APPENDIX F

Supporting Transportation Analysis

APPENDIX F-1

Traffic Count Data

SLT/ Casino Summer 2017 Peak Hour Traffic Counts Saturday 8/12/17

Intersection	Northbound			Southbound			Eastbound			Westbound			Total	PM Peak Starting
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
US 50 & Kingsbury Grade Rd	-	1,041	351	209	1,201	-	-	-	-	300	-	168	**3,270**	16:15
US 50 & Lake Pkwy	48	775	46	265	983	224	155	25	81	67	49	471	**3,189**	15:30
US 50 & Montbleu Main Dwy	-	913	62	31	1,090	-	-	-	-	9	-	16	**2,121**	16:15
US 50 & Montbleu Service Driveway	-	978	-	-	1,106	-	-	-	-	-	-	3	**2,087**	16:15
US 50 & Stateline Ave	89	987	49	32	938	38	65	6	120	-	-	-	**2,324**	16:30
US 50 & Park Ave	174	1,111	167	114	965	14	23	52	299	285	49	123	**3,376**	15:30
US 50 & Pioneer Trail	14	1,039	26	312	1,251	7	3	3	7	34	10	524	**3,230**	15:30
Lake Pkwy East & Western Montbleu Dwy	112	-	30	-	-	-	1	257	78	35	495	-	**1,008**	15:30
Lake Pkwy East & Eastern Montbleu Dwy	13	-	34	-	-	-	1	304	5	35	506	-	**898**	16:00
Lake Pkwy East & Heavenly Village Way	50	434	4	6	334	157	158	5	118	3	13	7	**1,289**	16:00

APPENDIX F-2

Level of Service Descriptions

DESCRIPTIONS OF LEVELS OF SERVICE

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with level of service A representing the best operating conditions and level of service F the worst.

Level of Service Definitions

In general, the various levels of service are defined as follows for uninterrupted flow facilities:

- **Level of service A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.

- **Level of service B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.

- **Level of service C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

- **Level of Service D** represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

- **Level of service E** represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to “give way” to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

- **Level of service F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Level of service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and level of service F is an appropriate designation for such points.

APPENDIX F-3

Level of Service Calculations

Existing

HCM 6th Signalized Intersection Summary
1: US 50 & Kingsbury

06/22/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	314	176	1088	367	218	1247
Future Volume (veh/h)	314	176	1088	367	218	1247
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1527	1527	1723	1723
Adj Flow Rate, veh/h	331	0	1145	386	229	1313
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	427		1619	872	259	2525
Arrive On Green	0.12	0.00	0.56	0.56	0.16	0.77
Sat Flow, veh/h	3651	1675	2978	1292	1641	3359
Grp Volume(v), veh/h	331	0	1145	386	229	1313
Grp Sat Flow(s),veh/h/ln	1825	1675	1451	1292	1641	1637
Q Serve(g_s), s	9.6	0.0	31.5	15.2	14.9	16.7
Cycle Q Clear(g_c), s	9.6	0.0	31.5	15.2	14.9	16.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	427		1619	872	259	2525
V/C Ratio(X)	0.78		0.71	0.44	0.88	0.52
Avail Cap(c_a), veh/h	1201		1619	872	358	2525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	0.0	17.7	8.3	45.1	4.8
Incr Delay (d2), s/veh	3.1	0.0	2.6	1.6	17.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	10.4	6.1	7.2	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.0	0.0	20.3	9.9	62.3	5.5
LnGrp LOS	D		C	A	E	A
Approach Vol, veh/h	331	A	1531			1542
Approach Delay, s/veh	50.0		17.7			14.0
Approach LOS	D		B			B

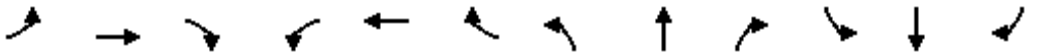
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.4	66.6		19.4		90.0
Change Period (Y+Rc), s	* 6.1	5.6		* 6.6		5.6
Max Green Setting (Gmax), s	* 24	54.4		* 36		84.4
Max Q Clear Time (g_c+I1), s	16.9	33.5		11.6		18.7
Green Ext Time (p_c), s	0.4	10.0		1.2		13.4

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	27	85	70	51	492	50	801	48	299	1027	234
Future Volume (veh/h)	162	27	85	70	51	492	50	801	48	299	1027	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1527	1527	1527	1976	1976	1976	1457	1457	1457	1976	1976	1976
Adj Flow Rate, veh/h	169	28	89	73	53	512	52	834	50	311	1070	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	88	281	370	547	770	61	1002	60	350	1993	
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.38	0.38	0.19	0.53	0.00
Sat Flow, veh/h	747	319	1014	1452	1976	1658	1388	2648	159	1882	3754	1675
Grp Volume(v), veh/h	169	0	117	73	53	512	52	436	448	311	1070	0
Grp Sat Flow(s),veh/h/ln	747	0	1333	1452	1976	1658	1388	1384	1422	1882	1877	1675
Q Serve(g_s), s	22.7	0.0	7.3	4.4	2.1	25.1	3.9	29.8	29.8	16.8	19.5	0.0
Cycle Q Clear(g_c), s	24.8	0.0	7.3	11.6	2.1	25.1	3.9	29.8	29.8	16.8	19.5	0.0
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	369	370	547	770	61	524	538	350	1993	
V/C Ratio(X)	0.65	0.00	0.32	0.20	0.10	0.67	0.85	0.83	0.83	0.89	0.54	
Avail Cap(c_a), veh/h	312	0	460	469	682	883	128	524	538	476	1993	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.3	0.0	29.9	34.6	28.1	21.8	49.5	29.4	29.4	41.5	16.1	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.5	0.3	0.1	1.6	26.1	14.3	14.0	14.7	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	2.3	1.6	1.0	9.6	1.8	11.4	11.7	9.0	8.0	0.0
Unsig. Movement Delay, s/veh												0.00
LnGrp Delay(d),s/veh	40.8	0.0	30.4	34.8	28.1	23.4	75.6	43.7	43.4	56.1	17.1	0.0
LnGrp LOS	D	A	C	C	C	C	E	D	D	E	B	A
Approach Vol, veh/h		286			638			936			1625	A
Approach Delay, s/veh		36.5			25.1			45.3			22.0	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	45.0		34.4	9.1	60.9		34.4				
Change Period (Y+Rc), s	5.6	* 5.5		5.5	4.5	* 5.5		* 5.5				
Max Green Setting (Gmax), s	26.4	* 38		36.0	9.6	* 55		* 36				
Max Q Clear Time (g_c+I1), s	18.8	31.8		26.8	5.9	21.5		27.1				
Green Ext Time (p_c), s	0.6	2.6		1.2	0.0	8.8		1.8				

Intersection Summary			
HCM 6th Ctrl Delay		30.0	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

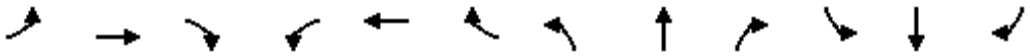
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	17	954	65	32	1139
Future Vol, veh/h	9	17	954	65	32	1139
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	18	1004	68	34	1199

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1946	776	0	0	1192	0
Stage 1	1158	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	57	340	-	-	581	-
Stage 1	261	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	42	267	-	-	515	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	362	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.7	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	201	515	-
HCM Lane V/C Ratio	-	-	0.136	0.065	-
HCM Control Delay (s)	-	-	25.7	12.5	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	6	125	1	1	1	93	1032	51	33	980	40
Future Volume (veh/h)	68	6	125	1	1	1	93	1032	51	33	980	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.66	1.00		0.64	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	71	6	130	1	1	1	97	1075	53	34	1021	42
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	31	231	73	73	73	125	1504	643	66	1320	54
Arrive On Green	0.24	0.24	0.24	0.17	0.17	0.17	0.08	0.46	0.46	0.04	0.41	0.41
Sat Flow, veh/h	1518	128	971	443	443	443	1641	3273	1399	1641	3196	131
Grp Volume(v), veh/h	77	0	130	3	0	0	97	1075	53	34	523	540
Grp Sat Flow(s),veh/h/ln	1647	0	971	1328	0	0	1641	1637	1399	1641	1637	1691
Q Serve(g_s), s	5.6	0.0	17.8	0.3	0.0	0.0	8.8	39.9	3.2	3.1	41.6	41.6
Cycle Q Clear(g_c), s	5.6	0.0	17.8	0.3	0.0	0.0	8.8	39.9	3.2	3.1	41.6	41.6
Prop In Lane	0.92		1.00	0.33		0.33	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	392	0	231	220	0	0	125	1504	643	66	676	698
V/C Ratio(X)	0.20	0.00	0.56	0.01	0.00	0.00	0.78	0.71	0.08	0.51	0.77	0.77
Avail Cap(c_a), veh/h	392	0	231	220	0	0	391	1504	643	391	676	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	0.0	50.6	52.7	0.0	0.0	68.5	32.9	22.9	71.0	38.2	38.2
Incr Delay (d2), s/veh	0.2	0.0	3.1	0.0	0.0	0.0	9.9	2.9	0.3	6.1	8.4	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	4.6	0.1	0.0	0.0	4.0	16.1	1.1	1.4	17.9	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	53.7	52.8	0.0	0.0	78.5	35.8	23.2	77.1	46.6	46.4
LnGrp LOS	D	A	D	D	A	A	E	D	C	E	D	D
Approach Vol, veh/h		207			3			1225			1097	
Approach Delay, s/veh		50.9			52.8			38.6			47.4	
Approach LOS		D			D			D			D	

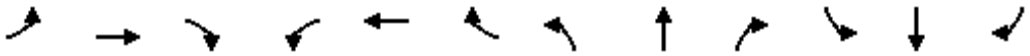
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	74.0		39.0	16.1	67.0		29.0				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	36.0	69.4		36.0	36.0	* 62		25.0				
Max Q Clear Time (g_c+I1), s	5.1	41.9		19.8	10.8	43.6		2.3				
Green Ext Time (p_c), s	0.1	8.6		1.0	0.2	6.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		43.5	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



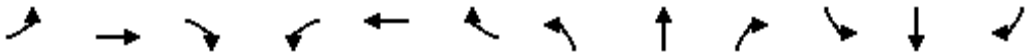
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	54	313	298	51	129	182	1161	175	119	1009	15
Future Volume (veh/h)	24	54	313	298	51	129	182	1161	175	119	1009	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.76	1.00		0.84	1.00		0.70	1.00		0.67
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	25	56	323	307	53	133	188	1197	180	123	1040	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	465	487	359	129	324	213	1348	585	145	1214	18
Arrive On Green	0.04	0.27	0.27	0.11	0.34	0.34	0.13	0.41	0.41	0.09	0.37	0.37
Sat Flow, veh/h	1641	1723	1105	3183	382	959	1641	3273	1022	1641	3276	47
Grp Volume(v), veh/h	25	56	323	307	0	186	188	1197	180	123	520	535
Grp Sat Flow(s),veh/h/ln	1641	1723	1105	1591	0	1341	1641	1637	1022	1641	1637	1686
Q Serve(g_s), s	2.0	3.3	33.1	12.6	0.0	14.2	15.0	45.2	13.6	9.9	39.0	39.0
Cycle Q Clear(g_c), s	2.0	3.3	33.1	12.6	0.0	14.2	15.0	45.2	13.6	9.9	39.0	39.0
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	74	465	487	359	0	453	213	1348	585	145	607	625
V/C Ratio(X)	0.34	0.12	0.66	0.86	0.00	0.41	0.88	0.89	0.31	0.85	0.86	0.86
Avail Cap(c_a), veh/h	75	465	487	442	0	453	301	1492	631	191	636	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	36.7	34.0	58.1	0.0	34.0	57.0	36.4	18.3	59.9	38.7	38.7
Incr Delay (d2), s/veh	2.7	0.1	3.3	12.9	0.0	0.6	19.3	6.5	0.3	22.8	10.8	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.4	9.3	5.7	0.0	4.8	7.3	18.9	3.3	5.0	17.0	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	36.8	37.3	71.0	0.0	34.6	76.3	42.9	18.6	82.7	49.5	49.2
LnGrp LOS	E	D	D	E	A	C	E	D	B	F	D	D
Approach Vol, veh/h		404			493			1565			1178	
Approach Delay, s/veh		38.9			57.3			44.1			52.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	59.5	18.5	40.0	20.8	54.0	9.5	49.0
Change Period (Y+Rc), s	3.5	4.6	3.5	4.0	3.5	4.6	3.5	4.0
Max Green Setting (Gmax), s	15.5	60.8	18.5	36.0	24.5	51.8	6.1	22.0
Max Q Clear Time (g_c+I1), s	11.9	47.2	14.6	35.1	17.0	41.0	4.0	16.2
Green Ext Time (p_c), s	0.1	7.7	0.4	0.2	0.3	4.7	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	3	7	36	10	548	15	1086	27	326	1308	7
Future Volume (veh/h)	3	3	7	36	10	548	15	1086	27	326	1308	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.68	1.00		0.70	1.00		0.92	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	3	3	7	37	10	559	15	1108	28	333	1335	7
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	11	25	78	21	645	32	1256	32	656	2558	13
Arrive On Green	0.04	0.04	0.04	0.06	0.06	0.06	0.02	0.39	0.39	0.40	0.77	0.77
Sat Flow, veh/h	283	283	661	1305	353	1022	1641	3254	82	1641	3338	17
Grp Volume(v), veh/h	13	0	0	47	0	559	15	557	579	333	654	688
Grp Sat Flow(s),veh/h/ln	1227	0	0	1657	0	1022	1641	1637	1700	1641	1637	1719
Q Serve(g_s), s	1.3	0.0	0.0	3.5	0.0	7.7	1.2	40.8	40.9	19.7	20.1	20.1
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.5	0.0	7.7	1.2	40.8	40.9	19.7	20.1	20.1
Prop In Lane	0.23		0.54	0.79		1.00	1.00		0.05	1.00		0.01
Lane Grp Cap(c), veh/h	46	0	0	99	0	645	32	632	656	656	1254	1317
V/C Ratio(X)	0.28	0.00	0.00	0.47	0.00	0.87	0.47	0.88	0.88	0.51	0.52	0.52
Avail Cap(c_a), veh/h	58	0	0	99	0	645	78	757	786	656	1335	1402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.3	0.0	0.0	58.6	0.0	32.4	62.5	36.8	36.8	29.1	5.9	5.9
Incr Delay (d2), s/veh	3.3	0.0	0.0	3.5	0.0	12.0	10.5	10.4	10.1	2.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.6	0.0	17.6	0.6	17.8	18.4	8.2	5.8	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	0.0	0.0	62.1	0.0	44.4	73.0	47.3	47.0	31.9	6.2	6.2
LnGrp LOS	E	A	A	E	A	D	E	D	D	C	A	A
Approach Vol, veh/h		13			606			1151			1675	
Approach Delay, s/veh		63.7			45.8			47.4			11.3	
Approach LOS		E			D			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	55.0	54.3		8.3	6.0	103.3		11.2				
Change Period (Y+Rc), s	3.5	4.6		3.5	3.5	* 4.6		3.5				
Max Green Setting (Gmax), s	51.5	59.6		6.1	6.1	* 1.1E2		7.7				
Max Q Clear Time (g_c+I1), s	21.7	42.9		3.3	3.2	22.1		9.7				
Green Ext Time (p_c), s	1.0	6.9		0.0	0.0	13.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.6
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	292	82	37	497	116	33
Future Vol, veh/h	292	82	37	497	116	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	260	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	7	-	-	-7	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	298	84	38	507	118	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	382	0	923	340
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	583	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1176	-	299	702
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	558	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1176	-	289	702
Mov Cap-2 Maneuver	-	-	-	-	289	-
Stage 1	-	-	-	-	698	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	24.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	332	-	-	1176	-
HCM Lane V/C Ratio	0.458	-	-	0.032	-
HCM Control Delay (s)	24.7	-	-	8.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	5	37	520	14	36
Future Vol, veh/h	320	5	37	520	14	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	280	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	6	-	-	-6	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	5	38	536	14	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	335	0	945	333
Stage 1	-	-	-	-	333	-
Stage 2	-	-	-	-	612	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1224	-	291	709
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1224	-	282	709
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	541	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	-	-	1224	-
HCM Lane V/C Ratio	0.104	-	-	0.031	-
HCM Control Delay (s)	13.1	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	28.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	165	5	123	3	14	7	52	434	4	6	334	164
Future Vol, veh/h	165	5	123	3	14	7	52	434	4	6	334	164
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	172	5	128	3	15	7	54	452	4	6	348	171
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	14	11.4	34.4	32.8
HCM LOS	B	B	D	D

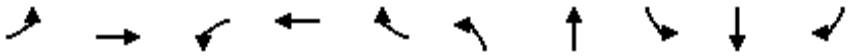
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	11%	97%	0%	12%	1%
Vol Thru, %	89%	3%	0%	58%	66%
Vol Right, %	1%	0%	100%	29%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	490	170	123	24	504
LT Vol	52	165	0	3	6
Through Vol	434	5	0	14	334
RT Vol	4	0	123	7	164
Lane Flow Rate	510	177	128	25	525
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.853	0.391	0.239	0.055	0.847
Departure Headway (Hd)	6.017	7.939	6.72	7.874	5.811
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	602	453	534	453	625
Service Time	4.035	5.689	4.469	5.955	3.829
HCM Lane V/C Ratio	0.847	0.391	0.24	0.055	0.84
HCM Control Delay	34.4	15.7	11.6	11.4	32.8
HCM Lane LOS	D	C	B	B	D
HCM 95th-tile Q	9.4	1.8	0.9	0.2	9.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	331	185	1145	386	229	1313
v/c Ratio	0.67	0.12	0.71	0.40	0.79	0.54
Control Delay	52.6	0.2	25.9	4.4	64.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	0.2	25.9	4.4	64.3	7.8
Queue Length 50th (ft)	119	0	337	40	160	191
Queue Length 95th (ft)	167	0	476	87	#257	282
Internal Link Dist (ft)	1063		1212			591
Turn Bay Length (ft)	270			350	175	
Base Capacity (vph)	1035	1488	1611	1176	342	2417
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	0.32	0.12	0.71	0.33	0.67	0.54

Intersection Summary

Description: US 50 & Kingsbury Grade Rd

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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	169	117	73	53	513	52	884	311	1070	244
v/c Ratio	0.53	0.26	0.22	0.11	0.70	0.44	0.78	0.86	0.60	0.29
Control Delay	40.2	11.5	31.8	29.5	21.9	61.3	38.0	63.6	20.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	11.5	31.8	29.5	21.9	61.3	38.0	63.6	20.8	5.8
Queue Length 50th (ft)	102	15	40	28	216	36	298	206	275	21
Queue Length 95th (ft)	171	59	78	59	320	79	#433	#361	384	72
Internal Link Dist (ft)		2442		264			674		1212	
Turn Bay Length (ft)	180				240	175		280		155
Base Capacity (vph)	409	552	420	622	841	142	1128	422	1798	836
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.21	0.17	0.09	0.61	0.37	0.78	0.74	0.60	0.29

Intersection Summary

Description: US 50 & Lake Parkway

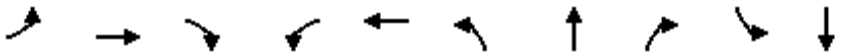
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	77	130	3	97	1075	53	34	1063
v/c Ratio	0.50	0.63	0.02	0.53	0.53	0.06	0.27	0.61
Control Delay	65.5	23.6	39.3	62.6	17.6	6.7	62.8	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	23.6	39.3	62.6	17.6	6.7	62.8	23.6
Queue Length 50th (ft)	52	0	1	63	200	3	23	237
Queue Length 95th (ft)	121	70	10	145	462	29	67	507
Internal Link Dist (ft)	906		100		1388			930
Turn Bay Length (ft)		115		190		40	200	
Base Capacity (vph)	512	384	280	608	2028	898	509	1750
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.34	0.01	0.16	0.53	0.06	0.07	0.61

Intersection Summary

Description: US 50 & Stateline Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	56	323	307	186	188	1197	180	123	1055
v/c Ratio	0.24	0.33	0.74	0.61	0.57	0.60	0.77	0.29	0.56	0.77
Control Delay	58.6	54.0	38.0	48.0	28.7	50.1	26.5	5.1	56.6	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	54.0	38.0	48.0	28.7	50.1	26.5	5.1	56.6	30.4
Queue Length 50th (ft)	16	36	151	99	56	118	348	18	78	310
Queue Length 95th (ft)	50	86	275	169	147	217	477	46	161	461
Internal Link Dist (ft)		770			865		598			1388
Turn Bay Length (ft)	180		180	225		125		125	150	
Base Capacity (vph)	106	663	536	627	684	428	2125	668	271	1803
Starvation Cap Reductn	0	0	0	0	0	0	49	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.08	0.60	0.49	0.27	0.44	0.58	0.27	0.45	0.59

Intersection Summary

Description: US 50 & Park Ave

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	47	559	15	1136	333	1342
v/c Ratio	0.16	0.47	0.71	0.18	0.87	0.47	0.49
Control Delay	48.0	76.8	26.9	67.6	42.3	31.4	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	48.0	76.8	26.9	67.6	42.3	31.4	5.3
Queue Length 50th (ft)	5	36	255	11	414	184	81
Queue Length 95th (ft)	29	#92	519	38	571	342	287
Internal Link Dist (ft)	121	407			718		598
Turn Bay Length (ft)			175	175		215	
Base Capacity (vph)	83	106	788	83	1623	705	2789
Starvation Cap Reductn	0	0	0	0	0	0	788
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.44	0.71	0.18	0.70	0.47	0.67

Intersection Summary

Description: US 50 & Pioneer Trail

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

Existing With Project

HCM 6th Signalized Intersection Summary
1: US 50 & Kingsbury

06/28/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	317	176	1163	390	218	1254
Future Volume (veh/h)	317	176	1163	390	218	1254
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1527	1527	1723	1723
Adj Flow Rate, veh/h	334	0	1224	411	229	1320
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	415		1627	872	259	2534
Arrive On Green	0.11	0.00	0.56	0.56	0.16	0.77
Sat Flow, veh/h	3651	1675	2978	1292	1641	3359
Grp Volume(v), veh/h	334	0	1224	411	229	1320
Grp Sat Flow(s),veh/h/ln	1825	1675	1451	1292	1641	1637
Q Serve(g_s), s	9.7	0.0	34.9	16.6	14.9	16.6
Cycle Q Clear(g_c), s	9.7	0.0	34.9	16.6	14.9	16.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	415		1627	872	259	2534
V/C Ratio(X)	0.80		0.75	0.47	0.88	0.52
Avail Cap(c_a), veh/h	616		1627	872	345	2534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	18.2	8.5	44.9	4.7
Incr Delay (d2), s/veh	4.8	0.0	3.3	1.8	18.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	11.5	6.6	7.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.9	0.0	21.5	10.3	63.6	5.4
LnGrp LOS	D		C	B	E	A
Approach Vol, veh/h	334	A	1635			1549
Approach Delay, s/veh	51.9		18.7			14.0
Approach LOS	D		B			B

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.3	66.7		19.0		90.0
Change Period (Y+Rc), s	* 6.1	5.6		* 6.6		5.6
Max Green Setting (Gmax), s	* 23	55.4		* 18		84.4
Max Q Clear Time (g_c+I1), s	16.9	36.9		11.7		18.6
Green Ext Time (p_c), s	0.3	10.1		0.7		13.5

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	29	85	117	67	592	50	783	55	308	1028	234
Future Volume (veh/h)	178	29	85	117	67	592	50	783	55	308	1028	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1527	1527	1527	1976	1976	1976	1457	1457	1457	1976	1976	1976
Adj Flow Rate, veh/h	185	30	89	122	70	617	52	816	57	321	1071	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	105	312	427	616	838	61	871	61	359	1842	
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.04	0.33	0.33	0.19	0.49	0.00
Sat Flow, veh/h	668	337	1000	1453	1976	1660	1388	2617	183	1882	3754	1675
Grp Volume(v), veh/h	185	0	119	122	70	617	52	431	442	321	1071	0
Grp Sat Flow(s),veh/h/ln	668	0	1337	1453	1976	1660	1388	1384	1416	1882	1877	1675
Q Serve(g_s), s	27.6	0.0	6.8	7.0	2.6	29.7	3.8	30.5	30.5	16.8	20.5	0.0
Cycle Q Clear(g_c), s	30.2	0.0	6.8	13.8	2.6	29.7	3.8	30.5	30.5	16.8	20.5	0.0
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	263	0	417	427	616	838	61	461	471	359	1842	
V/C Ratio(X)	0.70	0.00	0.29	0.29	0.11	0.74	0.85	0.94	0.94	0.89	0.58	
Avail Cap(c_a), veh/h	263	0	417	427	616	838	131	461	471	455	1842	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.5	0.0	26.2	31.4	24.8	19.9	47.9	32.7	32.7	39.8	18.3	0.0
Incr Delay (d2), s/veh	8.2	0.0	0.4	0.4	0.1	3.4	26.4	28.8	28.4	16.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	2.2	2.4	1.2	11.4	1.7	13.3	13.6	9.2	8.6	0.0
Unsig. Movement Delay, s/veh												0.00
LnGrp Delay(d),s/veh	43.8	0.0	26.6	31.8	24.9	23.3	74.4	61.5	61.1	56.6	19.7	0.0
LnGrp LOS	D	A	C	C	C	C	E	E	E	E	B	A
Approach Vol, veh/h		304			809			925			1636	A
Approach Delay, s/veh		37.1			24.7			62.0			24.0	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	39.1		37.0	8.9	55.0		37.0
Change Period (Y+Rc), s	5.6	* 5.5		5.5	4.5	* 5.5		* 5.5
Max Green Setting (Gmax), s	24.4	* 34		30.5	9.5	* 50		* 32
Max Q Clear Time (g_c+I1), s	19.8	32.5		32.2	5.8	22.5		31.7
Green Ext Time (p_c), s	0.5	0.6		0.0	0.0	8.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

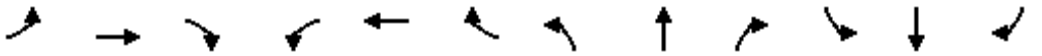
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	24	936	68	33	1186
Future Vol, veh/h	25	24	936	68	33	1186
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	25	985	72	35	1248

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1955	769	0	0	1177	0
Stage 1	1141	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	56	344	-	-	589	-
Stage 1	267	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	270	-	-	522	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	351	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.6	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	181	522	-
HCM Lane V/C Ratio	-	-	0.285	0.067	-
HCM Control Delay (s)	-	-	32.6	12.4	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.1	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	6	125	1	1	1	93	1001	51	33	1104	51
Future Volume (veh/h)	69	6	125	1	1	1	93	1001	51	33	1104	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.63	1.00		0.63	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	72	6	130	1	1	1	97	1043	53	34	1150	53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	20	145	65	65	65	120	1735	744	74	1554	72
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.07	0.53	0.53	0.04	0.49	0.49
Sat Flow, veh/h	1520	127	925	438	438	438	1641	3273	1403	1641	3178	146
Grp Volume(v), veh/h	78	0	130	3	0	0	97	1043	53	34	592	611
Grp Sat Flow(s),veh/h/ln	1647	0	925	1313	0	0	1641	1637	1403	1641	1637	1688
Q Serve(g_s), s	5.1	0.0	16.7	0.2	0.0	0.0	7.1	26.7	2.2	2.5	35.2	35.2
Cycle Q Clear(g_c), s	5.1	0.0	16.7	0.2	0.0	0.0	7.1	26.7	2.2	2.5	35.2	35.2
Prop In Lane	0.92		1.00	0.33		0.33	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	258	0	145	194	0	0	120	1735	744	74	800	825
V/C Ratio(X)	0.30	0.00	0.90	0.02	0.00	0.00	0.81	0.60	0.07	0.46	0.74	0.74
Avail Cap(c_a), veh/h	298	0	168	270	0	0	176	1735	744	108	800	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	0.0	50.2	44.2	0.0	0.0	55.5	19.7	13.9	56.6	24.8	24.9
Incr Delay (d2), s/veh	0.6	0.0	38.0	0.0	0.0	0.0	16.1	1.5	0.2	4.4	6.1	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	5.4	0.1	0.0	0.0	3.4	9.9	0.7	1.1	14.2	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	0.0	88.3	44.3	0.0	0.0	71.6	21.2	14.1	61.0	30.9	30.8
LnGrp LOS	D	A	F	D	A	A	E	C	B	E	C	C
Approach Vol, veh/h		208			3			1193			1237	
Approach Delay, s/veh		72.4			44.3			25.0			31.7	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	69.0		22.1	13.5	64.0		21.9				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	8.0	64.4		22.0	13.0	* 59		25.0				
Max Q Clear Time (g_c+I1), s	4.5	28.7		18.7	9.1	37.2		2.2				
Green Ext Time (p_c), s	0.0	8.8		0.3	0.1	8.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		31.9	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	54	313	483	51	129	182	1129	191	119	1128	20
Future Volume (veh/h)	25	54	313	483	51	129	182	1129	191	119	1128	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.61	1.00		0.71	1.00		0.78	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	26	56	323	498	53	133	188	1164	197	123	1163	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	150	276	595	70	175	223	1519	800	151	1373	25
Arrive On Green	0.07	0.09	0.09	0.19	0.21	0.21	0.14	0.46	0.46	0.09	0.42	0.42
Sat Flow, veh/h	1641	1723	889	3183	334	838	1641	3273	1136	1641	3267	59
Grp Volume(v), veh/h	26	56	323	498	0	186	188	1164	197	123	582	602
Grp Sat Flow(s),veh/h/ln	1641	1723	889	1591	0	1172	1641	1637	1136	1641	1637	1689
Q Serve(g_s), s	1.4	2.8	8.0	13.9	0.0	13.7	10.3	27.2	6.7	6.8	29.4	29.5
Cycle Q Clear(g_c), s	1.4	2.8	8.0	13.9	0.0	13.7	10.3	27.2	6.7	6.8	29.4	29.5
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	107	150	276	595	0	244	223	1519	800	151	688	710
V/C Ratio(X)	0.24	0.37	1.17	0.84	0.00	0.76	0.84	0.77	0.25	0.81	0.85	0.85
Avail Cap(c_a), veh/h	109	150	276	862	0	342	402	2087	997	230	873	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	39.6	36.8	36.0	0.0	34.2	38.7	20.5	6.8	40.9	24.0	24.0
Incr Delay (d2), s/veh	1.2	1.5	107.9	4.9	0.0	6.3	8.3	1.2	0.2	12.2	6.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	14.3	5.7	0.0	4.3	4.5	9.8	1.5	3.1	11.6	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	41.1	144.7	40.9	0.0	40.5	47.0	21.7	6.9	53.1	30.3	30.2
LnGrp LOS	D	D	F	D	A	D	D	C	A	D	C	C
Approach Vol, veh/h		405			684			1549			1307	
Approach Delay, s/veh		123.8			40.8			22.9			32.4	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	47.3	20.7	12.0	16.0	43.2	9.5	23.2
Change Period (Y+Rc), s	3.5	4.6	3.5	4.0	3.5	4.6	3.5	4.0
Max Green Setting (Gmax), s	12.3	58.6	24.9	8.0	22.5	49.0	6.1	26.8
Max Q Clear Time (g_c+I1), s	15.8	29.2	15.9	10.0	12.3	31.5	3.4	15.7
Green Ext Time (p_c), s	0.1	11.3	1.3	0.0	0.3	7.1	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	3	7	36	10	548	15	1071	27	356	1582	7
Future Volume (veh/h)	3	3	7	36	10	548	15	1071	27	356	1582	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.68	1.00		0.73	1.00		0.92	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	3	3	7	37	10	559	15	1093	28	363	1614	7
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	11	25	86	23	653	32	1238	32	655	2541	11
Arrive On Green	0.04	0.04	0.04	0.07	0.07	0.07	0.02	0.38	0.38	0.40	0.76	0.76
Sat Flow, veh/h	283	283	661	1305	353	1061	1641	3253	83	1641	3341	14
Grp Volume(v), veh/h	13	0	0	47	0	559	15	550	571	363	790	831
Grp Sat Flow(s),veh/h/ln	1227	0	0	1657	0	1061	1641	1637	1699	1641	1637	1719
Q Serve(g_s), s	1.3	0.0	0.0	3.5	0.0	8.5	1.2	40.4	40.5	22.0	28.9	28.9
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.5	0.0	8.5	1.2	40.4	40.5	22.0	28.9	28.9
Prop In Lane	0.23		0.54	0.79		1.00	1.00		0.05	1.00		0.01
Lane Grp Cap(c), veh/h	46	0	0	109	0	653	32	623	647	655	1245	1308
V/C Ratio(X)	0.28	0.00	0.00	0.43	0.00	0.86	0.47	0.88	0.88	0.55	0.63	0.64
Avail Cap(c_a), veh/h	58	0	0	109	0	653	78	746	774	655	1323	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.4	0.0	0.0	57.9	0.0	31.8	62.6	37.3	37.3	29.9	7.2	7.2
Incr Delay (d2), s/veh	3.3	0.0	0.0	2.7	0.0	10.9	10.5	10.6	10.3	3.4	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.6	0.0	17.3	0.6	17.7	18.3	9.2	8.7	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	0.0	0.0	60.6	0.0	42.8	73.1	47.9	47.6	33.3	8.1	8.0
LnGrp LOS	E	A	A	E	A	D	E	D	D	C	A	A
Approach Vol, veh/h		13			606			1136			1984	
Approach Delay, s/veh		63.8			44.1			48.1			12.7	
Approach LOS		E			D			D			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	53.7		8.3	6.0	102.7		12.0
Change Period (Y+Rc), s	3.5	4.6		3.5	3.5	* 4.6		3.5
Max Green Setting (Gmax), s	1.5	58.8		6.1	6.1	* 1E2		8.5
Max Q Clear Time (g_c+I1), s	24.0	42.5		3.3	3.2	30.9		10.5
Green Ext Time (p_c), s	1.1	6.7		0.0	0.0	19.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	27.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	287	111	92	536	241	161
Future Vol, veh/h	287	111	92	536	241	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	280	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	6	-	-	-6	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	296	114	95	553	248	166

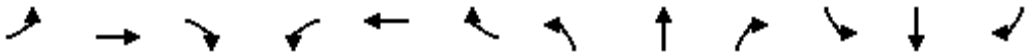
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	410	0	1096	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	743	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1149	-	~ 236	691
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1149	-	~ 216	691
Mov Cap-2 Maneuver	-	-	-	-	~ 216	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	97.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	216	691	-	-	1149	-
HCM Lane V/C Ratio	1.15	0.24	-	-	0.083	-
HCM Control Delay (s)	154.3	11.8	-	-	8.4	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	11.9	0.9	-	-	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Existing With Project With Loop Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	5	228	3	14	7	115	1119	5	8	1182	196
Future Volume (veh/h)	151	5	228	3	14	7	115	1119	5	8	1182	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.69	1.00		0.68	1.00		0.82	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	2121	2121	2121	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	157	5	238	3	15	7	120	1166	5	8	1231	204
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	3	130	22	112	52	121	1332	518	184	1211	198
Arrive On Green	0.13	0.13	0.16	0.13	0.11	0.13	0.07	0.41	0.43	0.11	0.44	0.44
Sat Flow, veh/h	3183	21	1000	210	1051	490	1641	3273	1195	1641	2722	444
Grp Volume(v), veh/h	157	0	243	25	0	0	120	1166	5	8	732	703
Grp Sat Flow(s),veh/h/ln	1591	0	1021	1751	0	0	1641	1637	1195	1641	1637	1530
Q Serve(g_s), s	5.2	0.0	15.0	1.5	0.0	0.0	8.4	37.6	0.3	0.5	51.0	51.0
Cycle Q Clear(g_c), s	5.2	0.0	15.0	1.5	0.0	0.0	8.4	37.6	0.3	0.5	51.0	51.0
Prop In Lane	1.00		0.98	0.12		0.28	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	415	0	133	186	0	0	121	1332	518	184	728	681
V/C Ratio(X)	0.38	0.00	1.82	0.13	0.00	0.00	0.99	0.88	0.01	0.04	1.01	1.03
Avail Cap(c_a), veh/h	417	0	134	199	0	0	186	1799	688	184	728	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	0.0	48.4	45.9	0.0	0.0	53.0	31.3	18.5	45.4	31.8	31.8
Incr Delay (d2), s/veh	0.6	0.0	398.7	0.3	0.0	0.0	51.7	4.0	0.0	0.1	34.8	42.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	18.4	0.7	0.0	0.0	5.1	14.8	0.1	0.2	25.8	25.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	447.1	46.2	0.0	0.0	104.7	35.3	18.5	45.5	66.6	74.7
LnGrp LOS	D	A	F	D	A	A	F	D	B	D	F	F
Approach Vol, veh/h		400			25			1291			1443	
Approach Delay, s/veh		289.7			46.2			41.7			70.4	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	53.6		22.0	15.5	58.0		19.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	66.0		18.0	16.0	54.0		16.0				
Max Q Clear Time (g_c+I1), s	3.5	40.6		17.0	11.4	54.0		3.5				
Green Ext Time (p_c), s	0.0	9.0		0.3	0.1	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		86.2	
HCM 6th LOS		F	

Notes

User approved pedestrian interval to be less than phase max green.

HCS7 Roundabouts Report

General Information

Analyst	STH
Agency or Co.	LSC
Date Performed	7/1/2018
Analysis Year	2018
Time Analyzed	Existing+Pro+Loop Rd
Project Description	South Tahoe Event Center

Site Information

Intersection	Lake Parkway and US 50
E/W Street Name	Lake Parkway
N/S Street Name	US 50
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.96
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	2	0	0	0	1	0	0	0	1	1	0	1	1	0
Lane Assignment	LT		TR				LTR		LTR		R		L		LTR	
Volume (V), veh/h	0	168	29	64	0	109	143	1197	0	50	189	49	0	1068	268	234
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	180	31	69	0	117	153	1284	0	54	203	53	0	1146	288	251
Right-Turn Bypass	None				Non-Yielding				None				None			
Conflicting Lanes	2				2				2				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

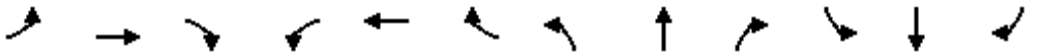
Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276			4.3276		4.6453	4.3276		4.5436	4.5436	
Follow-Up Headway (s)	2.6667	2.5352			2.5352		2.6667	2.5352		2.5352	2.5352	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	180	100			270	1284	257	53		893	792	
Entry Volume veh/h	175	97			262	1247	250	51		867	769	
Circulating Flow (v_c), pc/h	1551			437			1357			324		
Exiting Flow (v_{ex}), pc/h	1230			458			383			474		
Capacity (c_{pce}), pc/h	324	380			979		387	448		1057	1057	
Capacity (c), veh/h	315	369			951		376	435		1027	1027	
v/c Ratio (x)	0.56	0.26			0.28		0.66	0.12		0.84	0.75	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	27.6	14.5			6.6		29.9	10.0		23.3	16.9	
Lane LOS	D	B			A	A	D	A		C	C	
95% Queue, veh	3.2	1.0			1.1		4.6	0.4		10.6	7.3	
Approach Delay, s/veh	22.9			1.1			26.5			20.3		
Approach LOS	C			A			D			C		
Intersection Delay, s/veh | LOS	13.2						B					



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	5	228	3	14	7	115	1119	5	8	1182	196
Future Volume (veh/h)	151	5	228	3	14	7	115	1119	5	8	1182	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.70	1.00		0.68	1.00		0.82	1.00		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	2121	2121	2121	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	157	5	238	3	15	7	120	1166	5	8	1231	204
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	439	3	139	23	117	55	122	1335	6	153	1371	496
Arrive On Green	0.14	0.14	0.17	0.14	0.11	0.14	0.07	0.40	0.43	0.09	0.42	0.42
Sat Flow, veh/h	3183	21	1005	211	1053	491	1641	3339	14	1641	3273	1185
Grp Volume(v), veh/h	157	0	243	25	0	0	120	572	599	8	1231	204
Grp Sat Flow(s),veh/h/ln	1591	0	1026	1755	0	0	1641	1637	1716	1641	1637	1185
Q Serve(g_s), s	4.9	0.0	14.9	1.4	0.0	0.0	7.9	34.9	34.9	0.5	38.0	13.1
Cycle Q Clear(g_c), s	4.9	0.0	14.9	1.4	0.0	0.0	7.9	34.9	34.9	0.5	38.0	13.1
Prop In Lane	1.00		0.98	0.12		0.28	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	439	0	141	195	0	0	122	654	686	153	1371	496
V/C Ratio(X)	0.36	0.00	1.72	0.13	0.00	0.00	0.99	0.87	0.87	0.05	0.90	0.41
Avail Cap(c_a), veh/h	440	0	142	210	0	0	197	951	997	153	1539	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	0.0	45.3	42.9	0.0	0.0	50.2	30.0	30.0	44.8	29.4	22.1
Incr Delay (d2), s/veh	0.5	0.0	351.2	0.3	0.0	0.0	47.8	6.4	6.1	0.1	6.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	17.5	0.6	0.0	0.0	4.8	14.1	14.7	0.2	15.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	0.0	396.5	43.2	0.0	0.0	98.0	36.4	36.1	45.0	36.2	22.7
LnGrp LOS	D	A	F	D	A	A	F	D	D	D	D	C
Approach Vol, veh/h		400			25			1291			1443	
Approach Delay, s/veh		257.7			43.2			42.0			34.4	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.1	50.4		21.9	15.0	52.4		19.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	66.0		18.0	16.0	54.0		16.0				
Max Q Clear Time (g_c+I1), s	3.5	37.9		16.9	10.9	41.0		3.4				
Green Ext Time (p_c), s	0.0	8.4		0.3	0.1	7.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		65.8	
HCM 6th LOS		E	

Notes

User approved pedestrian interval to be less than phase max green.

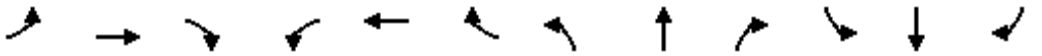
Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	35	243	61	29	413
Future Vol, veh/h	21	35	243	61	29	413
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	37	256	64	31	435

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1025	528	0	0	440	0
Stage 1	408	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	260	550	-	-	1120	-
Stage 1	671	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	198	431	-	-	992	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	317	431	992	-
HCM Lane V/C Ratio	-	-	0.07	0.085	0.031	-
HCM Control Delay (s)	-	-	17.2	14.1	8.7	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	6	125	1	1	1	47	230	51	33	376	51
Future Volume (veh/h)	69	6	125	1	1	1	47	230	51	33	376	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.49	1.00		0.40	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	72	6	130	1	1	1	49	240	53	34	392	53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	26	148	56	56	56	70	612	135	77	651	88
Arrive On Green	0.20	0.20	0.20	0.16	0.16	0.16	0.04	0.45	0.45	0.05	0.44	0.44
Sat Flow, veh/h	1520	127	721	343	343	343	1641	1354	299	1641	1475	199
Grp Volume(v), veh/h	78	0	130	3	0	0	49	0	293	34	0	445
Grp Sat Flow(s),veh/h/ln	1647	0	721	1030	0	0	1641	0	1653	1641	0	1675
Q Serve(g_s), s	4.3	0.0	19.2	0.3	0.0	0.0	3.2	0.0	12.9	2.2	0.0	22.2
Cycle Q Clear(g_c), s	4.3	0.0	19.2	0.3	0.0	0.0	3.2	0.0	12.9	2.2	0.0	22.2
Prop In Lane	0.92		1.00	0.33		0.33	1.00		0.18	1.00		0.12
Lane Grp Cap(c), veh/h	337	0	148	168	0	0	70	0	747	77	0	739
V/C Ratio(X)	0.23	0.00	0.88	0.02	0.00	0.00	0.70	0.00	0.39	0.44	0.00	0.60
Avail Cap(c_a), veh/h	571	0	250	235	0	0	120	0	747	120	0	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	42.3	38.5	0.0	0.0	51.8	0.0	20.0	50.8	0.0	23.3
Incr Delay (d2), s/veh	0.3	0.0	16.8	0.0	0.0	0.0	12.2	0.0	1.5	3.9	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.1	0.1	0.0	0.0	1.5	0.0	5.1	1.0	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	0.0	59.1	38.5	0.0	0.0	64.0	0.0	21.6	54.7	0.0	26.9
LnGrp LOS	D	A	E	D	A	A	E	A	C	D	A	C
Approach Vol, veh/h		208			3			342			479	
Approach Delay, s/veh		50.7			38.5			27.7			28.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	54.1		25.5	9.3	53.0		21.9				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	8.0	48.4		38.0	8.0	* 48		25.0				
Max Q Clear Time (g_c+I1), s	4.2	14.9		21.2	5.2	24.2		2.3				
Green Ext Time (p_c), s	0.0	1.7		1.3	0.0	2.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		32.9	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1018	83	120	1229	169	237
Future Volume (veh/h)	1018	83	120	1229	169	237
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1527	1527	1940	1940	1723	1723
Adj Flow Rate, veh/h	1049	86	124	1267	174	244
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1205	99	161	2270	351	312
Arrive On Green	0.44	0.44	0.09	0.62	0.21	0.21
Sat Flow, veh/h	2792	223	1847	3782	1641	1460
Grp Volume(v), veh/h	560	575	124	1267	174	244
Grp Sat Flow(s),veh/h/ln	1451	1487	1847	1843	1641	1460
Q Serve(g_s), s	18.5	18.5	3.5	10.7	4.9	8.4
Cycle Q Clear(g_c), s	18.5	18.5	3.5	10.7	4.9	8.4
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	644	660	161	2270	351	312
V/C Ratio(X)	0.87	0.87	0.77	0.56	0.50	0.78
Avail Cap(c_a), veh/h	699	716	227	2541	604	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	13.3	23.6	5.9	18.3	19.6
Incr Delay (d2), s/veh	10.9	10.7	9.9	0.2	1.1	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	6.7	1.8	2.5	1.8	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.2	24.0	33.5	6.2	19.4	23.9
LnGrp LOS	C	C	C	A	B	C
Approach Vol, veh/h	1135			1391	418	
Approach Delay, s/veh	24.1			8.6	22.0	
Approach LOS	C			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		15.8	9.1	28.0		37.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		19.5	6.5	25.5		36.5
Max Q Clear Time (g_c+I1), s		10.4	5.5	20.5		12.7
Green Ext Time (p_c), s		1.0	0.0	3.0		10.2

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Future

HCM 6th Signalized Intersection Summary
1: US 50 & Kingsbury

06/22/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	343	191	1176	384	232	1289
Future Volume (veh/h)	343	191	1176	384	232	1289
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1527	1527	1723	1723
Adj Flow Rate, veh/h	361	0	1238	404	244	1357
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	441		1585	862	273	2514
Arrive On Green	0.12	0.00	0.55	0.55	0.17	0.77
Sat Flow, veh/h	3651	1675	2978	1292	1641	3359
Grp Volume(v), veh/h	361	0	1238	404	244	1357
Grp Sat Flow(s),veh/h/ln	1825	1675	1451	1292	1641	1637
Q Serve(g_s), s	10.6	0.0	37.1	16.6	16.0	18.0
Cycle Q Clear(g_c), s	10.6	0.0	37.1	16.6	16.0	18.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	441		1585	862	273	2514
V/C Ratio(X)	0.82		0.78	0.47	0.89	0.54
Avail Cap(c_a), veh/h	611		1585	862	342	2514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	19.7	8.9	44.8	5.0
Incr Delay (d2), s/veh	6.1	0.0	3.9	1.8	21.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	12.4	6.8	7.9	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.3	0.0	23.6	10.7	66.0	5.9
LnGrp LOS	D		C	B	E	A
Approach Vol, veh/h	361	A	1642			1601
Approach Delay, s/veh	53.3		20.4			15.0
Approach LOS	D		C			B

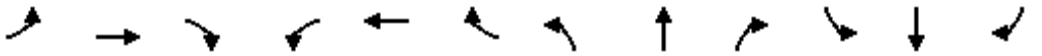
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.4	65.6		19.9		90.0
Change Period (Y+Rc), s	* 6.1	5.6		* 6.6		5.6
Max Green Setting (Gmax), s	* 23	55.4		* 18		84.4
Max Q Clear Time (g_c+I1), s	18.0	39.1		12.6		20.0
Green Ext Time (p_c), s	0.3	9.4		0.7		14.2

Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	24	85	70	51	494	50	887	52	286	1106	240
Future Volume (veh/h)	179	24	85	70	51	494	50	887	52	286	1106	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1527	1527	1527	1976	1976	1976	1457	1457	1457	1976	1976	1976
Adj Flow Rate, veh/h	188	25	89	74	54	520	53	934	55	301	1164	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	69	246	312	468	696	62	1105	65	341	2119	
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.42	0.42	0.18	0.56	0.00
Sat Flow, veh/h	740	291	1036	1457	1976	1655	1388	2651	156	1882	3754	1675
Grp Volume(v), veh/h	188	0	114	74	54	520	53	488	501	301	1164	0
Grp Sat Flow(s),veh/h/ln	740	0	1327	1457	1976	1655	1388	1384	1423	1882	1877	1675
Q Serve(g_s), s	21.7	0.0	7.2	4.5	2.2	23.9	3.8	32.0	32.0	15.7	19.7	0.0
Cycle Q Clear(g_c), s	23.9	0.0	7.2	11.7	2.2	23.9	3.8	32.0	32.0	15.7	19.7	0.0
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	231	0	315	312	468	696	62	577	593	341	2119	
V/C Ratio(X)	0.81	0.00	0.36	0.24	0.12	0.75	0.85	0.85	0.85	0.88	0.55	
Avail Cap(c_a), veh/h	231	0	315	312	468	696	133	577	593	493	2119	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.2	0.0	32.1	37.0	30.2	24.9	47.8	26.5	26.5	40.2	13.9	0.0
Incr Delay (d2), s/veh	19.6	0.0	0.7	0.4	0.1	4.4	25.8	14.1	13.8	12.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	2.3	1.6	1.0	10.8	1.7	12.0	12.3	8.2	7.8	0.0
Unsig. Movement Delay, s/veh												0.00
LnGrp Delay(d),s/veh	60.7	0.0	32.8	37.4	30.3	29.3	73.7	40.6	40.3	52.6	14.9	0.0
LnGrp LOS	E	A	C	D	C	C	E	D	D	D	B	A
Approach Vol, veh/h		302			648			1042			1718	A
Approach Delay, s/veh		50.2			30.3			42.1			19.3	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.9	47.5		29.4	9.0	62.4		29.4				
Change Period (Y+Rc), s	5.6	* 5.5		5.5	4.5	* 5.5		* 5.5				
Max Green Setting (Gmax), s	26.4	* 39		22.9	9.7	* 57		* 24				
Max Q Clear Time (g_c+I1), s	17.7	34.0		25.9	5.8	21.7		25.9				
Green Ext Time (p_c), s	0.6	2.6		0.0	0.0	10.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		30.2
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

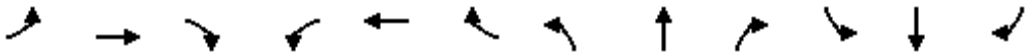
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	17	973	65	32	1261
Future Vol, veh/h	9	17	973	65	32	1261
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	18	1024	68	34	1327

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2030	786	0	0	1212	0
Stage 1	1178	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	50	335	-	-	571	-
Stage 1	255	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	37	263	-	-	506	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	211	-	-	-	-	-
Stage 2	335	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.6	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	194	506	-
HCM Lane V/C Ratio	-	-	0.141	0.067	-
HCM Control Delay (s)	-	-	26.6	12.6	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-



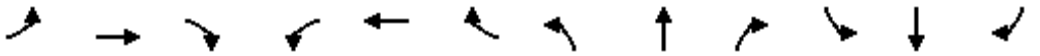
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	6	129	1	1	1	119	1067	51	33	1022	76
Future Volume (veh/h)	107	6	129	1	1	1	119	1067	51	33	1022	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.64	1.00		0.62	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	113	6	136	1	1	1	125	1123	54	35	1076	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	13	150	64	64	64	149	1739	746	74	1455	108
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.09	0.53	0.53	0.05	0.47	0.47
Sat Flow, veh/h	1562	83	939	437	437	437	1641	3273	1403	1641	3076	229
Grp Volume(v), veh/h	119	0	136	3	0	0	125	1123	54	35	572	584
Grp Sat Flow(s),veh/h/ln	1645	0	939	1311	0	0	1641	1637	1403	1641	1637	1668
Q Serve(g_s), s	8.1	0.0	17.6	0.2	0.0	0.0	9.3	30.2	2.3	2.6	35.0	35.1
Cycle Q Clear(g_c), s	8.1	0.0	17.6	0.2	0.0	0.0	9.3	30.2	2.3	2.6	35.0	35.1
Prop In Lane	0.95		1.00	0.33		0.33	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	263	0	150	191	0	0	149	1739	746	74	774	789
V/C Ratio(X)	0.45	0.00	0.90	0.02	0.00	0.00	0.84	0.65	0.07	0.47	0.74	0.74
Avail Cap(c_a), veh/h	280	0	160	265	0	0	199	1739	746	106	774	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	50.9	45.2	0.0	0.0	55.3	20.7	14.1	57.5	26.4	26.4
Incr Delay (d2), s/veh	1.2	0.0	43.4	0.0	0.0	0.0	20.6	1.9	0.2	4.6	6.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	5.9	0.1	0.0	0.0	4.6	11.3	0.8	1.1	14.3	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	0.0	94.3	45.2	0.0	0.0	75.9	22.5	14.3	62.1	32.6	32.6
LnGrp LOS	D	A	F	D	A	A	E	C	B	E	C	C
Approach Vol, veh/h		255			3			1302			1191	
Approach Delay, s/veh		72.8			45.2			27.3			33.5	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	70.2		22.8	15.8	63.0		21.9				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	8.0	65.4		21.0	15.0	* 58		25.0				
Max Q Clear Time (g_c+I1), s	4.6	32.2		19.6	11.3	37.1		2.2				
Green Ext Time (p_c), s	0.0	9.6		0.2	0.1	7.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		34.2	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



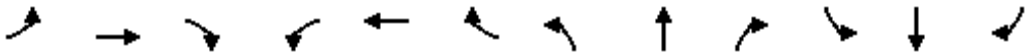
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	59	386	258	53	134	237	1303	186	123	1103	15
Future Volume (veh/h)	24	59	386	258	53	134	237	1303	186	123	1103	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.66	1.00		0.69	1.00		0.81	1.00		0.78
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	25	62	406	272	56	141	249	1372	196	129	1161	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	229	381	338	58	146	284	1669	759	156	1422	20
Arrive On Green	0.06	0.13	0.13	0.11	0.18	0.18	0.17	0.51	0.51	0.10	0.43	0.43
Sat Flow, veh/h	1641	1723	965	3183	323	814	1641	3273	1184	1641	3290	45
Grp Volume(v), veh/h	25	62	406	272	0	197	249	1372	196	129	577	600
Grp Sat Flow(s),veh/h/ln	1641	1723	965	1591	0	1138	1641	1637	1184	1641	1637	1699
Q Serve(g_s), s	1.5	3.2	13.3	8.4	0.0	17.2	14.8	35.5	7.6	7.7	31.0	31.1
Cycle Q Clear(g_c), s	1.5	3.2	13.3	8.4	0.0	17.2	14.8	35.5	7.6	7.7	31.0	31.1
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	98	229	381	338	0	204	284	1669	759	156	708	735
V/C Ratio(X)	0.25	0.27	1.07	0.80	0.00	0.97	0.88	0.82	0.26	0.82	0.82	0.82
Avail Cap(c_a), veh/h	98	229	381	428	0	204	466	2182	944	221	846	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	39.1	36.3	43.8	0.0	40.9	40.4	20.7	8.9	44.6	25.0	25.0
Incr Delay (d2), s/veh	1.4	0.6	64.6	8.5	0.0	52.9	10.3	2.0	0.2	15.7	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.4	16.0	3.7	0.0	7.8	6.7	12.9	1.9	3.7	12.2	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	39.8	100.9	52.4	0.0	93.8	50.7	22.8	9.0	60.3	30.3	30.1
LnGrp LOS	D	D	F	D	A	F	D	C	A	E	C	C
Approach Vol, veh/h		493			469			1817			1306	
Approach Delay, s/veh		90.5			69.8			25.1			33.2	
Approach LOS		F			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	55.8	14.2	17.3	20.9	48.0	9.5	22.0
Change Period (Y+Rc), s	3.5	4.6	3.5	4.0	3.5	4.6	3.5	4.0
Max Green Setting (Gmax), s	13.5	66.9	13.5	10.5	28.5	51.9	6.0	18.0
Max Q Clear Time (g_c+I1), s	9.7	37.5	10.4	15.3	16.8	33.1	3.5	19.2
Green Ext Time (p_c), s	0.1	13.7	0.3	0.0	0.5	7.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	3	7	38	10	676	15	1169	27	380	1382	7
Future Volume (veh/h)	3	3	7	38	10	676	15	1169	27	380	1382	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.68	1.00		0.68	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	3	3	7	40	11	712	16	1231	28	400	1455	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	10	24	62	17	639	33	1310	30	665	2626	13
Arrive On Green	0.04	0.04	0.04	0.05	0.05	0.05	0.02	0.40	0.40	0.41	0.79	0.79
Sat Flow, veh/h	282	282	658	1300	358	999	1641	3265	74	1641	3340	16
Grp Volume(v), veh/h	13	0	0	51	0	712	16	617	642	400	713	749
Grp Sat Flow(s),veh/h/ln	1221	0	0	1658	0	999	1641	1637	1702	1641	1637	1719
Q Serve(g_s), s	1.4	0.0	0.0	4.1	0.0	6.5	1.3	49.6	49.7	26.3	22.6	22.6
Cycle Q Clear(g_c), s	1.4	0.0	0.0	4.1	0.0	6.5	1.3	49.6	49.7	26.3	22.6	22.6
Prop In Lane	0.23		0.54	0.78		1.00	1.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	44	0	0	79	0	639	33	657	683	665	1287	1352
V/C Ratio(X)	0.30	0.00	0.00	0.65	0.00	1.11	0.49	0.94	0.94	0.60	0.55	0.55
Avail Cap(c_a), veh/h	54	0	0	79	0	639	73	678	706	665	1287	1352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.4	0.0	0.0	64.1	0.0	38.5	66.4	39.4	39.4	32.1	5.5	5.5
Incr Delay (d2), s/veh	3.7	0.0	0.0	17.1	0.0	71.4	10.8	20.7	20.3	4.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	2.1	0.0	33.7	0.7	23.2	24.1	11.1	6.5	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	0.0	0.0	81.2	0.0	109.9	77.3	60.1	59.7	36.1	6.1	6.0
LnGrp LOS	E	A	A	F	A	F	E	E	E	D	A	A
Approach Vol, veh/h		13			763			1275			1862	
Approach Delay, s/veh		68.0			108.0			60.1			12.5	
Approach LOS		E			F			E			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	59.0	59.6		8.4	6.2	112.4		10.0				
Change Period (Y+Rc), s	3.5	4.6		3.5	3.5	* 4.6		3.5				
Max Green Setting (Gmax), s	55.5	56.8		6.1	6.1	* 1.1E2		6.5				
Max Q Clear Time (g_c+I1), s	28.3	51.7		3.4	3.3	24.6		8.5				
Green Ext Time (p_c), s	1.2	3.3		0.0	0.0	15.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		46.8	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	88	37	498	116	33
Future Vol, veh/h	273	88	37	498	116	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	260	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	7	-	-	-7	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	287	93	39	524	122	35

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	380	0	936	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	602	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1178	-	294	708
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	547	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1178	-	284	708
Mov Cap-2 Maneuver	-	-	-	-	284	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	547	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	25.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	327	-	-	1178	-
HCM Lane V/C Ratio	0.48	-	-	0.033	-
HCM Control Delay (s)	25.8	-	-	8.2	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	8	37	521	14	36
Future Vol, veh/h	273	8	37	521	14	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	280	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	6	-	-	-6	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	287	8	39	548	15	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	295	0	917	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1266	-	302	748
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1266	-	293	748
Mov Cap-2 Maneuver	-	-	-	-	293	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	533	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	521	-	-	1266	-
HCM Lane V/C Ratio	0.101	-	-	0.031	-
HCM Control Delay (s)	12.7	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	170	5	141	3	14	7	84	400	4	6	222	191
Future Vol, veh/h	170	5	141	3	14	7	84	400	4	6	222	191
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	179	5	148	3	15	7	88	421	4	6	234	201
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	13.6	11.1	31.2	20.8
HCM LOS	B	B	D	C

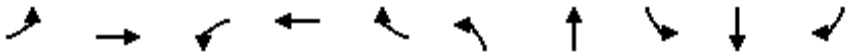
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	17%	97%	0%	12%	1%
Vol Thru, %	82%	3%	0%	58%	53%
Vol Right, %	1%	0%	100%	29%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	488	175	141	24	419
LT Vol	84	170	0	3	6
Through Vol	400	5	0	14	222
RT Vol	4	0	141	7	191
Lane Flow Rate	514	184	148	25	441
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.83	0.391	0.265	0.054	0.694
Departure Headway (Hd)	5.82	7.633	6.418	7.625	5.665
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	616	468	555	472	631
Service Time	3.909	5.432	4.215	5.625	3.758
HCM Lane V/C Ratio	0.834	0.393	0.267	0.053	0.699
HCM Control Delay	31.2	15.3	11.5	11.1	20.8
HCM Lane LOS	D	C	B	B	C
HCM 95th-tile Q	8.7	1.8	1.1	0.2	5.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	361	201	1238	404	244	1357
v/c Ratio	0.75	0.14	0.77	0.41	0.83	0.56
Control Delay	56.7	0.2	27.3	4.5	68.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	0.2	27.3	4.5	68.0	7.6
Queue Length 50th (ft)	131	0	397	44	172	209
Queue Length 95th (ft)	183	0	496	88	#288	258
Internal Link Dist (ft)	1063		1212			591
Turn Bay Length (ft)	270			350	175	
Base Capacity (vph)	531	1488	1614	994	329	2429
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	0.68	0.14	0.77	0.41	0.74	0.56

Intersection Summary

Description: US 50 & Kingsbury Grade Rd

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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	188	114	74	54	520	53	989	301	1164	253
v/c Ratio	0.72	0.30	0.27	0.13	0.77	0.42	0.79	0.82	0.61	0.29
Control Delay	54.7	13.4	36.4	33.3	28.2	55.5	33.3	55.7	17.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	13.4	36.4	33.3	28.2	55.5	33.3	55.7	17.0	3.4
Queue Length 50th (ft)	117	13	41	29	231	34	304	188	268	9
Queue Length 95th (ft)	#221	61	83	63	345	74	404	283	344	47
Internal Link Dist (ft)		670		264			674		1212	
Turn Bay Length (ft)	180				240	175		280		155
Base Capacity (vph)	273	396	284	422	751	151	1246	443	1923	879
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.29	0.26	0.13	0.69	0.35	0.79	0.68	0.61	0.29

Intersection Summary

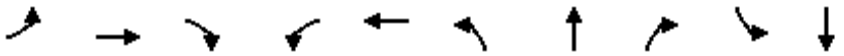
Description: US 50 & Lake Parkway

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

Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	119	136	3	125	1123	54	35	1156
v/c Ratio	0.57	0.59	0.03	0.58	0.49	0.05	0.26	0.59
Control Delay	52.0	18.5	42.7	52.5	9.2	2.5	50.3	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	18.5	42.7	52.5	9.2	2.5	50.3	14.6
Queue Length 50th (ft)	70	0	1	71	155	0	20	208
Queue Length 95th (ft)	139	62	11	151	327	16	59	400
Internal Link Dist (ft)	906		100		1388			647
Turn Bay Length (ft)		115		190		40	200	
Base Capacity (vph)	357	297	331	254	2312	1024	135	1962
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.46	0.01	0.49	0.49	0.05	0.26	0.59

Intersection Summary
Description: US 50 & Stateline Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	62	406	272	197	249	1372	196	129	1177
v/c Ratio	0.24	0.37	0.83	0.68	0.72	0.68	0.80	0.34	0.66	0.86
Control Delay	59.2	56.5	42.4	55.3	41.0	49.4	24.0	3.6	64.4	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	59.2	56.5	42.4	55.3	41.0	49.4	24.1	3.6	64.4	34.4
Queue Length 50th (ft)	17	41	206	95	73	165	404	9	87	374
Queue Length 95th (ft)	49	93	344	#167	#205	267	499	31	#188	516
Internal Link Dist (ft)		770			865		598			1388
Turn Bay Length (ft)	180		180	225		125		125	150	
Base Capacity (vph)	103	190	595	451	308	491	2249	592	232	1779
Starvation Cap Reductn	0	0	0	0	0	0	135	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.33	0.68	0.60	0.64	0.51	0.65	0.33	0.56	0.66

Intersection Summary

Description: US 50 & Park Ave

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

Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	51	712	16	1259	400	1462
v/c Ratio	0.18	0.62	0.93	0.21	0.93	0.57	0.52
Control Delay	48.9	94.8	46.6	70.3	48.9	34.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	48.9	94.8	46.6	70.3	48.9	34.0	5.5
Queue Length 50th (ft)	5	43	475	13	508	254	82
Queue Length 95th (ft)	29	#117	#840	40	#740	405	319
Internal Link Dist (ft)	121	407			718		598
Turn Bay Length (ft)			175	175		215	
Base Capacity (vph)	75	83	768	77	1425	701	2779
Starvation Cap Reductn	0	0	0	0	0	0	799
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.61	0.93	0.21	0.88	0.57	0.74

Intersection Summary

Description: US 50 & Pioneer Trail

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

Queue shown is maximum after two cycles.

Future With Project

HCM 6th Signalized Intersection Summary
1: US 50 & Kingsbury

06/28/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	346	191	1251	407	232	1296
Future Volume (veh/h)	346	191	1251	407	232	1296
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1527	1527	1723	1723
Adj Flow Rate, veh/h	364	0	1317	428	244	1364
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	444		1584	863	272	2512
Arrive On Green	0.12	0.00	0.55	0.55	0.17	0.77
Sat Flow, veh/h	3651	1675	2978	1292	1641	3359
Grp Volume(v), veh/h	364	0	1317	428	244	1364
Grp Sat Flow(s),veh/h/ln	1825	1675	1451	1292	1641	1637
Q Serve(g_s), s	10.7	0.0	41.5	18.1	16.0	18.3
Cycle Q Clear(g_c), s	10.7	0.0	41.5	18.1	16.0	18.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	444		1584	863	272	2512
V/C Ratio(X)	0.82		0.83	0.50	0.90	0.54
Avail Cap(c_a), veh/h	611		1584	863	327	2512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	20.8	9.1	44.9	5.1
Incr Delay (d2), s/veh	6.3	0.0	5.2	2.0	23.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	14.1	7.4	8.1	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.4	0.0	26.0	11.1	67.9	5.9
LnGrp LOS	D		C	B	E	A
Approach Vol, veh/h	364	A	1745			1608
Approach Delay, s/veh	53.4		22.3			15.3
Approach LOS	D		C			B

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.4	65.6		20.0		90.0
Change Period (Y+Rc), s	* 6.1	5.6		* 6.6		5.6
Max Green Setting (Gmax), s	* 22	56.4		* 18		84.4
Max Q Clear Time (g_c+I1), s	18.0	43.5		12.7		20.3
Green Ext Time (p_c), s	0.2	8.5		0.7		14.3

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	26	85	117	66	594	50	869	59	295	1107	240
Future Volume (veh/h)	195	26	85	117	66	594	50	869	59	295	1107	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1527	1527	1527	1976	1976	1976	1457	1457	1457	1976	1976	1976
Adj Flow Rate, veh/h	205	27	89	123	69	625	53	915	62	311	1165	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	88	289	383	558	780	62	964	65	350	1949	
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.37	0.37	0.19	0.52	0.00
Sat Flow, veh/h	663	310	1022	1456	1976	1659	1388	2624	178	1882	3754	1675
Grp Volume(v), veh/h	205	0	116	123	69	625	53	483	494	311	1165	0
Grp Sat Flow(s),veh/h/ln	663	0	1332	1456	1976	1659	1388	1384	1418	1882	1877	1675
Q Serve(g_s), s	25.9	0.0	6.9	7.3	2.6	28.5	3.8	34.2	34.2	16.3	21.8	0.0
Cycle Q Clear(g_c), s	28.5	0.0	6.9	14.2	2.6	28.5	3.8	34.2	34.2	16.3	21.8	0.0
Prop In Lane	1.00		0.77	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	241	0	376	383	558	780	62	508	521	350	1949	
V/C Ratio(X)	0.85	0.00	0.31	0.32	0.12	0.80	0.85	0.95	0.95	0.89	0.60	
Avail Cap(c_a), veh/h	241	0	376	383	558	780	132	508	521	455	1949	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	0.0	28.5	34.1	26.9	22.9	47.9	31.0	31.0	40.1	16.9	0.0
Incr Delay (d2), s/veh	23.8	0.0	0.5	0.5	0.1	6.0	25.8	29.1	28.7	15.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	2.2	2.6	1.2	13.1	1.7	14.8	15.1	8.8	8.9	0.0
Unsig. Movement Delay, s/veh												0.00
LnGrp Delay(d),s/veh	63.5	0.0	28.9	34.5	27.0	28.9	73.7	60.1	59.7	55.9	18.3	0.0
LnGrp LOS	E	A	C	C	C	C	E	E	E	E	B	A
Approach Vol, veh/h		321			817			1030			1729	A
Approach Delay, s/veh		51.0			29.6			60.6			22.4	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.4	42.6		34.0	9.0	57.9		34.0
Change Period (Y+Rc), s	5.6	* 5.5		5.5	4.5	* 5.5		* 5.5
Max Green Setting (Gmax), s	24.4	* 37		27.5	9.6	* 52		* 29
Max Q Clear Time (g_c+I1), s	19.3	36.2		30.5	5.8	23.8		30.5
Green Ext Time (p_c), s	0.5	0.3		0.0	0.0	9.4		0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.
Unsignalized Delay for [SBR] is included in calculations of the approach delay and intersection delay.

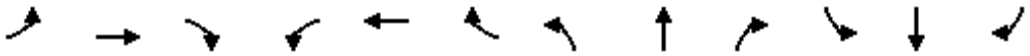
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	24	955	68	33	1308
Future Vol, veh/h	25	24	955	68	33	1308
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	25	1005	72	35	1377

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2040	779	0	0	1197	0
Stage 1	1161	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	49	339	-	-	579	-
Stage 1	260	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	36	266	-	-	513	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	215	-	-	-	-	-
Stage 2	324	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.4	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	173	513	-
HCM Lane V/C Ratio	-	-	0.298	0.068	-
HCM Control Delay (s)	-	-	34.4	12.5	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	6	129	1	1	1	119	1036	51	33	1146	87
Future Volume (veh/h)	108	6	129	1	1	1	119	1036	51	33	1146	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.64	1.00		0.62	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	114	6	136	1	1	1	125	1091	54	35	1206	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	13	149	62	62	62	148	1761	755	74	1474	112
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.14	0.09	0.54	0.54	0.04	0.48	0.48
Sat Flow, veh/h	1562	82	940	436	436	436	1641	3273	1404	1641	3070	234
Grp Volume(v), veh/h	120	0	136	3	0	0	125	1091	54	35	642	656
Grp Sat Flow(s),veh/h/ln	1645	0	940	1309	0	0	1641	1637	1404	1641	1637	1667
Q Serve(g_s), s	8.3	0.0	17.9	0.2	0.0	0.0	9.4	29.1	2.3	2.6	42.2	42.5
Cycle Q Clear(g_c), s	8.3	0.0	17.9	0.2	0.0	0.0	9.4	29.1	2.3	2.6	42.2	42.5
Prop In Lane	0.95		1.00	0.33		0.33	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	260	0	149	187	0	0	148	1761	755	74	786	800
V/C Ratio(X)	0.46	0.00	0.91	0.02	0.00	0.00	0.84	0.62	0.07	0.48	0.82	0.82
Avail Cap(c_a), veh/h	261	0	149	260	0	0	183	1761	755	104	786	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	0.0	52.1	46.4	0.0	0.0	56.4	20.1	14.0	58.7	28.0	28.1
Incr Delay (d2), s/veh	1.3	0.0	48.7	0.0	0.0	0.0	24.6	1.6	0.2	4.7	9.2	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	6.2	0.1	0.0	0.0	4.9	10.9	0.8	1.2	17.7	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	0.0	100.9	46.4	0.0	0.0	81.0	21.8	14.1	63.3	37.2	37.3
LnGrp LOS	D	A	F	D	A	A	F	C	B	E	D	D
Approach Vol, veh/h		256			3			1270			1333	
Approach Delay, s/veh		76.7			46.4			27.3			37.9	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	72.3		22.9	16.0	65.0		22.0				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	8.0	66.4		20.0	14.0	* 60		25.0				
Max Q Clear Time (g_c+I1), s	4.6	31.1		19.9	11.4	44.5		2.2				
Green Ext Time (p_c), s	0.0	9.4		0.0	0.1	7.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		36.7	
HCM 6th LOS		D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	59	386	443	53	134	227	1271	202	123	1222	20
Future Volume (veh/h)	25	59	386	443	53	134	227	1271	202	123	1222	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.59	1.00		0.71	1.00		0.82	1.00		0.79
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	26	62	406	466	56	141	239	1338	213	129	1286	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	132	307	539	63	158	271	1666	853	156	1438	23
Arrive On Green	0.06	0.08	0.08	0.17	0.19	0.19	0.17	0.51	0.51	0.09	0.44	0.44
Sat Flow, veh/h	1641	1723	860	3183	332	837	1641	3273	1191	1641	3279	53
Grp Volume(v), veh/h	26	62	406	466	0	197	239	1338	213	129	641	666
Grp Sat Flow(s),veh/h/ln	1641	1723	860	1591	0	1169	1641	1637	1191	1641	1637	1696
Q Serve(g_s), s	1.6	3.6	8.0	14.8	0.0	17.1	14.8	35.3	7.3	8.0	37.6	37.8
Cycle Q Clear(g_c), s	1.6	3.6	8.0	14.8	0.0	17.1	14.8	35.3	7.3	8.0	37.6	37.8
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	95	132	307	539	0	220	271	1666	853	156	718	744
V/C Ratio(X)	0.27	0.47	1.32	0.86	0.00	0.89	0.88	0.80	0.25	0.83	0.89	0.89
Avail Cap(c_a), veh/h	96	132	307	657	0	263	386	1943	954	206	792	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	46.0	40.7	42.1	0.0	41.2	42.4	21.2	6.6	46.3	27.0	27.0
Incr Delay (d2), s/veh	1.6	2.6	165.4	10.0	0.0	26.8	15.4	2.2	0.2	18.6	11.8	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	21.9	6.5	0.0	6.5	7.0	13.0	1.7	4.0	16.0	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	48.6	206.1	52.0	0.0	68.0	57.8	23.4	6.7	64.8	38.8	38.6
LnGrp LOS	D	D	F	D	A	E	E	C	A	E	D	D
Approach Vol, veh/h		494			663			1790			1436	
Approach Delay, s/veh		178.1			56.8			26.0			41.0	
Approach LOS		F			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	57.6	21.1	12.0	20.7	50.3	9.5	23.6
Change Period (Y+Rc), s	3.5	4.6	3.5	4.0	3.5	4.6	3.5	4.0
Max Green Setting (Gmax), s	13.1	61.8	21.5	8.0	24.5	50.4	6.1	23.4
Max Q Clear Time (g_c+I1), s	10.0	37.3	16.8	10.0	16.8	39.8	3.6	19.1
Green Ext Time (p_c), s	0.1	12.2	0.8	0.0	0.4	5.9	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	3	7	38	10	676	15	1154	27	410	1656	7
Future Volume (veh/h)	3	3	7	38	10	676	15	1154	27	410	1656	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.68	1.00		0.68	1.00		0.92	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	3	3	7	40	11	712	16	1215	28	432	1743	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	10	24	62	17	641	33	1302	30	667	2626	11
Arrive On Green	0.04	0.04	0.04	0.05	0.05	0.05	0.02	0.40	0.40	0.41	0.79	0.79
Sat Flow, veh/h	282	282	658	1300	358	999	1641	3263	75	1641	3343	13
Grp Volume(v), veh/h	13	0	0	51	0	712	16	609	634	432	853	897
Grp Sat Flow(s),veh/h/ln	1222	0	0	1658	0	999	1641	1637	1702	1641	1637	1720
Q Serve(g_s), s	1.4	0.0	0.0	4.1	0.0	6.5	1.3	48.6	48.7	28.9	31.8	31.9
Cycle Q Clear(g_c), s	1.4	0.0	0.0	4.1	0.0	6.5	1.3	48.6	48.7	28.9	31.8	31.9
Prop In Lane	0.23		0.54	0.78		1.00	1.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	44	0	0	79	0	641	33	653	679	667	1286	1351
V/C Ratio(X)	0.30	0.00	0.00	0.65	0.00	1.11	0.49	0.93	0.93	0.65	0.66	0.66
Avail Cap(c_a), veh/h	55	0	0	79	0	641	73	681	708	667	1286	1351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	0.0	0.0	63.9	0.0	38.2	66.2	39.2	39.3	32.6	6.5	6.6
Incr Delay (d2), s/veh	3.7	0.0	0.0	16.8	0.0	69.8	10.8	19.4	19.0	4.8	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	2.1	0.0	33.4	0.6	22.6	23.5	12.3	9.4	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	0.0	0.0	80.6	0.0	108.0	77.0	58.6	58.3	37.4	7.8	7.8
LnGrp LOS	E	A	A	F	A	F	E	E	E	D	A	A
Approach Vol, veh/h		13			763			1259			2182	
Approach Delay, s/veh		67.8			106.2			58.7			13.7	
Approach LOS		E			F			E			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	59.0	59.1		8.4	6.2	111.8		10.0
Change Period (Y+Rc), s	3.5	4.6		3.5	3.5	* 4.6		3.5
Max Green Setting (Gmax), s	55.5	56.8		6.1	6.1*	1.1E2		6.5
Max Q Clear Time (g_c+I1), s	30.9	50.7		3.4	3.3	33.9		8.5
Green Ext Time (p_c), s	1.3	3.8		0.0	0.0	23.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	69.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	265	114	92	537	241	161
Future Vol, veh/h	265	114	92	537	241	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	280	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	6	-	-	-6	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	279	120	97	565	254	169

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	399	0	1098	339
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	759	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1160	-	~ 235	703
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1160	-	~ 215	703
Mov Cap-2 Maneuver	-	-	-	-	~ 215	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	462	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	240.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	298	-	-	1160	-
HCM Lane V/C Ratio	1.42	-	-	0.083	-
HCM Control Delay (s)	240.6	-	-	8.4	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	22.7	-	-	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Future With Project With Loop Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	348	191	1278	409	232	1328
Future Volume (veh/h)	348	191	1278	409	232	1328
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1527	1527	1723	1723
Adj Flow Rate, veh/h	366	0	1345	431	244	1398
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445		1585	863	272	2512
Arrive On Green	0.12	0.00	0.55	0.55	0.17	0.77
Sat Flow, veh/h	3651	1675	2978	1292	1641	3359
Grp Volume(v), veh/h	366	0	1345	431	244	1398
Grp Sat Flow(s),veh/h/ln	1825	1675	1451	1292	1641	1637
Q Serve(g_s), s	10.8	0.0	43.2	18.3	16.1	19.1
Cycle Q Clear(g_c), s	10.8	0.0	43.2	18.3	16.1	19.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	445		1585	863	272	2512
V/C Ratio(X)	0.82		0.85	0.50	0.90	0.56
Avail Cap(c_a), veh/h	603		1585	863	326	2512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	0.0	21.2	9.1	45.0	5.2
Incr Delay (d2), s/veh	6.6	0.0	5.9	2.1	23.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	14.8	7.5	8.1	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.9	0.0	27.0	11.2	68.1	6.1
LnGrp LOS	D		C	B	E	A
Approach Vol, veh/h	366	A	1776			1642
Approach Delay, s/veh	53.9		23.2			15.3
Approach LOS	D		C			B

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.4	65.8		20.0		90.2
Change Period (Y+Rc), s	* 6.1	5.6		* 6.6		5.6
Max Green Setting (Gmax), s	* 22	56.6		* 18		84.6
Max Q Clear Time (g_c+I1), s	18.1	45.2		12.8		21.1
Green Ext Time (p_c), s	0.2	7.8		0.7		15.0

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	30	85	109	197	1267	50	236	49	1241	187	249
Future Volume (veh/h)	185	30	85	109	197	1267	50	236	49	1241	187	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1527	1527	1527	1976	1976	1976	1457	1457	1457	1976	1976	1976
Adj Flow Rate, veh/h	193	31	89	114	205	1320	52	246	51	1293	195	259
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	58	165	125	543	1916	62	231	48	1387	1075	891
Arrive On Green	0.17	0.17	0.17	0.07	0.27	0.27	0.04	0.20	0.20	0.38	0.54	0.54
Sat Flow, veh/h	586	341	979	1882	1976	2899	1388	1162	241	3651	1976	1638
Grp Volume(v), veh/h	193	0	120	114	205	1320	52	0	297	1293	195	259
Grp Sat Flow(s),veh/h/ln	293	0	1320	1882	1976	1449	1388	0	1403	1825	1976	1638
Q Serve(g_s), s	19.1	0.0	9.4	6.8	9.5	31.1	4.2	0.0	22.5	38.5	5.7	9.7
Cycle Q Clear(g_c), s	19.1	0.0	9.4	6.8	9.5	31.1	4.2	0.0	22.5	38.5	5.7	9.7
Prop In Lane	1.00		0.74	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	226	0	223	125	543	1916	62	0	279	1387	1075	891
V/C Ratio(X)	0.85	0.00	0.54	0.91	0.38	0.69	0.85	0.00	1.07	0.93	0.18	0.29
Avail Cap(c_a), veh/h	226	0	223	125	543	1916	121	0	279	1464	1075	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	43.0	52.5	33.2	12.4	53.7	0.0	45.3	33.7	13.1	14.0
Incr Delay (d2), s/veh	25.8	0.0	2.6	55.0	0.4	1.1	25.3	0.0	72.1	10.8	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	3.2	5.1	4.6	9.7	1.9	0.0	13.2	18.3	2.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.5	0.0	45.6	107.5	33.6	13.5	79.0	0.0	117.5	44.5	13.4	14.8
LnGrp LOS	E	A	D	F	C	B	E	A	F	D	B	B
Approach Vol, veh/h		313			1639			349			1747	
Approach Delay, s/veh		65.2			22.5			111.8			36.6	
Approach LOS		E			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	48.6	28.0	12.0	24.6	9.5	67.1		36.6
Change Period (Y+Rc), s	5.6	* 5.5	4.5	5.5	4.5	* 5.5		* 5.5
Max Green Setting (Gmax), s	45.4	* 23	7.5	18.1	9.9	* 59		* 31
Max Q Clear Time (g_c+I1), s	40.5	24.5	8.8	21.1	6.2	11.7		33.1
Green Ext Time (p_c), s	2.5	0.0	0.0	0.0	0.0	2.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	32	303	68	33	379
Future Vol, veh/h	19	32	303	68	33	379
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	34	319	72	35	399

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1064	595	0	0	511	0
Stage 1	475	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	247	504	-	-	1054	-
Stage 1	626	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	185	395	-	-	934	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	528	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.9	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	934	-
HCM Lane V/C Ratio	-	-	0.15	0.037	-
HCM Control Delay (s)	-	-	16.9	9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	6	129	0	0	0	70	268	55	33	303	87
Future Volume (veh/h)	108	6	129	0	0	0	70	268	55	33	303	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.49		0.47	1.00		1.00	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	112	6	134	0	0	0	73	279	57	34	316	91
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	10	163	0	2	0	114	804	164	86	695	200
Arrive On Green	0.24	0.24	0.24	0.00	0.00	0.00	0.07	0.58	0.58	0.05	0.55	0.55
Sat Flow, veh/h	791	42	690	0	1723	0	1641	1378	281	1641	1271	366
Grp Volume(v), veh/h	118	0	134	0	0	0	73	0	336	34	0	407
Grp Sat Flow(s),veh/h/ln	833	0	690	0	1723	0	1641	0	1659	1641	0	1637
Q Serve(g_s), s	10.5	0.0	15.3	0.0	0.0	0.0	3.6	0.0	8.8	1.7	0.0	12.4
Cycle Q Clear(g_c), s	10.5	0.0	15.3	0.0	0.0	0.0	3.6	0.0	8.8	1.7	0.0	12.4
Prop In Lane	0.95		1.00	0.00		0.00	1.00		0.17	1.00		0.22
Lane Grp Cap(c), veh/h	197	0	163	0	2	0	114	0	968	86	0	896
V/C Ratio(X)	0.60	0.00	0.82	0.00	0.00	0.00	0.64	0.00	0.35	0.40	0.00	0.45
Avail Cap(c_a), veh/h	381	0	316	0	519	0	217	0	968	158	0	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	30.0	0.0	0.0	0.0	37.6	0.0	9.0	38.1	0.0	11.3
Incr Delay (d2), s/veh	2.9	0.0	9.7	0.0	0.0	0.0	5.9	0.0	1.0	2.9	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.9	0.0	0.0	0.0	1.6	0.0	2.9	0.7	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	0.0	39.7	0.0	0.0	0.0	43.6	0.0	10.0	41.0	0.0	13.0
LnGrp LOS	C	A	D	A	A	A	D	A	B	D	A	B
Approach Vol, veh/h		252			0			409			441	
Approach Delay, s/veh		35.7			0.0			16.0			15.2	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	53.0		22.6	10.3	50.0		0.0
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	8.3	48.4		38.0	11.0	* 45		25.0
Max Q Clear Time (g_c+I1), s	12.7	10.8		17.3	5.6	14.4		0.0
Green Ext Time (p_c), s	0.0	2.1		2.4	0.1	2.6		0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	59	392	157	52	134	227	352	74	133	234	20
Future Volume (veh/h)	25	59	392	157	52	134	227	352	74	133	234	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.79	1.00		0.65	1.00		0.60	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	26	61	404	162	54	138	234	363	76	137	241	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	542	613	243	539	297	280	518	377	172	404	169
Arrive On Green	0.08	0.31	0.31	0.08	0.31	0.31	0.17	0.30	0.30	0.10	0.23	0.23
Sat Flow, veh/h	1641	1723	1155	3183	1723	949	1641	1723	883	1641	1723	722
Grp Volume(v), veh/h	26	61	404	162	54	138	234	363	76	137	241	21
Grp Sat Flow(s),veh/h/ln	1641	1723	1155	1591	1723	949	1641	1723	883	1641	1723	722
Q Serve(g_s), s	1.1	1.9	21.2	3.8	1.7	9.0	10.6	14.3	4.5	6.2	9.5	1.8
Cycle Q Clear(g_c), s	1.1	1.9	21.2	3.8	1.7	9.0	10.6	14.3	4.5	6.2	9.5	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	542	613	243	539	297	280	518	377	172	404	169
V/C Ratio(X)	0.20	0.11	0.66	0.67	0.10	0.47	0.84	0.70	0.20	0.80	0.60	0.12
Avail Cap(c_a), veh/h	139	607	656	519	742	409	653	998	623	439	774	324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	18.7	15.6	34.4	18.7	21.2	30.7	23.8	16.3	33.5	26.1	23.1
Incr Delay (d2), s/veh	0.8	0.1	2.2	3.1	0.1	1.1	6.5	1.7	0.3	8.1	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	5.4	1.5	0.7	2.0	4.5	5.7	0.9	2.7	3.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	18.7	17.8	37.5	18.8	22.3	37.2	25.5	16.5	41.6	27.5	23.4
LnGrp LOS	C	B	B	D	B	C	D	C	B	D	C	C
Approach Vol, veh/h		491			354			673			399	
Approach Delay, s/veh		18.8			28.7			28.6			32.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	27.6	9.4	28.1	16.6	22.6	9.5	28.0
Change Period (Y+Rc), s	3.5	4.6	3.5	4.0	3.5	4.6	3.5	4.0
Max Green Setting (Gmax), s	20.5	44.4	12.5	27.0	30.5	34.4	6.5	33.0
Max Q Clear Time (g_c+I1), s	13.2	16.3	5.8	23.2	12.6	11.5	3.1	11.0
Green Ext Time (p_c), s	0.2	2.8	0.3	0.9	0.6	1.4	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	712	881	27	419	1264	7	38	106	717	2	59	418
Future Volume (veh/h)	712	881	27	419	1264	7	38	106	717	2	59	418
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	727	899	28	428	1290	7	39	108	0	2	60	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	665	1368	584	610	1311	585	48	375		55	382	
Arrive On Green	0.21	0.42	0.42	0.19	0.40	0.40	0.03	0.22	0.00	0.03	0.22	0.00
Sat Flow, veh/h	3183	3273	1397	3183	3273	1460	1641	1723	1460	1641	1723	1460
Grp Volume(v), veh/h	727	899	28	428	1290	7	39	108	0	2	60	0
Grp Sat Flow(s),veh/h/ln	1591	1637	1397	1591	1637	1460	1641	1723	1460	1641	1723	1460
Q Serve(g_s), s	24.0	25.3	1.4	14.4	44.8	0.3	2.7	6.0	0.0	0.1	3.2	0.0
Cycle Q Clear(g_c), s	24.0	25.3	1.4	14.4	44.8	0.3	2.7	6.0	0.0	0.1	3.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	665	1368	584	610	1311	585	48	375		55	382	
V/C Ratio(X)	1.09	0.66	0.05	0.70	0.98	0.01	0.81	0.29		0.04	0.16	
Avail Cap(c_a), veh/h	665	1368	584	610	1311	585	86	450		57	420	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.4	26.8	19.9	43.4	34.1	20.7	55.4	37.5	0.0	53.7	36.0	0.0
Incr Delay (d2), s/veh	63.0	2.5	0.2	6.6	21.3	0.0	26.7	0.4	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	9.9	0.5	6.1	20.7	0.1	1.5	2.6	0.0	0.1	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.5	29.3	20.0	50.0	55.4	20.8	82.1	37.9	0.0	54.0	36.2	0.0
LnGrp LOS	F	C	C	D	E	C	F	D		D	D	
Approach Vol, veh/h		1654			1725			147	A		62	A
Approach Delay, s/veh		63.9			53.9			49.6			36.8	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	29.0	26.0	52.0	7.4	29.5	28.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	30.0	22.0	48.0	6.0	28.0	24.0	46.0
Max Q Clear Time (g_c+I1), s	2.1	8.0	16.4	27.3	4.7	5.2	26.0	46.8
Green Ext Time (p_c), s	0.0	0.5	0.8	6.1	0.0	0.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	158.2

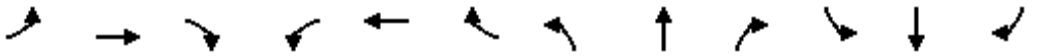
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1234	86	120	1404	169	237
Future Vol, veh/h	1234	86	120	1404	169	237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	280	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	6	-	-	-6	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1272	89	124	1447	174	244

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1361	0	2289	681
Stage 1	-	-	-	-	1317	-
Stage 2	-	-	-	-	972	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	501	-	~ 33	393
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	327	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	501	-	~ 25	393
Mov Cap-2 Maneuver	-	-	-	-	~ 25	-
Stage 1	-	-	-	-	~ 162	-
Stage 2	-	-	-	-	327	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	$ 1262.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	25	393	-	-	501	-
HCM Lane V/C Ratio	6.969	0.622	-	-	0.247	-
HCM Control Delay (s)	$ 2993.8	28.1	-	-	14.5	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	21.7	4	-	-	1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	5	342	9	8	7	121	1470	4	6	1343	209
Future Volume (veh/h)	189	5	342	9	8	7	121	1470	4	6	1343	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.74	1.00		0.72	1.00		0.61	1.00		0.61
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	2121	2121	2121	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	197	5	356	9	8	7	126	1531	4	6	1399	218
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	650	3	220	121	108	94	335	682	2	335	668	183
Arrive On Green	0.20	0.20	0.20	0.18	0.18	0.18	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	3183	15	1077	658	585	512	1641	3342	9	1641	3273	895
Grp Volume(v), veh/h	197	0	361	24	0	0	126	749	786	6	1399	218
Grp Sat Flow(s),veh/h/ln	1591	0	1092	1756	0	0	1641	1637	1715	1641	1637	895
Q Serve(g_s), s	4.6	0.0	18.0	1.0	0.0	0.0	5.8	18.0	18.0	0.3	18.0	18.0
Cycle Q Clear(g_c), s	4.6	0.0	18.0	1.0	0.0	0.0	5.8	18.0	18.0	0.3	18.0	18.0
Prop In Lane	1.00		0.99	0.37		0.29	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	650	0	223	323	0	0	335	334	350	335	668	183
V/C Ratio(X)	0.30	0.00	1.62	0.07	0.00	0.00	0.38	2.24	2.25	0.02	2.09	1.19
Avail Cap(c_a), veh/h	650	0	223	358	0	0	335	334	350	335	668	183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	35.1	29.8	0.0	0.0	30.3	35.1	35.1	28.0	35.1	35.1
Incr Delay (d2), s/veh	0.3	0.0	298.7	0.1	0.0	0.0	0.7	568.8	570.0	0.0	497.6	128.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	23.1	0.4	0.0	0.0	2.4	59.8	62.8	0.1	53.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	333.8	29.9	0.0	0.0	31.0	603.9	605.1	28.1	532.7	163.6
LnGrp LOS	C	A	F	C	A	A	C	F	F	C	F	F
Approach Vol, veh/h		558			24			1661			1623	
Approach Delay, s/veh		226.5			29.9			561.0			481.3	
Approach LOS		F			C			F			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		20.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		3.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			476.0									
HCM 6th LOS			F									

HCS7 Roundabouts Report

General Information

Analyst	STH
Agency or Co.	LSC
Date Performed	7/1/2018
Analysis Year	2018
Time Analyzed	Future + Pro + Loop Rd
Project Description	South Tahoe Event Center

Site Information

Intersection	Lake Parkway and US 50
E/W Street Name	Lake Parkway
N/S Street Name	US 50
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.97
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	2	0	0	0	1	0	0	0	1	1	0	1	1	0
Lane Assignment	LT		TR				LTR		LTR		R		L		LTR	
Volume (V), veh/h	0	185	30	85	0	109	197	1267	0	50	236	49	0	1241	187	249
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	196	32	90	0	116	209	1345	0	53	251	52	0	1318	199	264
Right-Turn Bypass	None				Non-Yielding				None				None			
Conflicting Lanes	2				2				2				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276			4.3276		4.6453	4.3276		4.5436	4.5436	
Follow-Up Headway (s)	2.6667	2.5352			2.5352		2.6667	2.5352		2.5352	2.5352	

Flow Computations, Capacity and v/c Ratios

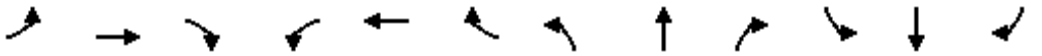
Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	196	122			325	1345	304	52		944	837	
Entry Volume veh/h	190	118			316	1306	295	50		916	813	
Circulating Flow (v_c), pc/h	1633			500			1546			378		
Exiting Flow (v_{ex}), pc/h	1402			526			447			405		
Capacity (c_{pce}), pc/h	301	354			928		326	382		1007	1007	
Capacity (c), veh/h	292	344			901		316	370		977	977	
v/c Ratio (x)	0.65	0.34			0.35		0.93	0.14		0.94	0.83	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	36.1	17.6			7.9		71.9	11.9		36.2	23.0	
Lane LOS	E	C			A	A	F	B		E	C	
95% Queue, veh	4.2	1.5			1.6		9.3	0.5		15.1	10.0	
Approach Delay, s/veh	29.0			1.5			63.2			30.0		
Approach LOS	D			A			F			D		
Intersection Delay, s/veh | LOS	21.3						C					

HCM 6th Signalized Intersection Summary
10: Lake Parkway & Heavenly Village Way

06/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	5	342	9	8	7	121	1470	4	6	1343	209
Future Volume (veh/h)	189	5	342	9	8	7	121	1470	4	6	1343	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.76	1.00		0.10	1.00		0.85	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	2121	2121	2121	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	199	5	360	9	8	7	127	1547	4	6	1414	220
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	682	3	235	3	3	3	158	1810	5	37	1529	879
Arrive On Green	0.21	0.21	0.21	0.02	0.02	0.02	0.10	0.54	0.54	0.02	0.47	0.47
Sat Flow, veh/h	3183	15	1095	191	170	148	1641	3347	9	1641	3273	1213
Grp Volume(v), veh/h	199	0	365	24	0	0	127	756	795	6	1414	220
Grp Sat Flow(s),veh/h/ln	1591	0	1110	509	0	0	1641	1637	1719	1641	1637	1213
Q Serve(g_s), s	4.6	0.0	18.9	1.6	0.0	0.0	6.7	34.8	34.8	0.3	35.7	6.2
Cycle Q Clear(g_c), s	4.6	0.0	18.9	1.6	0.0	0.0	6.7	34.8	34.8	0.3	35.7	6.2
Prop In Lane	1.00		0.99	0.37		0.29	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	682	0	238	9	0	0	158	885	930	37	1529	879
V/C Ratio(X)	0.29	0.00	1.53	2.60	0.00	0.00	0.80	0.85	0.86	0.16	0.93	0.25
Avail Cap(c_a), veh/h	682	0	238	14	0	0	158	902	948	37	1563	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	34.6	43.3	0.0	0.0	39.0	17.3	17.3	42.3	22.1	5.5
Incr Delay (d2), s/veh	0.2	0.0	260.5	957.8	0.0	0.0	25.0	7.9	7.6	2.0	9.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	22.2	2.7	0.0	0.0	3.8	14.1	14.7	0.1	14.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	295.2	1001.1	0.0	0.0	64.0	25.2	24.9	44.3	31.7	5.6
LnGrp LOS	C	A	F	F	A	A	E	C	C	D	C	A
Approach Vol, veh/h		564			24			1678			1640	
Approach Delay, s/veh		201.4			1001.1			28.0			28.2	
Approach LOS		F			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	52.2		23.4	13.0	45.7		6.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	2.0	48.6		18.9	8.5	42.1		2.5				
Max Q Clear Time (g_c+I1), s	2.3	36.8		20.9	8.7	37.7		3.6				
Green Ext Time (p_c), s	0.0	8.2		0.0	0.0	3.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		59.1	
HCM 6th LOS		E	

Notes

User approved pedestrian interval to be less than phase max green.

User approved changes to right turn type.

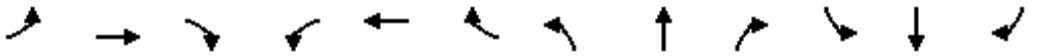
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1234	86	120	1404	169	237
Future Volume (veh/h)	1234	86	120	1404	169	237
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1527	1527	1940	1940	1723	1723
Adj Flow Rate, veh/h	1272	89	124	1447	174	244
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1389	97	160	2432	333	297
Arrive On Green	0.50	0.50	0.09	0.66	0.20	0.20
Sat Flow, veh/h	2828	192	1847	3782	1641	1460
Grp Volume(v), veh/h	670	691	124	1447	174	244
Grp Sat Flow(s),veh/h/ln	1451	1493	1847	1843	1641	1460
Q Serve(g_s), s	27.9	28.1	4.3	14.4	6.2	10.5
Cycle Q Clear(g_c), s	27.9	28.1	4.3	14.4	6.2	10.5
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	733	754	160	2432	333	297
V/C Ratio(X)	0.91	0.92	0.78	0.59	0.52	0.82
Avail Cap(c_a), veh/h	762	784	211	2607	487	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.0	29.4	6.3	23.3	25.1
Incr Delay (d2), s/veh	15.2	15.3	12.3	0.3	1.3	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	10.8	2.3	3.8	2.4	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.2	30.3	41.7	6.6	24.6	33.1
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	1361			1571	418	
Approach Delay, s/veh	30.2			9.4	29.6	
Approach LOS	C			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.9	10.2	37.7		47.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		19.5	7.5	34.5		46.5
Max Q Clear Time (g_c+I1), s		12.5	6.3	30.1		16.4
Green Ext Time (p_c), s		0.8	0.0	3.1		13.5

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
5: US 50 & Stateline

06/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	6	129	1	1	1	70	268	55	33	303	87
Future Volume (veh/h)	108	6	129	1	1	1	70	268	55	33	303	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.50	1.00		0.40	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	112	6	134	1	1	1	73	279	57	34	316	91
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	18	154	57	57	57	99	612	125	77	529	152
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.06	0.44	0.44	0.05	0.42	0.42
Sat Flow, veh/h	1561	84	733	344	344	344	1641	1376	281	1641	1269	365
Grp Volume(v), veh/h	118	0	134	3	0	0	73	0	336	34	0	407
Grp Sat Flow(s),veh/h/ln	1645	0	733	1033	0	0	1641	0	1657	1641	0	1634
Q Serve(g_s), s	6.6	0.0	19.2	0.3	0.0	0.0	4.8	0.0	15.4	2.2	0.0	21.0
Cycle Q Clear(g_c), s	6.6	0.0	19.2	0.3	0.0	0.0	4.8	0.0	15.4	2.2	0.0	21.0
Prop In Lane	0.95		1.00	0.33		0.33	1.00		0.17	1.00		0.22
Lane Grp Cap(c), veh/h	345	0	154	170	0	0	99	0	737	77	0	682
V/C Ratio(X)	0.34	0.00	0.87	0.02	0.00	0.00	0.74	0.00	0.46	0.44	0.00	0.60
Avail Cap(c_a), veh/h	574	0	256	237	0	0	166	0	737	121	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	41.6	38.1	0.0	0.0	50.3	0.0	21.0	50.4	0.0	24.6
Incr Delay (d2), s/veh	0.6	0.0	15.9	0.0	0.0	0.0	10.4	0.0	2.0	3.9	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	4.1	0.1	0.0	0.0	2.2	0.0	6.1	1.0	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	0.0	57.5	38.1	0.0	0.0	60.7	0.0	23.1	54.3	0.0	28.4
LnGrp LOS	D	A	E	D	A	A	E	A	C	D	A	C
Approach Vol, veh/h		252			3			409			441	
Approach Delay, s/veh		48.0			38.1			29.8			30.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	53.0		25.8	11.1	50.0		21.9				
Change Period (Y+Rc), s	3.0	4.6		3.0	4.6	* 4.6		4.0				
Max Green Setting (Gmax), s	8.0	48.4		38.0	11.0	* 45		25.0				
Max Q Clear Time (g_c+I1), s	4.2	17.4		21.2	6.8	23.0		2.3				
Green Ext Time (p_c), s	0.0	2.0		1.6	0.0	2.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.2
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

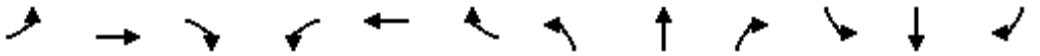
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	32	303	68	33	379
Future Vol, veh/h	19	32	303	68	33	379
Conflicting Peds, #/hr	120	120	0	120	120	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	34	319	72	35	399

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1064	595	0	0	511	0
Stage 1	475	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	247	504	-	-	1054	-
Stage 1	626	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	187	395	-	-	934	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	309	395	934	-
HCM Lane V/C Ratio	-	-	0.065	0.085	0.037	-
HCM Control Delay (s)	-	-	17.5	15	9	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		6%			-7%			7%			-7%	
Storage Length (ft)	180		0	0		240	175		155	280		155
Storage Lanes	2		0	1		2	1		0	2		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		750			344			754			1292	
Travel Time (s)		14.6			6.7			12.9			22.0	
Lane Group Flow (vph)	193	120	0	100	205	1333	52	297	0	1293	226	259
v/c Ratio	0.63	0.41		0.90	0.43	0.73	0.45	0.92		0.99	0.23	0.30
Control Delay	54.9	19.0		116.2	37.9	10.2	62.7	77.7		57.2	15.2	2.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	54.9	19.0		116.2	37.9	10.2	62.7	77.7		57.2	15.2	2.7
Queue Length 50th (ft)	69	20		75	125	209	37	212		482	88	0
Queue Length 95th (ft)	109	76		#181	196	282	79	#380		#644	139	40
Internal Link Dist (ft)		670			264			674			1212	
Turn Bay Length (ft)	180					240	175			280		155
Base Capacity (vph)	322	301		111	485	1848	137	323		1306	977	868
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.60	0.40		0.90	0.42	0.72	0.38	0.92		0.99	0.23	0.30

Intersection Summary

Area Type: Other

Description: US 50 & Lake Parkway

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

Queue shown is maximum after two cycles.

APPENDIX F-4

TRPA RPU Roadway Level of Service Lookup Table

Table 3.3-4. Roadway Segment Level of Service Standards			
Functional Class	Maximum Weekday Peak Hour Traffic Volume to Achieve Specified LOS		
	LOS C	LOS D	LOS E
Two-Lane Undivided Highway [1]	700	1,430	2,740
Two-Lane Arterial Highway with Center Turn Lane [2]	660	1,480	1,790
Four-Lane Urban Undivided Arterial Highway [2]	1,140	2,600	2,950
Four-Lane Urban Arterial Highway with Center Turn Lane [2]	1,320	3,000	3,410
Four-Lane Urban Arterial Highway with Center Turn Lane and Coordinated Signal Control [3]	1,390	3,150	3,580
Four-Lane Rural Undivided Highway [1]	3,380	4,490	5,300

Source: Transportation Research Board 2010
[1] 2010 Highway Capacity Software (HCS) (see Appendix E for calculations).
[2] Exhibit 16-14 of 2010 HCM based on interpolated speed of 35 mph, a 0.10 k-factor (to yield peak hour standards, and a 0.55 D-factor directional split based on observed conditions.
[3] *Highway Capacity Manual* (Transportation Research Board, 2000: pp. 16-19 and 16-20) indicates that coordinated signal operations provide a minimum five percent capacity increase.

As shown on Exhibit 3.3-2, the following nine study roadway segments currently operate at LOS E during the summer Friday evening peak hour:

1. US 50 in Meyers – 1,700 PM peak hour vehicles, which exceeds the LOS D standard by 15 percent
2. US 50 east of Pioneer Trail – 1,710 PM peak hour vehicles, which exceeds the LOS D standard by 16 percent
3. US 50 east of the South Y– 3,230 PM peak hour vehicles, which exceeds the LOS D standard by 8 percent
4. US 50 at Tahoe Keys Blvd. – 3,070 PM peak hour vehicles, which exceeds the LOS D standard by 2 percent
5. US 50 at Al Tahoe Blvd. – 3,110 PM peak hour vehicles, which exceeds the LOS D standard by 4 percent
6. SR 28 west of Lakeshore Blvd. – 1,560 PM peak hour vehicles, which exceeds the LOS D standard by 9 percent
7. SR 28 at North Stateline – 1,590 PM peak hour vehicles, which exceeds the LOS D standard by 11 percent
8. US 50 at Echo Summit – 1,620 PM peak hour vehicles, which exceeds the LOS D standard by 13 percent
9. SR 207 east of US 50 – 1,440 PM peak hour vehicles, which exceeds the LOS D standard by 1 percent

As noted previously, TRPA LOS policies permit LOS E operations in urban areas not to exceed four hours per day. For purposes of this analysis, study intersections and roadway segments are defined as either urban or rural depending on the type and extent of adjacent land development. With the exception of US 50 over Echo Summit, the segments listed above qualify as being in urban areas based on the type of adjacent land use

To determine whether LOS E operations occur for more than four hours, hourly traffic volume data were obtained from Caltrans' PeMS database for a Friday in August 2010 for several segments of US 50. On segments between the South Y and Stateline, the fifth highest travel hour carried about 4 percent less traffic than the highest travel hour. Conversely, on segments that have a more pronounced peak hour surge (i.e., at Echo Summit and near Pioneer Trail), the fifth highest travel hour carried between 20 and 30 percent less traffic than the highest travel hour. Data was also obtained for SR 89 north of Tahoe City for a Friday in August 2011 (data on SR 28 were not available). On SR 89, the fifth highest travel hour carried about 7 percent less traffic than the highest travel hour. The following conclusions were derived based on the highest vs. fifth highest hour volume ratios, segment locations, and percentage exceedance of LOS D standard during the peak hour:

1. US 50 in Meyers – four hours or less of LOS E because fifth highest hour operates at LOS D
2. US 50 east of Pioneer Trail – four hours or less of LOS E because fifth highest hour operates at LOS D

APPENDIX F-5

Supplemental analysis for Alternative C

South Tahoe Event Center - Trip Generation on Summer Design Day - Alternative C

Description	Persons	Percent Reduction for Non-Auto Trips	Average Vehicle Occupancy	Daily One-Way Vehicle Trips at Casino Access Points [1]	Summer PM Peak Hour Trips at Casino Access Points									
					Event Starting in Peak Hour					Event Ending in Peak Hour				
					% IN	% OUT	Trips IN	Trips OUT	Total Trips	% IN	% OUT	Trips IN	Trips OUT	Total Trips
ALTERNATIVE 1														
Attendees	2,500	18%	2.77	1,569	50%	6%	370	44	414	6%	70%	44	518	562
Venue Employees	75	45%	1.30	67	33%	6%	11	2	13	6%	33%	2	11	13
Full Time Employees [3]	10	45%	1.30	11	15%	15%	1	1	2	15%	15%	1	1	2
Delivery/Service	20	0%	1.00	40	25%	25%	5	5	10	25%	25%	5	5	10
Total Alt 1 Use	**2,605**			**1,687**			**387**	**52**	**439**			**52**	**535**	**587**

DVTE = Daily Vehicle Trip Ends
Note 1: Assumes 1/3 of full-time employees make a round-trip off-site during their shift.
Source: LSC Transportation Consultants, Inc.

S Tahoe Event Center V12.xlsx

South Tahoe Event Center - Trip Generation - Alternative C - MAXIMUM CONCERT EVENT

Description	Persons	Percent Reduction for Non-Auto Trips	Average Vehicle Occupancy	Daily One-Way Vehicle Trips at Casino Access Points [1]	Summer PM Peak Hour Trips at Casino Access Points									
					Event Starting in Peak Hour					Event Ending in Peak Hour				
					% IN	% OUT	Trips IN	Trips OUT	Total Trips	% IN	% OUT	Trips IN	Trips OUT	Total Trips
ALTERNATIVE C - MAXIMUM CONCERT EVENT														
Attendees	6,000	18%	2.77	3,765	50%	6%	888	107	995	6%	70%	107	1,243	1,350
Venue Employees	225	45%	1.30	202	33%	6%	31	6	37	6%	33%	6	31	37
Full Time Employees [3]	12	45%	1.30	14	15%	15%	1	1	2	15%	15%	1	1	2
Delivery/Service	50	0%	1.00	100	25%	25%	13	13	26	25%	25%	13	13	26
Total Alt 1 Use	**6,287**			**4,081**			**933**	**127**	**1,060**			**127**	**1,288**	**1,415**

DVTE = Daily Vehicle Trip Ends
Note: Assumes same travel characteristics as summer design day analysis for Alternative C.
Note 1: Assumes 1/3 of full-time employees make a round-trip off-site during their shift.
Source: LSC Transportation Consultants, Inc.

S Tahoe Event Center V12.xlsx

Existing Year Intersection Level of Service With Alternative C

Intersection	Control	LOS Standard [1]	Apply to	Existing Without Project		Existing With Project		Existing With Project With Loop Rd	
				LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 50/Kingsbury Grade	Signal	D/E	total intersection	B	19.1	B	19.8	B	19.8
US 50/Lake Parkway	Signal	D/E	total intersection	C	30.0	C	34.8	C	31.9
	Roundabout	D/E	worst movement [2]	n/a	n/a	n/a	n/a	C	26.5
US 50/Montbleu Main Driveway	TWSC	E	worst movement	D	25.7	D	32.6	C	17.2
US 50/Stateline Avenue	Signal	D/E	total intersection	D	43.5	C	31.9	C	32.9
US 50/Park Ave/Heavenly Village Way	Signal	D/E	total intersection	D	48.1	D	39.5	C	25.1
US 50/Pioneer Trail	Signal	D/E	total intersection	C	29.6	C	28.7	D	38.9
Lake Parkway/Western Montbleu Driveway	TWSC	E	worst movement	C	24.7	n/a	n/a	n/a	n/a
Lake Parkway/Eastern Montbleu Driveway	TWSC	E	worst movement	B	13.1	**F**	**154.3**	**F**	**OVF**
Mitigated - Add TWLTL; OR	*TWSC*	*E*	*worst movement*	*n/a*	*n/a*	*E*	*39.0*		
Mitigated - TCO	*TCO*	*E*	*worst movement*	*n/a*	*n/a*	*B*	*12.7*	*B*	*16.5*
Lake Parkway/Heavenly Village Way	AWSC	D/E	total intersection	D	28.8	**F**	**82.2**	n/a	n/a
	Signal	D/E	total intersection	n/a	n/a	n/a	n/a	E	65.8
Event Starting in Peak Hour	AWSC	D/E	total intersection	n/a	n/a	D	34.4	E	71.3
Event Starting in Peak Hour	Signal	D/E	total intersection	n/a	n/a	n/a	n/a	E	71.3
Mitigated - Add SBR Lane When Event Ends; OR	*AWSC*	*D/E*	*total intersection*	*n/a*	*n/a*	*D*	*31.5*	*n/a*	*n/a*
Mitigated - TCO When Event Ends	*TCO*	*D/E*	*total intersection*	*n/a*	*n/a*	*D*	*50.1*	*n/a*	*n/a*

Note: TWSC = Two-Way Stop-Controlled; AWSC = All-Way Stop-Controlled; TCO = Traffic Control Officer; TWLTL = Central 2-Way LT Lane

Note: **Bold** indicates the LOS standard is exceeded. A bold LOS "E" indicates LOS E for more than 4 hours per day, which exceeds the LOS standards.

Note: Results are reported for an event ending during the summer PM peak hour. In cases near or exceeding the LOS threshold, results with an event starting during the peak hour are also reported.

Note 1: "D/E" indicates an LOS standard of "D", but "E" may be allowed for not more than 4 hours per day.

Note 2: For roundabouts in Nevada, the worst movement is reported, and signalized LOS criteria is applied to the worst movement delay.

Source: LSC Transportation Consultants, Inc.

Future Cumulative Intersection Level of Service With Alternative C

Intersection	Control	LOS Standard [1]	Applies to	Future Without Project		Future With Project		Future With Project With Loop Rd	
				LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 50/Kingsbury Grade	Signal	D/E	total intersection	C	21.3	C	22.4	C	22.7
US 50/Lake Parkway	Signal	D/E	total intersection	C	30.2	D	36.4	D	39.6
	Roundabout	D/E	worst movement [2]	n/a	n/a	n/a	n/a	E	63.2
US 50/Montbleu Main Driveway	TWSC	E	worst movement	D	26.6	D	34.4	C	17.5
US 50/Stateline Avenue	Signal	D/E	total intersection	C	34.2	D	36.7	C	34.2
US 50/Park Ave/Heavenly Village Way	Signal	D/E	total intersection	D	41.3	D	52.7	C	26.8
US 50/Pioneer Trail	Signal	D/E	total intersection	D	46.8	D	44.0	E	58.1
Lake Parkway/Western Montbleu Driveway	TWSC	E	worst movement	D	25.8	n/a	n/a	n/a	n/a
Lake Parkway/Eastern Montbleu Driveway	TWSC	E	worst movement	B	13.0	**F**	**164.8**	**F**	**OVF**
Event Starting in Peak Hour	TWSC	E	worst movement	n/a	n/a	**F**	**96.6**		
Mitigated - TCO; OR	*TCO*	*E*	*worst movement*	*n/a*	*n/a*	*B*	*12.2*	*C*	*20.4*
Mitigated - Add TWLTL	*TWSC*	*E*	*worst movement*	*n/a*	*n/a*	*E*	*42.6*		
Lake Parkway/Heavenly Village Way	AWSC	D/E	total intersection	C	22.9	**F**	**57.6**	n/a	n/a
	Signal	D/E	total intersection	n/a	n/a	n/a	n/a	**F**	**OVF**
Event Starting in Peak Hour	AWSC	D/E	total intersection	n/a	n/a	D	27.7	n/a	n/a
Event Starting in Peak Hour	Signal	D/E	total intersection	n/a	n/a	n/a	n/a	**F**	**143.4**
Mitigated - Add SBR Lane When Event Ends	*AWSC*	*D/E*	*total intersection*	*n/a*	*n/a*	*D*	*30.9*	*n/a*	*n/a*
Mitigated - TCO	*TCO*	*D/E*	*total intersection*	*n/a*	*n/a*	*D*	*47.7*	*E*	*59.1*

Note: TWSC = Two-Way Stop-Controlled; AWSC = All-Way Stop-Controlled; TCO = Traffic Control Officer

Note: **Bold** indicates the LOS standard is exceeded. A bold LOS "E" indicates LOS E for more than 4 hours per day, which exceeds the LOS standards.

Note: Results are reported for an event ending during the summer PM peak hour. Results with an event starting during the peak hour are discussed in the text.

Note 1: "D/E" indicates an LOS standard of "D", but "E" may be allowed for not more than 4 hours per day.

Note 2: For roundabouts in Nevada, the worst movement is reported, and signalized LOS criteria is applied to the worst movement delay.

Source: LSC Transportation Consultants, Inc.

South Tahoe Event Center - VMT Summary - Alternative C

Description	Daily VMT
EVENT VENUE - ALTERNATIVE C	
Attendees	16,382
Employees	419
Delivery/Service	505
ALTERNATIVE C IMPACT ON VMT IN TAHOE BASIN	***17,306***

Source: LSC Transportation Consultants, Inc.

South Tahoe Event Center - VMT Summary - Alternative C - MAXIMUM CONCERT EVENT

Description	Daily VMT
ALTERNATIVE C - MAXIMUM CONCERT EVENT	
Attendees	59,981
Employees	1,165
Delivery/Service	1,265
ALTERNATIVE C IMPACT ON VMT IN TAHOE BASIN - MAXIMUM CONCERT EVENT	***62,411***

Note: Assumes same travel characteristics as summer design day analysis.

Source: LSC Transportation Consultants, Inc.

Event Center - Parking Demand Analysis - Maximum Concert Event - Without Paid Pkg and Microtransit (Alt C)

	Number of Persons onsite at Peak Time	Auto Travel Mode	Average Vehicle Occupancy	Maximum Parking Demand
Maximum Concert Event				
Attendees	6,000	82%	2.77	1,780
Venue Employees	225	55%	1.30	100
Full-Time Employees	12	55%	1.30	10
Total	*6,237*			*1,890*

Note: Assumes same travel characteristics as summer design day analysis (without paid parking and microtransit).
Source: LSC Transportation Consultants, Inc.

APPENDIX F-6

Project 3 2007 Approved Uses

Table I: South Lake Tahoe Redevelopment Project 3 - Revised Project Trip Generation (2007)

	Land Use			PM Peak Hour Trip Generation Rate			AM Peak Hour Trip Generation Rate			Average Daily Trip Generation Rate	Adjustment for:			PM Peak Hour Trip Generation			AM Peak Hour Trip Generation			Average Daily Trip Generation Total
	Type	Quantity	Units	In	Out	Total	In	Out	Total		Non-Auto Trips	Passby Trips	Peaking Factor	In	Out	Total	In	Out	Total	
2007 Land Use Proposal																				
A	Convention Center (1)	93.4	KSF							See Note 1 Below				15	72	87	68	9	77	541
	Retail (2)	20.4	KSF	2.81	2.21	5.02	3.28	3.56	6.84	44.32	44%	40%	0%	19	15	34	22	24	46	506
	Night Club (3)	9.6	KSF	10.52	4.95	15.47	0.00	0.00	0.00	205.36	44%	0%	30%	40	19	59	0	0	0	1,104
	Hotel (4)	365	Rooms	0.30	0.29	0.59	0.30	0.17	0.47	10.10	44%	0%	0%	61	59	120	61	35	96	2,064
	Restaurant (5)	9.7	KSF	5.59	3.43	9.02	4.57	1.00	5.57	89.95	43%	40%	0%	19	11	30	15	3	18	498
	Subtotal Project A													154	176	330	166	71	237	4,713
B	Hotel (5)	123	Rooms	0.30	0.29	0.59	0.30	0.17	0.47	10.10	44%	0%	0%	21	20	41	21	12	33	696
	Retail (2)	27.1	KSF	2.41	2.61	5.02	3.83	3.01	6.84	44.32	44%	40%	0%	22	24	46	35	27	62	673
	Subtotal Project B													43	44	87	56	39	95	1,369
Total:														197	220	417	222	110	332	6,082
Original 1998 Land Use Proposal (Applying Current Trip Generation Rates)														226	241	467	237	130	367	7,082
Difference: 2007 Proposal Minus 1998 Proposal													#	-29	-21	-50	-15	-20	-35	-1,000
													%	-13%	-9%	-11%	-6%	-15%	-10%	-14%

(1) See text.

(2) Assumes Land Use Type 814 (Specialty Retail Center) ITE Trip Generation Manual, 7th Edition (ITE, 2030) for peak hour trip generation rates. Assumes Specialty Retail Center land use in TRPA trip generation table for daily rates (TRPA, 2004).

(3) Assumes Land Use Type 936 (Drinking Place) ITE Trip Generation Manual, 7th Edition (ITE, 2003) for peak hour trips. Assumes Drinking Places land use in TRPA trip generation table for daily rates (TRPA, 2004).

(4) Assumes Land Use Type 330 (Resort Hotel) ITE Trip Generation Manual for peak hour rates. Assumes Hotel/Motel (timeshare) land use type in TRPA trip generation table for daily rates.

(5) Assumes Land Use Type 931(Quality Restaurant) ITE Trip Generation Manual, 7th Edition (ITE, 2003) for peak hour rates. Assumes quality restaurant (>1 hr. turnover)land use type in TRPA trip generation table for daily rate.

Project 3 Trip Gen.wb2

APPENDIX F-7

Parking Count Data

Parking Counts - Summary

TOTAL PARKING

		Legal Spaces Occupied				Wells Fargo		Total Cars	Total Spaces
		On- Street	Lots	Total [1]	% Occupied	Lot	Illegal	Parked	Available
TOTAL	**Max Occupancy**	**381**	**7,742**	**8,123**		**32**			
	Wednesday (Event Day) 8/16/17	198	4,540	4,738	58%	31	29	4,798	3,325
	Friday 8/11/17	154	3,800	3,954	49%	0	5	3,959	4,164
	Saturday 8/12/17	139	4,079	4,218	52%	0	5	4,223	3,900

Note 1: Total legal spaces excludes the private Wells Fargo Lot, as it may not be available in the future.

Parking Count - Summary

On-Street Parking

Parking Venue	Date	Total Occupied	% Occupied	No. Legally Occupied	% Legally Occupied	No. Illegally Occupied
Lake Side On-Street Parking (Beach to and including Pine Blvd)	**Max Occupancy**	**226**		**226**		
	Wednesday 8/16/17 (Event Day)	131	58%	113	50%	18
	Friday 8/11/17	83	37%	81	36%	2
	Saturday 8/12/17	75	33%	75	33%	0
On-Street Parking (Pine Blvd to US 50)	**Max Occupancy**	**123**		**123**		
	Wednesday 8/16/17 (Event Day)	84	37%	73	59%	11
	Friday 8/11/17	55	24%	52	42%	3
	Saturday 8/12/17	46	20%	41	33%	5
On-Street Parking (Bellamy Ct & Transit Wy.)	**Max Occupancy**	**32**		**32**		
	Wednesday 8/16/17 (Event Day)	18	56%	12	38%	0
	Friday 8/11/17	21	66%	21	66%	0
	Saturday 8/12/17	23	72%	23	72%	0
TOTAL On-Street	**Max Occupancy**	**381**		**381**		
	Wednesday 8/16/17 (Event Day)	233	61%	198	52%	29
	Friday 8/11/17	159	42%	154	40%	5
	Saturday 8/12/17	144	38%	139	36%	5

NOTES: Illegal indicates a "No Parking" Zone

Parking Counts - Summary

Lot Parking

Wells Fargo Lot (B1)	**Max Occupancy**	**32**	
	Wednesday (Event Day) 8/16/17	31	97%
	Friday 8/11/17	0	0%
	Saturday 8/12/17	0	0%
Hard Rock Casino Parking (B2, B5)	**Max Occupancy**	**1350**	
	Wednesday (Event Day) 8/16/17	719	53%
	Friday 8/11/17	611	45%
	Saturday 8/12/17	759	56%
Harvey's Casino Parking (B3, B4)	**Max Occupancy**	**2313**	
	Wednesday (Event Day) 8/16/17	1352	58%
	Friday 8/11/17	1117	48%
	Saturday 8/12/17	1161	50%
MontBleu Casino Parking (A1, A-G, V)	**Max Occupancy**	**1494**	
	Wednesday (Event Day) 8/16/17	751	50%
	Friday 8/11/17	713	48%
	Saturday 8/12/17	753	50%
Lot Behind Dotty's (E4)	**Max Occupancy**	**189**	
	Wednesday (Event Day) 8/16/17	187	99%
	Friday 8/11/17	135	71%
	Saturday 8/12/17	132	70%
Harrah's Parking (E3, E5)	**Max Occupancy**	**1718**	
	Wednesday (Event Day) 8/16/17	1313	76%
	Friday 8/11/17	998	58%
	Saturday 8/12/17	1077	63%
City Paid Public Parking Garage (E2)	**Max Occupancy**	**408**	
	Wednesday (Event Day) 8/16/17	179	44%
	Friday 8/11/17	197	48%
	Saturday 8/12/17	174	43%
Village Center Back Lot (Paid Parking) (E1)	**Max Occupancy**	**270**	
	Wednesday (Event Day) 8/16/17	39	14%
	Friday 8/11/17	29	11%
	Saturday 8/12/17	23	9%

Tailgater - Parking Counts

City: Stateline, NV

Day: Wednesday
Date: 8/16/2017

Section	S11	S12	S21	S25	LOT B2	LOT B2 Fenced Off	NO ZONE
Street	Street: Cedar Avenue From : Poplar Street To : Stateline Ave	Street: Stateline Ave From : Manzanita Ave To : Cedar Ave	Street: Stateline Ave From : Pine Blvd To : Manzanita Ave	Street: Pine Blvd From : Park Ave To : Stateline Ave	Hard Rock Lot	Hard Rock Fenced off Lot	Street: Lake Pkwy From: Stateline Ave To: LOT B2 (Hard Rock Lot)
Tailgaters	3	4	16	3	32+	8	76+
Notes					32 vehicles during the beginning of the count increasing and flooding into "No Parking" areas as time went by.	8 vehicles in the fenced off area.	All in "No Parking" areas and increased as time went by.

Montbleu Parking Study

Location: Montbleu Casino Parking
City: Stateline, NV

Day: Saturday
Date: 8/12/2017

	A1 Level 1	A1 Level 2	A1 Level 3	A1 Level 4	A1 Level 5	A1 Level 6	**Garage Total**	Lot A	Lot B	Lot C	Lot D	Lot E	Lot F	Lot G	Lot V	**Lot Total**	**Grand Total**	
Spaces	**62**	**81**	**107**	**123**	**124**	**127**	**660**	**238**	**91**	**112**	**181**	**80**	**4**	**40**	**88**	**834**	**1494**	
Time																		
12:00	32	20	51	45	27	0	**175**	121	22	16	47	64	1	6	37	**314**	**489**	
13:00	43	22	54	48	31	1	**199**	129	28	17	44	47	0	12	38	**315**	**514**	
14:00	42	22	57	47	34	6	**208**	153	43	15	44	66	2	11	43	**377**	**585**	
15:00	40	24	63	38	36	1	**202**	163	47	17	42	75	0	14	44	**402**	**604**	
16:00	40	29	75	61	41	0	**246**	174	55	20	38	79	1	6	48	**421**	**667**	
17:00	32	30	75	64	48	0	**249**	169	70	16	32	79	3	9	51	**429**	**678**	
18:00	47	31	75	69	48	0	**270**	181	76	18	25	79	0	9	47	**435**	**705**	
19:00	48	28	87	71	61	0	**295**	193	81	24	24	80	2	8	46	**458**	**753**	MAX