APPENDIX D

YEAR 2015 INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS (HCM)

YEAR 2015

ONE-WAY OPERATIONS

Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	986	12	50	1217	45	55	11	24	47	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	11	11	11	11	11	13
Grade (%)					0%			0%			0%	
Storage Length (ft)	150	0		160		0	50			0		0
Storage Lanes	1	1		1		0	1			1		1
Taper Length (ft)	60	60		60		60	60			60		60
Lane Util. Factor	1.00	0.88	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.995			0.897				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	2694	0	1652	3280	0	1711	3069	0	1711	1801	1636
Flt Permitted	0.950			0.950			0.752			0.733		
Satd. Flow (perm)	1652	2694	0	1652	3280	0	1354	3069	0	1320	1801	1636
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					6			24				15
Link Speed (mph)					35			25			25	
Link Distance (ft)					595			195			199	
Travel Time (s)					11.6			5.3			5.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)					0%			0%			0%	
Adj. Flow (vph)	14	986	12	50	1217	45	55	11	24	47	8	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	998	0	50	1262	0	55	35	0	47	8	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)					10			11			11	
Link Offset(ft)					0			0			0	
Crosswalk Width(ft)					16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.04	1.04	1.04	1.04	1.04	0.96
Turning Speed (mph)	15	9	9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template		Right								Left		
Leading Detector (ft)	50	20		50	50		50	50		20	50	50
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Turn Type	Prot	custom		Prot			Perm			Perm		Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		4
Detector Phase	1	6		5	2		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	1.0	4.0		1.0	4.0		4.0	4.0		4.0	4.0	4.0

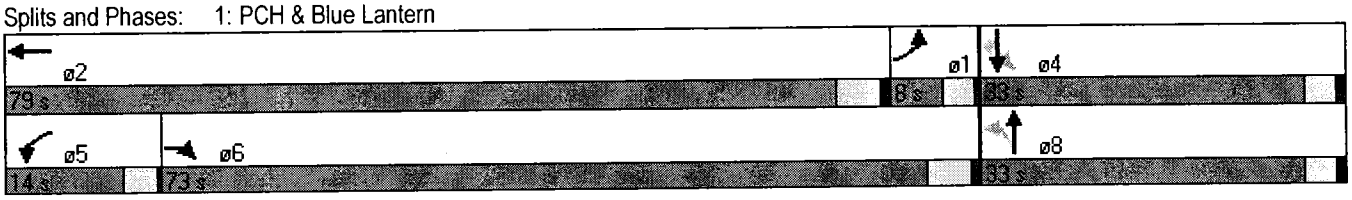
Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Minimum Split (s)	4.5	22.9		4.5	33.9		33.0	33.0		31.0	31.0	31.0
Total Split (s)	8.0	73.0	0.0	14.0	79.0	0.0	33.0	33.0	0.0	33.0	33.0	33.0
Total Split (%)	6.7%	60.8%	0.0%	11.7%	65.8%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	27.5%
Maximum Green (s)	4.5	68.1		10.5	74.1		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	3.0	3.9		3.0	3.9		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.5	1.0		0.5	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	4.9	4.0	3.5	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.5	3.0		1.5	3.0		1.5	1.5		1.5	1.5	1.5
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	C-Max		None	None		None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0			22.0		22.0	22.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		5			5		5	5		5	5	5
Act Effct Green (s)	4.3	92.4		7.4	98.6		11.9	11.9		11.9	11.9	11.9
Actuated g/C Ratio	0.04	0.77		0.06	0.82		0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.23	0.48		0.49	0.47		0.41	0.11		0.36	0.04	0.09
Control Delay	65.6	9.2		66.0	7.3		56.2	21.7		54.2	42.8	18.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	65.6	9.2		66.0	7.3		56.2	21.7		54.2	42.8	18.2
LOS	E	A		E	A		E	C		D	D	B
Approach Delay					9.5			42.8			45.2	
Approach LOS					A			D			D	
90th %ile Green (s)	4.5	68.1		10.5	74.1		29.0	29.0		29.0	29.0	29.0
90th %ile Term Code	Max	Coord		Max	Coord		Ped	Ped		Hold	Hold	Hold
70th %ile Green (s)	4.5	87.9		9.0	92.4		10.7	10.7		10.7	10.7	10.7
70th %ile Term Code	Max	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
50th %ile Green (s)	0.0	91.3		7.5	102.3		8.8	8.8		8.8	8.8	8.8
50th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
30th %ile Green (s)	0.0	94.6		6.1	104.2		6.9	6.9		6.9	6.9	6.9
30th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
10th %ile Green (s)	0.0	115.1		0.0	115.1		0.0	0.0		0.0	0.0	0.0
10th %ile Term Code	Skip	Coord		Skip	Coord		Skip	Skip		Skip	Skip	Skip
Queue Length 50th (ft)	11	142		37	184		42	4		36	6	0
Queue Length 95th (ft)	34	366		84	273		71	17		62	18	18
Internal Link Dist (ft)					515			115			119	
Turn Bay Length (ft)	150			160			50					
Base Capacity (vph)	62	2074		145	2696		327	760		319	435	407
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	0.23	0.48		0.34	0.47		0.17	0.05		0.15	0.02	0.04

Intersection Summary

Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 90 (75%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15

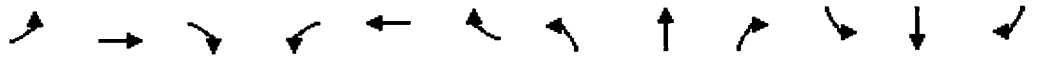
Splits and Phases: 1: PCH & Blue Lantern



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	986	12	50	1217	45	55	11	24	47	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	11	11	11	11	11	13
Total Lost time (s)	3.5	4.9		3.5	4.9		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.88		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	0.99		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1652	2694		1652	3279		1711	3069		1711	1801	1636
Flt Permitted	0.95	1.00		0.95	1.00		0.75	1.00		0.73	1.00	1.00
Satd. Flow (perm)	1652	2694		1652	3279		1355	3069		1320	1801	1636
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	986	12	50	1217	45	55	11	24	47	8	15
RTOR Reduction (vph)	0	0	0	0	1	0	0	22	0	0	0	14
Lane Group Flow (vph)	14	998	0	50	1261	0	55	13	0	47	8	1
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	custom		Prot			Perm			Perm		Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	1.8	89.9		6.6	94.7		11.1	11.1		11.1	11.1	11.1
Effective Green, g (s)	1.8	89.9		6.6	94.7		11.1	11.1		11.1	11.1	11.1
Actuated g/C Ratio	0.02	0.75		0.06	0.79		0.09	0.09		0.09	0.09	0.09
Clearance Time (s)	3.5	4.9		3.5	4.9		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0		1.5	1.5		1.5	1.5	1.5
Lane Grp Cap (vph)	25	2018		91	2588		125	284		122	167	151
v/s Ratio Prot	0.01	c0.37		0.03	c0.38			0.00			0.00	
v/s Ratio Perm							c0.04			0.04		0.00
v/c Ratio	0.56	0.49		0.55	0.49		0.44	0.05		0.39	0.05	0.01
Uniform Delay, d1	58.7	6.0		55.3	4.3		51.5	49.6		51.2	49.6	49.5
Progression Factor	1.00	1.00		0.95	1.17		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.9	0.2		3.4	0.6		0.9	0.0		0.7	0.0	0.0
Delay (s)	74.7	6.2		56.0	5.7		52.4	49.7		52.0	49.7	49.5
Level of Service	E	A		E	A		D	D		D	D	D
Approach Delay (s)					7.6			51.3			51.2	
Approach LOS					A			D			D	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

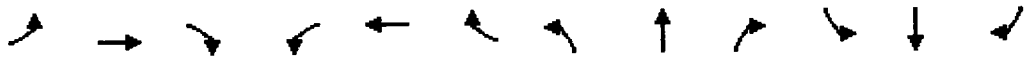
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	13	1305	3	13	16	0	0	14	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	12	14	14	16	16	16
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt											0.941	
Flt Protected				0.950				0.978				
Satd. Flow (prot)	0	0	0	1652	3292	0	0	1943	0	0	1788	0
Flt Permitted				0.950				0.978				
Satd. Flow (perm)	0	0	0	1652	3292	0	0	1943	0	0	1788	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		595			153			141			291	
Travel Time (s)		11.6			3.0			3.8			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	13	1305	3	13	16	0	0	14	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	13	1308	0	0	29	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.00	0.92	0.92	0.85	0.97	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 51.1% ICU Level of Service A
Analysis Period (min) 15



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	13	1305	3	13	16	0	0	14	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	13	1305	3	13	16	0	0	14	11
Pedestrians		6			6			6			6	
Lane Width (ft)		0.0			10.7			14.0			16.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		595			783							
pX, platoon unblocked	0.87						0.87	0.87		0.87	0.87	0.87
vC, conflicting volume	1314			6			708	1346	12	1352	1344	666
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1061			6			364	1098	12	1105	1096	316
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			97	91	100	100	92	98
cM capacity (veh/h)	563			1604			445	180	1054	130	181	587

Direction, Lane #	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	870	438	29	25
Volume Left	13	0	0	13	0
Volume Right	0	0	3	0	11
cSH	1604	1700	1700	246	260
Volume to Capacity	0.01	0.51	0.26	0.12	0.10
Queue Length 95th (ft)	1	0	0	10	8
Control Delay (s)	7.3	0.0	0.0	21.6	20.3
Lane LOS	A			C	C
Approach Delay (s)	0.1			21.6	20.3
Approach LOS				C	C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

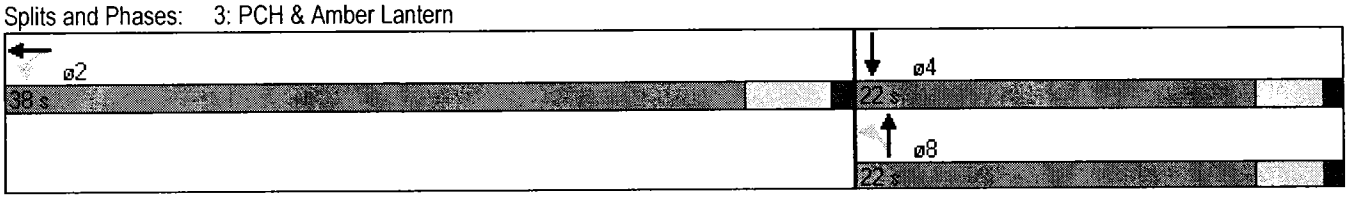
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	128	1388	14	37	22	0	0	51	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	10	11	11	16	16	16
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999						0.944	
Flt Protected					0.996			0.970				
Satd. Flow (prot)	0	0	0	0	4723	0	0	1747	0	0	1794	0
Flt Permitted					0.996			0.758				
Satd. Flow (perm)	0	0	0	0	4723	0	0	1365	0	0	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3						36	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		460			324			125			564	
Travel Time (s)		9.0			6.3			3.4			15.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	128	1388	14	37	22	0	0	51	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1530	0	0	59	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.09	1.04	1.04	0.85	0.97	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1		1	1			1	
Detector Template												
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turn Type				Perm			Perm					
Protected Phases					2			8			4	
Permitted Phases				2			8					
Detector Phase				2	2		8	8			4	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)				21.9	21.9		22.0	22.0			8.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	22.0	22.0	0.0	0.0	22.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%
Maximum Green (s)				33.1	33.1		18.0	18.0			18.0	
Yellow Time (s)				3.9	3.9		3.0	3.0			3.0	
All-Red Time (s)				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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		1.5	1.5			1.5	
Minimum Gap (s)				1.5	1.5		1.5	1.5			1.5	
Time Before Reduce (s)				0.0	0.0		0.0	0.0			0.0	
Time To Reduce (s)				0.0	0.0		0.0	0.0			0.0	
Recall Mode				C-Max	C-Max		None	None			None	
Walk Time (s)				7.0	7.0		4.0	4.0				
Flash Dont Walk (s)				10.0	10.0		14.0	14.0				
Pedestrian Calls (#/hr)				5	5		5	5				
Act Effct Green (s)					45.5			8.2			8.2	
Actuated g/C Ratio					0.76			0.14			0.14	
v/c Ratio					0.43			0.32			0.32	
Control Delay					2.6			22.7			16.7	
Queue Delay					0.0			0.0			0.0	
Total Delay					2.6			22.7			16.7	
LOS					A			C			B	
Approach Delay					2.6			22.7			16.7	
Approach LOS					A			C			B	
90th %ile Green (s)				33.1	33.1		18.0	18.0			18.0	
90th %ile Term Code				Coord	Coord		Ped	Ped			Hold	
70th %ile Green (s)				43.6	43.6		7.5	7.5			7.5	
70th %ile Term Code				Coord	Coord		Gap	Gap			Hold	
50th %ile Green (s)				44.8	44.8		6.3	6.3			6.3	
50th %ile Term Code				Coord	Coord		Gap	Gap			Hold	
30th %ile Green (s)				46.1	46.1		5.0	5.0			5.0	
30th %ile Term Code				Coord	Coord		Hold	Hold			Hold	
10th %ile Green (s)				55.1	55.1		0.0	0.0			0.0	
10th %ile Term Code				Coord	Coord		Skip	Skip			Skip	
Queue Length 50th (ft)					24			17			17	
Queue Length 95th (ft)					71			22			41	
Internal Link Dist (ft)		380			244			45			484	
Turn Bay Length (ft)												
Base Capacity (vph)					3584			410			563	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.43			0.14			0.15	

Intersection Summary	
Area Type:	Other

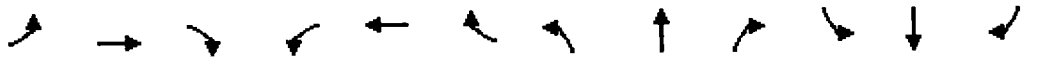
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 50 (83%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 4.0 Intersection LOS: A
Intersection Capacity Utilization 47.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: PCH & Amber Lantern

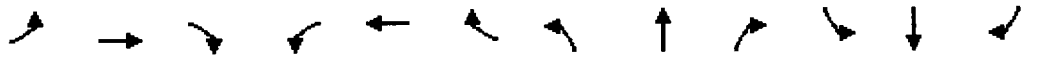


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	128	1388	14	37	22	0	0	51	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	10	11	11	16	16	16
Total Lost time (s)					4.9			4.0			4.0	
Lane Util. Factor					0.91			1.00			1.00	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					1.00			1.00			0.94	
Flt Protected					1.00			0.97			1.00	
Satd. Flow (prot)					4721			1746			1794	
Flt Permitted					1.00			0.76			1.00	
Satd. Flow (perm)					4721			1365			1794	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	128	1388	14	37	22	0	0	51	36
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	32	0
Lane Group Flow (vph)	0	0	0	0	1529	0	0	59	0	0	55	0
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)											0	
Turn Type				Perm			Perm					
Protected Phases					2			8			4	
Permitted Phases				2			8					
Actuated Green, G (s)					43.7			7.4			7.4	
Effective Green, g (s)					43.7			7.4			7.4	
Actuated g/C Ratio					0.73			0.12			0.12	
Clearance Time (s)					4.9			4.0			4.0	
Vehicle Extension (s)					3.0			1.5			1.5	
Lane Grp Cap (vph)					3438			168			221	
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.32			c0.04				
v/c Ratio					0.44			0.35			0.25	
Uniform Delay, d1					3.3			24.1			23.8	
Progression Factor					0.55			0.87			1.00	
Incremental Delay, d2					0.4			0.4			0.2	
Delay (s)					2.2			21.3			24.0	
Level of Service					A			C			C	
Approach Delay (s)		0.0			2.2			21.3			24.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.9
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	134	1450	21	53	23	0	0	19	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	10	11	11	10	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	70		0	0		25
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998							0.850
Flt Protected					0.996		0.950					
Satd. Flow (prot)	0	0	0	0	4719	0	1652	1621	0	0	1621	1531
Flt Permitted					0.996		0.745					
Satd. Flow (perm)	0	0	0	0	4719	0	1295	1621	0	0	1621	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							31
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		288			302			163			436	
Travel Time (s)		5.6			5.9			4.4			11.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	134	1450	21	53	23	0	0	19	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1605	0	53	23	0	0	19	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.09	1.19	1.04	1.09	1.19	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1		1	1			1	1
Detector Template												
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turn Type				Perm			Perm					Perm
Protected Phases					2			4			8	
Permitted Phases				2			4					8
Detector Phase				2	2		4	4			8	8
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0

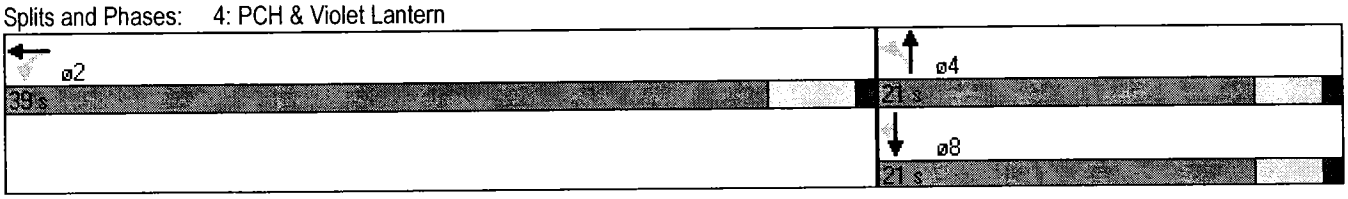


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)				21.9	21.9		21.0	21.0			8.0	8.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	0.0	21.0	21.0
Total Split (%)	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	0.0%	35.0%	35.0%
Maximum Green (s)				34.1	34.1		17.0	17.0			17.0	17.0
Yellow Time (s)				3.9	3.9		3.0	3.0			3.0	3.0
All-Red Time (s)				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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		1.5	1.5			1.5	1.5
Minimum Gap (s)				1.5	1.5		1.5	1.5			1.5	1.5
Time Before Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Time To Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Recall Mode				C-Max	C-Max		None	None			None	None
Walk Time (s)				7.0	7.0		4.0	4.0				
Flash Dont Walk (s)				10.0	10.0		13.0	13.0				
Pedestrian Calls (#/hr)				5	5		5	5				
Act Effct Green (s)					48.4		8.0	8.0			7.8	7.8
Actuated g/C Ratio					0.81		0.13	0.13			0.13	0.13
v/c Ratio					0.42		0.31	0.11			0.09	0.14
Control Delay					3.8		29.1	24.0			20.5	9.1
Queue Delay					0.0		0.0	0.0			0.0	0.0
Total Delay					3.8		29.1	24.0			20.5	9.1
LOS					A		C	C			C	A
Approach Delay					3.8			27.6			13.5	
Approach LOS					A			C			B	
90th %ile Green (s)				34.1	34.1		17.0	17.0			17.0	17.0
90th %ile Term Code				Coord	Coord		Ped	Ped			Hold	Hold
70th %ile Green (s)				43.4	43.4		7.7	7.7			7.7	7.7
70th %ile Term Code				Coord	Coord		Gap	Gap			Hold	Hold
50th %ile Green (s)				44.7	44.7		6.4	6.4			6.4	6.4
50th %ile Term Code				Coord	Coord		Gap	Gap			Hold	Hold
30th %ile Green (s)				55.1	55.1		0.0	0.0			0.0	0.0
30th %ile Term Code				Coord	Coord		Skip	Skip			Skip	Skip
10th %ile Green (s)				55.1	55.1		0.0	0.0			0.0	0.0
10th %ile Term Code				Coord	Coord		Skip	Skip			Skip	Skip
Queue Length 50th (ft)					100		21	9			6	0
Queue Length 95th (ft)					121		m41	m20			18	16
Internal Link Dist (ft)		208			222			83			356	
Turn Bay Length (ft)							70					25
Base Capacity (vph)					3811		367	459			459	456
Starvation Cap Reductn					0		0	0			0	0
Spillback Cap Reductn					0		0	0			0	0
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					0.42		0.14	0.05			0.04	0.07

Intersection Summary	
Area Type:	Other

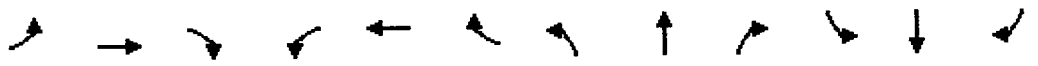
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 44 (73%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 5.2 Intersection LOS: A
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: PCH & Violet Lantern



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	134	1450	21	53	23	0	0	19	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	10	11	11	10	11	11
Total Lost time (s)					4.9		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		1.00	1.00			1.00	1.00
Frpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					1.00		1.00	1.00			1.00	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4719		1652	1621			1621	1531
Flt Permitted					1.00		0.75	1.00			1.00	1.00
Satd. Flow (perm)					4719		1295	1621			1621	1531
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	134	1450	21	53	23	0	0	19	31
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	0	0	0	1604	0	53	23	0	0	19	3
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)								0			0	
Turn Type				Perm			Perm					Perm
Protected Phases					2			4			8	
Permitted Phases				2			4					8
Actuated Green, G (s)					44.9		6.2	6.2			6.2	6.2
Effective Green, g (s)					44.9		6.2	6.2			6.2	6.2
Actuated g/C Ratio					0.75		0.10	0.10			0.10	0.10
Clearance Time (s)					4.9		4.0	4.0			4.0	4.0
Vehicle Extension (s)					3.0		1.5	1.5			1.5	1.5
Lane Grp Cap (vph)					3531		134	168			168	158
v/s Ratio Prot								0.01			0.01	
v/s Ratio Perm					0.34		c0.04					0.00
v/c Ratio					0.45		0.40	0.14			0.11	0.02
Uniform Delay, d1					2.9		25.1	24.5			24.4	24.2
Progression Factor					1.01		1.14	1.14			1.00	1.00
Incremental Delay, d2					0.3		0.7	0.1			0.1	0.0
Delay (s)					3.2		29.3	27.9			24.5	24.2
Level of Service					A		C	C			C	C
Approach Delay (s)		0.0			3.2			28.9			24.3	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.9
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



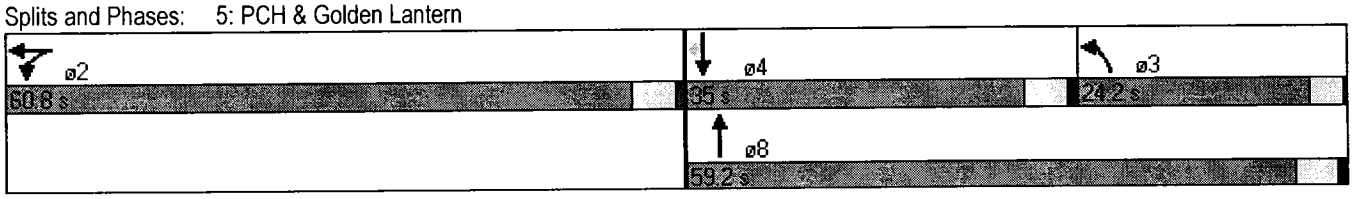
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	99	1479	160	155	114	0	0	480	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	10	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	50		0	200		0	0		300
Storage Lanes	0		0	1		0	1		0	1		1
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.985							0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1652	4677	0	1652	3539	0	0	3539	1583
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1652	4677	0	1652	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20							90
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		282			274			638			449	
Travel Time (s)		5.5			5.3			14.5			10.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	99	1479	160	155	114	0	0	480	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	99	1639	0	155	114	0	0	480	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.09	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1		1	1			1	1
Detector Template												
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turn Type				Split			Prot					Perm
Protected Phases				2	2		3	8			4	
Permitted Phases												4
Detector Phase				2	2		3	8			4	4
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0

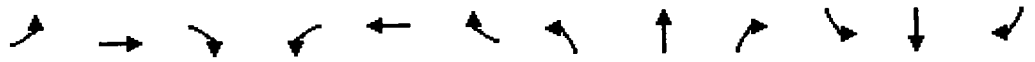
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)				32.9	32.9		7.5	28.9			20.9	20.9
Total Split (s)	0.0	0.0	0.0	60.8	60.8	0.0	24.2	59.2	0.0	0.0	35.0	35.0
Total Split (%)	0.0%	0.0%	0.0%	50.7%	50.7%	0.0%	20.2%	49.3%	0.0%	0.0%	29.2%	29.2%
Maximum Green (s)				55.9	55.9		20.7	54.3			30.1	30.1
Yellow Time (s)				3.9	3.9		3.0	3.9			3.9	3.9
All-Red Time (s)				1.0	1.0		0.5	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.9	4.9	4.0	3.5	4.9	4.0	4.0	4.9	4.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Minimum Gap (s)				1.5	1.5		1.5	1.5			1.5	1.5
Time Before Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Time To Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Recall Mode				C-Max	C-Max		Min	Min			Min	Min
Walk Time (s)				4.0	4.0			4.0			4.0	4.0
Flash Dont Walk (s)				24.0	24.0			20.0			12.0	12.0
Pedestrian Calls (#/hr)				5	5			5			5	5
Act Effct Green (s)				67.6	67.6		16.1	42.6			23.0	23.0
Actuated g/C Ratio				0.56	0.56		0.13	0.36			0.19	0.19
v/c Ratio				0.11	0.62		0.70	0.09			0.71	0.74
Control Delay				26.7	31.8		58.0	12.3			50.9	42.0
Queue Delay				0.0	0.0		0.0	0.0			0.0	0.0
Total Delay				26.7	31.8		58.0	12.3			50.9	42.0
LOS				C	C		E	B			D	D
Approach Delay					31.5			38.7			47.6	
Approach LOS					C			D			D	
90th %ile Green (s)				55.9	55.9		20.7	54.3			30.1	30.1
90th %ile Term Code				Coord	Coord		Max	Hold			Max	Max
70th %ile Green (s)				62.0	62.0		19.0	48.2			25.7	25.7
70th %ile Term Code				Coord	Coord		Gap	Hold			Gap	Gap
50th %ile Green (s)				67.8	67.8		16.5	42.4			22.4	22.4
50th %ile Term Code				Coord	Coord		Gap	Hold			Gap	Gap
30th %ile Green (s)				72.5	72.5		13.9	37.7			20.3	20.3
30th %ile Term Code				Coord	Coord		Gap	Hold			Gap	Gap
10th %ile Green (s)				80.0	80.0		10.3	30.2			16.4	16.4
10th %ile Term Code				Coord	Coord		Gap	Hold			Gap	Gap
Queue Length 50th (ft)				55	335		112	12			186	140
Queue Length 95th (ft)				m93	494		200	29			225	221
Internal Link Dist (ft)		202			194			558			369	
Turn Bay Length (ft)				50			200					300
Base Capacity (vph)				931	2645		285	1601			888	464
Starvation Cap Reductn				0	0		0	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				0.11	0.62		0.54	0.07			0.54	0.60

Intersection Summary	
Area Type:	Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 36.6 Intersection LOS: D
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: PCH & Golden Lantern



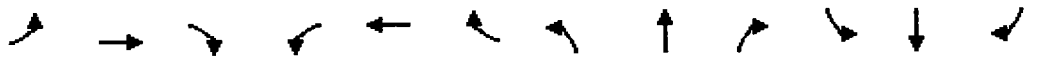


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	99	1479	160	155	114	0	0	480	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	10	12	12	12	12	12
Total Lost time (s)				4.9	4.9		3.5	4.9			4.9	4.9
Lane Util. Factor				1.00	0.91		1.00	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1652	4678		1652	3539			3539	1583
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1652	4678		1652	3539			3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	99	1479	160	155	114	0	0	480	277
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	0	73
Lane Group Flow (vph)	0	0	0	99	1630	0	155	114	0	0	480	204
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Split			Prot					Perm
Protected Phases				2	2		3	8			4	
Permitted Phases												4
Actuated Green, G (s)				67.6	67.6		16.1	42.6			23.0	23.0
Effective Green, g (s)				67.6	67.6		16.1	42.6			23.0	23.0
Actuated g/C Ratio				0.56	0.56		0.13	0.36			0.19	0.19
Clearance Time (s)				4.9	4.9		3.5	4.9			4.9	4.9
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				931	2635		222	1256			678	303
v/s Ratio Prot				0.06	c0.35		c0.09	0.03			c0.14	
v/s Ratio Perm												0.13
v/c Ratio				0.11	0.62		0.70	0.09			0.71	0.67
Uniform Delay, d1				12.2	17.6		49.6	25.8			45.4	45.0
Progression Factor				1.81	1.64		0.84	0.51			1.00	1.00
Incremental Delay, d2				0.1	0.7		9.1	0.0			3.4	5.8
Delay (s)				22.2	29.5		50.9	13.3			48.7	50.8
Level of Service				C	C		D	B			D	D
Approach Delay (s)		0.0			29.1			35.0			49.5	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM Average Control Delay	35.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.3
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1757	22	0	20	1324	26	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	12	12	11	12	11	12	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		2	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998				0.850			
Flt Protected											0.950	
Satd. Flow (prot)	0	0	0	0	3400	0	0	1801	2647	0	1711	0
Flt Permitted											0.744	
Satd. Flow (perm)	0	0	0	0	3400	0	0	1801	2647	0	1340	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				1324			
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		285			574			208			112	
Travel Time (s)		5.6			11.2			4.7			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									0			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	0	1757	22	0	20	1324	26	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1779	0	0	20	1324	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.00	1.00	1.00	1.00	1.04	1.00	1.04	1.07	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					1			1	1	1	1	
Detector Template												
Leading Detector (ft)					50			50	50	50	50	
Trailing Detector (ft)					0			0	0	0	0	
Turn Type									custom	Perm		
Protected Phases					2			1			4	
Permitted Phases									6	4		
Detector Phase					2			1	6	4	4	
Switch Phase												
Minimum Initial (s)					4.0			4.0	4.0	4.0	4.0	



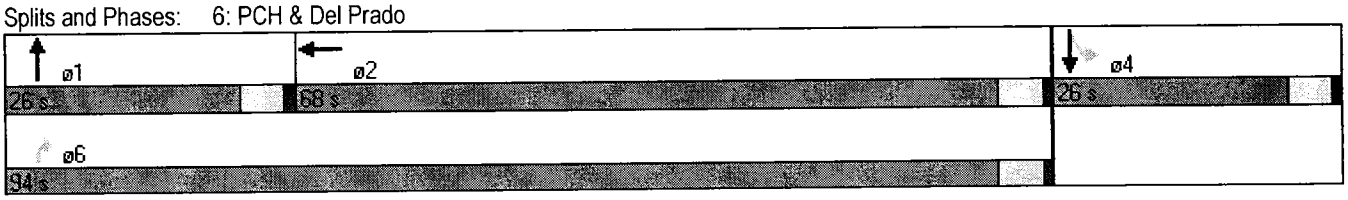
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)					26.0			26.0	26.0	26.0	26.0	
Total Split (s)	0.0	0.0	0.0	0.0	68.0	0.0	0.0	26.0	94.0	26.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%	0.0%	21.7%	78.3%	21.7%	21.7%	0.0%
Maximum Green (s)					63.0			21.0	89.0	21.0	21.0	
Yellow Time (s)					4.0			4.0	4.0	4.0	4.0	
All-Red Time (s)					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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag					Lag			Lead				
Lead-Lag Optimize?					Yes			Yes				
Vehicle Extension (s)					3.0			3.0	3.0	3.0	3.0	
Minimum Gap (s)					1.5			1.5	1.5	1.5	1.5	
Time Before Reduce (s)					0.0			0.0	0.0	0.0	0.0	
Time To Reduce (s)					0.0			0.0	0.0	0.0	0.0	
Recall Mode					C-Max			None	Max	Max	Max	
Walk Time (s)					7.0			7.0	7.0	7.0	7.0	
Flash Dont Walk (s)					14.0			14.0	14.0	14.0	14.0	
Pedestrian Calls (#/hr)					6			6	6	6	6	
Act Effct Green (s)					78.9			9.4	89.0		21.0	
Actuated g/C Ratio					0.66			0.08	0.74		0.18	
v/c Ratio					0.80			0.14	0.57		0.11	
Control Delay					27.0			39.8	8.3		43.2	
Queue Delay					0.0			0.0	0.0		0.0	
Total Delay					27.0			39.8	8.3		43.2	
LOS					C			D	A		D	
Approach Delay					27.0			8.8			43.2	
Approach LOS					C			A			D	
90th %ile Green (s)					63.0			21.0	89.0	21.0	21.0	
90th %ile Term Code					Coord			Ped	Coord	MaxR	MaxR	
70th %ile Green (s)					76.4			7.6	89.0	21.0	21.0	
70th %ile Term Code					Coord			Gap	Coord	MaxR	MaxR	
50th %ile Green (s)					77.2			6.8	89.0	21.0	21.0	
50th %ile Term Code					Coord			Gap	Coord	MaxR	MaxR	
30th %ile Green (s)					89.0			0.0	89.0	21.0	21.0	
30th %ile Term Code					Coord			Skip	Coord	MaxR	MaxR	
10th %ile Green (s)					89.0			0.0	89.0	21.0	21.0	
10th %ile Term Code					Coord			Skip	Coord	MaxR	MaxR	
Queue Length 50th (ft)					762			12	370		17	
Queue Length 95th (ft)					#917			m28	389		44	
Internal Link Dist (ft)		205			494			128			32	
Turn Bay Length (ft)												
Base Capacity (vph)					2237			315	2305		235	
Starvation Cap Reductn					0			0	0		0	
Spillback Cap Reductn					0			0	0		0	
Storage Cap Reductn					0			0	0		0	
Reduced v/c Ratio					0.80			0.06	0.57		0.11	

Intersection Summary

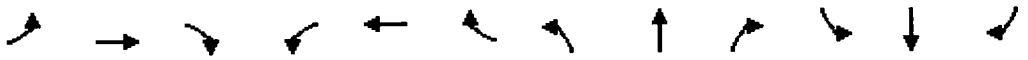
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77 (64%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: PCH & Del Prado



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	1238	8	10	1584	65	5	1	6	111	2	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	100		0	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999				0.850		0.932				0.850
Flt Protected	0.950			0.950				0.980			0.953	
Satd. Flow (prot)	1770	3233	0	1770	3406	1583	0	1701	0	0	1598	1583
Flt Permitted	0.950			0.950				0.911			0.722	
Satd. Flow (perm)	1770	3233	0	1770	3406	1583	0	1582	0	0	1210	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				65		6				23
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		525			900			140			300	
Travel Time (s)		10.2			17.5			3.8			8.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0									0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	19	1238	8	10	1584	65	5	1	6	111	2	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	1246	0	10	1584	65	0	12	0	0	113	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.14	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template												
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Prot			Prot		Perm	Perm			Perm		Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Detector Phase	1	6		5	2	2	4	4		8	8	8
Switch Phase												
Minimum Initial (s)	1.0	4.0		1.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	4.5	21.9		4.5	21.9	21.9	31.0	31.0		8.0	8.0	8.0
Total Split (s)	9.0	82.0	0.0	7.0	80.0	80.0	31.0	31.0	0.0	31.0	31.0	31.0
Total Split (%)	7.5%	68.3%	0.0%	5.8%	66.7%	66.7%	25.8%	25.8%	0.0%	25.8%	25.8%	25.8%
Maximum Green (s)	5.5	77.1		3.5	75.1	75.1	27.0	27.0		27.0	27.0	27.0
Yellow Time (s)	3.0	3.9		3.0	3.9	3.9	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.5	1.0		0.5	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	4.9	4.0	3.5	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0			7.0	7.0	4.0	4.0				
Flash Dont Walk (s)		10.0			10.0	10.0	23.0	23.0				
Pedestrian Calls (#/hr)		5			5	5	5	5				
Act Effct Green (s)	4.9	92.6		3.5	90.4	90.4		17.1			17.1	17.1
Actuated g/C Ratio	0.04	0.77		0.03	0.75	0.75		0.14			0.14	0.14
v/c Ratio	0.26	0.50		0.19	0.62	0.05		0.05			0.65	0.09
Control Delay	55.2	6.4		64.1	5.0	0.1		28.9			64.9	15.4
Queue Delay	0.0	0.0		0.0	0.4	0.0		0.0			0.0	0.0
Total Delay	55.2	6.4		64.1	5.4	0.1		28.9			64.9	15.4
LOS	E	A		E	A	A		C			E	B
Approach Delay		7.1			5.5			28.9			56.5	
Approach LOS		A			A			C			E	
90th %ile Green (s)	5.5	77.1		3.5	75.1	75.1	27.0	27.0		27.0	27.0	27.0
90th %ile Term Code	Max	Coord		Max	Coord	Coord	Ped	Ped		Hold	Hold	Hold
70th %ile Green (s)	5.5	91.6		0.0	82.6	82.6	19.5	19.5		19.5	19.5	19.5
70th %ile Term Code	Max	Coord		Skip	Coord	Coord	Hold	Hold		Gap	Gap	Gap
50th %ile Green (s)	0.0	94.6		0.0	94.6	94.6	16.5	16.5		16.5	16.5	16.5
50th %ile Term Code	Skip	Coord		Skip	Coord	Coord	Hold	Hold		Gap	Gap	Gap
30th %ile Green (s)	0.0	97.6		0.0	97.6	97.6	13.5	13.5		13.5	13.5	13.5
30th %ile Term Code	Skip	Coord		Skip	Coord	Coord	Hold	Hold		Gap	Gap	Gap
10th %ile Green (s)	0.0	102.0		0.0	102.0	102.0	9.1	9.1		9.1	9.1	9.1
10th %ile Term Code	Skip	Coord		Skip	Coord	Coord	Hold	Hold		Gap	Gap	Gap
Queue Length 50th (ft)	15	78		8	92	0		4			84	0
Queue Length 95th (ft)	m24	300		m14	741	m0		20			135	22
Internal Link Dist (ft)		445			820			60			220	
Turn Bay Length (ft)	120			100								
Base Capacity (vph)	81	2495		52	2565	1208		361			272	374
Starvation Cap Reductn	0	0		0	440	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.23	0.50		0.19	0.75	0.05		0.03			0.42	0.06

Intersection Summary

Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 8.5 Intersection LOS: A
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: PCH & Crystal Lantern

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	1238	8	10	1584	65	5	1	6	111	2	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	3.5	4.9		3.5	4.9	4.9		4.0			4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.93			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.95	1.00
Satd. Flow (prot)	1770	3233		1770	3406	1583		1702			1598	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.91			0.72	1.00
Satd. Flow (perm)	1770	3233		1770	3406	1583		1582			1210	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	19	1238	8	10	1584	65	5	1	6	111	2	23
RTOR Reduction (vph)	0	0	0	0	0	18	0	5	0	0	0	20
Lane Group Flow (vph)	19	1246	0	10	1584	47	0	7	0	0	113	3
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0									0	
Turn Type	Prot			Prot		Perm	Perm			Perm		Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Actuated Green, G (s)	2.9	89.8		0.7	87.6	87.6		17.1			17.1	17.1
Effective Green, g (s)	2.9	89.8		0.7	87.6	87.6		17.1			17.1	17.1
Actuated g/C Ratio	0.02	0.75		0.01	0.73	0.73		0.14			0.14	0.14
Clearance Time (s)	3.5	4.9		3.5	4.9	4.9		4.0			4.0	4.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	43	2419		10	2486	1156		225			172	226
v/s Ratio Prot	c0.01	0.39		0.01	c0.47							
v/s Ratio Perm						0.03		0.00			c0.09	0.00
v/c Ratio	0.44	0.51		1.00	0.64	0.04		0.03			0.66	0.01
Uniform Delay, d1	57.8	6.2		59.6	8.2	4.5		44.3			48.7	44.2
Progression Factor	0.86	0.89		1.01	0.46	0.00		1.00			1.00	1.00
Incremental Delay, d2	2.2	0.7		246.9	1.0	0.1		0.1			8.7	0.0
Delay (s)	51.9	6.2		307.3	4.7	0.1		44.4			57.4	44.2
Level of Service	D	A		F	A	A		D			E	D
Approach Delay (s)		6.9			6.4			44.4			55.2	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.9
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

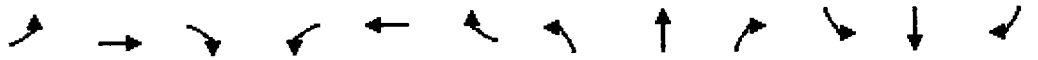
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	1060	2	0	0	0	0	18	5	25	6	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850					0.971				
Flt Protected											0.961	
Satd. Flow (prot)	0	3128	1531	0	0	0	0	1574	0	0	1730	0
Flt Permitted											0.961	
Satd. Flow (perm)	0	3128	1531	0	0	0	0	1574	0	0	1730	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		609			735			183			141	
Travel Time (s)		11.9			14.3			5.0			3.8	
Confl. Peds. (#/hr)	9		9	9		9	6		6	6		6
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	6	1060	2	0	0	0	0	18	5	25	6	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1066	2	0	0	0	0	23	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.12	1.04	1.04	1.04	1.04	1.04	1.19	1.04	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	1060	2	0	0	0	0	18	5	25	6	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	1060	2	0	0	0	0	18	5	25	6	0
Pedestrians		6			6			9			9	
Lane Width (ft)		11.0			0.0			11.0			11.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		609			735							
pX, platoon unblocked												
vC, conflicting volume	9			1071			1090	1090	545	571	1092	15
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	9			1071			1090	1090	545	571	1092	15
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	91	99	93	97	100
cM capacity (veh/h)	1598			642			162	210	479	366	209	1049

Direction, Lane #	EB 1	EB 2	EB 3	NB 1	SB 1
Volume Total	359	707	2	23	31
Volume Left	6	0	0	0	25
Volume Right	0	0	2	5	0
cSH	1598	1700	1700	239	320
Volume to Capacity	0.00	0.42	0.00	0.10	0.10
Queue Length 95th (ft)	0	0	0	8	8
Control Delay (s)	0.2	0.0	0.0	21.6	17.5
Lane LOS	A			C	C
Approach Delay (s)	0.1			21.6	17.5
Approach LOS				C	C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		



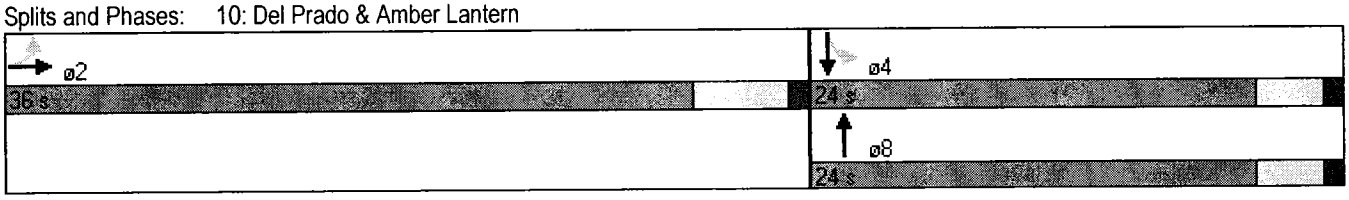
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	1080	24	0	0	0	0	17	29	120	31	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99			0.99	
Frt		0.997						0.915				
Flt Protected		0.997									0.962	
Satd. Flow (prot)	0	4556	0	0	0	0	0	1467	0	0	1559	0
Flt Permitted		0.997									0.756	
Satd. Flow (perm)	0	4551	0	0	0	0	0	1467	0	0	1219	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						29				
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		735			607			197			179	
Travel Time (s)		14.3			11.8			5.4			4.9	
Confl. Peds. (#/hr)	9		9	9		9	6		6	6		6
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	69	1080	24	0	0	0	0	17	29	120	31	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1173	0	0	0	0	0	46	0	0	151	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.09	1.04	1.04	1.04	1.04	1.04	1.19	1.04	1.04	1.19	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						1		1	1	
Detector Template												
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Detector Phase	2	2						8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.3	22.3						8.0		20.0	20.0	
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%
Maximum Green (s)	30.7	30.7						20.0		20.0	20.0	
Yellow Time (s)	4.3	4.3						3.0		3.0	3.0	
All-Red Time (s)	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Minimum Gap (s)	1.5	1.5						1.5		1.5	1.5	
Time Before Reduce (s)	0.0	0.0						0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0						0.0		0.0	0.0	
Recall Mode	C-Max	C-Max						Max		Max	Max	
Walk Time (s)	7.0	7.0								4.0	4.0	
Flash Dont Walk (s)	10.0	10.0								12.0	12.0	
Pedestrian Calls (#/hr)	5	5								5	5	
Act Effct Green (s)		30.7						20.0			20.0	
Actuated g/C Ratio		0.51						0.33			0.33	
v/c Ratio		0.50						0.09			0.37	
Control Delay		11.0						8.5			15.2	
Queue Delay		0.0						0.0			0.0	
Total Delay		11.0						8.5			15.2	
LOS		B						A			B	
Approach Delay		11.0						8.5			15.2	
Approach LOS		B						A			B	
90th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
90th %ile Term Code	Coord	Coord						MaxR		MaxR	MaxR	
70th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
70th %ile Term Code	Coord	Coord						MaxR		MaxR	MaxR	
50th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
50th %ile Term Code	Coord	Coord						MaxR		MaxR	MaxR	
30th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
30th %ile Term Code	Coord	Coord						MaxR		MaxR	MaxR	
10th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
10th %ile Term Code	Coord	Coord						MaxR		MaxR	MaxR	
Queue Length 50th (ft)		149						4			25	
Queue Length 95th (ft)		216						23			73	
Internal Link Dist (ft)		655			527			117			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2332						508			406	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.50						0.09			0.37	

Intersection Summary	
Area Type:	Other

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 15 (25%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 11.4 Intersection LOS: B
Intersection Capacity Utilization 47.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Del Prado & Amber Lantern



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	1080	24	0	0	0	0	17	29	120	31	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.3						4.0			4.0	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		1.00						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			0.99	
Frt		1.00						0.91			1.00	
Flt Protected		1.00						1.00			0.96	
Satd. Flow (prot)		4551						1466			1551	
Flt Permitted		1.00						1.00			0.76	
Satd. Flow (perm)		4551						1466			1219	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	69	1080	24	0	0	0	0	17	29	120	31	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	19	0	0	0	0
Lane Group Flow (vph)	0	1170	0	0	0	0	0	27	0	0	151	0
Confl. Peds. (#/hr)	9		9	9		9	6		6	6		6
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0			0	
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		30.7						20.0			20.0	
Effective Green, g (s)		30.7						20.0			20.0	
Actuated g/C Ratio		0.51						0.33			0.33	
Clearance Time (s)		5.3						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2329						489			406	
v/s Ratio Prot								0.02				
v/s Ratio Perm		0.26									c0.12	
v/c Ratio		0.50						0.05			0.37	
Uniform Delay, d1		9.6						13.6			15.2	
Progression Factor		1.07						1.00			0.82	
Incremental Delay, d2		0.7						0.2			2.5	
Delay (s)		11.0						13.8			14.9	
Level of Service		B						B			B	
Approach Delay (s)		11.0			0.0			13.8			14.9	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

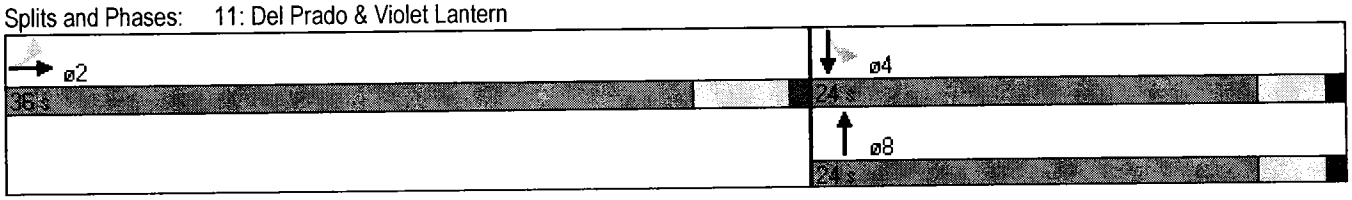
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	1147	2	0	0	0	0	16	23	91	32	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99			1.00	
Frt								0.920				
Flt Protected		0.999									0.964	
Satd. Flow (prot)	0	4573	0	0	0	0	0	1476	0	0	1562	0
Flt Permitted		0.999									0.788	
Satd. Flow (perm)	0	4571	0	0	0	0	0	1476	0	0	1271	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						23				
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		607			647			193			289	
Travel Time (s)		11.8			12.6			5.3			7.9	
Confl. Peds. (#/hr)	9		9	9		9	6		6	6		6
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	31	1147	2	0	0	0	0	16	23	91	32	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1180	0	0	0	0	0	39	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.09	1.04	1.04	1.04	1.04	1.04	1.19	1.04	1.04	1.19	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						1		1	1	
Detector Template												
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Detector Phase	2	2						8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	

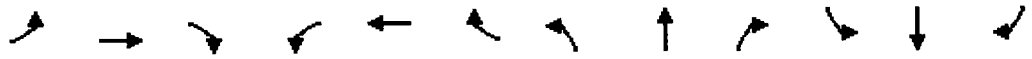
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.3	22.3						8.0		20.0	20.0	
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%
Maximum Green (s)	30.7	30.7						20.0		20.0	20.0	
Yellow Time (s)	4.3	4.3						3.0		3.0	3.0	
All-Red Time (s)	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Minimum Gap (s)	1.5	1.5						1.5		1.5	1.5	
Time Before Reduce (s)	0.0	0.0						0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0						0.0		0.0	0.0	
Recall Mode	C-Max	C-Max						Max		None	None	
Walk Time (s)	7.0	7.0								4.0	4.0	
Flash Dont Walk (s)	10.0	10.0								12.0	12.0	
Pedestrian Calls (#/hr)	5	5								5	5	
Act Effct Green (s)		30.7						20.0			20.0	
Actuated g/C Ratio		0.51						0.33			0.33	
v/c Ratio		0.50						0.08			0.29	
Control Delay		4.3						8.9			15.3	
Queue Delay		0.0						0.0			0.0	
Total Delay		4.3						8.9			15.3	
LOS		A						A			B	
Approach Delay		4.3						8.9			15.3	
Approach LOS		A						A			B	
90th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
90th %ile Term Code	Coord	Coord						MaxR		Hold	Hold	
70th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
70th %ile Term Code	Coord	Coord						MaxR		Hold	Hold	
50th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
50th %ile Term Code	Coord	Coord						MaxR		Hold	Hold	
30th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
30th %ile Term Code	Coord	Coord						MaxR		Hold	Hold	
10th %ile Green (s)	30.7	30.7						20.0		20.0	20.0	
10th %ile Term Code	Coord	Coord						MaxR		Hold	Hold	
Queue Length 50th (ft)		28						4			44	
Queue Length 95th (ft)		55						21			50	
Internal Link Dist (ft)		527			567			113			209	
Turn Bay Length (ft)												
Base Capacity (vph)		2339						507			424	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.50						0.08			0.29	

Intersection Summary	
Area Type:	Other

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 22 (37%), Referenced to phase 2:EBTL and 6:, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 5.4 Intersection LOS: A
Intersection Capacity Utilization 46.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Del Prado & Violet Lantern





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	1147	2	0	0	0	0	16	23	91	32	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.3						4.0			4.0	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		1.00						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		1.00						0.92			1.00	
Flt Protected		1.00						1.00			0.96	
Satd. Flow (prot)		4568						1476			1555	
Flt Permitted		1.00						1.00			0.79	
Satd. Flow (perm)		4568						1476			1271	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	1147	2	0	0	0	0	16	23	91	32	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	1180	0	0	0	0	0	24	0	0	123	0
Confl. Peds. (#/hr)	9		9	9		9	6		6	6		6
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0			0	
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		30.7						20.0			20.0	
Effective Green, g (s)		30.7						20.0			20.0	
Actuated g/C Ratio		0.51						0.33			0.33	
Clearance Time (s)		5.3						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2337						492			424	
v/s Ratio Prot								0.02				
v/s Ratio Perm		0.26									c0.10	
v/c Ratio		0.50						0.05			0.29	
Uniform Delay, d1		9.6						13.6			14.8	
Progression Factor		0.37						1.00			0.91	
Incremental Delay, d2		0.7						0.2			0.4	
Delay (s)		4.2						13.7			13.8	
Level of Service		A						B			B	
Approach Delay (s)		4.2			0.0			13.7			13.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	923	157	0	0	0	0	252	44	375	219	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		130	180		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1652	4752	1531	0	0	0	0	3421	1531	3319	1801	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1652	4752	1531	0	0	0	0	3421	1531	3319	1801	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157						44			
Link Speed (mph)		35			30			30			30	
Link Distance (ft)		223			434			937			638	
Travel Time (s)		4.3			9.9			21.3			14.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0							
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	139	923	157	0	0	0	0	252	44	375	219	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	923	157	0	0	0	0	252	44	375	219	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			22			22	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	1	1	1	
Detector Template												
Leading Detector (ft)	50	50	50					50	50	50	50	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Turn Type	Split		Perm						Free	Prot		
Protected Phases	2	2						4		3	8	
Permitted Phases			2						Free			
Detector Phase	2	2	2					4		3	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	

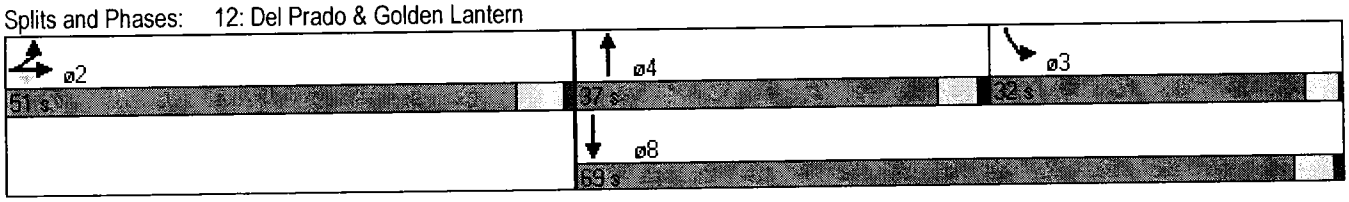
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	33.3	33.3	33.3					32.6		7.5	26.6	
Total Split (s)	51.0	51.0	51.0	0.0	0.0	0.0	0.0	37.0	0.0	32.0	69.0	0.0
Total Split (%)	42.5%	42.5%	42.5%	0.0%	0.0%	0.0%	0.0%	30.8%	0.0%	26.7%	57.5%	0.0%
Maximum Green (s)	45.7	45.7	45.7					32.4		28.5	64.4	
Yellow Time (s)	4.3	4.3	4.3					3.6		3.0	3.6	
All-Red Time (s)	1.0	1.0	1.0					1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	4.0	4.0	4.0	4.0	4.6	4.0	3.5	4.6	4.0
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	1.5	1.5	1.5					3.0		1.5	3.0	
Minimum Gap (s)	1.5	1.5	1.5					1.5		1.5	1.5	
Time Before Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	21.0	21.0	21.0					21.0			15.0	
Pedestrian Calls (#/hr)	5	5	5					5			5	
Act Effct Green (s)	72.9	72.9	72.9					16.2	120.0	17.5	37.2	
Actuated g/C Ratio	0.61	0.61	0.61					0.14	1.00	0.15	0.31	
v/c Ratio	0.14	0.32	0.16					0.55	0.03	0.77	0.39	
Control Delay	8.3	8.2	1.8					52.0	0.0	64.7	45.3	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	8.3	8.2	1.8					52.0	0.0	64.7	45.3	
LOS	A	A	A					D	A	E	D	
Approach Delay		7.4						44.2			57.5	
Approach LOS		A						D			E	
90th %ile Green (s)	56.2	56.2	56.2					28.0		22.4	53.9	
90th %ile Term Code	Coord	Coord	Coord					Ped		Gap	Hold	
70th %ile Green (s)	71.3	71.3	71.3					15.8		19.5	38.8	
70th %ile Term Code	Coord	Coord	Coord					Gap		Gap	Hold	
50th %ile Green (s)	74.9	74.9	74.9					14.2		17.5	35.2	
50th %ile Term Code	Coord	Coord	Coord					Gap		Gap	Hold	
30th %ile Green (s)	78.5	78.5	78.5					12.6		15.5	31.6	
30th %ile Term Code	Coord	Coord	Coord					Gap		Gap	Hold	
10th %ile Green (s)	83.7	83.7	83.7					10.3		12.6	26.4	
10th %ile Term Code	Coord	Coord	Coord					Gap		Gap	Hold	
Queue Length 50th (ft)	18	43	0					99	0	117	135	
Queue Length 95th (ft)	85	167	11					124	0	48	56	
Internal Link Dist (ft)		143			354			857			558	
Turn Bay Length (ft)									130	180		
Base Capacity (vph)	1004	2888	992					924	1531	788	967	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					0	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.14	0.32	0.16					0.27	0.03	0.48	0.23	

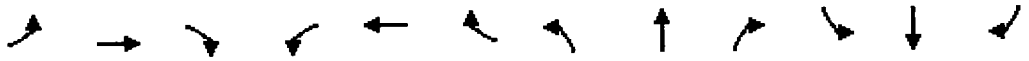
Intersection Summary

Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 30 (25%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 26.7
Intersection LOS: C
Intersection Capacity Utilization 69.4%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Del Prado & Golden Lantern

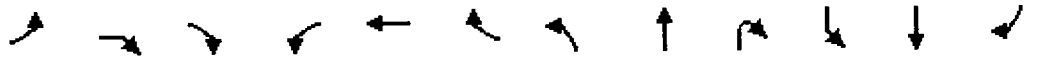




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	923	157	0	0	0	0	252	44	375	219	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	11	11	11	11	11	11
Total Lost time (s)	5.3	5.3	5.3					4.6	4.0	3.5	4.6	
Lane Util. Factor	1.00	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1652	4752	1531					3421	1531	3319	1801	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1652	4752	1531					3421	1531	3319	1801	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	923	157	0	0	0	0	252	44	375	219	0
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	139	923	95	0	0	0	0	252	44	375	219	0
Parking (#/hr)		0			0							
Turn Type	Split		Perm						Free	Prot		
Protected Phases	2	2						4		3	8	
Permitted Phases			2						Free			
Actuated Green, G (s)	72.9	72.9	72.9					16.2	120.0	17.5	37.2	
Effective Green, g (s)	72.9	72.9	72.9					16.2	120.0	17.5	37.2	
Actuated g/C Ratio	0.61	0.61	0.61					0.13	1.00	0.15	0.31	
Clearance Time (s)	5.3	5.3	5.3					4.6		3.5	4.6	
Vehicle Extension (s)	1.5	1.5	1.5					3.0		1.5	3.0	
Lane Grp Cap (vph)	1004	2887	930					462	1531	484	558	
v/s Ratio Prot	0.08	c0.19						c0.07		c0.11	0.12	
v/s Ratio Perm			0.06						0.03			
v/c Ratio	0.14	0.32	0.10					0.55	0.03	0.77	0.39	
Uniform Delay, d1	10.1	11.5	9.9					48.5	0.0	49.4	32.5	
Progression Factor	0.64	0.62	0.58					1.00	1.00	1.11	1.40	
Incremental Delay, d2	0.3	0.3	0.2					1.3	0.0	6.3	0.4	
Delay (s)	6.7	7.3	5.9					49.8	0.0	61.0	46.0	
Level of Service	A	A	A					D	A	E	D	
Approach Delay (s)		7.1			0.0			42.4			55.5	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1383	11	102	1299	63	77	30	70	42	11	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	11	11	11	11	11	13
Grade (%)					0%			0%			0%	
Storage Length (ft)	150	0		160		0	50			0		0
Storage Lanes	1	1		1		0	1			1		1
Taper Length (ft)	60	60		60		60	60			60		60
Lane Util. Factor	1.00	0.88	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.993			0.895				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	2694	0	1652	3275	0	1711	3062	0	1711	1801	1636
Flt Permitted	0.950			0.950			0.750			0.689		
Satd. Flow (perm)	1652	2694	0	1652	3275	0	1350	3062	0	1241	1801	1636
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					7			70				20
Link Speed (mph)					35			25			25	
Link Distance (ft)					595			195			199	
Travel Time (s)					11.6			5.3			5.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)					0%			0%			0%	
Adj. Flow (vph)	25	1383	11	102	1299	63	77	30	70	42	11	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	1394	0	102	1362	0	77	100	0	42	11	20
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)					10			11			11	
Link Offset(ft)					0			0			0	
Crosswalk Width(ft)					16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.04	1.04	1.04	1.04	1.04	0.96
Turning Speed (mph)	15	9	9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template		Right								Left		
Leading Detector (ft)	50	20		50	50		50	50		20	50	50
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Turn Type	Prot	custom		Prot			Perm			Perm		Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		4
Detector Phase	1	6		5	2		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	1.0	4.0		1.0	4.0		4.0	4.0		4.0	4.0	4.0



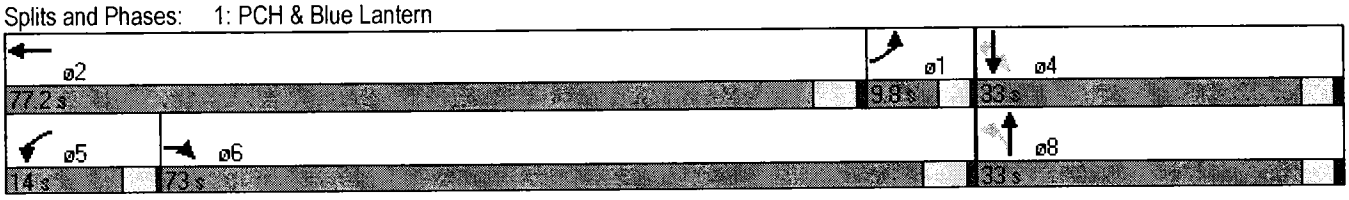
Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Minimum Split (s)	4.5	22.9		4.5	33.9		33.0	33.0		31.0	31.0	31.0
Total Split (s)	9.8	73.0	0.0	14.0	77.2	0.0	33.0	33.0	0.0	33.0	33.0	33.0
Total Split (%)	8.2%	60.8%	0.0%	11.7%	64.3%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	27.5%
Maximum Green (s)	6.3	68.1		10.5	72.3		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	3.0	3.9		3.0	3.9		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.5	1.0		0.5	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	4.9	4.0	3.5	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.5	3.0		1.5	3.0		1.5	1.5		1.5	1.5	1.5
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	C-Max		None	None		None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		11.0			22.0		22.0	22.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		5			5		5	5		5	5	5
Act Effct Green (s)	5.4	83.8		10.5	92.0		13.3	13.3		13.3	13.3	13.3
Actuated g/C Ratio	0.04	0.70		0.09	0.77		0.11	0.11		0.11	0.11	0.11
v/c Ratio	0.34	0.74		0.70	0.54		0.51	0.25		0.30	0.06	0.10
Control Delay	67.3	16.8		77.0	8.7		59.5	17.5		51.0	42.5	16.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	67.3	16.8		77.0	8.7		59.5	17.5		51.0	42.5	16.4
LOS	E	B		E	A		E	B		D	D	B
Approach Delay					13.5			35.8			40.2	
Approach LOS					B			D			D	
90th %ile Green (s)	6.3	68.1		10.5	72.3		29.0	29.0		29.0	29.0	29.0
90th %ile Term Code	Max	Coord		Max	Coord		Ped	Ped		Hold	Hold	Hold
70th %ile Green (s)	6.3	80.8		13.8	88.3		13.0	13.0		13.0	13.0	13.0
70th %ile Term Code	Max	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
50th %ile Green (s)	5.7	85.0		11.8	91.1		10.8	10.8		10.8	10.8	10.8
50th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
30th %ile Green (s)	0.0	89.4		9.7	102.6		8.5	8.5		8.5	8.5	8.5
30th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
10th %ile Green (s)	0.0	95.6		6.7	105.8		5.3	5.3		5.3	5.3	5.3
10th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Hold	Hold	Hold
Queue Length 50th (ft)	19	330		84	181		59	11		31	8	0
Queue Length 95th (ft)	49	#725		#168	321		92	32		57	22	21
Internal Link Dist (ft)					515			115			119	
Turn Bay Length (ft)	150			160			50					
Base Capacity (vph)	87	1881		157	2513		326	793		300	435	411
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	0.29	0.74		0.65	0.54		0.24	0.13		0.14	0.03	0.05

Intersection Summary

Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 90 (75%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 17.3 Intersection LOS: B
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: PCH & Blue Lantern



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1383	11	102	1299	63	77	30	70	42	11	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	11	11	11	11	11	13
Total Lost time (s)	3.5	4.9		3.5	4.9		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.88		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	0.99		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1652	2694		1652	3275		1711	3062		1711	1801	1636
Flt Permitted	0.95	1.00		0.95	1.00		0.75	1.00		0.69	1.00	1.00
Satd. Flow (perm)	1652	2694		1652	3275		1351	3062		1241	1801	1636
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	25	1383	11	102	1299	63	77	30	70	42	11	20
RTOR Reduction (vph)	0	0	0	0	2	0	0	62	0	0	0	18
Lane Group Flow (vph)	25	1394	0	102	1360	0	77	38	0	42	11	2
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	custom		Prot			Perm			Perm		Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	3.7	83.8		10.5	90.6		13.3	13.3		13.3	13.3	13.3
Effective Green, g (s)	3.7	83.8		10.5	90.6		13.3	13.3		13.3	13.3	13.3
Actuated g/C Ratio	0.03	0.70		0.09	0.76		0.11	0.11		0.11	0.11	0.11
Clearance Time (s)	3.5	4.9		3.5	4.9		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	1.5	3.0		1.5	3.0		1.5	1.5		1.5	1.5	1.5
Lane Grp Cap (vph)	51	1881		145	2473		150	339		138	200	181
v/s Ratio Prot	0.02	c0.52		c0.06	0.42			0.01			0.01	
v/s Ratio Perm							c0.06			0.03		0.00
v/c Ratio	0.49	0.74		0.70	0.55		0.51	0.11		0.30	0.06	0.01
Uniform Delay, d1	57.2	11.3		53.2	6.2		50.3	48.0		49.1	47.7	47.5
Progression Factor	1.00	1.00		1.01	1.02		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.7	1.6		11.0	0.8		1.2	0.1		0.5	0.0	0.0
Delay (s)	59.9	12.9		64.7	7.1		51.5	48.1		49.5	47.8	47.5
Level of Service	E	B		E	A		D	D		D	D	D
Approach Delay (s)					11.1			49.6			48.7	
Approach LOS					B			D			D	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	23	1450	6	14	8	0	0	32	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	12	14	14	16	16	16
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	100		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999						0.942	
Flt Protected				0.950				0.969				
Satd. Flow (prot)	0	0	0	1652	3289	0	0	1925	0	0	1790	0
Flt Permitted				0.950				0.969				
Satd. Flow (perm)	0	0	0	1652	3289	0	0	1925	0	0	1790	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		595			153			141			291	
Travel Time (s)		11.6			3.0			3.8			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	23	1450	6	14	8	0	0	32	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	23	1456	0	0	22	0	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.00	0.92	0.92	0.85	0.97	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

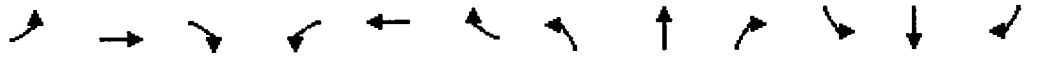
Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	23	1450	6	14	8	0	0	32	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	23	1450	6	14	8	0	0	32	24
Pedestrians		6			6			6			6	
Lane Width (ft)		0.0			10.7			14.0			16.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		595			783							
pX, platoon unblocked	0.82						0.82	0.82		0.82	0.82	0.82
vC, conflicting volume	1462			6			823	1514	12	1515	1511	740
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1113			6			330	1177	12	1178	1174	228
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			96	95	100	100	79	96
cM capacity (veh/h)	504			1604			384	150	1054	111	151	628

Direction, Lane #	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	23	967	489	22	56
Volume Left	23	0	0	14	0
Volume Right	0	0	6	0	24
cSH	1604	1700	1700	245	224
Volume to Capacity	0.01	0.57	0.29	0.09	0.25
Queue Length 95th (ft)	1	0	0	7	24
Control Delay (s)	7.3	0.0	0.0	21.1	26.3
Lane LOS	A			C	D
Approach Delay (s)	0.1			21.1	26.3
Approach LOS				C	D

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	117	1396	52	81	50	0	0	60	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	10	11	11	16	16	16
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995						0.969	
Flt Protected					0.996			0.970				
Satd. Flow (prot)	0	0	0	0	4707	0	0	1747	0	0	1841	0
Flt Permitted					0.996			0.766				
Satd. Flow (perm)	0	0	0	0	4707	0	0	1379	0	0	1841	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13						18	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		460			324			125			564	
Travel Time (s)		9.0			6.3			3.4			15.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	117	1396	52	81	50	0	0	60	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1565	0	0	131	0	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.09	1.04	1.04	0.85	0.97	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1		1	1			1	
Detector Template												
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turn Type				Perm			Perm					
Protected Phases					2			8			4	
Permitted Phases				2			8					
Detector Phase				2	2		8	8			4	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	

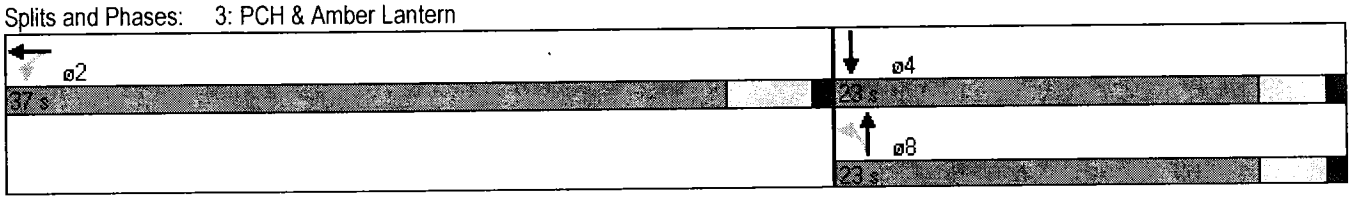
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)				21.9	21.9		22.0	22.0			8.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	23.0	23.0	0.0	0.0	23.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	61.7%	61.7%	0.0%	38.3%	38.3%	0.0%	0.0%	38.3%	0.0%
Maximum Green (s)				32.1	32.1		19.0	19.0			19.0	
Yellow Time (s)				3.9	3.9		3.0	3.0			3.0	
All-Red Time (s)				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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		1.5	1.5			1.5	
Minimum Gap (s)				1.5	1.5		1.5	1.5			1.5	
Time Before Reduce (s)				0.0	0.0		0.0	0.0			0.0	
Time To Reduce (s)				0.0	0.0		0.0	0.0			0.0	
Recall Mode				C-Max	C-Max		None	None			None	
Walk Time (s)				7.0	7.0		4.0	4.0				
Flash Dont Walk (s)				10.0	10.0		14.0	14.0				
Pedestrian Calls (#/hr)				5	5		5	5				
Act Effct Green (s)					43.7			10.1			10.0	
Actuated g/C Ratio					0.73			0.17			0.17	
v/c Ratio					0.46			0.56			0.24	
Control Delay					2.7			28.2			17.4	
Queue Delay					0.0			0.0			0.0	
Total Delay					2.7			28.2			17.4	
LOS					A			C			B	
Approach Delay					2.7			28.2			17.4	
Approach LOS					A			C			B	
90th %ile Green (s)				33.1	33.1		18.0	18.0			18.0	
90th %ile Term Code				Coord	Coord		Ped	Ped			Hold	
70th %ile Green (s)				39.8	39.8		11.3	11.3			11.3	
70th %ile Term Code				Coord	Coord		Gap	Gap			Hold	
50th %ile Green (s)				41.7	41.7		9.4	9.4			9.4	
50th %ile Term Code				Coord	Coord		Gap	Gap			Hold	
30th %ile Green (s)				43.7	43.7		7.4	7.4			7.4	
30th %ile Term Code				Coord	Coord		Gap	Gap			Hold	
10th %ile Green (s)				55.1	55.1		0.0	0.0			0.0	
10th %ile Term Code				Coord	Coord		Skip	Skip			Skip	
Queue Length 50th (ft)					36			37			19	
Queue Length 95th (ft)					72			m50			42	
Internal Link Dist (ft)		380			244			45			484	
Turn Bay Length (ft)												
Base Capacity (vph)					3429			437			595	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.46			0.30			0.13	

Intersection Summary

Area Type: Other

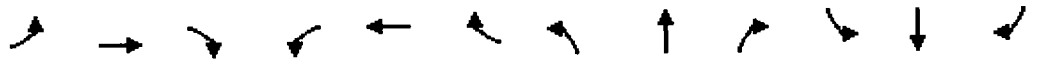
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 50 (83%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 5.2 Intersection LOS: A
Intersection Capacity Utilization 51.7% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: PCH & Amber Lantern



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	117	1396	52	81	50	0	0	60	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	10	11	11	16	16	16
Total Lost time (s)					4.9			4.0			4.0	
Lane Util. Factor					0.91			1.00			1.00	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					1.00			1.00			0.97	
Flt Protected					1.00			0.97			1.00	
Satd. Flow (prot)					4708			1747			1841	
Flt Permitted					1.00			0.77			1.00	
Satd. Flow (perm)					4708			1379			1841	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	117	1396	52	81	50	0	0	60	18
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	0	0	1561	0	0	131	0	0	63	0
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)											0	
Turn Type				Perm			Perm					
Protected Phases					2			8			4	
Permitted Phases				2			8					
Actuated Green, G (s)					41.9			9.2			9.2	
Effective Green, g (s)					41.9			9.2			9.2	
Actuated g/C Ratio					0.70			0.15			0.15	
Clearance Time (s)					4.9			4.0			4.0	
Vehicle Extension (s)					3.0			1.5			1.5	
Lane Grp Cap (vph)					3288			211			282	
v/s Ratio Prot											0.03	
v/s Ratio Perm					0.33			c0.10				
v/c Ratio					0.47			0.62			0.22	
Uniform Delay, d1					4.1			23.8			22.3	
Progression Factor					0.47			0.92			1.00	
Incremental Delay, d2					0.4			3.5			0.1	
Delay (s)					2.4			25.4			22.4	
Level of Service					A			C			C	
Approach Delay (s)		0.0			2.4			25.4			22.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.9
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	225	1471	92	76	68	0	0	52	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	11	11	10	11	11	10	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	70		0	0		25
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	60		60	60		60	60		60	60		60
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.992							0.850
Flt Protected					0.994		0.950					
Satd. Flow (prot)	0	0	0	0	4696	0	1652	1621	0	0	1621	1531
Flt Permitted					0.994		0.723					
Satd. Flow (perm)	0	0	0	0	4696	0	1257	1621	0	0	1621	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23							33
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		288			302			163			436	
Travel Time (s)		5.6			5.9			4.4			11.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	225	1471	92	76	68	0	0	52	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1788	0	76	68	0	0	52	60
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.04	1.04	1.09	1.19	1.04	1.09	1.19	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1		1	1			1	1
Detector Template												
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turn Type				Perm			Perm					Perm
Protected Phases					2			4			8	
Permitted Phases				2			4					8
Detector Phase				2	2		4	4			8	8
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0

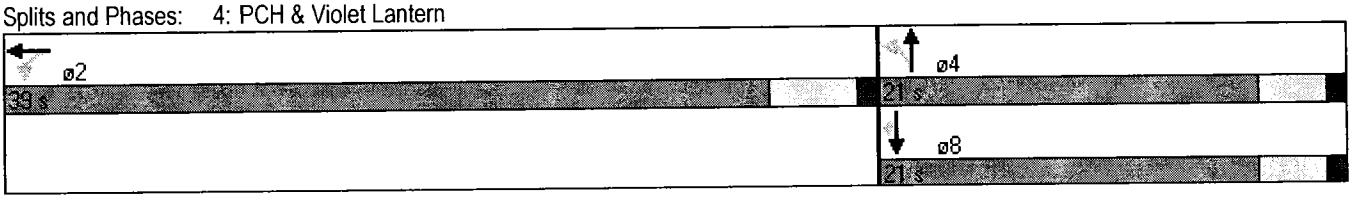
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)				21.9	21.9		21.0	21.0			8.0	8.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	0.0	21.0	21.0
Total Split (%)	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	0.0%	35.0%	35.0%
Maximum Green (s)				34.1	34.1		17.0	17.0			17.0	17.0
Yellow Time (s)				3.9	3.9		3.0	3.0			3.0	3.0
All-Red Time (s)				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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		1.5	1.5			1.5	1.5
Minimum Gap (s)				1.5	1.5		1.5	1.5			1.5	1.5
Time Before Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Time To Reduce (s)				0.0	0.0		0.0	0.0			0.0	0.0
Recall Mode				C-Max	C-Max		None	None			None	None
Walk Time (s)				7.0	7.0		4.0	4.0				
Flash Dont Walk (s)				10.0	10.0		13.0	13.0				
Pedestrian Calls (#/hr)				5	5		5	5				
Act Effct Green (s)					45.0		8.7	8.7			8.7	8.7
Actuated g/C Ratio					0.75		0.14	0.14			0.14	0.14
v/c Ratio					0.51		0.42	0.29			0.22	0.24
Control Delay					4.6		31.0	26.5			22.5	13.8
Queue Delay					0.0		0.0	0.0			0.0	0.0
Total Delay					4.6		31.0	26.5			22.5	13.8
LOS					A		C	C			C	B
Approach Delay					4.6			28.9			17.8	
Approach LOS					A			C			B	
90th %ile Green (s)				34.1	34.1		17.0	17.0			17.0	17.0
90th %ile Term Code				Coord	Coord		Ped	Ped			Hold	Hold
70th %ile Green (s)				41.9	41.9		9.2	9.2			9.2	9.2
70th %ile Term Code				Coord	Coord		Gap	Gap			Hold	Hold
50th %ile Green (s)				43.6	43.6		7.5	7.5			7.5	7.5
50th %ile Term Code				Coord	Coord		Gap	Gap			Hold	Hold
30th %ile Green (s)				45.2	45.2		5.9	5.9			5.9	5.9
30th %ile Term Code				Coord	Coord		Gap	Gap			Hold	Hold
10th %ile Green (s)				55.1	55.1		0.0	0.0			0.0	0.0
10th %ile Term Code				Coord	Coord		Skip	Skip			Skip	Skip
Queue Length 50th (ft)					97		28	24			17	9
Queue Length 95th (ft)					154		m43	m38			36	31
Internal Link Dist (ft)		208			222			83			356	
Turn Bay Length (ft)							70					25
Base Capacity (vph)					3525		356	459			459	457
Starvation Cap Reductn					0		0	0			0	0
Spillback Cap Reductn					0		0	0			0	0
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					0.51		0.21	0.15			0.11	0.13

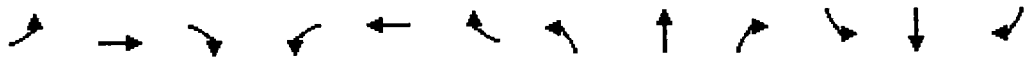
Intersection Summary

Area Type: Other

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 44 (73%), Referenced to phase 2:WBTL and 6:, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 7.0 Intersection LOS: A
Intersection Capacity Utilization 53.7% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: PCH & Violet Lantern





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	225	1471	92	76	68	0	0	52	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	11	11	10	11	11	10	11	11
Total Lost time (s)					4.9		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		1.00	1.00			1.00	1.00
Frpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			1.00	0.85
Flt Protected					0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4696		1652	1621			1621	1531
Flt Permitted					0.99		0.72	1.00			1.00	1.00
Satd. Flow (perm)					4696		1257	1621			1621	1531
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	225	1471	92	76	68	0	0	52	60
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	0	0	0	1782	0	76	68	0	0	52	31
Confl. Peds. (#/hr)												
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)								0			0	
Turn Type				Perm			Perm					Perm
Protected Phases					2			4			8	
Permitted Phases				2			4					8
Actuated Green, G (s)					43.2		7.9	7.9			7.9	7.9
Effective Green, g (s)					43.2		7.9	7.9			7.9	7.9
Actuated g/C Ratio					0.72		0.13	0.13			0.13	0.13
Clearance Time (s)					4.9		4.0	4.0			4.0	4.0
Vehicle Extension (s)					3.0		1.5	1.5			1.5	1.5
Lane Grp Cap (vph)					3381		166	213			213	202
v/s Ratio Prot								0.04			0.03	
v/s Ratio Perm					0.38		c0.06					0.02
v/c Ratio					0.53		0.46	0.32			0.24	0.16
Uniform Delay, d1					3.8		24.1	23.6			23.4	23.1
Progression Factor					0.93		1.11	1.11			1.00	1.00
Incremental Delay, d2					0.4		0.7	0.3			0.2	0.1
Delay (s)					4.0		27.5	26.5			23.6	23.2
Level of Service					A		C	C			C	C
Approach Delay (s)		0.0			4.0			27.0			23.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.9
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			