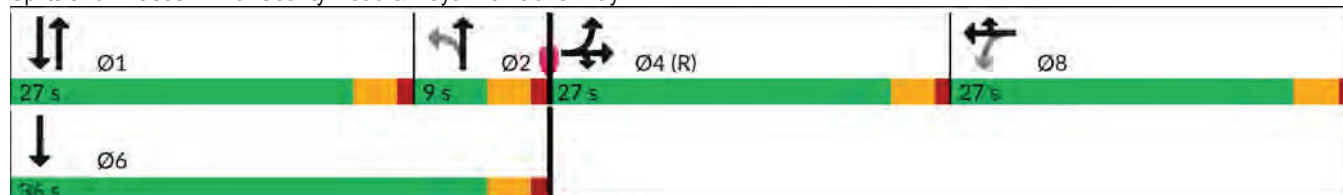
Intersection Capacity Utilization 72.1%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: County Road & Royal Poinciana Way



Background Conditions

Timing Plan: AM Peak

Synchro 12 Light Report

Page 10

Queues

10: County Road & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	258	268	294	95	18	873	652
v/c Ratio	0.60	0.61	0.47	0.50	0.06	0.89dl	0.36
Control Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.5
Queue Length 50th (ft)	135	141	0	52	0	213	35
Queue Length 95th (ft)	221	227	61	95	0	#370	65
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	442	623	427	485	1087	1831
Starvation Cap Reductn	0	0	0	0	0	0	449
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.61	0.47	0.22	0.04	0.80	0.47

Intersection Summary

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

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Future Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1730	1583		1847	1583		3451			3314	
Flt Permitted	0.95	0.98	1.00		0.90	1.00		0.59			1.00	
Satd. Flow (perm)	1681	1730	1583		1670	1583		2084			3314	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	380	146	294	16	79	18	305	522	46	0	375	277
RTOR Reduction (vph)	0	0	221	0	0	16	0	3	0	0	110	0
Lane Group Flow (vph)	258	268	73	0	95	2	0	870	0	0	542	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Effective Green, g (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Actuated g/C Ratio	0.25	0.25	0.25		0.10	0.10		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		167	158		1083			1723	
v/s Ratio Prot	0.15	c0.15	0.05			0.00					0.16	
v/s Ratio Perm					c0.06			c0.42				
v/c Ratio	0.62	0.63	0.19		0.57	0.01		0.89dl			0.31	
Uniform Delay, d1	30.2	30.2	26.8		38.6	36.5		17.8			12.4	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	6.9	6.9	1.1		4.4	0.0		4.4			0.1	
Delay (s)	37.1	37.1	27.8		43.0	36.5		22.2			9.5	
Level of Service	D	D	C		D	D		C			A	
Approach Delay (s/veh)		33.8			42.0			22.2			9.5	
Approach LOS		C			D			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			23.6				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			72.1%				ICU Level of Service			C		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM 6th TWSC
3: Bradley Place & Sunset Ave

08/19/2024

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑	↕	↕	↑	
Traffic Vol, veh/h	2	2	31	0	0	0	39	310	234	13	711	8
Future Vol, veh/h	2	2	31	0	0	0	39	310	234	13	711	8
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	33	0	0	0	41	326	246	14	748	8

Major/Minor	Minor2			Major1		Major2			
Conflicting Flow All	1311	1434	752	756	0	0	572	0	0
Stage 1	780	780	-	-	-	-	-	-	-
Stage 2	531	654	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	175	134	410	855	-	-	1001	-	-
Stage 1	452	406	-	-	-	-	-	-	-
Stage 2	590	463	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	164	0	410	855	-	-	1001	-	-
Mov Cap-2 Maneuver	164	0	-	-	-	-	-	-	-
Stage 1	430	0	-	-	-	-	-	-	-
Stage 2	582	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.6	0.6	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	855	-	-	376	1001	-	-
HCM Lane V/C Ratio	0.048	-	-	0.098	0.014	-	-
HCM Control Delay (s/veh)	9.4	-	-	15.6	8.6	-	-
HCM Lane LOS	A	-	-	C	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	0.3	0	-	-

Timings

6: County Road & Sunset Ave

08/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	59	3	136	12	0	590	3	814
Future Volume (vph)	59	3	136	12	0	590	3	814
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.33	0.01	0.42		0.13	0.23		0.33
Control Delay (s/veh)	48.5	41.3	11.3		27.3	4.0		3.9
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	48.5	41.3	11.3		27.3	4.4		3.9
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		22.8			27.3	4.4		3.9
Approach LOS		C			C	A		A
Intersection Summary								
Cycle Length: 110								
Actuated Cycle Length: 110								
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.42								
Intersection Signal Delay (s/veh): 6.8					Intersection LOS: A			
Intersection Capacity Utilization 58.8%					ICU Level of Service B			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	62	3	143	28	640	860
v/c Ratio	0.33	0.01	0.42	0.13	0.23	0.33
Control Delay (s/veh)	48.5	41.3	11.3	27.3	4.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	48.5	41.3	11.3	27.3	4.4	3.9
Queue Length 50th (ft)	40	2	0	8	65	76
Queue Length 95th (ft)	83	11	57	35	m89	96
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	581	483	2757	2639
Starvation Cap Reductn	0	0	0	0	1525	0
Spillback Cap Reductn	0	0	15	1	0	383
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.01	0.25	0.06	0.52	0.38

Intersection Summary

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

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	3	136	12	0	14	0	590	18	3	814	0
Future Volume (veh/h)	59	3	136	12	0	14	0	590	18	3	814	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	62	3	143	13	0	15	0	621	19	3	857	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	0	2	2	2	2	0
Cap, veh/h	262	255	216	123	16	106	0	2753	84	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1398	1870	1585	553	121	777	0	3614	108	2	3568	0
Grp Volume(v), veh/h	62	3	143	28	0	0	0	313	327	461	399	0
Grp Sat Flow(s),veh/h/ln	1398	1870	1585	1451	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.4	0.2	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s	4.0	0.2	9.4	1.6	0.0	0.0	0.0	0.0	0.0	7.8	7.9	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	262	255	216	246	0	0	0	1389	1447	1493	1264	0
V/C Ratio(X)	0.24	0.01	0.66	0.11	0.00	0.00	0.00	0.23	0.23	0.31	0.32	0.00
Avail Cap(c_a), veh/h	497	570	483	482	0	0	0	1389	1447	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.6	41.1	45.1	41.7	0.0	0.0	0.0	0.0	0.0	3.5	3.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.4	0.2	0.0	0.0	0.0	0.2	0.2	0.5	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.1	7.0	1.2	0.0	0.0	0.0	0.2	0.2	4.5	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.1	41.1	48.6	41.9	0.0	0.0	0.0	0.2	0.2	4.0	4.1	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h	208			28			640			860		
Approach Delay, s/veh	46.8			41.9			0.2			4.1		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	90.5			19.5			90.5			19.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	67.5			33.5			67.5			33.5		
Max Q Clear Time (g_c+I1), s	9.9			3.6			2.0			11.4		
Green Ext Time (p_c), s	6.7			0.1			4.5			0.6		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	8.4											
HCM 6th LOS	A											

Timings

9: Bradley Place & Royal Poinciana Way

08/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	330	472	101	771	46	301	196	125	615
Future Volume (vph)	330	472	101	771	46	301	196	125	615
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effect Green (s)	15.8	35.3	15.5	30.0	30.0	40.4	40.4	30.1	45.8
Actuated g/C Ratio	0.16	0.35	0.16	0.30	0.30	0.40	0.40	0.30	0.46
v/c Ratio	0.64	0.54	0.39	0.76	0.09	0.61	0.39	0.24	0.84
Control Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
LOS	D	C	D	D	A	C	C	C	C
Approach Delay (s/veh)		35.1		36.7			26.0	25.1	
Approach LOS		D		D			C	C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 99.8

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 31.6

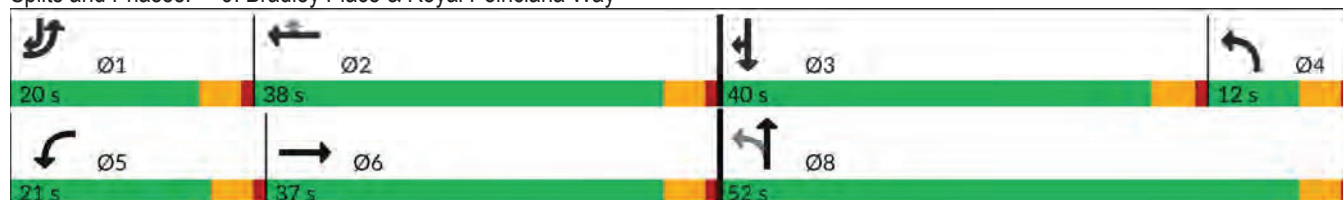
Intersection LOS: C

Intersection Capacity Utilization 87.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Queues

9: Bradley Place & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	347	662	106	812	48	317	289	132	647
v/c Ratio	0.64	0.54	0.39	0.76	0.09	0.61	0.39	0.24	0.84
Control Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Length 50th (ft)	116	188	67	262	0	148	120	64	228
Queue Length 95th (ft)	169	255	122	336	0	228	193	113	#378
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	541	1232	297	1207	608	556	874	673	849
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	0.64	0.54	0.36	0.67	0.08	0.57	0.33	0.20	0.76

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	472	157	101	771	46	301	196	79	0	125	615
Future Volume (vph)	330	472	157	101	771	46	301	196	79	0	125	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3407		1770	3539	1583	1770	1782			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)	3433	3407		1770	3539	1583	1213	1782			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	347	497	165	106	812	48	317	206	83	0	132	647
RTOR Reduction (vph)	0	27	0	0	0	33	0	14	0	0	0	44
Lane Group Flow (vph)	347	635	0	106	812	15	317	275	0	0	132	603
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Effective Green, g (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Actuated g/C Ratio	0.16	0.35		0.12	0.31	0.31	0.40	0.40			0.30	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	538	1193		203	1091	488	518	714			556	720
v/s Ratio Prot	0.10	c0.19		0.06	c0.23		c0.04	0.15			0.07	c0.38
v/s Ratio Perm						0.01	0.21					
v/c Ratio	0.64	0.53		0.52	0.74	0.03	0.61	0.39			0.24	0.84
Uniform Delay, d1	39.9	26.2		42.0	31.3	24.3	25.1	21.4			26.7	24.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	5.9	1.7		2.4	2.8	0.0	2.1	0.3			0.2	8.4
Delay (s)	45.7	27.9		44.4	34.1	24.4	27.3	21.7			26.9	32.6
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		34.0			34.7			24.6			31.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			32.0									
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			100.8									
Intersection Capacity Utilization			87.3%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

08/19/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	236	97	321	44	107	21	331	381	525		
Future Volume (vph)	236	97	321	44	107	21	331	381	525		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	24.3	24.3	24.3		16.1	16.1		57.7	57.7		
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52	0.52		
v/c Ratio	0.47	0.46	0.55		0.69	0.07		1.78dl	0.54		
Control Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		31.9	24.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.2		
Total Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		31.9	25.4		
LOS	D	D	A		E	A		C	C		
Approach Delay (s/veh)		25.5			51.9			31.9	25.4		
Approach LOS		C			D			C	C		

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay (s/veh): 29.2

Intersection LOS: C

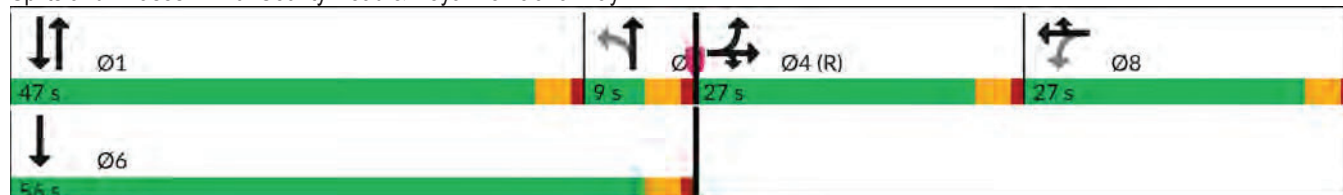
Intersection Capacity Utilization 75.3%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: County Road & Royal Poinciana Way



Queues

10: County Road & Royal Poinciana Way

08/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	174	176	338	159	22	784	1007
v/c Ratio	0.47	0.46	0.55	0.69	0.07	1.78dl	0.54
Control Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	31.9	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Total Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	31.9	25.4
Queue Length 50th (ft)	114	115	0	108	0	227	266
Queue Length 95th (ft)	189	190	77	169	0	#394	349
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	370	382	612	332	401	932	1851
Starvation Cap Reductn	0	0	0	0	0	0	580
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.46	0.55	0.48	0.05	0.84	0.79

Intersection Summary

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

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

08/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	97	321	44	107	21	331	381	33	0	525	431
Future Volume (vph)	236	97	321	44	107	21	331	381	33	0	525	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.93	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1733	1583		1836	1583		3439			3300	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.51			1.00	
Satd. Flow (perm)	1681	1733	1583		1589	1583		1796			3300	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	248	102	338	46	113	22	348	401	35	0	553	454
RTOR Reduction (vph)	0	0	264	0	0	19	0	3	0	0	122	0
Lane Group Flow (vph)	174	176	74	0	159	3	0	781	0	0	885	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Effective Green, g (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	369	381	348		232	231		942			1731	
v/s Ratio Prot	c0.10	0.10	0.05			0.00					0.27	
v/s Ratio Perm					c0.10			c0.43				
v/c Ratio	0.47	0.46	0.21		0.69	0.01		1.78dl			0.51	
Uniform Delay, d1	37.3	37.2	35.1		44.5	40.2		22.0			17.0	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.78	
Incremental Delay, d2	4.3	4.0	1.4		8.1	0.0		6.1			0.2	
Delay (s)	41.6	41.2	36.5		52.7	40.2		28.1			30.5	
Level of Service	D	D	D		D	D		C			C	
Approach Delay (s/veh)		39.0			51.1			28.1			30.5	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			33.4				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			75.3%				ICU Level of Service			D		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												



SYNCHRO PRINTOUTS

TOTAL TRAFFIC (2028) CONDITIONS

HCM 6th TWSC
3: Bradley Place & Sunset Ave

12/19/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑	↕	↕	↑	
Traffic Vol, veh/h	3	5	11	0	0	0	22	581	209	8	316	2
Future Vol, veh/h	3	5	11	0	0	0	22	581	209	8	316	2
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	12	0	0	0	23	612	220	8	333	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1118	1228	334	335	0	0	832	0	0
Stage 1	350	350	-	-	-	-	-	-	-
Stage 2	768	878	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	229	178	708	1224	-	-	801	-	-
Stage 1	713	633	-	-	-	-	-	-	-
Stage 2	458	366	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	222	0	708	1224	-	-	801	-	-
Mov Cap-2 Maneuver	222	0	-	-	-	-	-	-	-
Stage 1	699	0	-	-	-	-	-	-	-
Stage 2	453	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.8	0.2	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	482	801	-	-
HCM Lane V/C Ratio	0.019	-	-	0.041	0.011	-	-
HCM Control Delay (s/veh)	8	-	-	12.8	9.5	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

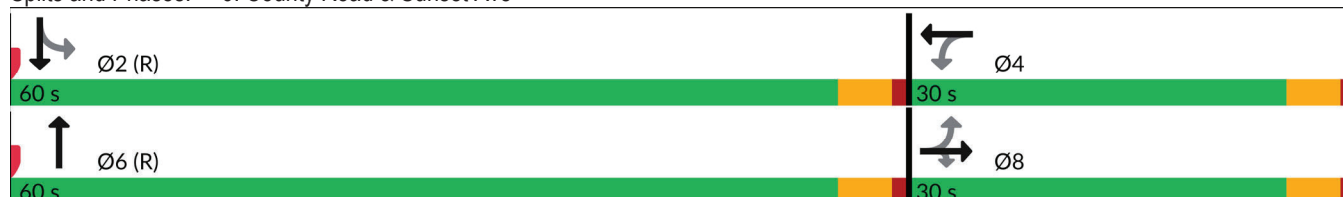
Timings

6: County Road & Sunset Ave

12/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	10	97	18	0	897	10	500
Future Volume (vph)	18	10	97	18	0	897	10	500
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.08	0.04	0.29		0.12	0.35		0.21
Control Delay (s/veh)	32.9	31.9	9.6		20.3	4.6		3.6
Queue Delay	0.0	0.0	0.0		0.0	0.3		0.0
Total Delay (s/veh)	32.9	31.9	9.6		20.3	5.0		3.6
LOS	C	C	A		C	A		A
Approach Delay (s/veh)		14.8			20.3	5.0		3.6
Approach LOS		B			C	A		A
Intersection Summary								
Cycle Length: 90								
Actuated Cycle Length: 90								
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.35								
Intersection Signal Delay (s/veh): 5.6					Intersection LOS: A			
Intersection Capacity Utilization 50.4%					ICU Level of Service A			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

12/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	19	11	102	31	979	537
v/c Ratio	0.08	0.04	0.29	0.12	0.35	0.21
Control Delay (s/veh)	32.9	31.9	9.6	20.3	4.6	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	32.9	31.9	9.6	20.3	5.0	3.6
Queue Length 50th (ft)	9	5	0	6	71	42
Queue Length 95th (ft)	29	20	43	31	111	58
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	389	527	521	436	2772	2600
Starvation Cap Reductn	0	0	0	0	1091	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.20	0.07	0.58	0.21
Intersection Summary						

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	97	18	0	11	0	897	33	10	500	0
Future Volume (veh/h)	18	10	97	18	0	11	0	897	33	10	500	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	19	11	102	19	0	12	0	944	35	11	526	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	0	2	2	2	2	0
Cap, veh/h	316	306	260	191	15	90	0	2572	95	64	2495	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1402	1870	1585	775	92	547	0	3588	130	30	3474	0
Grp Volume(v), veh/h	19	11	102	31	0	0	0	480	499	284	253	0
Grp Sat Flow(s),veh/h/ln	1402	1870	1585	1414	0	0	0	1777	1847	1802	1617	0
Q Serve(g_s), s	0.0	0.4	5.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s	0.8	0.4	5.2	1.4	0.0	0.0	0.0	0.0	0.0	4.3	4.4	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.04		0.00
Lane Grp Cap(c), veh/h	316	306	260	296	0	0	0	1308	1360	1368	1190	0
V/C Ratio(X)	0.06	0.04	0.39	0.10	0.00	0.00	0.00	0.37	0.37	0.21	0.21	0.00
Avail Cap(c_a), veh/h	483	530	449	461	0	0	0	1308	1360	1368	1190	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.8	31.6	33.6	32.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	0.0	0.0	0.5	0.4	0.3	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.4	3.7	1.0	0.0	0.0	0.0	0.3	0.3	2.5	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.7	34.6	32.2	0.0	0.0	0.0	0.5	0.4	4.0	4.1	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h	132			31			979			537		
Approach Delay, s/veh	34.0			32.2			0.5			4.1		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	70.8			19.2			70.8			19.2		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	55.5			25.5			55.5			25.5		
Max Q Clear Time (g_c+I1), s	6.4			3.4			2.0			7.2		
Green Ext Time (p_c), s	3.7			0.1			8.1			0.4		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	4.8											
HCM 6th LOS	A											

Timings

9: Bradley Place & Royal Poinciana Way

12/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	505	787	87	391	74	111	203	85	247
Future Volume (vph)	505	787	87	391	74	111	203	85	247
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effect Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
LOS	D	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		31.5		20.3			23.5	9.5	
Approach LOS		C		C			C	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 76

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 25.5

Intersection LOS: C

Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way

			
Ø1	Ø2	Ø3	Ø4
20 s	30 s	30 s	10 s
			
Ø5	Ø6	Ø8	
20 s	30 s	40 s	

Queues

9: Bradley Place & Royal Poinciana Way

12/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	532	1045	92	412	78	117	283	89	260
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Length 50th (ft)	129	251	39	82	0	42	103	38	2
Queue Length 95th (ft)	#200	#377	80	120	11	81	174	78	31
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1336	363	1196	618	447	854	629	949
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	0.75	0.78	0.25	0.34	0.13	0.26	0.33	0.14	0.27

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Future Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3429		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3429		1770	3539	1583	1303	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	532	828	217	92	412	78	117	214	69	0	89	260
RTOR Reduction (vph)	0	23	0	0	0	53	0	15	0	0	0	152
Lane Group Flow (vph)	532	1022	0	92	412	25	117	268	0	0	89	108
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1280		261	1135	508	423	548			361	623
v/s Ratio Prot	c0.15	c0.30		0.05	0.12		0.01	c0.15			0.05	0.07
v/s Ratio Perm						0.02	0.07					
v/c Ratio	0.77	0.80		0.35	0.36	0.05	0.28	0.49			0.25	0.17
Uniform Delay, d1	29.5	21.8		29.9	20.3	18.3	20.6	22.1			26.6	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	8.3	5.3		0.8	0.2	0.0	0.4	0.7			0.4	0.1
Delay (s)	37.8	27.1		30.7	20.5	18.3	21.0	22.8			26.9	15.5
Level of Service	D	C		C	C	B	C	C			C	B
Approach Delay (s/veh)		30.7			21.8			22.3			18.4	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			26.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			77.9			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			66.8%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

12/19/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	361	139	279	15	75	17	290	496	356		
Future Volume (vph)	361	139	279	15	75	17	290	496	356		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		10.3	10.3		46.8	46.8		
Actuated g/C Ratio	0.26	0.26	0.26		0.11	0.11		0.52	0.52		
v/c Ratio	0.60	0.61	0.47		0.50	0.06		0.89dl	0.36		
Control Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.3		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.5		
LOS	D	D	A		D	A		C	A		
Approach Delay (s/veh)		25.5			38.5			26.8	7.5		
Approach LOS		C			D			C	A		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 21.8

Intersection LOS: C

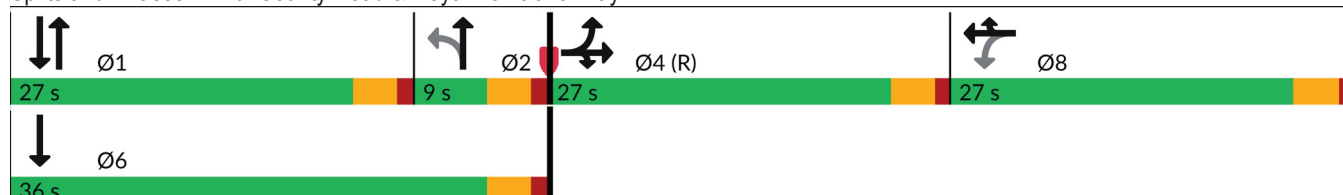
Intersection Capacity Utilization 72.1%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: County Road & Royal Poinciana Way



Queues

10: County Road & Royal Poinciana Way

12/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	258	268	294	95	18	873	652
v/c Ratio	0.60	0.61	0.47	0.50	0.06	0.89dl	0.36
Control Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.5
Queue Length 50th (ft)	135	141	0	52	0	213	35
Queue Length 95th (ft)	221	227	61	95	0	#370	65
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	442	623	427	485	1087	1831
Starvation Cap Reductn	0	0	0	0	0	0	449
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.61	0.47	0.22	0.04	0.80	0.47

Intersection Summary

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

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Future Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1730	1583		1847	1583		3451			3314	
Flt Permitted	0.95	0.98	1.00		0.90	1.00		0.59			1.00	
Satd. Flow (perm)	1681	1730	1583		1670	1583		2084			3314	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	380	146	294	16	79	18	305	522	46	0	375	277
RTOR Reduction (vph)	0	0	221	0	0	16	0	3	0	0	110	0
Lane Group Flow (vph)	258	268	73	0	95	2	0	870	0	0	542	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Effective Green, g (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Actuated g/C Ratio	0.25	0.25	0.25		0.10	0.10		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		167	158		1083			1723	
v/s Ratio Prot	0.15	c0.15	0.05			0.00					0.16	
v/s Ratio Perm					c0.06			c0.42				
v/c Ratio	0.62	0.63	0.19		0.57	0.01		0.89dl			0.31	
Uniform Delay, d1	30.2	30.2	26.8		38.6	36.5		17.8			12.4	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	6.9	6.9	1.1		4.4	0.0		4.4			0.1	
Delay (s)	37.1	37.1	27.8		43.0	36.5		22.2			9.5	
Level of Service	D	D	C		D	D		C			A	
Approach Delay (s/veh)		33.8			42.0			22.2			9.5	
Approach LOS		C			D			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			23.6				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			72.1%				ICU Level of Service			C		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM 6th TWSC
3: Bradley Place & Sunset Ave

12/19/2024

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↕	↕	↕	↕	
Traffic Vol, veh/h	2	2	31	0	0	0	39	310	236	14	711	8
Future Vol, veh/h	2	2	31	0	0	0	39	310	236	14	711	8
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	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	33	0	0	0	41	326	248	15	748	8

Major/Minor	Minor2			Major1		Major2				
Conflicting Flow All	1314	1438	752		756	0	0	574	0	0
Stage 1	782	782	-		-	-	-	-	-	-
Stage 2	532	656	-		-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22		4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-		-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-		-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318		2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	174	133	410		855	-	-	999	-	-
Stage 1	451	405	-		-	-	-	-	-	-
Stage 2	589	462	-		-	-	-	-	-	-
Platoon blocked, %						-	-		-	-
Mov Cap-1 Maneuver	163	0	410		855	-	-	999	-	-
Mov Cap-2 Maneuver	163	0	-		-	-	-	-	-	-
Stage 1	429	0	-		-	-	-	-	-	-
Stage 2	580	0	-		-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.6	0.6	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	855	-	-	376	999	-	-
HCM Lane V/C Ratio	0.048	-	-	0.098	0.015	-	-
HCM Control Delay (s/veh)	9.4	-	-	15.6	8.7	-	-
HCM Lane LOS	A	-	-	C	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	0.3	0	-	-

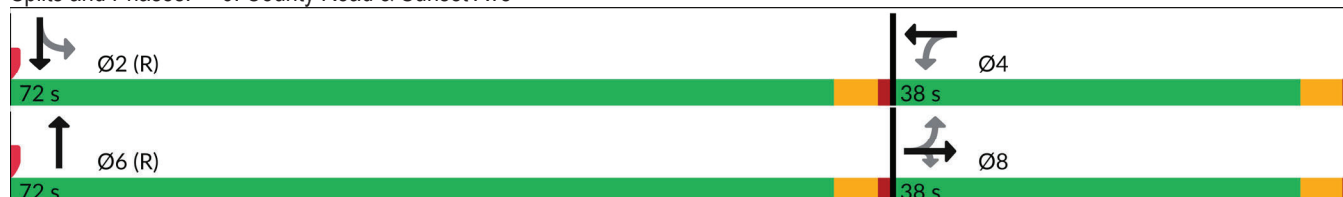
Timings

6: County Road & Sunset Ave

12/19/2024

								
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	3	138	12	0	590	3	814
Future Volume (vph)	60	3	138	12	0	590	3	814
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.34	0.01	0.43		0.13	0.23		0.33
Control Delay (s/veh)	48.6	41.3	11.2		27.3	4.0		3.9
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	48.6	41.3	11.3		27.3	4.4		3.9
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		22.8			27.3	4.4		3.9
Approach LOS		C			C	A		A
Intersection Summary								
Cycle Length: 110								
Actuated Cycle Length: 110								
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.43								
Intersection Signal Delay (s/veh): 6.8					Intersection LOS: A			
Intersection Capacity Utilization 58.8%					ICU Level of Service B			
Analysis Period (min) 15								

Splits and Phases: 6: County Road & Sunset Ave



Queues

6: County Road & Sunset Ave

12/19/2024



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	63	3	145	28	640	860
v/c Ratio	0.34	0.01	0.43	0.13	0.23	0.33
Control Delay (s/veh)	48.6	41.3	11.2	27.3	4.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	48.6	41.3	11.3	27.3	4.4	3.9
Queue Length 50th (ft)	41	2	0	8	65	76
Queue Length 95th (ft)	84	11	57	35	m89	96
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	582	483	2757	2639
Starvation Cap Reductn	0	0	0	0	1525	0
Spillback Cap Reductn	0	0	16	1	0	385
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.01	0.26	0.06	0.52	0.38

Intersection Summary

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

HCM 6th Signalized Intersection Summary

6: County Road & Sunset Ave

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	3	138	12	0	14	0	590	18	3	814	0
Future Volume (veh/h)	60	3	138	12	0	14	0	590	18	3	814	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	63	3	145	13	0	15	0	621	19	3	857	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	0	2	2	2	2	0
Cap, veh/h	262	255	216	123	16	106	0	2752	84	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1398	1870	1585	552	121	777	0	3614	108	2	3568	0
Grp Volume(v), veh/h	63	3	145	28	0	0	0	313	327	461	399	0
Grp Sat Flow(s),veh/h/ln	1398	1870	1585	1450	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.4	0.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s	4.0	0.2	9.6	1.6	0.0	0.0	0.0	0.0	0.0	7.8	7.9	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	262	255	216	245	0	0	0	1389	1447	1493	1264	0
V/C Ratio(X)	0.24	0.01	0.67	0.11	0.00	0.00	0.00	0.23	0.23	0.31	0.32	0.00
Avail Cap(c_a), veh/h	497	570	483	482	0	0	0	1389	1447	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.7	41.1	45.2	41.7	0.0	0.0	0.0	0.0	0.0	3.5	3.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.6	0.2	0.0	0.0	0.0	0.2	0.2	0.5	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.1	7.1	1.2	0.0	0.0	0.0	0.2	0.2	4.5	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.1	41.1	48.8	41.9	0.0	0.0	0.0	0.2	0.2	4.0	4.1	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h	211			28			640			860		
Approach Delay, s/veh	47.0			41.9			0.2			4.1		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	90.5			19.5			90.5			19.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	67.5			33.5			67.5			33.5		
Max Q Clear Time (g_c+I1), s	9.9			3.6			2.0			11.6		
Green Ext Time (p_c), s	6.7			0.1			4.5			0.6		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	8.5											
HCM 6th LOS	A											

Timings

9: Bradley Place & Royal Poinciana Way

12/19/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	331	472	101	772	47	301	197	125	615
Future Volume (vph)	331	472	101	772	47	301	197	125	615
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effect Green (s)	15.8	35.3	15.5	30.0	30.0	40.4	40.4	30.1	45.8
Actuated g/C Ratio	0.16	0.35	0.16	0.30	0.30	0.40	0.40	0.30	0.46
v/c Ratio	0.64	0.54	0.39	0.77	0.09	0.61	0.40	0.24	0.84
Control Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
LOS	D	C	D	D	A	C	C	C	C
Approach Delay (s/veh)		35.2		36.7			26.0	25.1	
Approach LOS		D		D			C	C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 99.8

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 31.6

Intersection LOS: C

Intersection Capacity Utilization 87.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: Bradley Place & Royal Poinciana Way

			
Ø1	Ø2	Ø3	Ø4
20 s	38 s	40 s	12 s
			
Ø5	Ø6	Ø8	
21 s	37 s	52 s	

Queues

9: Bradley Place & Royal Poinciana Way

12/19/2024



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	348	662	106	813	49	317	290	132	647
v/c Ratio	0.64	0.54	0.39	0.77	0.09	0.61	0.40	0.24	0.84
Control Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Length 50th (ft)	117	188	67	262	0	148	121	64	228
Queue Length 95th (ft)	170	255	122	337	0	228	194	113	#378
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	541	1232	297	1207	608	556	874	673	849
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	0.64	0.54	0.36	0.67	0.08	0.57	0.33	0.20	0.76

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

9: Bradley Place & Royal Poinciana Way

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	331	472	157	101	772	47	301	197	79	0	125	615
Future Volume (vph)	331	472	157	101	772	47	301	197	79	0	125	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3407		1770	3539	1583	1770	1783			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)	3433	3407		1770	3539	1583	1213	1783			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	348	497	165	106	813	49	317	207	83	0	132	647
RTOR Reduction (vph)	0	27	0	0	0	34	0	14	0	0	0	44
Lane Group Flow (vph)	348	635	0	106	813	15	317	276	0	0	132	603
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Effective Green, g (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Actuated g/C Ratio	0.16	0.35		0.12	0.31	0.31	0.40	0.40			0.30	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	538	1193		203	1091	488	518	714			556	720
v/s Ratio Prot	0.10	c0.19		0.06	c0.23		c0.04	0.15			0.07	c0.38
v/s Ratio Perm						0.01	0.21					
v/c Ratio	0.65	0.53		0.52	0.75	0.03	0.61	0.39			0.24	0.84
Uniform Delay, d1	39.9	26.2		42.0	31.3	24.3	25.1	21.4			26.7	24.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	5.9	1.7		2.4	2.8	0.0	2.1	0.3			0.2	8.4
Delay (s)	45.8	27.9		44.4	34.1	24.4	27.3	21.8			26.9	32.6
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		34.0			34.7			24.6			31.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			32.0									
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			100.8									
Intersection Capacity Utilization			87.3%									
Analysis Period (min)			15									
c Critical Lane Group												

Timings

10: County Road & Royal Poinciana Way

12/19/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	236	97	321	44	107	21	332	381	526		
Future Volume (vph)	236	97	321	44	107	21	332	381	526		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	24.2	24.2	24.2		16.1	16.1		57.7	57.7		
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52	0.52		
v/c Ratio	0.47	0.46	0.55		0.69	0.07		1.80dl	0.55		
Control Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		32.0	24.1		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.3		
Total Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		32.0	25.4		
LOS	D	D	A		E	A		C	C		
Approach Delay (s/veh)		25.6			51.9			32.0	25.4		
Approach LOS		C			D			C	C		

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay (s/veh): 29.2

Intersection LOS: C

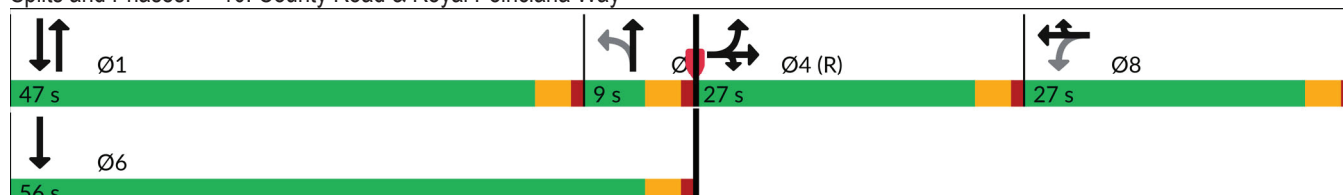
Intersection Capacity Utilization 75.4%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: County Road & Royal Poinciana Way



Queues

10: County Road & Royal Poinciana Way

12/19/2024



Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	174	176	338	159	22	785	1009
v/c Ratio	0.47	0.46	0.55	0.69	0.07	1.80dl	0.55
Control Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	32.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	32.0	25.4
Queue Length 50th (ft)	114	115	0	108	0	227	266
Queue Length 95th (ft)	189	190	77	169	0	#396	349
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	370	381	612	332	401	932	1851
Starvation Cap Reductn	0	0	0	0	0	0	579
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.46	0.55	0.48	0.05	0.84	0.79

Intersection Summary

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

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

HCM Signalized Intersection Capacity Analysis

10: County Road & Royal Poinciana Way

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	97	321	44	107	21	332	381	33	0	526	432
Future Volume (vph)	236	97	321	44	107	21	332	381	33	0	526	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.93	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1733	1583		1836	1583		3439			3300	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.51			1.00	
Satd. Flow (perm)	1681	1733	1583		1589	1583		1797			3300	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	248	102	338	46	113	22	349	401	35	0	554	455
RTOR Reduction (vph)	0	0	264	0	0	19	0	3	0	0	122	0
Lane Group Flow (vph)	174	176	74	0	159	3	0	782	0	0	887	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Effective Green, g (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	369	381	348		232	231		942			1731	
v/s Ratio Prot	c0.10	0.10	0.05			0.00					0.27	
v/s Ratio Perm					c0.10			c0.44				
v/c Ratio	0.47	0.46	0.21		0.69	0.01		1.80dl			0.51	
Uniform Delay, d1	37.3	37.2	35.1		44.5	40.2		22.0			17.0	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.78	
Incremental Delay, d2	4.3	4.0	1.4		8.1	0.0		6.3			0.2	
Delay (s)	41.6	41.2	36.5		52.7	40.2		28.3			30.5	
Level of Service	D	D	D		D	D		C			C	
Approach Delay (s/veh)		39.0			51.1			28.3			30.5	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			33.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			75.4%				ICU Level of Service			D		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												



SYNCHRO PRINTOUTS

BRADLEY PLACE AT SUNSET AVENUE – SIGNALIZED ALTERNATIVE

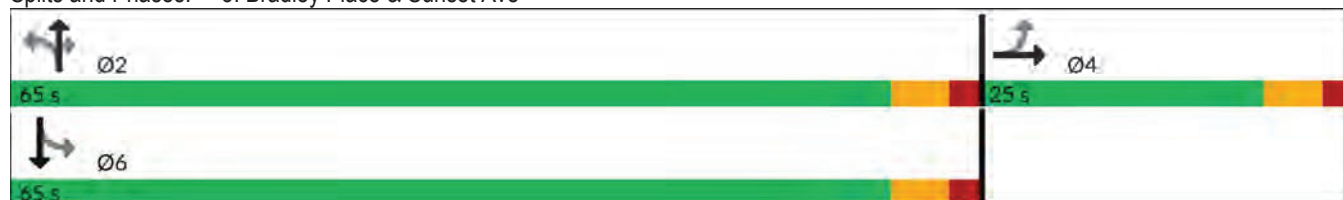
Timings

3: Bradley Place & Sunset Ave

09/20/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↖	↑	↗	↘	↑
Traffic Volume (vph)	5	22	581	208	7	316
Future Volume (vph)	5	22	581	208	7	316
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.07	0.92	0.92	0.92	0.92	0.92
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.9	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.9	1.6
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	28.3		1.9			1.6
Approach LOS	C		A			A
Intersection Summary						
Cycle Length: 90						
Actuated Cycle Length: 85.3						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.36						
Intersection Signal Delay (s/veh): 2.2				Intersection LOS: A		
Intersection Capacity Utilization 44.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 3: Bradley Place & Sunset Ave



Queues

3: Bradley Place & Sunset Ave

09/20/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	23	612	219	7	335
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.9	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.9	1.6
Queue Length 50th (ft)	4	0	0	0	0	0
Queue Length 95th (ft)	27	7	128	13	3	60
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	389	955	1709	1469	725	1707
Starvation Cap Reductn	0	0	205	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.41	0.15	0.01	0.20
Intersection Summary						

HCM 6th Signalized Intersection Summary

3: Bradley Place & Sunset Ave

09/20/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	11	0	0	0	22	581	208	7	316	2
Future Volume (veh/h)	3	5	11	0	0	0	22	581	208	7	316	2
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	5	12				23	612	219	7	333	2
Peak Hour Factor	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
Cap, veh/h	6	10	23				905	1519	1287	575	1508	9
Arrive On Green	0.02	0.02	0.02				0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	252	419	1006				1045	1870	1585	660	1857	11
Grp Volume(v), veh/h	20	0	0				23	612	219	7	0	335
Grp Sat Flow(s),veh/h/ln	1677	0	0				1045	1870	1585	660	0	1868
Q Serve(g_s), s	0.9	0.0	0.0				0.4	6.6	2.2	0.2	0.0	3.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0				3.4	6.6	2.2	6.9	0.0	3.0
Prop In Lane	0.15		0.60				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	38	0	0				905	1519	1287	575	0	1517
V/C Ratio(X)	0.52	0.00	0.00				0.03	0.40	0.17	0.01	0.00	0.22
Avail Cap(c_a), veh/h	438	0	0				905	1519	1287	575	0	1517
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0				1.9	1.9	1.5	2.9	0.0	1.6
Incr Delay (d2), s/veh	10.6	0.0	0.0				0.1	0.8	0.3	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0				0.1	2.1	0.6	0.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	0.0				2.0	2.7	1.8	2.9	0.0	1.9
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		20						854			342	
Approach Delay, s/veh		45.7						2.4			1.9	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		7.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		8.6		2.9		8.9						
Green Ext Time (p_c), s		5.9		0.0		2.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			3.0									
HCM 6th LOS			A									

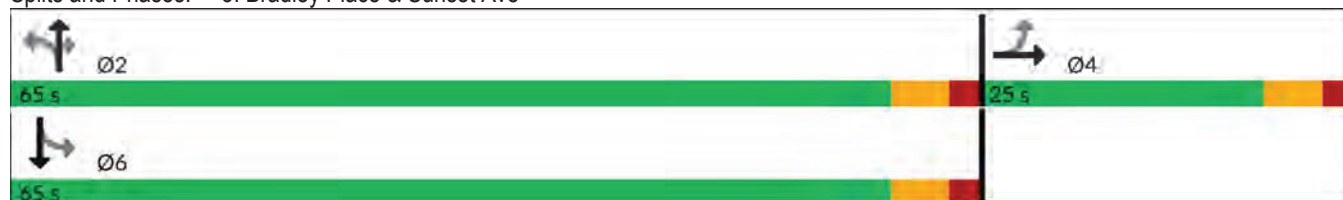
Timings

3: Bradley Place & Sunset Ave

09/20/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↖	↑	↗	↘	↑
Traffic Volume (vph)	2	39	310	234	13	711
Future Volume (vph)	2	39	310	234	13	711
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.4	76.7	76.7	76.7	76.7	76.7
Actuated g/C Ratio	0.07	0.88	0.88	0.88	0.88	0.88
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	20.5		1.9			3.5
Approach LOS	C		A			A
Intersection Summary						
Cycle Length: 90						
Actuated Cycle Length: 87.5						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.46						
Intersection Signal Delay (s/veh): 3.3				Intersection LOS: A		
Intersection Capacity Utilization 52.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 3: Bradley Place & Sunset Ave



Queues

3: Bradley Place & Sunset Ave

09/20/2024

						
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	41	326	246	14	756
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
Queue Length 50th (ft)	2	4	32	0	1	104
Queue Length 95th (ft)	32	11	61	13	5	188
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	382	571	1633	1418	920	1630
Starvation Cap Reductn	0	0	877	715	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.43	0.35	0.02	0.46
Intersection Summary						

HCM 6th Signalized Intersection Summary

3: Bradley Place & Sunset Ave

09/20/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	31	0	0	0	39	310	234	13	711	8
Future Volume (veh/h)	2	2	31	0	0	0	39	310	234	13	711	8
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	33				41	326	246	14	748	8
Peak Hour Factor	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
Cap, veh/h	3	3	52				569	1498	1270	736	1480	16
Arrive On Green	0.04	0.04	0.04				0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	87	87	1434				708	1870	1585	840	1847	20
Grp Volume(v), veh/h	37	0	0				41	326	246	14	0	756
Grp Sat Flow(s),veh/h/ln	1608	0	0				708	1870	1585	840	0	1867
Q Serve(g_s), s	1.7	0.0	0.0				1.5	3.1	2.7	0.3	0.0	10.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0				11.5	3.1	2.7	3.4	0.0	10.0
Prop In Lane	0.05		0.89				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	58	0	0				569	1498	1270	736	0	1495
V/C Ratio(X)	0.64	0.00	0.00				0.07	0.22	0.19	0.02	0.00	0.51
Avail Cap(c_a), veh/h	415	0	0				569	1498	1270	736	0	1495
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	0.0				4.4	1.8	1.7	2.2	0.0	2.5
Incr Delay (d2), s/veh	11.1	0.0	0.0				0.2	0.3	0.3	0.0	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.0				0.4	1.1	0.8	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.1	0.0	0.0				4.6	2.1	2.1	2.2	0.0	3.7
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		37						613			770	
Approach Delay, s/veh		46.1						2.3			3.6	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		8.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		13.5		3.7		12.0						
Green Ext Time (p_c), s		3.5		0.1		6.8						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.2									
HCM 6th LOS			A									

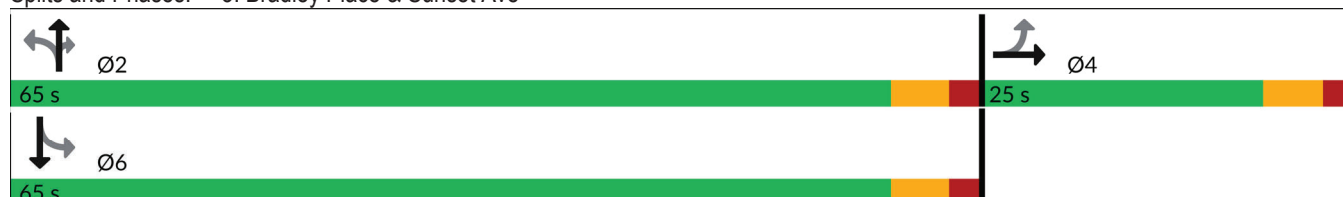
Timings

3: Bradley Place & Sunset Ave

12/19/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↖	↑	↗	↘	↑
Traffic Volume (vph)	5	22	581	209	8	316
Future Volume (vph)	5	22	581	209	8	316
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.07	0.92	0.92	0.92	0.92	0.92
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.8	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.8	1.6
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	28.3		1.9			1.6
Approach LOS	C		A			A
Intersection Summary						
Cycle Length: 90						
Actuated Cycle Length: 85.3						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.36						
Intersection Signal Delay (s/veh): 2.2				Intersection LOS: A		
Intersection Capacity Utilization 44.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 3: Bradley Place & Sunset Ave



Queues

3: Bradley Place & Sunset Ave

12/19/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	23	612	220	8	335
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.8	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.8	1.6
Queue Length 50th (ft)	4	0	0	0	0	0
Queue Length 95th (ft)	27	7	128	13	3	60
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	389	955	1709	1469	725	1707
Starvation Cap Reductn	0	0	205	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.41	0.15	0.01	0.20
Intersection Summary						

HCM 6th Signalized Intersection Summary

3: Bradley Place & Sunset Ave

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	11	0	0	0	22	581	209	8	316	2
Future Volume (veh/h)	3	5	11	0	0	0	22	581	209	8	316	2
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	5	12				23	612	220	8	333	2
Peak Hour Factor	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
Cap, veh/h	6	10	23				905	1519	1287	574	1508	9
Arrive On Green	0.02	0.02	0.02				0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	252	419	1006				1045	1870	1585	660	1857	11
Grp Volume(v), veh/h	20	0	0				23	612	220	8	0	335
Grp Sat Flow(s),veh/h/ln	1677	0	0				1045	1870	1585	660	0	1868
Q Serve(g_s), s	0.9	0.0	0.0				0.4	6.6	2.2	0.2	0.0	3.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0				3.4	6.6	2.2	6.9	0.0	3.0
Prop In Lane	0.15		0.60				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	38	0	0				905	1519	1287	574	0	1517
V/C Ratio(X)	0.52	0.00	0.00				0.03	0.40	0.17	0.01	0.00	0.22
Avail Cap(c_a), veh/h	438	0	0				905	1519	1287	574	0	1517
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0				1.9	1.9	1.5	2.9	0.0	1.6
Incr Delay (d2), s/veh	10.6	0.0	0.0				0.1	0.8	0.3	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0				0.1	2.1	0.6	0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	0.0				2.0	2.7	1.8	2.9	0.0	1.9
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		20						855			343	
Approach Delay, s/veh		45.7						2.4			1.9	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		7.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		8.6		2.9		8.9						
Green Ext Time (p_c), s		5.9		0.0		2.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			3.0									
HCM 6th LOS			A									

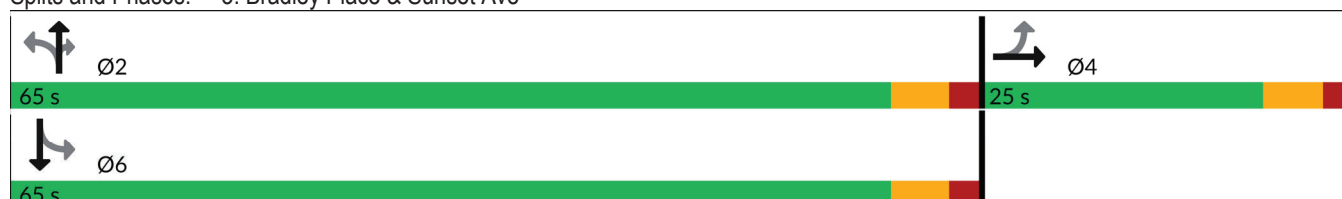
Timings

3: Bradley Place & Sunset Ave

12/19/2024

	→	↖	↑	↗	↘	↓
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↖	↑	↗	↘	↑
Traffic Volume (vph)	2	39	310	236	14	711
Future Volume (vph)	2	39	310	236	14	711
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.4	76.7	76.7	76.7	76.7	76.7
Actuated g/C Ratio	0.07	0.88	0.88	0.88	0.88	0.88
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	20.5		1.9			3.5
Approach LOS	C		A			A
Intersection Summary						
Cycle Length: 90						
Actuated Cycle Length: 87.5						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.46						
Intersection Signal Delay (s/veh): 3.3				Intersection LOS: A		
Intersection Capacity Utilization 52.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 3: Bradley Place & Sunset Ave



Queues

3: Bradley Place & Sunset Ave

12/19/2024

						
Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	41	326	248	15	756
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
Queue Length 50th (ft)	2	4	32	0	1	104
Queue Length 95th (ft)	32	11	61	13	5	188
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	382	571	1633	1418	920	1630
Starvation Cap Reductn	0	0	877	714	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.43	0.35	0.02	0.46
Intersection Summary						

HCM 6th Signalized Intersection Summary

3: Bradley Place & Sunset Ave

12/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	31	0	0	0	39	310	236	14	711	8
Future Volume (veh/h)	2	2	31	0	0	0	39	310	236	14	711	8
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	33				41	326	248	15	748	8
Peak Hour Factor	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
Cap, veh/h	3	3	52				569	1498	1270	734	1480	16
Arrive On Green	0.04	0.04	0.04				0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	87	87	1434				708	1870	1585	839	1847	20
Grp Volume(v), veh/h	37	0	0				41	326	248	15	0	756
Grp Sat Flow(s),veh/h/ln	1608	0	0				708	1870	1585	839	0	1867
Q Serve(g_s), s	1.7	0.0	0.0				1.5	3.1	2.7	0.3	0.0	10.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0				11.5	3.1	2.7	3.4	0.0	10.0
Prop In Lane	0.05		0.89				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	58	0	0				569	1498	1270	734	0	1495
V/C Ratio(X)	0.64	0.00	0.00				0.07	0.22	0.20	0.02	0.00	0.51
Avail Cap(c_a), veh/h	415	0	0				569	1498	1270	734	0	1495
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	0.0				4.4	1.8	1.7	2.2	0.0	2.5
Incr Delay (d2), s/veh	11.1	0.0	0.0				0.2	0.3	0.3	0.1	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.0				0.4	1.1	0.8	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.1	0.0	0.0				4.6	2.1	2.1	2.2	0.0	3.7
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		37						615			771	
Approach Delay, s/veh		46.1						2.3			3.6	
Approach LOS		D						A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		8.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		13.5		3.7		12.0						
Green Ext Time (p_c), s		3.5		0.1		6.9						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.1									
HCM 6th LOS			A									



APPENDIX C

TRAFFIC COUNTS



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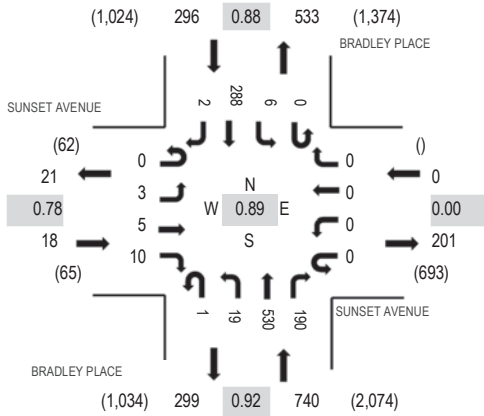
Location: 13 BRADLEY PLACE & SUNSET AVENUE AM

Date: Wednesday, March 13, 2024

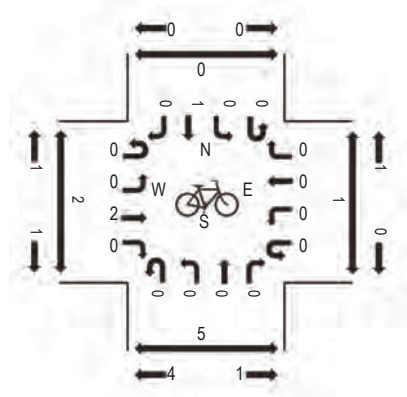
Peak Hour: 08:30 AM - 09:30 AM

Peak 15-Minutes: 09:00 AM - 09:15 AM

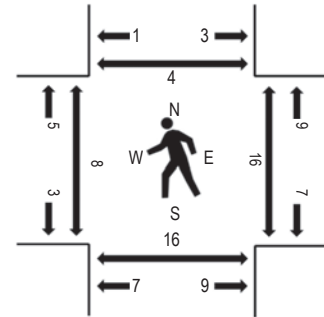
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				BRADLEY PLACE Northbound				BRADLEY PLACE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:30 AM	0	0	0	0	0	0	0	0	0	2	65	46	0	0	41	0	154	715	0	4	2	1
7:45 AM	0	0	0	1	0	0	0	0	0	2	68	20	0	1	41	1	134	834	2	3	4	1
8:00 AM	0	0	0	0	0	0	0	0	0	5	126	58	0	0	55	0	244	963	2	3	8	1
8:15 AM	0	0	1	5	0	0	0	0	0	3	84	36	0	3	51	0	183	1,015	2	5	6	2
8:30 AM	0	0	0	0	0	0	0	0	0	5	149	48	0	2	68	1	273	1,054	1	3	2	0
8:45 AM	0	2	2	1	0	0	0	0	0	6	142	49	0	1	60	0	263	1,035	2	4	9	3
9:00 AM	0	0	1	5	0	0	0	0	1	6	141	54	0	3	84	1	296	1,007	3	5	2	1
9:15 AM	0	1	2	4	0	0	0	0	0	2	98	39	0	0	76	0	222	964	2	4	3	0
9:30 AM	0	1	0	8	0	0	0	0	0	8	99	54	0	4	80	0	254	947	11	5	5	3
9:45 AM	0	0	1	5	0	0	0	0	0	3	96	48	0	5	77	0	235	972	4	10	12	4
10:00 AM	0	1	0	5	0	0	0	0	0	3	87	68	0	5	84	0	253	905	1	7	11	1
10:15 AM	0	1	0	3	0	0	0	0	1	3	64	46	0	2	85	0	205		3	7	4	1
10:30 AM	0	0	0	6	0	0	0	0	0	7	108	53	0	7	97	1	279		3	7	14	0
10:45 AM	0	0	4	5	0	0	0	0	0	3	41	27	0	3	85	0	168		1	6	8	3
Count Total	0	6	11	48	0	0	0	0	2	58	1,368	646	0	36	984	4	3,163		37	73	90	21
Peak Hour	0	3	5	10	0	0	0	0	1	19	530	190	0	6	288	2	1,054		8	16	16	4



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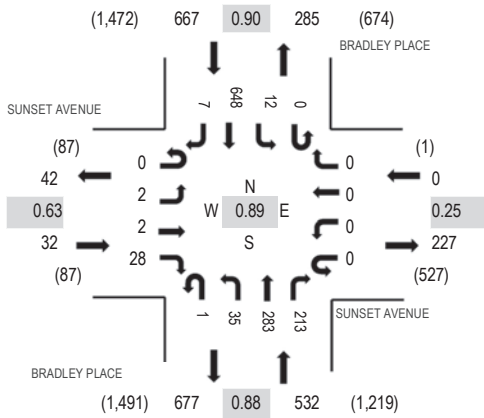
Location: 13 BRADLEY PLACE & SUNSET AVENUE PM

Date: Wednesday, March 13, 2024

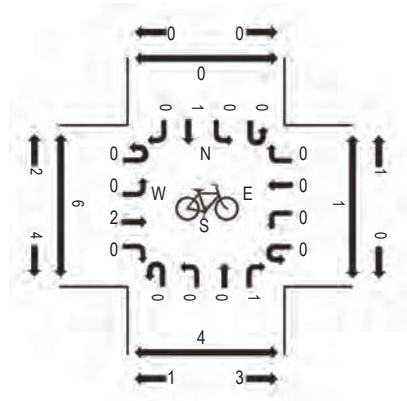
Peak Hour: 03:30 PM - 04:30 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

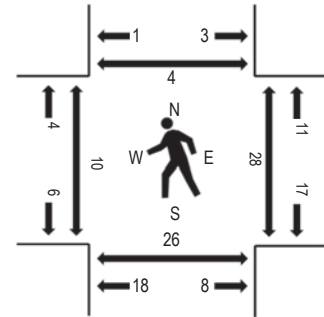
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				BRADLEY PLACE Northbound				BRADLEY PLACE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:00 PM	0	1	3	8	0	0	0	0	0	8	74	55	0	4	161	2	316	1,125	2	5	8	3
3:15 PM	0	0	1	7	0	0	0	0	0	3	64	53	0	1	118	2	249	1,154	3	3	4	2
3:30 PM	0	0	0	4	0	0	0	0	0	6	75	46	0	3	172	1	307	1,231	4	4	4	4
3:45 PM	0	0	1	6	0	0	0	0	0	8	73	40	0	3	121	1	253	1,182	4	7	5	0
4:00 PM	0	1	1	10	0	0	0	0	1	12	82	57	0	4	174	3	345	1,170	0	11	10	0
4:15 PM	0	1	0	8	0	0	0	0	0	9	53	70	0	2	181	2	326	1,106	2	6	7	0
4:30 PM	0	1	1	7	0	0	0	0	0	5	62	39	0	2	140	1	258	983	1	5	8	0
4:45 PM	0	1	1	3	0	0	0	0	0	9	67	35	0	4	119	2	241		0	5	5	0
5:00 PM	0	3	0	12	0	0	0	0	0	2	64	49	0	6	142	3	281		0	8	6	0
5:15 PM	0	0	0	6	0	1	0	0	0	7	52	39	0	7	90	1	203		0	11	5	2
Count Total	0	8	8	71	0	1	0	0	1	69	666	483	0	36	1,418	18	2,779		16	65	62	11
Peak Hour	0	2	2	28	0	0	0	0	1	35	283	213	0	12	648	7	1,231		10	28	26	4



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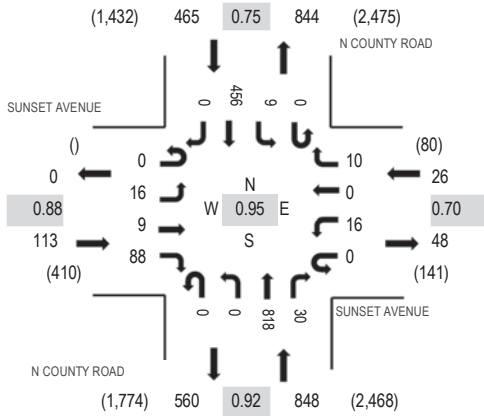
Location: 11 N COUNTY ROAD & SUNSET AVENUE AM

Date: Wednesday, March 13, 2024

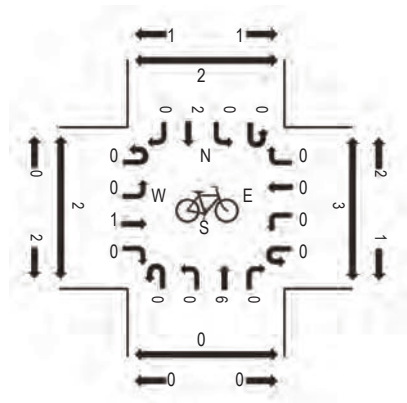
Peak Hour: 08:30 AM - 09:30 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

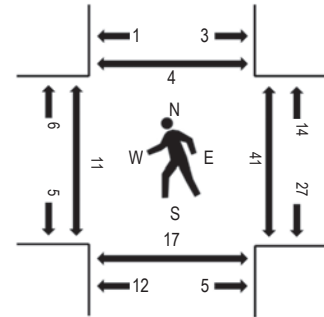
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:30 AM	0	2	0	11	0	2	0	1	0	0	124	5	0	0	43	0	188	1,048	1	3	2	0
7:45 AM	0	1	1	14	0	4	0	0	0	0	133	6	0	0	70	0	229	1,213	7	4	5	0
8:00 AM	0	0	0	20	0	5	0	3	0	0	225	4	0	0	79	0	336	1,367	0	10	10	2
8:15 AM	0	4	0	21	0	1	0	1	0	0	186	0	0	5	77	0	295	1,388	5	10	4	1
8:30 AM	0	3	2	16	0	8	0	4	0	0	220	9	0	2	89	0	353	1,452	3	11	5	1
8:45 AM	0	5	4	18	0	3	0	1	0	0	232	8	0	3	109	0	383	1,418	3	9	3	2
9:00 AM	0	5	2	24	0	2	0	2	0	0	193	6	0	1	122	0	357	1,363	3	11	4	0
9:15 AM	0	3	1	30	0	3	0	3	0	0	173	7	0	3	136	0	359	1,291	2	10	5	1
9:30 AM	0	8	1	27	0	1	0	2	0	0	169	8	0	0	103	0	319	1,214	8	16	6	3
9:45 AM	0	8	2	31	0	1	0	5	0	0	169	10	0	3	99	0	328	1,245	4	16	5	2
10:00 AM	0	4	2	27	0	1	0	3	0	0	156	9	0	2	81	0	285	1,243	4	10	3	2
10:15 AM	0	5	1	26	0	2	0	3	0	0	129	9	0	1	106	0	282		7	13	2	1
10:30 AM	0	10	2	30	0	3	0	6	0	0	154	9	0	3	133	0	350		10	12	6	6
10:45 AM	0	5	3	31	0	5	0	5	0	0	110	5	0	2	160	0	326		8	10	7	1
Count Total	0	63	21	326	0	41	0	39	0	0	2,373	95	0	25	1,407	0	4,390		65	145	67	22
Peak Hour	0	16	9	88	0	16	0	10	0	0	818	30	0	9	456	0	1,452		11	41	17	4



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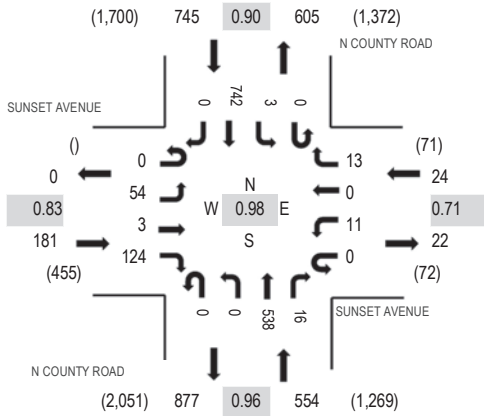
Location: 11 N COUNTY ROAD & SUNSET AVENUE PM

Date: Wednesday, March 13, 2024

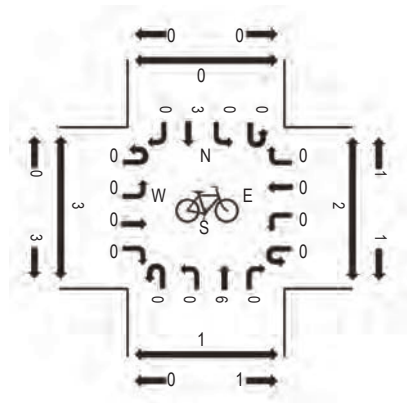
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:00 PM - 03:15 PM

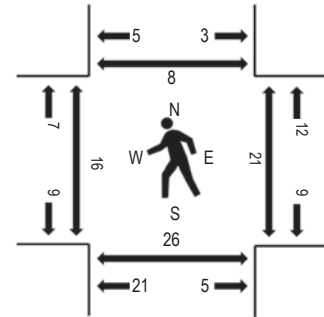
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:00 PM	0	17	1	26	0	3	0	4	0	0	144	1	0	1	185	0	382	1,504	2	6	7	0
3:15 PM	0	10	2	35	0	4	0	2	0	0	129	3	0	2	188	0	375	1,498	6	3	8	4
3:30 PM	0	18	0	41	0	3	0	6	0	0	130	5	0	0	176	0	379	1,443	0	4	1	2
3:45 PM	0	9	0	22	0	1	0	1	0	0	135	7	0	0	193	0	368	1,412	8	8	10	2
4:00 PM	0	14	2	23	0	3	0	2	0	0	115	3	0	2	212	0	376	1,342	4	1	10	1
4:15 PM	0	18	4	35	0	7	0	6	0	0	106	6	0	1	137	0	320	1,304	5	1	7	0
4:30 PM	0	11	1	29	0	10	0	2	0	0	88	5	0	2	200	0	348	1,295	3	6	4	0
4:45 PM	0	6	2	40	0	3	0	2	0	0	108	5	0	2	130	0	298		6	13	8	4
5:00 PM	0	6	3	34	0	4	0	3	0	0	135	3	0	0	150	0	338		7	3	3	6
5:15 PM	0	6	3	37	0	2	0	3	0	0	136	5	0	1	118	0	311		5	6	5	0
Count Total	0	115	18	322	0	40	0	31	0	0	1,226	43	0	11	1,689	0	3,495		46	51	63	19
Peak Hour	0	54	3	124	0	11	0	13	0	0	538	16	0	3	742	0	1,504		16	21	26	8



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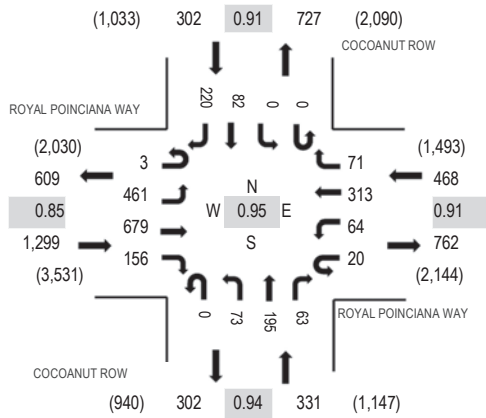
Location: 15 COCOANUT ROW & ROYAL POINCIANA WAY AM

Date: Wednesday, March 13, 2024

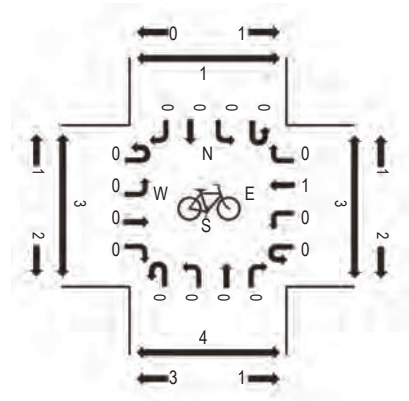
Peak Hour: 08:30 AM - 09:30 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

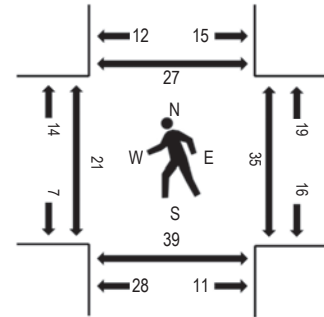
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ROYAL POINCIANA WAY Eastbound				ROYAL POINCIANA WAY Westbound				COCOANUT ROW Northbound				COCOANUT ROW Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:30 AM	0	81	124	25	18	4	50	5	0	19	22	19	0	0	11	32	410	1,842	1	2	3	3
7:45 AM	0	59	110	16	14	14	56	13	0	14	37	12	0	0	7	35	387	2,040	3	4	6	3
8:00 AM	0	132	207	48	15	6	57	10	0	17	42	14	0	0	13	49	610	2,286	7	15	7	4
8:15 AM	0	68	106	26	12	13	56	14	0	16	50	16	0	0	14	44	435	2,296	4	6	6	7
8:30 AM	1	129	200	35	4	16	66	16	0	11	48	13	0	0	19	50	608	2,400	5	14	11	5
8:45 AM	0	125	190	44	9	11	66	24	0	20	68	18	0	0	19	39	633	2,368	5	11	9	5
9:00 AM	0	118	167	40	3	19	84	15	0	27	35	20	0	0	29	63	620	2,302	8	7	10	10
9:15 AM	2	89	122	37	4	18	97	16	0	15	44	12	0	0	15	68	539	2,188	3	3	9	7
9:30 AM	2	94	130	39	3	20	94	22	0	28	43	25	0	0	19	57	576	2,096	8	5	10	10
9:45 AM	2	93	143	47	2	14	76	16	0	22	46	20	0	0	23	63	567	2,080	4	14	13	3
10:00 AM	3	90	94	27	4	11	86	16	0	23	46	16	0	0	30	60	506	1,819	1	10	8	4
10:15 AM	3	62	81	19	2	16	71	13	0	26	40	26	0	0	25	63	447		8	10	10	8
10:30 AM	1	107	115	30	3	11	93	16	0	25	43	16	0	0	28	72	560		9	9	14	6
10:45 AM	1	17	7	23	5	23	38	13	0	18	53	22	0	1	36	49	306		11	18	21	5
Count Total	15	1,264	1,796	456	98	196	990	209	0	281	617	249	0	1	288	744	7,204		77	128	137	80
Peak Hour	3	461	679	156	20	64	313	71	0	73	195	63	0	0	82	220	2,400		21	35	39	27



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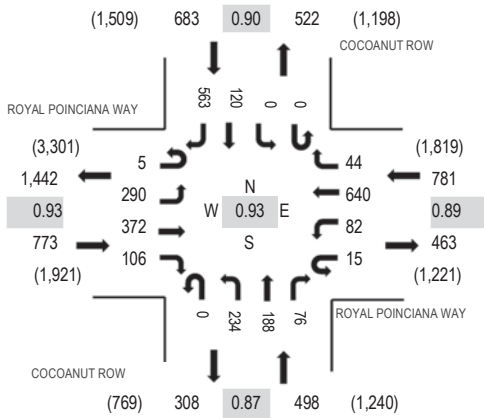
Location: 15 COCOANUT ROW & ROYAL POINCIANA WAY PM

Date: Wednesday, March 13, 2024

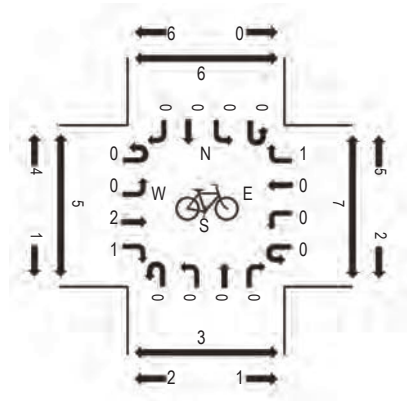
Peak Hour: 03:30 PM - 04:30 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

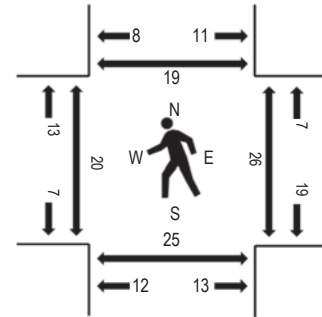
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ROYAL POINCIANA WAY Eastbound				ROYAL POINCIANA WAY Westbound				COCOANUT ROW Northbound				COCOANUT ROW Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:00 PM	5	81	94	22	2	24	140	16	0	74	48	34	0	0	36	129	705	2,652	12	11	12	9
3:15 PM	3	59	108	23	6	13	118	14	0	48	37	35	0	0	28	101	593	2,674	10	15	12	5
3:30 PM	1	80	105	27	2	25	183	9	0	60	54	17	0	0	36	140	739	2,735	5	10	8	9
3:45 PM	1	55	101	27	8	19	128	11	0	59	55	19	0	0	21	111	615	2,650	1	3	9	3
4:00 PM	2	82	79	34	3	26	173	13	0	61	42	23	0	0	28	161	727	2,626	9	5	7	4
4:15 PM	1	73	87	18	2	12	156	11	0	54	37	17	0	0	35	151	654	2,556	5	8	1	3
4:30 PM	3	56	75	29	7	11	178	12	0	76	34	20	0	0	40	113	654	2,456	2	9	1	2
4:45 PM	3	67	110	22	9	13	120	10	0	54	37	19	0	0	27	100	591		7	6	11	3
5:00 PM	4	62	107	31	8	21	139	16	0	77	29	16	0	1	33	113	657		7	17	8	3
5:15 PM	3	53	94	34	1	24	119	17	0	64	28	12	0	0	30	75	554		7	1	5	2
Count Total	26	668	960	267	48	188	1,454	129	0	627	401	212	0	1	314	1,194	6,489		65	85	74	43
Peak Hour	5	290	372	106	15	82	640	44	0	234	188	76	0	0	120	563	2,735		20	26	25	19



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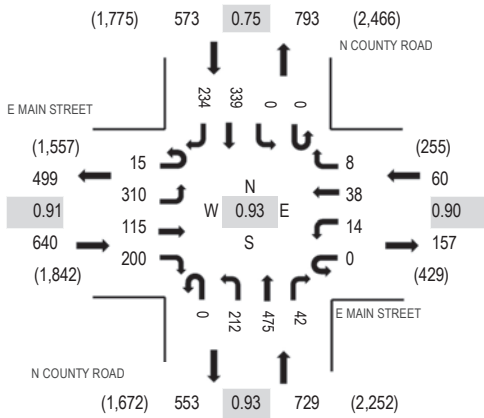
Location: 9 N COUNTY ROAD & E MAIN STREET AM

Date: Wednesday, March 13, 2024

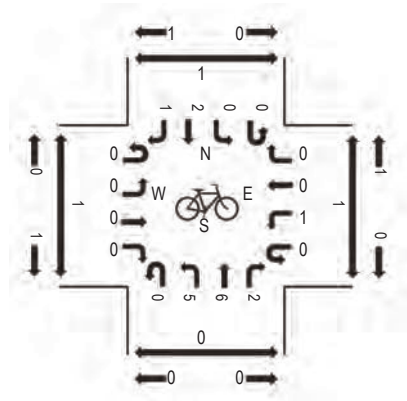
Peak Hour: 08:45 AM - 09:45 AM

Peak 15-Minutes: 09:00 AM - 09:15 AM

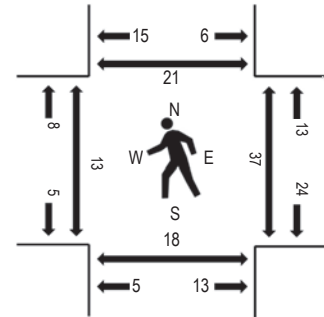
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E MAIN STREET Eastbound				E MAIN STREET Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:30 AM	0	56	16	67	0	0	23	1	0	33	73	19	0	0	26	27	341	1,563	1	1	3	1
7:45 AM	3	58	11	27	0	2	22	1	0	38	81	15	0	0	54	32	344	1,689	1	4	5	0
8:00 AM	3	113	16	54	0	1	19	1	0	25	116	16	0	0	61	47	472	1,847	6	5	4	0
8:15 AM	3	47	16	32	0	3	15	2	0	42	133	16	0	0	54	43	406	1,915	3	8	7	1
8:30 AM	2	116	20	40	0	1	17	0	0	30	119	10	0	0	54	58	467	1,997	1	9	7	0
8:45 AM	3	99	24	53	0	3	7	3	0	43	138	9	0	0	85	35	502	2,002	3	6	5	6
9:00 AM	4	83	32	59	0	4	7	3	0	69	119	10	0	0	89	61	540	1,961	6	10	6	3
9:15 AM	3	50	22	40	0	2	9	0	0	48	124	14	0	0	95	81	488	1,813	0	6	1	3
9:30 AM	5	78	37	48	0	5	15	2	0	52	94	9	0	0	70	57	472	1,716	4	15	6	9
9:45 AM	4	70	21	47	0	2	11	2	0	50	107	7	0	0	84	56	461	1,688	3	12	3	8
10:00 AM	5	50	18	37	0	2	19	1	0	38	113	10	0	0	59	40	392	1,631	4	7	2	5
10:15 AM	3	38	12	38	0	7	11	2	0	43	96	6	0	0	75	60	391		1	9	0	10
10:30 AM	5	53	17	40	0	3	9	1	0	36	107	4	0	0	111	58	444		5	13	8	7
10:45 AM	2	9	12	21	0	1	12	4	0	27	103	10	0	0	116	87	404		4	11	4	13
Count Total	45	920	274	603	0	36	196	23	0	574	1,523	155	0	0	1,033	742	6,124		42	116	61	66
Peak Hour	15	310	115	200	0	14	38	8	0	212	475	42	0	0	339	234	2,002		13	37	18	21



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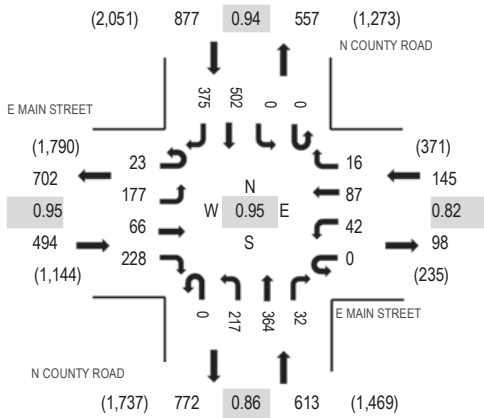
Location: 9 N COUNTY ROAD & E MAIN STREET PM

Date: Wednesday, March 13, 2024

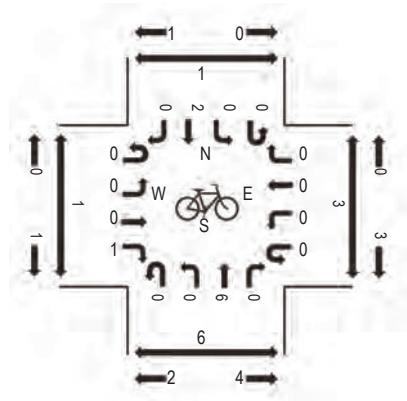
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:00 PM - 03:15 PM

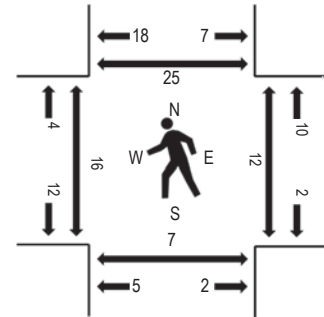
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E MAIN STREET Eastbound				E MAIN STREET Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:00 PM	7	39	19	63	0	13	27	1	0	63	109	7	0	0	135	78	561	2,129	7	3	1	10
3:15 PM	4	43	13	70	0	12	23	4	0	41	90	10	0	0	132	95	537	2,091	3	3	3	3
3:30 PM	8	54	18	48	0	13	23	6	0	53	68	7	0	0	116	101	515	2,002	3	5	2	3
3:45 PM	4	41	16	47	0	4	14	5	0	60	97	8	0	0	119	101	516	1,979	3	1	1	9
4:00 PM	2	37	16	48	0	9	32	1	0	42	81	14	0	0	121	120	523	1,922	2	1	7	3
4:15 PM	7	31	15	46	0	6	19	5	0	65	79	5	0	0	83	87	448	1,909	0	3	4	5
4:30 PM	5	32	15	37	0	7	32	1	0	44	61	8	0	0	122	128	492	1,935	4	7	4	6
4:45 PM	6	37	23	64	0	9	23	2	0	43	73	8	0	0	87	84	459		3	5	8	5
5:00 PM	6	37	15	63	0	9	32	6	0	58	94	5	0	0	102	83	510		6	2	4	5
5:15 PM	3	32	10	63	0	6	20	7	0	73	100	3	0	0	83	74	474		11	3	2	1
Count Total	52	383	160	549	0	88	245	38	0	542	852	75	0	0	1,100	951	5,035		42	33	36	50
Peak Hour	23	177	66	228	0	42	87	16	0	217	364	32	0	0	502	375	2,129		16	12	7	25



APPENDIX D

SIGNAL TIMING

TB Coor, Day Plan

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Coordination, Splits

[illegible]

TB Coor, Day Plan

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Coordination, Splits

[illegible]

TB Coor, Day Plan

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Coordination, Splits

[illegible]



APPENDIX E

COMMITTED TRIPS

VOLUME DEVELOPMENT SHEET
PARAMOUNT PALM BEACH
BRADLEY PLACE & SUNSET AVENUE
EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	20	530	190	6	288	2	3	5	10	0	0	0
Peak Season Volume	20	530	190	6	288	2	3	5	10	0	0	0
Historic Growth (2.33%) Traffic Volume Growth	1	38	14	0	21	0	0	0	1	0	0	0
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		9.0%	2.0%									
Inbound Traffic Volumes		13	3									
Outbound Traffic Assignment				9.0%								
Outbound Traffic Volumes				11								
WPB Subtotal	0	13	3	0	11	0	0	0	0	0	0	0
Background Traffic Volumes	21	581	207	6	320	2	3	5	11	0	0	0
Project Traffic												
Inbound Traffic Assignment			10.0%	5.0%								
Inbound Traffic Volumes			3	1								
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	3	1	0	0	0	0	0	0	0	0
TOTAL TRAFFIC	21	581	210	7	320	2	3	5	11	0	0	0

Inbound
146
Outbound
118

Inbound
28
Outbound
14

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	30	314	182	10	588	7	3	6	27	0	0	0
Peak Season Volume	30	314	182	10	588	7	3	6	27	0	0	0
Historic Growth (2.33%) Traffic Volume Growth	2	22	13	1	42	1	0	0	2	0	0	0
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		9.0%	2.0%									
Inbound Traffic Volumes												
Outbound Traffic Assignment				9.0%								
Outbound Traffic Volumes												
WPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Volumes	32	336	195	11	630	8	3	6	29	0	0	0
Project Traffic												
Inbound Traffic Assignment			10.0%	5.0%								
Inbound Traffic Volumes			5	2								
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	5	2	0	0	0	0	0	0	0	0
TOTAL TRAFFIC	32	336	200	13	630	8	3	6	29	0	0	0

Inbound
0
Outbound
0

Inbound
47
Outbound
23

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	36	283	213	12	648	7	2	2	28	0	0	0
Peak Season Volume	36	283	213	12	648	7	2	2	28	0	0	0
Historic Growth (2.33%) Traffic Volume Growth	3	20	15	1	46	1	0	0	2	0	0	0
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		9.0%	2.0%									
Inbound Traffic Volumes		14	3									
Outbound Traffic Assignment				9.0%								
Outbound Traffic Volumes				17								
WPB Subtotal	0	14	3	0	17	0	0	0	0	0	0	0
Background Traffic Volumes	39	317	231	13	711	8	2	2	30	0	0	0
Project Traffic												
Inbound Traffic Assignment			10.0%	5.0%								
Inbound Traffic Volumes			8	4								
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	8	4	0	0	0	0	0	0	0	0
TOTAL TRAFFIC	39	317	239	17	711	8	2	2	30	0	0	0

Inbound
155
Outbound
191

Inbound
77
Outbound
38

VOLUME DEVELOPMENT SHEET
PARAMOUNT PALM BEACH
SUNSET AVE & COUNTY ROAD
EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	0	818	30	9	456	0	16	9	88	16	0	10
Peak Season Volume	0	818	30	9	456	0	16	9	88	16	0	10
Historic Growth (2.33%) Traffic Volume Growth	0	59	2	1	33	0	1	1	6	1	0	1
TOPB Committed Development												
Royal Poinciana Playhouse		1			1							
Breakers												
Palm House Hotel												
165 Bradley Place		1			1							
TOPB Subtotal	0	2	0	0	2	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		11.0%										
Inbound Traffic Volumes		16										
Outbound Traffic Assignment					10.0%				5.0%			
Outbound Traffic Volumes					12				6			
WPB Subtotal	0	16	0	0	12	0	0	0	6	0	0	0
Background Traffic Volumes	0	893	32	10	501	0	17	10	100	17	0	11
Project Traffic												
Inbound Traffic Assignment			55.0%	30.0%				15.0%				
Inbound Traffic Volumes			15	8				4				
Outbound Traffic Assignment					45.0%							
Outbound Traffic Volumes					6							
Project Traffic	0	0	15	8	6	0	0	4	0	0	0	0
TOTAL TRAFFIC	0	893	47	18	507	0	17	14	100	17	0	11

Inbound
146
Outbound
118

Inbound
28
Outbound
14

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	0	688	35	8	702	0	27	8	97	15	0	21
Peak Season Volume	0	688	35	8	702	0	27	8	97	15	0	21
Historic Growth (2.33%) Traffic Volume Growth	0	49	3	1	50	0	2	1	7	1	0	2
TOPB Committed Development												
Royal Poinciana Playhouse		1			1							
Breakers												
Palm House Hotel												
165 Bradley Place		1			1							
TOPB Subtotal	0	2	0	0	2	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		11.0%										
Inbound Traffic Volumes												
Outbound Traffic Assignment					10.0%				5.0%			
Outbound Traffic Volumes												
WPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Volumes	0	739	38	9	754	0	29	9	104	16	0	23
Project Traffic												
Inbound Traffic Assignment			55.0%	30.0%				15.0%				
Inbound Traffic Volumes			26	14				7				
Outbound Traffic Assignment					45.0%							
Outbound Traffic Volumes					10							
Project Traffic	0	0	26	14	10	0	0	7	0	0	0	0
TOTAL TRAFFIC	0	739	64	23	764	0	29	16	104	16	0	23

Inbound
0
Outbound
0

Inbound
47
Outbound
23

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	0	538	16	3	742	0	54	3	124	11	0	13
Peak Season Volume	0	538	16	3	742	0	54	3	124	11	0	13
Historic Growth (2.33%) Traffic Volume Growth	0	39	1	0	53	0	4	0	9	1	0	1
TOPB Committed Development												
Royal Poinciana Playhouse		5			12							
Breakers												
Palm House Hotel												
165 Bradley Place		1			1							
TOPB Subtotal	0	6	0	0	13	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment		11.0%										
Inbound Traffic Volumes		17										
Outbound Traffic Assignment					10.0%				5.0%			
Outbound Traffic Volumes					19				10			
WPB Subtotal	0	17	0	0	19	0	0	0	10	0	0	0
Background Traffic Volumes	0	600	17	3	827	0	58	3	143	12	0	14
Project Traffic												
Inbound Traffic Assignment			55.0%	30.0%				15.0%				
Inbound Traffic Volumes			42	23				12				
Outbound Traffic Assignment					45.0%							
Outbound Traffic Volumes					17							
Project Traffic	0	0	42	23	17	0	0	12	0	0	0	0
TOTAL TRAFFIC	0	600	59	26	844	0	58	15	143	12	0	14

Inbound
155
Outbound
191

Inbound
77
Outbound
38

VOLUME DEVELOPMENT SHEET
PARAMOUNT PALM BEACH
BRADLEY PLACE & ROYAL POINCIANA WAY
EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	73	195	63	0	82	220	464	679	156	84	313	71
Peak Season Volume	73	195	63	0	82	220	464	679	156	84	313	71
Historic Growth (2.33%) Traffic Volume Growth	5	14	5	0	6	16	33	49	11	6	22	5
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%	55.0%	30.0%			
Inbound Traffic Volumes							22	80	44			
Outbound Traffic Assignment	30.0%					15.0%					55.0%	
Outbound Traffic Volumes	35					18					65	
WPB Subtotal	35	0	0	0	0	18	22	80	44	0	65	0
Background Traffic Volumes	113	209	68	0	88	254	519	808	211	90	400	76
Project Traffic												
Inbound Traffic Assignment		5.0%					5.0%	25.0%				
Inbound Traffic Volumes		1					1	7				
Outbound Traffic Assignment					5.0%	5.0%					25.0%	
Outbound Traffic Volumes					1	1					4	
Project Traffic	0	1	0	0	1	1	1	7	0	0	4	0
TOTAL TRAFFIC	113	210	68	0	89	255	520	815	211	90	404	76

Inbound
146
Outbound
118

Inbound
28
Outbound
14

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	216	156	87	0	140	481	315	418	131	96	541	73
Peak Season Volume	216	156	87	0	140	481	315	418	131	96	541	73
Historic Growth (2.33%) Traffic Volume Growth	15	11	6	0	10	34	23	30	9	7	39	5
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%	55.0%	30.0%			
Inbound Traffic Volumes												
Outbound Traffic Assignment	30.0%					15.0%					55.0%	
Outbound Traffic Volumes												
WPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Volumes	231	167	93	0	150	515	338	448	140	103	580	78
Project Traffic												
Inbound Traffic Assignment		5.0%					5.0%	25.0%				
Inbound Traffic Volumes		2					2	12				
Outbound Traffic Assignment					5.0%	5.0%					25.0%	
Outbound Traffic Volumes					1	1					6	
Project Traffic	0	2	0	0	1	1	2	12	0	0	6	0
TOTAL TRAFFIC	231	169	93	0	151	516	340	460	140	103	586	78

Inbound
0
Outbound
0

Inbound
47
Outbound
23

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	234	188	76	0	120	563	295	372	106	97	640	44
Peak Season Volume	234	188	76	0	120	563	295	372	106	97	640	44
Historic Growth (2.33%) Traffic Volume Growth	17	13	5	0	9	40	21	27	8	7	46	3
TOPB Committed Development Royal Poinciana Playhouse Breakers Palm House Hotel 165 Bradley Place												
TOPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%	55.0%	30.0%			
Inbound Traffic Volumes							23	85	47			
Outbound Traffic Assignment	30.0%					15.0%					55.0%	
Outbound Traffic Volumes	57					29					105	
WPB Subtotal	57	0	0	0	0	29	23	85	47	0	105	0
Background Traffic Volumes	308	201	81	0	129	632	339	484	161	104	791	47
Project Traffic												
Inbound Traffic Assignment		5.0%					5.0%	25.0%				
Inbound Traffic Volumes		4					4	19				
Outbound Traffic Assignment					5.0%	5.0%					25.0%	
Outbound Traffic Volumes					2	2					10	
Project Traffic	0	4	0	0	2	2	4	19	0	0	10	0
TOTAL TRAFFIC	308	205	81	0	131	634	343	503	161	104	801	47

Inbound
155
Outbound
191

Inbound
77
Outbound
38

VOLUME DEVELOPMENT SHEET
PARAMOUNT PALM BEACH
ROYAL POINCIANA WAY & COUNTY ROAD
EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	212	475	42	0	339	234	325	115	200	14	38	8
Peak Season Volume	212	475	42	0	339	234	325	115	200	14	38	8
Historic Growth (2.33%) Traffic Volume Growth	15	34	3	0	24	17	23	8	14	1	3	1
TOPB Committed Development												
Royal Poinciana Playhouse	1				1		1		1			
Breakers	20	1		5	2		19		11		35	9
Palm House Hotel												
165 Bradley Place	1	1		1	1		1		1			
TOPB Subtotal	22	2	0	5	3	1	1	19	13	0	35	9
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%		40.0%			
Inbound Traffic Volumes							22		58			
Outbound Traffic Assignment	40.0%					15.0%						
Outbound Traffic Volumes	47					18						
WPB Subtotal	47	0	0	0	0	18	22	0	58	0	0	0
Background Traffic Volumes	296	509	45	0	363	269	370	123	272	15	41	9
Project Traffic												
Inbound Traffic Assignment		30.0%					25.0%					
Inbound Traffic Volumes		8					7					
Outbound Traffic Assignment					30.0%	25.0%						
Outbound Traffic Volumes					4	4						
Project Traffic	0	8	0	0	4	4	7	0	0	0	0	0
TOTAL TRAFFIC	296	517	45	0	367	273	377	123	272	15	41	9

Inbound
146
Outbound
118

Inbound
28
Outbound
14

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	259	571	25	0	568	256	159	45	319	25	57	2
Peak Season Volume	259	571	25	0	568	256	159	45	319	25	57	2
Historic Growth (2.33%) Traffic Volume Growth	19	41	2	0	41	18	11	3	23	2	4	0
TOPB Committed Development												
Royal Poinciana Playhouse	1				1		1		1			
Breakers	8	1		4	1		14		8		15	4
Palm House Hotel												
165 Bradley Place	1	1		1	1		1		1			
TOPB Subtotal	10	2	0	4	2	1	1	14	10	0	15	4
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%		40.0%			
Inbound Traffic Volumes												
Outbound Traffic Assignment	40.0%					15.0%						
Outbound Traffic Volumes												
WPB Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Volumes	288	614	27	4	611	275	171	62	352	27	76	6
Project Traffic												
Inbound Traffic Assignment		30.0%					25.0%					
Inbound Traffic Volumes		14					12					
Outbound Traffic Assignment					30.0%	25.0%						
Outbound Traffic Volumes					7	6						
Project Traffic	0	14	0	0	7	6	12	0	0	0	0	0
TOTAL TRAFFIC	288	628	27	4	618	281	183	62	352	27	76	6

Inbound
0
Outbound
0

Inbound
47
Outbound
23

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 3/13/2024	217	364	32	0	502	375	200	66	228	42	87	16
Peak Season Volume	217	364	32	0	502	375	200	66	228	42	87	16
Historic Growth (2.33%) Traffic Volume Growth	16	26	2	0	36	27	14	5	16	3	6	1
TOPB Committed Development												
Royal Poinciana Playhouse	12				12		5		5			
Breakers	16	1		7	2		28		16		16	4
Palm House Hotel												
165 Bradley Place	1	1		1	1		1		1			
TOPB Subtotal	29	2	0	7	3	12	5	28	22	0	16	4
WPB Committed Traffic												
Inbound Traffic Assignment							15.0%		40.0%			
Inbound Traffic Volumes							23		62			
Outbound Traffic Assignment	40.0%					15.0%						
Outbound Traffic Volumes	76					29						
WPB Subtotal	76	0	0	0	0	29	23	0	62	0	0	0
Background Traffic Volumes	338	392	34	7	541	443	242	99	328	45	109	21
Project Traffic												
Inbound Traffic Assignment		30.0%					25.0%					
Inbound Traffic Volumes		23					19					
Outbound Traffic Assignment					30.0%	25.0%						
Outbound Traffic Volumes					11	10						
Project Traffic	0	23	0	0	11	10	19	0	0	0	0	0
TOTAL TRAFFIC	338	415	34	7	552	453	261	99	328	45	109	21

Inbound
155
Outbound
191

Inbound
77
Outbound
38



SIMMONS & WHITE

UNCOMPROMISED CLIENT SERVICE

2581 Metrocentre Blvd. W., #3
West Palm Beach, FL 33407
Ph: (561) 478-7848 Fax: (561) 478-3738
Website: simmonsandwhite.com

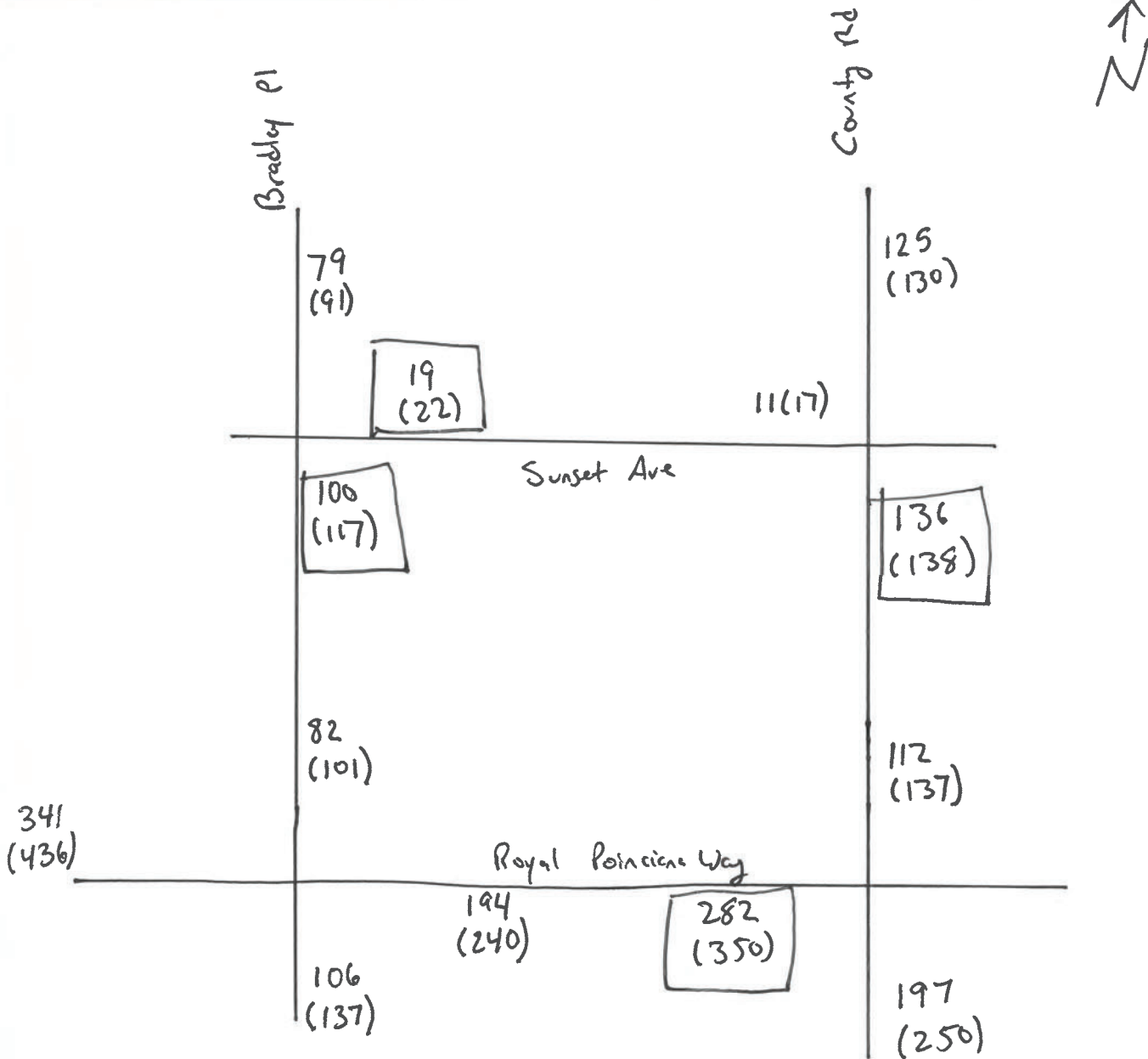
JOB NAME: _____

JOB NO: _____

BY: _____

DATE: _____

SHEET NO: _____ OF: _____



Background Trips per Intersection Analysis. For segments with two volumes, the highest volume (boxed) was used.



APPENDIX F

TPS APPROVAL LETTER



**Department of Engineering
and Public Works**

P.O. Box 21229

West Palm Beach, FL 33416-1229

(561) 684-4000

FAX: (561) 684-4050

www.pbcgov.com



**Palm Beach County
Board of County
Commissioners**

Maria Sachs, Mayor

Maria G. Marino, Vice Mayor

Gregg K. Weiss

Michael A. Barnett

Marci Woodward

Sara Baxter

Mack Bernard

County Administrator

Verdenia C. Baker

*"An Equal Opportunity
Affirmative Action Employer"*



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and recycled paper

September 17, 2024

Bryan Kelley, P.E.
Simmons & White, Inc.,
2581 Metrocentre Blvd West, Ste 3
West Palm Beach, FL 33407

**RE: Palm Beach Synagogue
Project #: 240819 (previously 230718)
Traffic Performance Standards (TPS) Review**

Dear Mr. Kelley:

The Palm Beach County Traffic Division has reviewed the above referenced project Traffic Impact Statement, updated September 16, 2024, pursuant to the Traffic Performance Standards in Article 12 of the Palm Beach County (PBC) Unified Land Development Code (ULDC). The project is summarized as follows:

Municipality:	Palm Beach
Location:	NWC of Sunset Avenue and N County Road
PCN:	50-43-43-22-31-000-1730/-1751
Access:	Access driveway connection onto Sunset Avenue <u>(As used in the study and is NOT necessarily an approval by the County through this TPS letter)</u>
Existing Uses:	Gen. Office = 2,575 SF Church/Synagogue = 11,007 SF Fine Dining Restaurant = 5,979 SF (previously existed, but currently not in operation)
Proposed Uses:	Redevelop the site with: Church/Synagogue = 31,573 SF (with ancillary 4,220 SF Youth and Student Learning space, and ancillary 4,388 SF Administrative Office)
New Daily Trips:	-133
New Peak Hour Trips:	3 (3/0) AM; -17 (-12/-5) PM
Build-out:	December 31, 2028

Based on the review, the Traffic Division has determined that the proposed development generates less than 21 peak hour trips and, therefore, a detailed traffic study is not required. The project is expected to have insignificant traffic impact.

Please note the receipt of a TPS approval letter does not constitute the review and issuance of a Palm Beach County Right-of-Way (R/W) Construction Permit nor does it eliminate any requirements that may be deemed as site related. For work within Palm Beach County R/W, a detailed review of the project will be provided upon submittal for a R/W permit application. The project is required to comply with all Palm Beach County standards and may include R/W dedication.

No building permits are to be issued by the Town after the build-out date specified above. The County traffic concurrency approval is subject to the Project Aggregation Rules set forth in the Traffic Performance Standards Ordinance.



Bryan Kelley, P.E.
September 17, 2024
Page 2

The approval letter shall be valid no longer than one year from date of issuance, unless an application for a Site Specific Development Order has been approved, an application for a Site Specific Development Order has been submitted, or the approval letter has been superseded by another approval letter for the same property.

If you have any questions regarding this determination, please contact me at 561-684-4030 or email QBari@pbc.gov

Sincerely,

A handwritten signature in black ink, which appears to read "Quazi Bari".

Quazi Bari, P.E., PTOE
Manager, Growth Management
Traffic Division

QB:jb

cc: addressee

James Murphy, Assistant Director, Town of Palm Beach
Alberto Lopez, Technical Assistant III, Traffic Division

File: General - TPS - Mun - Traffic Study Review
F:\TRAFFIC\HAMUNICIPALITIES\APPROVALS\2024\240819 - PALM BEACH SYNAGOGUE.DOCX;



APPENDIX G

ROADWAY CONCURRENCY ANALYSIS

TABLE 17
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
AM PEAK HOUR

2028 BUILD OUT
DIRECTLY ACCESSED LINKS
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 2
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 1

ROADWAY	FROM	TO	PROJECT DISTRIBUTION		IN/OUT	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS		EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
SUNSET AVENUE SUNSET AVENUE	BRADLEY PLACE SITE	SITE COUNTY ROAD	100% 100%	IN OUT		2 1	1 (ONE-WAY)		II	750 750	0.27% 0.13%	NO NO
COUNTY ROAD COUNTY ROAD	SUNRISE AVENUE SUNSET AVENUE	SUNSET AVENUE* ROYAL POINCIANA WAY*	40% 60%	OUT OUT		0 1	4L 4L		II II	1223 1223	0.03% 0.05%	NO NO
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	20% IN + 30% OUT	OUT		1	4D		II	1630	0.04%	NO
BRADLEY PLACE BRADLEY PLACE	SUNRISE AVENUE SUNSET AVENUE	SUNSET AVENUE ROYAL POINCIANA WAY	40% 60%	IN IN		1 1	2 2		II II	750 750	0.11% 0.16%	NO NO

Notes:
* Reduced by 25% due to no left turn lanes
2020 FDOT QLOS Tables utilized for LOS D thresholds

TABLE 18
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
PM PEAK HOUR

2028 BUILD OUT
DIRECTLY ACCESSED LINKS
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 3
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 3

ROADWAY	FROM	TO	PROJECT DISTRIBUTION	IN/OUT	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS		EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
SUNSET AVENUE SUNSET AVENUE	BRADLEY PLACE SITE	SITE COUNTY ROAD	100%	IN	3	1 (ONE-WAY)	II	750	0.40%	NO	
			100%	OUT	3				0.40%	NO	
COUNTY ROAD COUNTY ROAD	SUNRISE AVENUE SUNSET AVENUE	SUNSET AVENUE* ROYAL POINCIANA WAY*	40%	OUT	1	4L	II	1223	0.10%	NO	
			60%	OUT	2				4L	0.15%	NO
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	20% IN + 30% OUT	OUT	2	4D	II	1630	0.09%	NO	
BRADLEY PLACE BRADLEY PLACE	SUNRISE AVENUE SUNSET AVENUE	SUNSET AVENUE ROYAL POINCIANA WAY	40%	IN	1	2	II	750	0.16%	NO	
			60%	IN	2				2	0.24%	NO

Notes:
* Reduced by 25% due to no left turn lanes
2020 FDOT QLOS Tables utilized for LOS D thresholds

TABLE 19
TOWN ROADWAY SEGMENT ANALYSIS
AM PEAK HOUR

2028 BUILD OUT

TOTAL AM PEAK HOUR PROJECT TRIPS (EN 2
TOTAL AM PEAK HOUR PROJECT TRIPS (EX 1

BASED ON NET TRIPS ASSUMING NO RESTAURANT USE

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C			LOS D			LOS E			EXISTING PEAK HOUR LOS			2028 TOTAL BCKGRD BCKGRD BCKGRD			PROJECT DISTRIBUTION		AM PEAK HOUR DIRECTIONAL PROJECT TRIPS		2027 TOTAL TRAFFIC	2027 TOTAL LOS
						PEAK HOUR CAPACITY	V/C RATIO	LOS C	PEAK HOUR CAPACITY	V/C RATIO	LOS D	PEAK HOUR CAPACITY	V/C RATIO	LOS E	PEAK HOUR LOS	BCKGRD TRAFFIC	BCKGRD TRAFFIC	BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	IN/OUT					
SUNSET AVENUE SUNSET AVENUE COUNTY ROAD COUNTY ROAD	BRADLEY PLACE SITE	SITE	1L COL - One Way	201	II	333	0.60	0.30	675	0.30	720	0.28	0.16	C	22	223	C	100%	IN	OUT	100%	IN	2	225	C	
		COUNTY ROAD	1L COL - One Way	113	II	333	0.34	0.17	675	0.17	720	0.16	C	17	130	C	100%	OUT	OUT	100%	OUT	1	131	C		
	SUNRISE AVENUE SUNSET AVENUE	SUNRISE AVENUE	4L ART - Undivided	1594	II	983	1.62	0.73	2190	0.73	2280	0.70	0.70	D	130	1724	D	40%	OUT	OUT	40%	OUT	0	1724	D	
		SUNSET AVENUE	ROYAL POINCIANA WAY	4L ART - Undivided	1594	II	983	1.62	0.73	2190	0.73	2280	0.70	0.70	D	138	1732	D	60%	OUT	OUT	60%	OUT	1	1733	D
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1307	II	1310	1.00	0.45	2920	0.45	3040	0.43	C	350	1657	D	20% IN + 30% OUT	1	1658	D						
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1249	II	594	2.10	1.04	1197	1.04	1269	0.98	E	91	1340	F	40%	IN	IN	40%	IN	1	1341	F		
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1249	II	594	2.10	1.04	1197	1.04	1269	0.98	E	117	1366	F	60%	IN	IN	60%	IN	1	1367	F		

Notes:

2020 FDOT QLOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compiled by Kintley Hor
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 20
TOWN ROADWAY SEGMENT ANALYSIS
PM PEAK HOUR

2028 BUILD OUT

TOTAL PM PEAK HOUR PROJECT TRIPS (ENT3)
TOTAL PM PEAK HOUR PROJECT TRIPS (EXI 3)

BASED ON NET TRIPS ASSUMING NO RESTAURANT USE

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C			LOS D			LOS E			EXISTING PEAK HOUR			2028 TOTAL			PROJECT DISTRIBUTION	IN/OUT	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS		2027 TOTAL TRAFFIC	2027 TOTAL LOS
						PEAK HOUR CAPACITY	V/C RATIO	LOS C	PEAK HOUR CAPACITY	V/C RATIO	LOS D	PEAK HOUR CAPACITY	V/C RATIO	LOS E	PEAK HOUR LOS	BCKGRD TRAFFIC	2028 BCKGRD TRAFFIC	2028 LOS								
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	227	II	333	0.68	333	675	0.34	720	0.32	C	C	19	246	C	C	100%	100%	IN	3	249	C		
	SUNSET AVENUE	COUNTY ROAD	1L COL - One Way	181	II	333	0.54	333	675	0.27	720	0.25	C	C	11	192	C	C	100%	100%	OUT	3	195	C		
	COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	1486	II	983	1.51	983	2190	0.68	2280	0.65	D	D	125	1611	D	D	40%	40%	OUT	1	1612	D		
	COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY* 4L ART - Undivided	1486	II	983	1.51	983	2190	0.68	2280	0.65	D	D	136	1622	D	D	60%	60%	OUT	2	1624	D		
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1325	II	1310	1.01	1310	2920	0.45	3040	0.44	D	D	282	1607	D	D	20% IN + 30% OUT	20% IN + 30% OUT	OUT	2	1609	D		
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1260	II	594	2.12	594	1197	1.05	1269	0.99	E	E	79	1339	F	F	40%	40%	IN	1	1340	F		
BRADLEY PLACE	SUNRISE AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1260	II	594	2.12	594	1197	1.05	1269	0.99	E	E	100	1360	F	F	60%	60%	IN	2	1362	F		

Notes:

2020 FDOT QLOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compiled by Krimley Hor
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 21
TOWN ROADWAY SEGMENT ANALYSIS
AM PEAK HOUR

2028 BUILD OUT																									
TOTAL AM PEAK HOUR PROJECT TRIPS (EN '3																									
TOTAL AM PEAK HOUR PROJECT TRIPS (EX10																									
BASED ON NET TRIPS ASSUMING VESTED RESTAURANT																									
ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK		ROAD		LOS C		LOS D		LOS E		EXISTING		2028		PROJECT		AM PEAK HOUR		2027 TOTAL TRAFFIC	2027 TOTAL LOS		
				VOLUME	CLASS	PEAK HOUR	V/C	CAPACITY	RATIO	PEAK HOUR	V/C	CAPACITY	RATIO	PEAK HOUR	LOS	BKGRD TRAFFIC	BKGRD LOS	DISTRIBUTION	IN/OUT	DIRECTIONAL TRIPS					
SUNSET AVENUE	BRADLEY PLACE SITE	SITE	1L COL - One Way	201	II	333	0.60	675	0.30	720	0.28	C	22	223	C	100%	IN	3	226	C					
		COUNTY ROAD	1L COL - One Way	113	II	333	0.34	675	0.17	720	0.16	C	17	130	C	100%	OUT	0	130	C					
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	130	1724	D	40%	OUT	0	1724	D					
		COUNTY ROAD	ROYAL POINCIANA WAY	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	138	1732	D	60%	OUT	0	1732	D				
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1307	II	1310	1.00	2920	0.45	3040	0.43	C	350	1657	D	20% IN + 30% OUT	1	1658	D						
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	91	1340	F	40%	IN	1	1341	F					
		COUNTY ROAD	ROYAL POINCIANA WAY	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	117	1366	F	60%	IN	2	1368	F				

Notes:

2020 FDOT QILOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report completed by Kirtley Hor
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 22
TOWN ROADWAY SEGMENT ANALYSIS
PM PEAK HOUR

2028 BUILD OUT

TOTAL PM PEAK HOUR PROJECT TRIPS (ENT-12)
TOTAL PM PEAK HOUR PROJECT TRIPS (EXI -4)

BASED ON NET TRIPS ASSUMING VESTED RESTAURANT

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C			LOS D			LOS E			EXISTING PEAK HOUR LOS			2028 TOTAL BCKGRD TRAFFIC			PROJECT DISTRIBUTION			PM PEAK HOUR DIRECTIONAL PROJECT TRIPS			2027 TOTAL TRAFFIC	2027 TOTAL LOS
						PEAK HOUR CAPACITY	V/C RATIO	LOS	PEAK HOUR CAPACITY	V/C RATIO	LOS	PEAK HOUR CAPACITY	V/C RATIO	LOS	PEAK HOUR LOS	BCKGRD TRAFFIC	BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	IN/OUT	IN/OUT	IN/OUT						
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	227	II	333	0.68	0.34	675	0.34	0.32	720	0.32	C	C	19	246	C	100%	IN	IN	100%	IN	-12	234	C		
	SUNSET AVENUE	COUNTY ROAD	1L COL - One Way	181	II	333	0.54	0.27	675	0.27	0.25	720	0.25	C	C	11	192	C	100%	OUT	OUT	100%	OUT	-4	188	C		
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	4L ART - Undivided	1486	II	983	1.51	0.68	2190	0.68	0.65	2280	0.65	D	D	125	1611	D	40%	OUT	OUT	40%	OUT	-2	1609	D		
	COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY* 4L ART - Undivided	1486	II	983	1.51	0.68	2190	0.68	0.65	2280	0.65	D	D	136	1622	D	60%	OUT	OUT	60%	OUT	-2	1620	D		
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1325	II	1310	1.01	0.45	2920	0.45	0.44	3040	0.44	D	D	282	1607	D	20% IN + 30% OUT	OUT	OUT	20% IN + 30% OUT	OUT	-4	1603	D		
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1260	II	594	2.12	1.05	1197	1.05	0.99	1269	0.99	E	E	79	1339	F	40%	IN	IN	40%	IN	-5	1334	F		
BRADLEY PLACE	SUNRISE AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1260	II	594	2.12	1.05	1197	1.05	0.99	1269	0.99	E	E	100	1360	F	60%	IN	IN	60%	IN	-7	1353	F		

Notes:

2020 FDOT QILOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report completed by Kirtley Hor
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's
Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	830	880	**	2	2,230	3,100	3,740	4,080	
2	Divided	*	1,910	2,000	**	3	3,280	4,570	5,620	6,130	
3	Divided	*	2,940	3,020	**	4	4,310	6,030	7,490	8,170	
4	Divided	*	3,970	4,040	**	5	5,390	7,430	9,370	10,220	
						6	6,380	8,990	11,510	12,760	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	370	750	800	2	2,270	3,100	3,890	4,230	
2	Divided	*	730	1,630	1,700	3	3,410	4,650	5,780	6,340	
3	Divided	*	1,170	2,520	2,560	4	4,550	6,200	7,680	8,460	
4	Divided	*	1,610	3,390	3,420	5	5,690	7,760	9,520	10,570	
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)						Freeway Adjustments					
Non-State Signalized Roadways - 10%						Auxiliary Lane + 1,000 Ramp Metering + 5%					
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
1	Divided	Yes	No	+5%		1	Undivided	580	890	1,200	1,610
1	Undivided	No	No	-20%		2	Divided	1,800	2,600	3,280	3,730
Multi	Undivided	Yes	No	-5%		3	Divided	2,700	3,900	4,920	5,600
Multi	Undivided	No	No	-25%							
—	—	—	Yes	+ 5%							
One-Way Facility Adjustment Multiply the corresponding directional volumes in this table by 1.2						Uninterrupted Flow Highway Adjustments					
						Lanes	Median	Exclusive left lanes	Adjustment factors		
						1	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
Lane Coverage	B	C	D	E		³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%	*	150	390	1,000		* Cannot be achieved using table input value defaults.					
50-84%	110	340	1,000	>1,000		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%	470	1,000	>1,000	**		Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/					
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	140	480							
50-84%	*	80	440	800							
85-100%	200	540	880	>1,000							
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's
Urbanized Areas¹

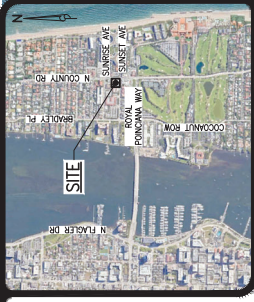
January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
Non-State Signalized Roadway Adjustments						Freeway Adjustments					
(Alter corresponding state volumes by the indicated percent.)						Auxiliary Lanes					
Non-State Signalized Roadways - 10%						Present in Both Directions + 1,800					
Median & Turn Lane Adjustments						Ramp Metering + 5%					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		UNINTERRUPTED FLOW HIGHWAYS					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	1,050	1,620	2,180	2,930
Multi	Undivided	Yes	No	-5%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	No	No	-25%		6	Divided	4,910	7,090	8,950	10,180
—	—	—	Yes	+ 5%		Uninterrupted Flow Highway Adjustments					
One-Way Facility Adjustment						Lanes	Median	Exclusive left lanes	Adjustment factors		
Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE²						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
Paved						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
Shoulder/Bicycle						* Cannot be achieved using table input value defaults.					
Lane Coverage	B	C	D	E		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
0-49%	*	260	680	1,770		Source:					
50-84%	190	600	1,770	>1,770		Florida Department of Transportation					
85-100%	830	1,700	>1,770	**		Systems Implementation Office					
PEDESTRIAN MODE²						https://www.fdot.gov/planning/systems/					
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	250	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770							
BUS MODE (Scheduled Fixed Route)³											
(Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							



APPENDIX H

SUNDAY SCHOOL OPERATIONAL PLAN & EVENT VALET CIRCULATION PLAN



LOCATION MAP
NOT TO SCALE



SCALE IN FEET
1"=10'

LEGEND

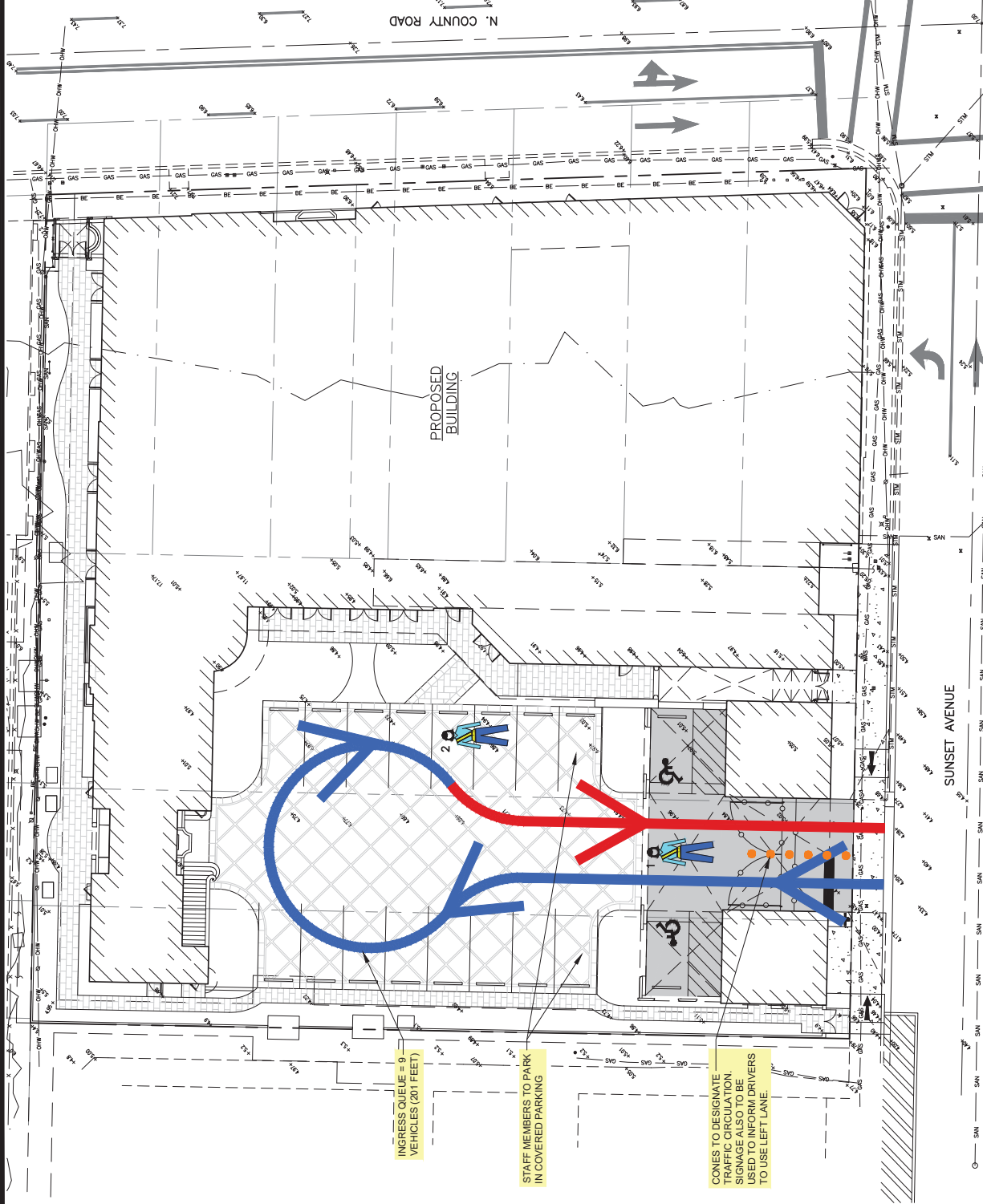
INGRESS QUEUE
EGRESS PATH

TRAINED STAFF MEMBER FOR
FLOW CONTROL - SEE BELOW
FOR DETAILED DESCRIPTION
OF EACH STAFF MEMBER'S
RESPONSIBILITIES AND DUTIES.



OPERATIONAL MANAGEMENT
STAFF DUTIES

- 1 STAFF MEMBER TO ASSIST W/
VEHICLE CIRCULATION.
- 2 STAFF MEMBER TO HELP
LOADING/UNLOADING OF STUDENTS.



SUNSET AVENUE

12/9/2024



PALM BEACH SYNOGOGUE
SECTION 22, TOWNSHIP 43S, RANGE 43E
TOWN OF PALM BEACH, FLORIDA
SUNDAY SCHOOL TRAFFIC OPERATIONAL
MANAGEMENT PLAN

REVISIONS	DESIGN	DRAWN	CHECKED	APPROVED	DATE	JOB NO.	DRAWING NO.	SHEET	OF
	B.K.	C.O.				24-073	24073201	1	1

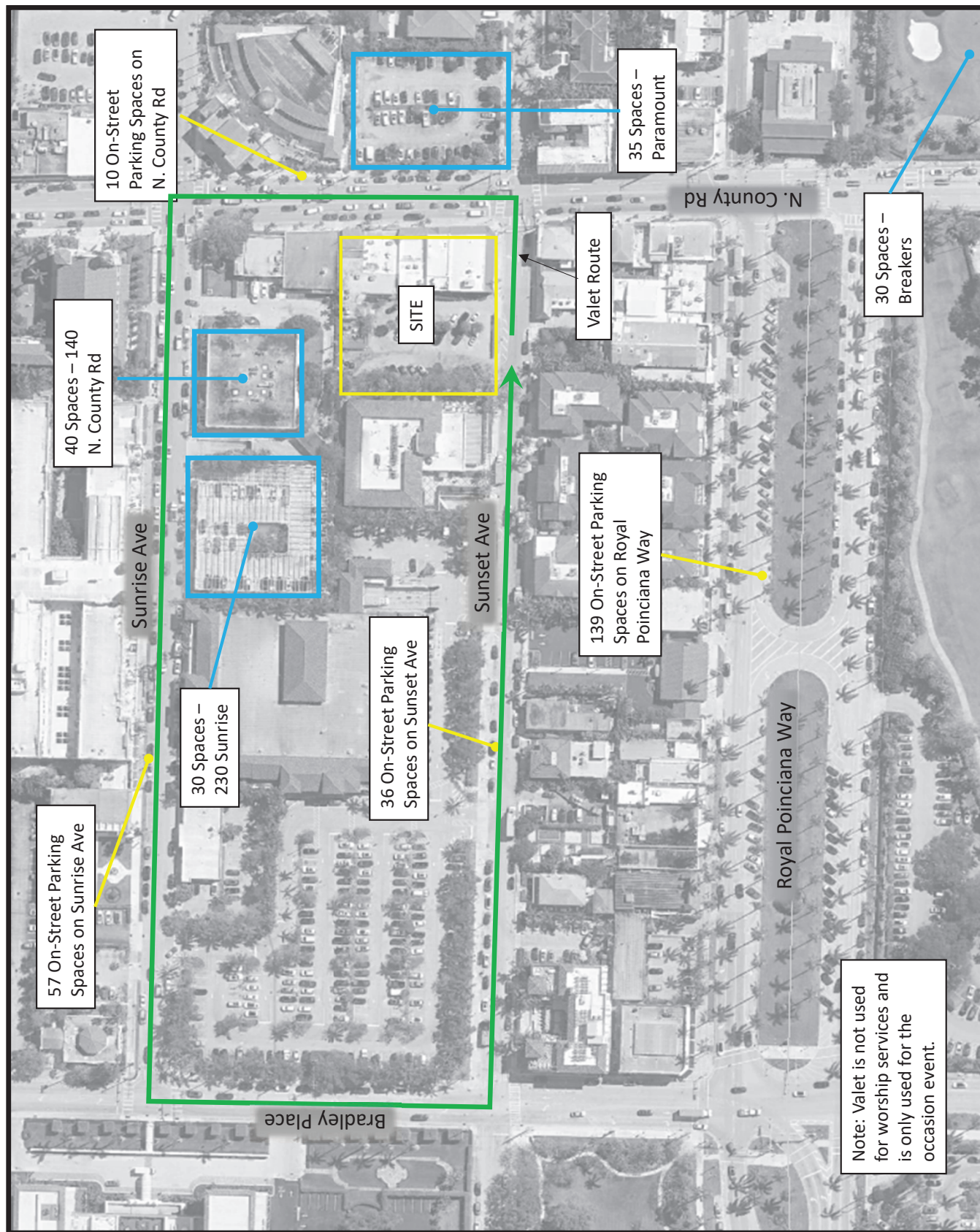


Figure 3 – Valet Circulation Route
Palm Beach Synagogue
Project # 24-073



APPENDIX I

QUEUE CALCULATIONS

Queuing Calculations - SUNDAY SCHOOL

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho} \right] - 1$$

Q = 60 Processing rate (processes per hour)
 q = 63 Demand rate (vehicles per hour)
 N = 2 Service positions (attendants)
 ρ = 0.525 Utilization factor (q/(NQ))
 Q_m = 0.363 Table Value
 M = 2.07

	N = 1	2	3	4	6	8	10
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1	0.1000	0.1820	0.0037	0.0080	0.0000	0.0000	0.0000
0.2	0.2000	0.0666	0.0247	0.0096	0.0015	0.0002	0.0000
0.3	0.3000	0.1385	0.0700	0.0370	0.0111	0.0036	0.0011
0.4	0.4000	0.2286	0.1411	0.0907	0.0400	0.0185	0.0088
0.5	0.5000	0.3333	0.2368	0.1739	0.0991	0.0591	0.0360
0.6	0.6000	0.4501	0.3548	0.2870	0.1965	0.1395	0.1013
0.7	0.7000	0.5766	0.4923	0.4286	0.3359	0.2706	0.2218
0.8	0.8000	0.7111	0.6472	0.5964	0.5178	0.4576	0.4093
0.9	0.9000	0.8526	0.8172	0.7878	0.7401	0.7014	0.6687
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Interpolate	X	Y
Low Number =	0.5000	0.3333
High Number =	0.6000	0.4501

Queuing Calculations - WEDDING/EVENT - 150 Attendees

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho} \right] - 1$$

Q = 20 Processing rate (processes per hour)
 q = 60 Demand rate (vehicles per hour)
 N = 5 Service positions (attendants)
 ρ = 0.600 Utilization factor (q/(NQ))
 Q_m = 0.242 Table Value
 M = 2.08

	N = 1	2	3	4	6	8	10
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1	0.1000	0.1820	0.0037	0.0080	0.0000	0.0000	0.0000
0.2	0.2000	0.0666	0.0247	0.0096	0.0015	0.0002	0.0000
0.3	0.3000	0.1385	0.0700	0.0370	0.0111	0.0036	0.0011
0.4	0.4000	0.2286	0.1411	0.0907	0.0400	0.0185	0.0088
0.5	0.5000	0.3333	0.2368	0.1739	0.0991	0.0591	0.0360
0.6	0.6000	0.4501	0.3548	0.2870	0.1965	0.1395	0.1013
0.7	0.7000	0.5766	0.4923	0.4286	0.3359	0.2706	0.2218
0.8	0.8000	0.7111	0.6472	0.5964	0.5178	0.4576	0.4093
0.9	0.9000	0.8526	0.8172	0.7878	0.7401	0.7014	0.6687
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Interpolate	X	Y
Low Number =	0.6000	0.2418
High Number =	0.7000	0.3823

Queuing Calculations - WEDDING/EVENT - 250 Attendees

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho} \right] - 1$$

Q = 20 Processing rate (processes per hour)
 q = 100 Demand rate (vehicles per hour)
 N = 7 Service positions (attendants)
 ρ = 0.714 Utilization factor (q/(NQ))
 Q_m = 0.330 Table Value
 M = 4.60

	N = 1	2	3	4	6	8	10
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1	0.1000	0.1820	0.0037	0.0080	0.0000	0.0000	0.0000
0.2	0.2000	0.0666	0.0247	0.0096	0.0015	0.0002	0.0000
0.3	0.3000	0.1385	0.0700	0.0370	0.0111	0.0036	0.0011
0.4	0.4000	0.2286	0.1411	0.0907	0.0400	0.0185	0.0088
0.5	0.5000	0.3333	0.2368	0.1739	0.0991	0.0591	0.0360
0.6	0.6000	0.4501	0.3548	0.2870	0.1965	0.1395	0.1013
0.7	0.7000	0.5766	0.4923	0.4286	0.3359	0.2706	0.2218
0.8	0.8000	0.7111	0.6472	0.5964	0.5178	0.4576	0.4093
0.9	0.9000	0.8526	0.8172	0.7878	0.7401	0.7014	0.6687
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Interpolate	X	Y
Low Number =	0.7000	0.3033
High Number =	0.8000	0.4877

Practitioners can best obtain measured data on planned special event modal split through conducting a survey of event patrons. Appendix D contains an Internet-based event patron evaluation survey for those attending the 2003 Fair Saint Louis festival. In addition to querying event patrons on mode of travel, obtaining origin location information (e.g., zip code) assists event planning team stakeholders configure transit schedules or express and charter bus services for future similar events.

Event Traffic Generation

Unlike other traffic generators such as commercial developments, planned special event practitioners typically have advance knowledge of event attendance and, in turn, can develop traffic generation estimates via vehicle occupancy factors. On the other hand, traffic generation rates, based on event traffic volume or parking occupancy data, may not be appropriate for transfer and application from one special event to another. Too many variables exist with regard to event category, event logistics, event popularity, weather, and parking characteristics. Event operations and other external variables affect any application of historical data to future events.

Table 5-13 outlines a two-step process for forecasting event traffic generation. Input data includes a modal split estimate since the traffic generation forecast aims to estimate the number of event-generated trips by personal automobile. In the absence of a daily attendance estimate, practitioners can use percentage of venue capacity as a base. However, many continuous events or street use events do not have a pre-specified venue capacity. Continuous events, such as fairs and festivals, often run for two or more days. Attendance generally fluctuates greatly from day to day, with Saturday operations yielding the highest daily attendance. A study of two-day (Saturday/Sunday) festivals in West Virginia indicated 58 percent of the total festival attendance was on Saturday. (18) The same study noted the following total event attendance distribution for three-day festivals: 20 percent on Friday, 50 percent on Saturday, and 30 percent on Sunday. It should be recognized that daily attendance reflects scheduled headline entertainment or other main festival events.

Table 5-13. Traffic Generation Forecast Process

Component	Detail
Input Data	- Daily attendance - Percent automobile trips - Vehicle occupancy factor
Method	Step 1. (Daily Attendance) x (Percent Automobile Trips) = Person Trips Via Automobile Step 2. (Person Trips) / (Vehicle Occupancy Factor) = Vehicle Trips
Result	Number of vehicle trips by personal automobile both to and from the event

Vehicle occupancy factors can serve as the basis for estimating event-generated traffic. Table 5-14 lists average vehicle occupancy factors for select discrete/recurring events at a permanent venue and continuous events. A discrete/recurring event at a permanent venue that occurs on the weekend will likely have a higher vehicle occupancy factor due to families and groups of tailgaters. A vehicle occupancy factor of 2.5 persons per vehicle represents a common assumption, however for forecasting purposes, practitioners should consider a range of factors from 2.2 to 2.8 depending on local conditions. (15)

**Table 5-14a. Example Planned Special Event Vehicle Occupancy Factors:
Discrete/Recurring Event at a Permanent Venue**

Event	Attendance	Average Vehicle Occupancy
San Francisco Giants baseball games – August 2000 (14)	38,000 – 41,000 (capacity 41,000)	2.8 persons per automobile
Anaheim Angels weeknight baseball game – July 1997(15)	18,197 (capacity 37,000)	2.6 persons per automobile
Cleveland Indians Saturday baseball game – July 1997(15)	43,070 (capacity 43,368)	2.64 persons per automobile



APPENDIX J

N. COUNTY ROAD TRAFFIC COUNTS

QC JOB #: 16842102									
LOCATION: County Rd btwn Sunrise Ave and Sunset Ave									
SPECIFIC LOCATION:									
CITY/STATE: Palm Beach, FL									
DATE: Nov 21 2024 - Nov 24 2024									
Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic
12:00 AM				33	34	34	71	35	43
01:00 AM				18	31	25	36	43	32
02:00 AM				6	18	12	23	16	16
03:00 AM				15	10	13	14	15	14
04:00 AM				25	20	23	22	15	21
05:00 AM				60	45	53	32	30	42
06:00 AM				203	296	250	166	131	199
07:00 AM				811	831	821	374	280	574
08:00 AM				1033	1063	1048	517	384	749
09:00 AM				1001	1182	1092	645	497	831
10:00 AM				929	1071	1000	704	530	809
11:00 AM				1083	1150	1117	737	638	902
12:00 PM				1137	1207	1172	748	592	921
01:00 PM				1115	1080	1098	737	613	886
02:00 PM				1116	1142	1129	755	558	893
03:00 PM				1139	1175	1157	798	544	914
04:00 PM				1035	1227	1131	651	558	868
05:00 PM				929	762	846	656	494	710
06:00 PM				549	637	593	539	384	527
07:00 PM				350	419	385	380	250	350
08:00 PM				292	355	324	320	288	314
09:00 PM				271	306	289	342	203	281
10:00 PM				175	205	190	187	96	166
11:00 PM				81	115	98	115	85	99
Day Total				13406	14381	13900	9569	7279	11161
% Weekday Average				96.4%	103.5%				
% Week Average				120.1%	128.9%	124.5%	85.7%	65.2%	
AM Peak Volume				11:00 AM 1083	9:00 AM 1182	11:00 AM 1117	11:00 AM 737	11:00 AM 638	11:00 AM 902
PM Peak Volume				3:00 PM 1139	4:00 PM 1227	12:00 PM 1172	3:00 PM 798	1:00 PM 613	12:00 PM 921
Comments:									

LOCATION: County Rd btwn Sunrise Ave and Sunset Ave Q2nd round										
SF, CIVIC LOCATION:										
CITChSTAT, : Falm 1eaNW/YL										
BC #01 6: 80P428E4 DIR, CTION: N1/S1 DAT, : DeMg 2E24 - DeMP 2E24										
Start Time	k on	Tue	H ed	TWd	Yri	Avera3e H ee7day 5 ourly Traffim	Sat	Sun	Avera3e H ee7 5 ourly Traffim	Avera3e H ee7 Profile
82:EE Ak				g2	4%	4P	0%	. 4	0%	
E8:EE Ak				2%	%4	2.	%g	gg	%g	
E2:EE Ak				8	82	9	28	%P	8P	
E%EE Ak				8g	8%	84	82	24	80	
E4:EE Ak				8.	28	2E	8%	8.	8P	
Eg:EE Ak				40	4.	4P	%0	48	4%	
E0:EE Ak				8. 8	2E%	8. 9	848	848	80.	
E9:EE Ak				0%g	92E	090	%gg	29P	4. 0	
EP:EE Ak				8E%g	8E%2	8E%8	4. 4	4E2	94E	
E. :EE Ak				8Eg4	8E98	8E0%	0E%	g88	P8E	
8E:EE Ak				. %2	882g	8E2.	00P	0E4	P%2	
88:EE Ak				8E98	88gP	888g	9E.	9E2	. 8E	
82:EE Fk				8E99	88. P	88%P	P84	9E4	. 4P	
E8:EE Fk				8E44	8E9g	8E0E	9%P	0E%	P0g	
E2:EE Fk				8880	882E	888P	9%E	g44	P9P	
E%EE Fk				8E0E	88. g	882P	P22	gg%	. EP	
E4:EE Fk				88. P	82E.	82E4	9P2	gE9	. 24	
Eg:EE Fk				P4%	9. .	P28	049	g%0	9E0	
E0:EE Fk				0EE	929	004	gP9	429	gPg	
E9:EE Fk				%4g	gE0	420	4. P	%E%	48%	
EP:EE Fk				%gP	42%	%P8	2. g	2%E	%22	
E. :EE Fk				%g9	480	%09	2P0	280	%E.	
8E:EE Fk				800	29E	28P	%80	88P	28P	
88:EE Fk				98	88P	. g	8. .	4P	8E.	
Day Total				8%24E	84g%g	8%P. 9	. P04	90. P	88%g	
U H ee7day Avera3e				. g(%U	8E4(0U					
U H ee7 Avera3e				880(PU	82P(2U	822(0U	P9U	09(. U		
Ak Fea7 Volume				88:EE Ak 8E98	88:EE Ak 88gP	88:EE Ak 888g	88:EE Ak 9E.	88:EE Ak 9E2	88:EE Ak . 8E	
Fk Fea7 Volume				4:EE Fk 88. P	4:EE Fk 82E.	4:EE Fk 82E4	%EE Fk P22	82:EE Fk 9E4	82:EE Fk . 4P	
Comments:										



APPENDIX K

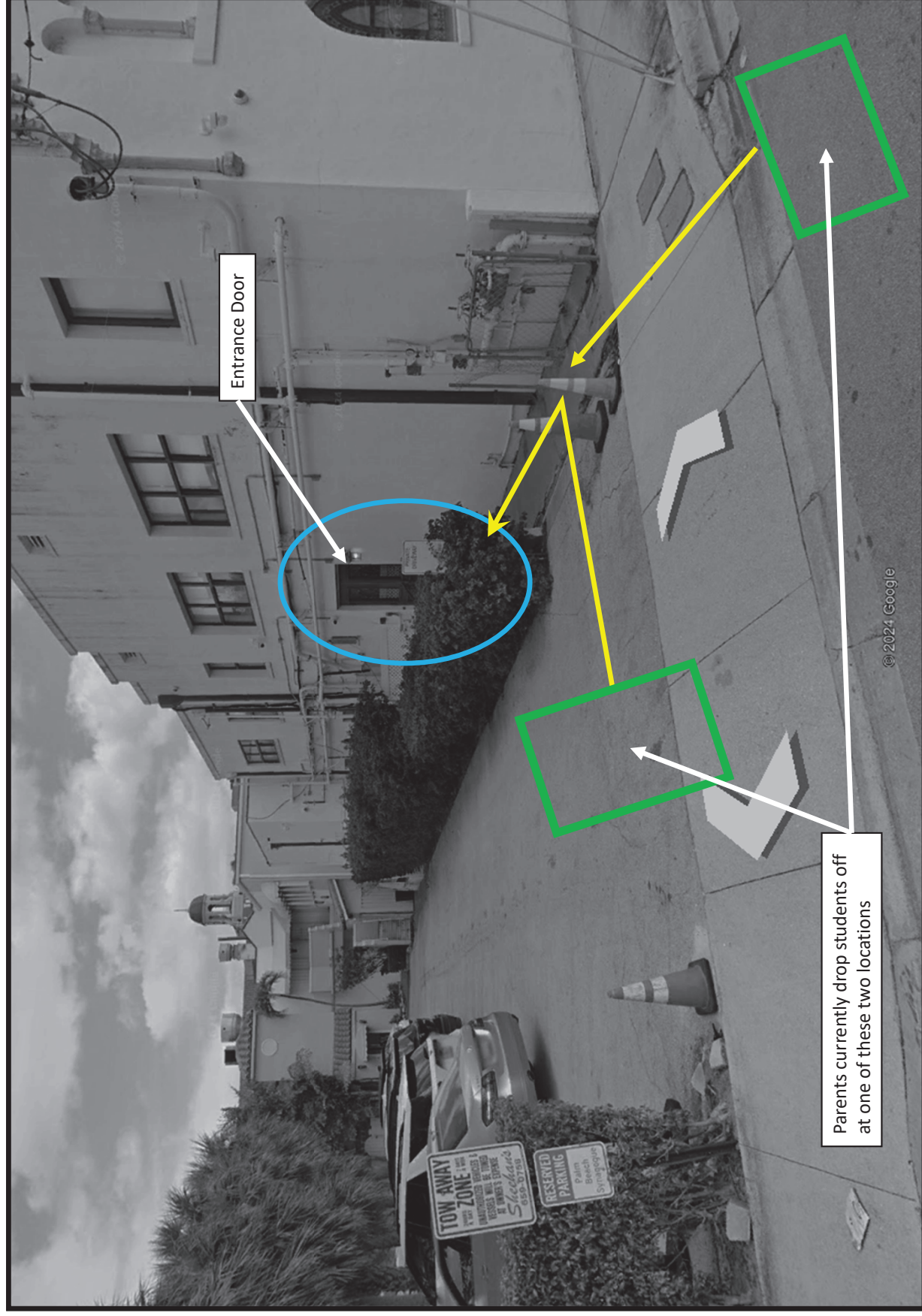
SUNDAY SCHOOL FIELD OBSERVATIONS

Location: Palm Beach Synagogue
Date: Sunday, December 15, 2024

Time	Count	Queue
9:01		
9:03		
9:05		
9:07		
9:09		
9:11		
9:13	0	
9:15	0	
9:17	4	1
9:19	1	1
9:21	2	1
9:23	3	2
9:25	2	1
9:27	1	1
9:29	1	1
9:31	2	1
9:33	2	1
9:35	1	1
9:37	1	1
9:39	1	1
9:41	1	1
9:43	1	1
9:45	2	1
Total =	25	

Time	Count	Queue
12:01		
12:03		
12:05		
12:07		
12:09		
12:11		
12:13	1	
12:15	1	
12:17		
12:19	2	
12:21	1	
12:23		
12:25	1	1
12:27	4	1
12:29	2	1
12:31	3	1
12:33	1	1
12:35	2	1
12:37	1	1
12:39		
12:41		
12:43		
12:45		
Total =	19	

Sunday School Drop Off Location



Sunday School



Sunset at N. County – Looking North
9:27 AM



Sunset at N. County – Looking South
9:27 AM

Sunday School



Synagogue Parking Lot
9:35 AM



Sunset Avenue facing West
9:23 AM

Sunday School



Sunset Avenue facing West
12:29 PM



Sunset Avenue facing West
12:43 PM

Sunday School



Palm Beach Synagogue
12:28 PM



Palm Beach Synagogue
12:35 PM