
























Synchro LOS Reports

Existing

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	279	125	161	534	43	107	431	92	52	555	263
Future Volume (veh/h)	133	279	125	161	534	43	107	431	92	52	555	263
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	141	297	133	171	568	46	114	459	98	55	590	280
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	792	354	210	802	65	146	1323	779	109	1249	717
Arrive On Green	0.10	0.22	0.22	0.12	0.24	0.24	0.08	0.37	0.37	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3317	268	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	141	297	133	171	303	311	114	459	98	55	590	280
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1815	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.3	5.7	5.7	7.6	12.6	12.7	5.1	7.5	2.7	2.4	10.5	9.5
Cycle Q Clear(g_c), s	6.3	5.7	5.7	7.6	12.6	12.7	5.1	7.5	2.7	2.4	10.5	9.5
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	792	354	210	428	439	146	1323	779	109	1249	717
V/C Ratio(X)	0.80	0.38	0.38	0.82	0.71	0.71	0.78	0.35	0.13	0.50	0.47	0.39
Avail Cap(c_a), veh/h	297	1161	520	297	581	596	297	1323	779	297	1249	717
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	35.5	26.6	26.6	34.8	28.0	28.0	36.3	18.2	11.1	36.7	20.3	14.7
Incr Delay (d2), s/veh	7.9	0.3	0.7	11.3	2.5	2.5	8.7	0.7	0.3	3.6	1.3	1.6
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	3.4	2.8	2.6	4.4	6.4	6.6	2.9	3.8	1.2	1.3	5.3	4.5
LnGrp Delay(d),s/veh	43.4	26.9	27.2	46.0	30.5	30.5	45.0	18.9	11.4	40.3	21.6	16.3
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		571			785			671			925	
Approach Delay, s/veh		31.0			33.9			22.3			21.1	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	34.7	14.0	22.6	11.2	33.0	12.6	24.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.4	9.5	9.6	7.7	7.1	12.5	8.3	14.7				
Green Ext Time (p_c), s	0.1	7.9	0.2	6.1	0.1	7.3	0.1	4.9				
Intersection Summary												
HCM 2010 Ctrl Delay			26.7									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	620	0	0	841
Future Vol, veh/h	0	9	620	0	0	841
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	660	0	0	895
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1107	330	0	0	660	0
Stage 1	660	-	-	-	-	-
Stage 2	447	-	-	-	-	-
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	204	666	-	-	924	-
Stage 1	476	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	204	666	-	-	924	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	611	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	666	924
HCM Lane V/C Ratio	-	-	0.014	-
HCM Control Delay (s)	-	-	10.5	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	61	112	57	75	18	99	602	57	18	812	41
Future Volume (veh/h)	39	61	112	57	75	18	99	602	57	18	812	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	40	63	115	59	77	19	102	621	59	19	837	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	97	90	164	123	309	263	157	1701	761	55	1498	670
Arrive On Green	0.05	0.15	0.15	0.07	0.17	0.17	0.09	0.48	0.48	0.03	0.42	0.42
Sat Flow, veh/h	1774	592	1080	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	40	0	178	59	77	19	102	621	59	19	837	42
Grp Sat Flow(s),veh/h/ln	1774	0	1672	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.5	0.0	6.8	2.2	2.4	0.7	3.7	7.4	1.4	0.7	12.0	1.1
Cycle Q Clear(g_c), s	1.5	0.0	6.8	2.2	2.4	0.7	3.7	7.4	1.4	0.7	12.0	1.1
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	0	253	123	309	263	157	1701	761	55	1498	670
V/C Ratio(X)	0.41	0.00	0.70	0.48	0.25	0.07	0.65	0.36	0.08	0.34	0.56	0.06
Avail Cap(c_a), veh/h	356	0	658	356	733	623	356	1701	761	356	1498	670
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	1.00
Uniform Delay (d), s/veh	30.8	0.0	27.1	30.2	24.4	23.7	29.7	11.0	9.4	31.9	14.7	11.5
Incr Delay (d2), s/veh	2.8	0.0	3.5	2.9	0.4	0.1	4.5	0.6	0.2	3.7	1.5	0.2
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	0.8	0.0	3.4	1.1	1.3	0.3	2.0	3.8	0.6	0.4	6.1	0.5
LnGrp Delay(d),s/veh	33.5	0.0	30.7	33.0	24.8	23.8	34.1	11.6	9.6	35.6	16.2	11.7
LnGrp LOS	C		C	C	C	C	C	B	A	D	B	B
Approach Vol, veh/h		218			155			782			898	
Approach Delay, s/veh		31.2			27.8			14.4			16.4	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	36.9	9.2	14.7	10.5	33.0	8.2	15.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.7	9.4	4.2	8.8	5.7	14.0	3.5	4.4				
Green Ext Time (p_c), s	0.0	10.1	0.1	1.4	0.1	8.5	0.0	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			18.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	257	4	151	267	606	0	0	718	266
Future Volume (veh/h)	0	0	0	257	4	151	267	606	0	0	718	266
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				268	4	157	278	631	0	0	748	277
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				342	5	309	322	2460	0	0	1161	430
Arrive On Green				0.20	0.20	0.20	0.18	0.70	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1749	26	1583	1774	3632	0	0	2623	937
Grp Volume(v), veh/h				272	0	157	278	631	0	0	523	502
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1697
Q Serve(g_s), s				12.0	0.0	7.3	12.5	5.4	0.0	0.0	18.7	18.7
Cycle Q Clear(g_c), s				12.0	0.0	7.3	12.5	5.4	0.0	0.0	18.7	18.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.55
Lane Grp Cap(c), veh/h				347	0	309	322	2460	0	0	812	779
V/C Ratio(X)				0.78	0.00	0.51	0.86	0.26	0.00	0.00	0.64	0.64
Avail Cap(c_a), veh/h				733	0	653	451	2460	0	0	812	779
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	0.0	29.5	32.6	4.6	0.0	0.0	17.1	17.1
Incr Delay (d2), s/veh				3.9	0.0	1.3	11.8	0.3	0.0	0.0	3.9	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.0	3.3	7.2	2.7	0.0	0.0	9.9	9.5
LnGrp Delay(d),s/veh				35.3	0.0	30.8	44.4	4.9	0.0	0.0	21.0	21.2
LnGrp LOS				D		C	D	A			C	C
Approach Vol, veh/h					429			909			1025	
Approach Delay, s/veh					33.7			17.0			21.1	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			19.4	42.2		20.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		7.4			14.5	20.7		14.0				
Green Ext Time (p_c), s		16.4			0.4	7.4		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay				21.8								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	4	371	0	0	0	0	656	140	150	830	0
Future Volume (veh/h)	209	4	371	0	0	0	0	656	140	150	830	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	216	0	379				0	669	143	153	847	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	940	0	419				0	2039	430	193	2268	0
Arrive On Green	0.26	0.00	0.26				0.00	0.48	0.48	0.11	0.64	0.00
Sat Flow, veh/h	3548	0	1583				0	4376	888	1774	3632	0
Grp Volume(v), veh/h	216	0	379				0	537	275	153	847	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1706	1774	1770	0
Q Serve(g_s), s	4.5	0.0	22.1				0.0	9.3	9.4	8.0	10.8	0.0
Cycle Q Clear(g_c), s	4.5	0.0	22.1				0.0	9.3	9.4	8.0	10.8	0.0
Prop In Lane	1.00		1.00				0.00		0.52	1.00		0.00
Lane Grp Cap(c), veh/h	940	0	419				0	1643	827	193	2268	0
V/C Ratio(X)	0.23	0.00	0.90				0.00	0.33	0.33	0.79	0.37	0.00
Avail Cap(c_a), veh/h	1112	0	496				0	1643	827	556	2268	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.4	0.0	33.9				0.0	15.1	15.1	41.4	8.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	17.9				0.0	0.1	0.2	7.1	0.5	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
%ile BackOfQ(50%),veh/ln	2.2	0.0	11.7				0.0	4.4	4.5	4.3	5.3	0.0
LnGrp Delay(d),s/veh	27.6	0.0	51.8				0.0	15.2	15.3	48.6	8.6	0.0
LnGrp LOS	C		D					B	B	D	A	
Approach Vol, veh/h		595						812			1000	
Approach Delay, s/veh		43.0						15.2			14.7	
Approach LOS		D						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.9	50.7		29.8		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.0	11.4		24.1		12.8						
Green Ext Time (p_c), s	0.4	9.4		1.2		16.6						
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	0	135	1	0	150	0	0	0	1	0	0	0
Future Vol, veh/h	0	135	1	0	150	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	148	1	0	165	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	165	0	0	149	0	0	231	314	75	239	314	82
Stage 1	-	-	-	-	-	-	149	149	-	165	165	-
Stage 2	-	-	-	-	-	-	82	165	-	74	149	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1411	-	-	1430	-	-	704	600	971	695	600	961
Stage 1	-	-	-	-	-	-	838	773	-	821	761	-
Stage 2	-	-	-	-	-	-	917	761	-	927	773	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1411	-	-	1430	-	-	704	600	971	694	600	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	704	600	-	694	600	-
Stage 1	-	-	-	-	-	-	838	773	-	821	761	-
Stage 2	-	-	-	-	-	-	917	761	-	926	773	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	971	1411	-	-	1430	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	11	126	1	0	144	1	2	0	0	0	0	6
Future Vol, veh/h	11	126	1	0	144	1	2	0	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	147	1	0	167	1	2	0	0	0	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	148	0	0	341	342	74	267	341	168
Stage 1	-	-	-	-	-	-	173	173	-	168	168	-
Stage 2	-	-	-	-	-	-	168	169	-	99	173	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1407	-	-	1432	-	-	601	579	973	675	580	875
Stage 1	-	-	-	-	-	-	812	755	-	833	759	-
Stage 2	-	-	-	-	-	-	833	758	-	897	755	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1407	-	-	1432	-	-	592	574	973	670	575	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	592	574	-	670	575	-
Stage 1	-	-	-	-	-	-	804	748	-	825	759	-
Stage 2	-	-	-	-	-	-	826	758	-	889	748	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	11.1	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	592	1407	-	-	1432	-	-	-	875
HCM Lane V/C Ratio	0.004	0.009	-	-	-	-	-	-	0.008
HCM Control Delay (s)	11.1	7.6	-	-	0	-	-	0	9.1
HCM Lane LOS	B	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	16	110	139	4	0	5
Future Vol, veh/h	16	110	139	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	131	165	5	0	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	170	0	-	0	337
Stage 1	-	-	-	-	168
Stage 2	-	-	-	-	169
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1407	-	-	-	658
Stage 1	-	-	-	-	862
Stage 2	-	-	-	-	861
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1407	-	-	-	648
Mov Cap-2 Maneuver	-	-	-	-	686
Stage 1	-	-	-	-	862
Stage 2	-	-	-	-	848

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1407	-	-	-	876
HCM Lane V/C Ratio	0.014	-	-	-	0.007
HCM Control Delay (s)	7.6	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	12	99	140	18	5	4
Future Vol, veh/h	12	99	140	18	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	110	156	20	6	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	176	0	-	0	303
Stage 1	-	-	-	-	166
Stage 2	-	-	-	-	137
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1400	-	-	-	689
Stage 1	-	-	-	-	863
Stage 2	-	-	-	-	890
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1400	-	-	-	682
Mov Cap-2 Maneuver	-	-	-	-	709
Stage 1	-	-	-	-	863
Stage 2	-	-	-	-	881

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1400	-	-	-	775
HCM Lane V/C Ratio	0.01	-	-	-	0.013
HCM Control Delay (s)	7.6	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	103	155	6	0	1
Future Vol, veh/h	0	103	155	6	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	120	180	7	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 184
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 858
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 858
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	858
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	9.2
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	104	157	4	0	6
Future Vol, veh/h	0	104	157	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	120	180	5	0	7



















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

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	859
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	9.2
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	395	0	0	673	158	0	0	0	129	0	79
Future Volume (veh/h)	46	395	0	0	673	158	0	0	0	129	0	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	52	449	0	0	765	180	0	0	0	147	0	90
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	69	1568	0	0	1018	240	0	864	0	898	0	735
Arrive On Green	0.04	0.44	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.46	0.00	0.46
Sat Flow, veh/h	1774	3632	0	0	2938	669	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	52	449	0	0	476	469	0	0	0	147	0	90
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1745	0	1863	0	1774	0	1583
Q Serve(g_s), s	2.8	7.8	0.0	0.0	22.9	22.9	0.0	0.0	0.0	4.7	0.0	3.1
Cycle Q Clear(g_c), s	2.8	7.8	0.0	0.0	22.9	22.9	0.0	0.0	0.0	4.7	0.0	3.1
Prop In Lane	1.00		0.00	0.00		0.38	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1568	0	0	633	624	0	864	0	898	0	735
V/C Ratio(X)	0.75	0.29	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.16	0.00	0.12
Avail Cap(c_a), veh/h	91	1679	0	0	840	828	0	864	0	898	0	735
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.1	17.2	0.0	0.0	27.3	27.3	0.0	0.0	0.0	15.2	0.0	14.8
Incr Delay (d2), s/veh	21.7	0.1	0.0	0.0	2.7	2.7	0.0	0.0	0.0	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.8	0.0	0.0	11.6	11.4	0.0	0.0	0.0	2.4	0.0	1.4
LnGrp Delay(d),s/veh	67.8	17.3	0.0	0.0	30.0	30.1	0.0	0.0	0.0	15.6	0.0	15.1
LnGrp LOS	E	B			C	C				B		B
Approach Vol, veh/h		501			945			0				237
Approach Delay, s/veh		22.6			30.1			0.0				15.4
Approach LOS		C			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		47.5		49.5	8.3	39.2				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		0.0		9.8		6.7	4.8	24.9				
Green Ext Time (p_c), s		0.0		12.2		1.0	0.0	9.8				
Intersection Summary												
HCM 2010 Ctrl Delay				25.8								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	368	124	90	619	84	120	126	56	93	144	80
Future Volume (veh/h)	32	368	124	90	619	84	120	126	56	93	144	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	38	438	148	107	737	100	143	150	67	111	171	95
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	688	230	137	916	124	179	675	574	142	637	541
Arrive On Green	0.05	0.26	0.26	0.08	0.29	0.29	0.10	0.36	0.36	0.08	0.34	0.34
Sat Flow, veh/h	1774	2606	873	1774	3133	425	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	38	296	290	107	416	421	143	150	67	111	171	95
Grp Sat Flow(s),veh/h/ln	1774	1770	1709	1774	1770	1788	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.7	12.3	12.5	4.9	18.1	18.2	6.6	4.7	2.3	5.1	5.5	3.5
Cycle Q Clear(g_c), s	1.7	12.3	12.5	4.9	18.1	18.2	6.6	4.7	2.3	5.1	5.5	3.5
Prop In Lane	1.00		0.51	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	467	451	137	517	523	179	675	574	142	637	541
V/C Ratio(X)	0.44	0.63	0.64	0.78	0.80	0.80	0.80	0.22	0.12	0.78	0.27	0.18
Avail Cap(c_a), veh/h	287	562	543	287	562	568	287	675	574	287	637	541
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(l)	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	38.5	27.1	27.2	37.8	27.3	27.3	36.7	18.4	17.7	37.6	19.9	19.2
Incr Delay (d2), s/veh	3.4	1.7	1.9	9.1	7.8	7.7	8.0	0.8	0.4	8.9	1.0	0.7
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	0.9	6.2	6.1	2.8	9.9	10.0	3.6	2.5	1.1	2.8	3.0	1.6
LnGrp Delay(d),s/veh	41.9	28.8	29.1	46.8	35.1	35.0	44.7	19.2	18.1	46.5	20.9	19.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h		624			944			360			377	
Approach Delay, s/veh		29.7			36.4			29.1			28.2	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	34.7	11.0	26.5	12.9	33.0	8.6	28.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.5	6.7	6.9	14.5	8.6	7.5	3.7	20.2				
Green Ext Time (p_c), s	0.1	2.3	0.1	6.8	0.1	2.3	0.0	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay				32.1								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	9	73	26	51	77	59	36	210	49	43	299	22
Future Volume (veh/h)	9	73	26	51	77	59	36	210	49	43	299	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	91	32	64	96	74	45	262	61	54	374	28
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	233	78	234	129	99	102	638	149	170	813	61
Arrive On Green	0.09	0.09	0.09	0.13	0.13	0.13	0.06	0.44	0.44	0.10	0.47	0.47
Sat Flow, veh/h	1774	2602	876	1774	977	753	1774	1462	340	1774	1712	128
Grp Volume(v), veh/h	11	61	62	64	0	170	45	0	323	54	0	402
Grp Sat Flow(s),veh/h/ln	1774	1770	1708	1774	0	1730	1774	0	1803	1774	0	1840
Q Serve(g_s), s	0.4	2.4	2.5	2.4	0.0	6.9	1.8	0.0	9.0	2.1	0.0	10.7
Cycle Q Clear(g_c), s	0.4	2.4	2.5	2.4	0.0	6.9	1.8	0.0	9.0	2.1	0.0	10.7
Prop In Lane	1.00		0.51	1.00		0.44	1.00		0.19	1.00		0.07
Lane Grp Cap(c), veh/h	159	158	153	234	0	228	102	0	787	170	0	874
V/C Ratio(X)	0.07	0.38	0.41	0.27	0.00	0.74	0.44	0.00	0.41	0.32	0.00	0.46
Avail Cap(c_a), veh/h	488	487	470	488	0	476	172	0	787	488	0	874
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	31.4	31.4	28.6	0.0	30.5	33.3	0.0	14.1	30.8	0.0	12.9
Incr Delay (d2), s/veh	0.2	1.5	1.7	0.6	0.0	4.8	3.0	0.0	1.6	1.1	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	0.2	1.2	1.3	1.2	0.0	3.6	1.0	0.0	4.7	1.1	0.0	5.8
LnGrp Delay(d),s/veh	30.7	32.9	33.2	29.2	0.0	35.3	36.3	0.0	15.7	31.9	0.0	14.6
LnGrp LOS	C	C	C	C		D	D		B	C		B
Approach Vol, veh/h		134			234			368			456	
Approach Delay, s/veh		32.8			33.6			18.2			16.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	36.4		11.0	8.7	39.2		14.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	11.0	11.0		4.5	3.8	12.7		8.9				
Green Ext Time (p_c), s	0.1	3.4		0.5	0.0	4.7		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			22.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	50	164	67	20	222	34	82	199	59	57	225	87
Future Volume (veh/h)	50	164	67	20	222	34	82	199	59	57	225	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	56	184	75	22	249	38	92	224	66	64	253	98
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	459	180	62	469	71	152	817	750	129	793	781
Arrive On Green	0.07	0.18	0.18	0.04	0.15	0.15	0.09	0.44	0.44	0.07	0.43	0.43
Sat Flow, veh/h	1774	2484	976	1774	3085	465	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	56	129	130	22	141	146	92	224	66	64	253	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1690	1774	1770	1781	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.0	4.3	4.5	0.8	4.9	5.1	3.3	5.1	1.5	2.3	6.0	2.2
Cycle Q Clear(g_c), s	2.0	4.3	4.5	0.8	4.9	5.1	3.3	5.1	1.5	2.3	6.0	2.2
Prop In Lane	1.00		0.58	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	327	312	62	269	271	152	817	750	129	793	781
V/C Ratio(X)	0.47	0.40	0.42	0.35	0.53	0.54	0.61	0.27	0.09	0.50	0.32	0.13
Avail Cap(c_a), veh/h	358	700	669	358	700	705	358	817	750	358	793	781
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	30.0	24.0	24.1	31.6	26.2	26.2	29.5	12.0	9.7	29.9	12.8	9.2
Incr Delay (d2), s/veh	2.8	0.8	0.9	3.4	1.6	1.7	3.8	0.8	0.2	2.9	1.1	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	1.1	2.2	2.2	0.5	2.5	2.6	1.8	2.8	0.7	1.2	3.3	1.0
LnGrp Delay(d),s/veh	32.8	24.8	25.0	34.9	27.7	27.9	33.4	12.8	9.9	32.8	13.8	9.5
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		315			309			382			415	
Approach Delay, s/veh		26.3			28.3			17.3			15.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	33.9	6.9	16.9	10.2	33.0	9.0	14.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+14), s	11.3	7.1	2.8	6.5	5.3	8.0	4.0	7.1				
Green Ext Time (p_c), s	0.1	3.4	0.0	3.2	0.1	3.3	0.1	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay				21.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	441	120	97	312	40	157	659	185	74	517	206
Future Volume (veh/h)	227	441	120	97	312	40	157	659	185	74	517	206
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	450	122	99	318	41	160	672	189	76	528	210
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	269	905	405	134	567	72	197	1357	727	123	1210	781
Arrive On Green	0.15	0.26	0.26	0.08	0.18	0.18	0.11	0.38	0.38	0.07	0.34	0.34
Sat Flow, veh/h	1774	3539	1583	1774	3157	404	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	232	450	122	99	177	182	160	672	189	76	528	210
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1792	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.6	9.0	5.2	4.6	7.6	7.7	7.3	12.0	6.1	3.5	9.6	6.5
Cycle Q Clear(g_c), s	10.6	9.0	5.2	4.6	7.6	7.7	7.3	12.0	6.1	3.5	9.6	6.5
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	905	405	134	318	321	197	1357	727	123	1210	781
V/C Ratio(X)	0.86	0.50	0.30	0.74	0.56	0.57	0.81	0.50	0.26	0.62	0.44	0.27
Avail Cap(c_a), veh/h	287	1125	503	287	563	570	287	1357	727	287	1210	781
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	34.5	26.5	25.0	37.7	31.2	31.2	36.2	19.6	13.9	37.7	21.2	12.3
Incr Delay (d2), s/veh	21.7	0.4	0.4	7.7	1.5	1.6	10.7	1.3	0.9	4.9	1.1	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	6.8	4.5	2.3	2.5	3.8	4.0	4.2	6.1	2.8	1.9	4.9	3.0
LnGrp Delay(d),s/veh	56.2	26.9	25.4	45.5	32.7	32.8	46.9	20.9	14.7	42.6	22.4	13.2
LnGrp LOS	E	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		804			458			1021			814	
Approach Delay, s/veh		35.1			35.5			23.8			21.9	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	36.5	10.8	25.8	13.8	33.0	17.1	19.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	5.5	14.0	6.6	11.0	9.3	11.6	12.6	9.7				
Green Ext Time (p_c), s	0.1	7.8	0.1	5.0	0.1	8.5	0.1	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			28.0									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	0	1001	0	0	733
Future Vol, veh/h	0	0	1001	0	0	733
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1021	0	0	748
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1320	511	0	0	1021	0
Stage 1	1021	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	178	508	-	-	675	-
Stage 1	301	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	178	508	-	-	675	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	689	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	675
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	89	159	82	75	30	132	966	109	24	696	44
Future Volume (veh/h)	56	89	159	82	75	30	132	966	109	24	696	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	57	90	161	83	76	30	133	976	110	24	703	44
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	116	208	138	383	326	170	1582	708	65	1373	614
Arrive On Green	0.07	0.19	0.19	0.08	0.21	0.21	0.10	0.45	0.45	0.04	0.39	0.39
Sat Flow, veh/h	1774	600	1073	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	57	0	251	83	76	30	133	976	110	24	703	44
Grp Sat Flow(s),veh/h/ln	1774	0	1673	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.3	0.0	10.5	3.3	2.5	1.1	5.4	15.5	3.0	1.0	11.1	1.3
Cycle Q Clear(g_c), s	2.3	0.0	10.5	3.3	2.5	1.1	5.4	15.5	3.0	1.0	11.1	1.3
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	0	324	138	383	326	170	1582	708	65	1373	614
V/C Ratio(X)	0.49	0.00	0.78	0.60	0.20	0.09	0.78	0.62	0.16	0.37	0.51	0.07
Avail Cap(c_a), veh/h	326	0	604	326	672	571	326	1582	708	326	1373	614
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	1.00
Uniform Delay (d), s/veh	33.1	0.0	28.1	32.8	24.2	23.6	32.5	15.5	12.1	34.5	17.2	14.1
Incr Delay (d2), s/veh	3.2	0.0	4.0	4.2	0.3	0.1	7.7	1.8	0.5	3.4	1.4	0.2
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	1.2	0.0	5.2	1.8	1.3	0.5	3.0	7.9	1.4	0.5	5.6	0.6
LnGrp Delay(d),s/veh	36.3	0.0	32.1	36.9	24.4	23.7	40.1	17.3	12.5	37.9	18.5	14.4
LnGrp LOS	D		C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		308			189			1219			771	
Approach Delay, s/veh		32.9			29.8			19.4			18.9	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	37.3	10.2	18.7	11.5	33.0	9.3	19.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	3.0	17.5	5.3	12.5	7.4	13.1	4.3	4.5				
Green Ext Time (p_c), s	0.0	7.9	0.1	1.7	0.1	10.1	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			21.7									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	197	4	154	342	1061	0	0	709	232
Future Volume (veh/h)	0	0	0	197	4	154	342	1061	0	0	709	232
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				205	4	160	356	1105	0	0	739	242
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				278	5	253	399	2569	0	0	1163	381
Arrive On Green				0.16	0.16	0.16	0.23	0.73	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1742	34	1583	1774	3632	0	0	2715	859
Grp Volume(v), veh/h				209	0	160	356	1105	0	0	499	482
Grp Sat Flow(s),veh/h/ln				1776	0	1583	1774	1770	0	0	1770	1711
Q Serve(g_s), s				8.8	0.0	7.4	15.3	9.8	0.0	0.0	17.2	17.2
Cycle Q Clear(g_c), s				8.8	0.0	7.4	15.3	9.8	0.0	0.0	17.2	17.2
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				284	0	253	399	2569	0	0	785	759
V/C Ratio(X)				0.74	0.00	0.63	0.89	0.43	0.00	0.00	0.64	0.64
Avail Cap(c_a), veh/h				765	0	682	471	2569	0	0	785	759
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.5	0.0	30.9	29.6	4.3	0.0	0.0	17.0	17.0
Incr Delay (d2), s/veh				3.7	0.0	2.6	17.0	0.5	0.0	0.0	3.9	4.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	3.4	9.4	4.8	0.0	0.0	9.2	8.9
LnGrp Delay(d),s/veh				35.2	0.0	33.5	46.5	4.8	0.0	0.0	20.9	21.0
LnGrp LOS				D		C	D	A			C	C
Approach Vol, veh/h					369			1461			981	
Approach Delay, s/veh					34.5			15.0			20.9	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			22.2	39.4		17.1				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		11.8			17.3	19.2		10.8				
Green Ext Time (p_c), s		23.0			0.4	9.7		1.8				
Intersection Summary												
HCM 2010 Ctrl Delay				19.6								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	3	334	0	0	0	0	941	252	161	751	0
Future Volume (veh/h)	472	3	334	0	0	0	0	941	252	161	751	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	494	0	348				0	980	262	168	782	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	903	0	403				0	1936	516	209	2300	0
Arrive On Green	0.25	0.00	0.25				0.00	0.48	0.48	0.12	0.65	0.00
Sat Flow, veh/h	3548	0	1583				0	4166	1067	1774	3632	0
Grp Volume(v), veh/h	494	0	348				0	831	411	168	782	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1674	1774	1770	0
Q Serve(g_s), s	11.3	0.0	19.7				0.0	15.7	15.8	8.7	9.3	0.0
Cycle Q Clear(g_c), s	11.3	0.0	19.7				0.0	15.7	15.8	8.7	9.3	0.0
Prop In Lane	1.00		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	903	0	403				0	1641	811	209	2300	0
V/C Ratio(X)	0.55	0.00	0.86				0.00	0.51	0.51	0.80	0.34	0.00
Avail Cap(c_a), veh/h	1128	0	504				0	1641	811	564	2300	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	0.0	33.5				0.0	16.6	16.6	40.4	7.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	12.2				0.0	0.3	0.5	7.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	10.0				0.0	7.4	7.4	4.7	4.7	0.0
LnGrp Delay(d),s/veh	30.9	0.0	45.7				0.0	16.8	17.1	47.4	7.8	0.0
LnGrp LOS	C		D					B	B	D	A	
Approach Vol, veh/h		842						1242			950	
Approach Delay, s/veh		37.0						16.9			14.8	
Approach LOS		D						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.6	50.0		28.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.0	17.8		21.7		11.3						
Green Ext Time (p_c), s	0.4	7.1		2.2		22.8						
Intersection Summary												
HCM 2010 Ctrl Delay			21.8									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	231	17	0	193	0	0	0	22	0	0	0
Future Vol, veh/h	0	231	17	0	193	0	0	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	246	18	0	205	0	0	0	23	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	460	460	132	303	469	205
Stage 1	-	-	-	-	-	-	255	255	-	205	205	-
Stage 2	-	-	-	-	-	-	205	205	-	98	264	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	517	497	759	645	491	835
Stage 1	0	-	-	0	-	0	663	696	-	767	731	-
Stage 2	0	-	-	0	-	0	767	731	-	858	689	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	517	497	759	625	491	835
Mov Cap-2 Maneuver	-	-	-	-	-	-	517	497	-	625	491	-
Stage 1	-	-	-	-	-	-	663	696	-	767	731	-
Stage 2	-	-	-	-	-	-	767	731	-	832	689	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.9	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	759	-	-	-	-
HCM Lane V/C Ratio	0.031	-	-	-	-
HCM Control Delay (s)	9.9	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	45	208	4	4	147	5	2	2	0	7	0	35
Future Vol, veh/h	45	208	4	4	147	5	2	2	0	7	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	236	5	5	167	6	2	2	0	8	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	241	0	0	520	523	120	401	522	170
Stage 1	-	-	-	-	-	-	341	341	-	179	179	-
Stage 2	-	-	-	-	-	-	179	182	-	222	343	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1402	-	-	1324	-	-	453	458	909	547	459	873
Stage 1	-	-	-	-	-	-	648	638	-	822	751	-
Stage 2	-	-	-	-	-	-	822	748	-	761	637	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1402	-	-	1324	-	-	419	440	909	528	441	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	419	440	-	528	441	-
Stage 1	-	-	-	-	-	-	624	615	-	792	748	-
Stage 2	-	-	-	-	-	-	782	745	-	731	614	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.2			13.5			9.7		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	429	1402	-	-	1324	-	-	528	873
HCM Lane V/C Ratio	0.011	0.036	-	-	0.003	-	-	0.015	0.046
HCM Control Delay (s)	13.5	7.7	-	-	7.7	-	-	11.9	9.3
HCM Lane LOS	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	11	206	147	7	10	10
Future Vol, veh/h	11	206	147	7	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	226	162	8	11	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	169	0	-	0	416 165
Stage 1	-	-	-	-	165 -
Stage 2	-	-	-	-	251 -
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	1409	-	-	-	593 879
Stage 1	-	-	-	-	864 -
Stage 2	-	-	-	-	791 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1409	-	-	-	587 879
Mov Cap-2 Maneuver	-	-	-	-	641 -
Stage 1	-	-	-	-	864 -
Stage 2	-	-	-	-	783 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1409	-	-	-	741
HCM Lane V/C Ratio	0.009	-	-	-	0.03
HCM Control Delay (s)	7.6	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	14	199	140	9	25	16
Future Vol, veh/h	14	199	140	9	25	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	219	154	10	27	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	164	0	-	0	408 159
Stage 1	-	-	-	-	159 -
Stage 2	-	-	-	-	249 -
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	1414	-	-	-	599 886
Stage 1	-	-	-	-	870 -
Stage 2	-	-	-	-	792 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1414	-	-	-	592 886
Mov Cap-2 Maneuver	-	-	-	-	643 -
Stage 1	-	-	-	-	870 -
Stage 2	-	-	-	-	782 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1414	-	-	-	720
HCM Lane V/C Ratio	0.011	-	-	-	0.063
HCM Control Delay (s)	7.6	-	-	-	10.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	1	224	142	20	0	7
Future Vol, veh/h	1	224	142	20	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	241	153	22	0	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	174	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1403	-	882
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1403	-	882
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1403	-	-	-	882
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.6	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	224	153	8	0	9
Future Vol, veh/h	0	224	153	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	238	163	9	0	10



















Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 167
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- - 0 877
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 877
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	877
HCM Lane V/C Ratio	-	-	-	0.011
HCM Control Delay (s)	-	-	-	9.2
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	611	0	0	388	48	0	0	0	65	0	47
Future Volume (veh/h)	85	611	0	0	388	48	0	0	0	65	0	47
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	702	0	0	446	55	0	0	0	75	0	54
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	82	1778	0	0	1316	162	0	773	0	802	0	657
Arrive On Green	0.05	0.50	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.41	0.00	0.41
Sat Flow, veh/h	1774	3632	0	0	3267	390	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	98	702	0	0	248	253	0	0	0	75	0	54
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1794	0	1863	0	1774	0	1583
Q Serve(g_s), s	5.0	13.4	0.0	0.0	10.3	10.4	0.0	0.0	0.0	2.8	0.0	2.2
Cycle Q Clear(g_c), s	5.0	13.4	0.0	0.0	10.3	10.4	0.0	0.0	0.0	2.8	0.0	2.2
Prop In Lane	1.00		0.00	0.00		0.22	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	1778	0	0	734	744	0	773	0	802	0	657
V/C Ratio(X)	1.20	0.39	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.09	0.00	0.08
Avail Cap(c_a), veh/h	82	1778	0	0	734	744	0	773	0	802	0	657
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	16.8	0.0	0.0	21.6	21.6	0.0	0.0	0.0	19.4	0.0	19.2
Incr Delay (d2), s/veh	162.5	0.7	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.2	0.0	0.2
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	6.1	6.7	0.0	0.0	5.3	5.4	0.0	0.0	0.0	1.4	0.0	1.0
LnGrp Delay(d),s/veh	214.3	17.4	0.0	0.0	22.9	22.9	0.0	0.0	0.0	19.6	0.0	19.5
LnGrp LOS	F	B			C	C				B		B
Approach Vol, veh/h		800			501			0				129
Approach Delay, s/veh		41.5			22.9			0.0				19.6
Approach LOS		D			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		15.4		4.8	7.0	12.4		0.0				
Green Ext Time (p_c), s		9.5		0.5	0.0	9.7		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				33.0								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	87	471	85	46	320	53	61	120	122	58	79	65
Future Volume (veh/h)	87	471	85	46	320	53	61	120	122	58	79	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	512	92	50	348	58	66	130	133	63	86	71
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	750	134	107	699	115	124	711	604	121	708	602
Arrive On Green	0.08	0.25	0.25	0.06	0.23	0.23	0.07	0.38	0.38	0.07	0.38	0.38
Sat Flow, veh/h	1774	3001	537	1774	3042	502	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	95	301	303	50	201	205	66	130	133	63	86	71
Grp Sat Flow(s),veh/h/ln	1774	1770	1768	1774	1770	1774	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	3.9	11.5	11.6	2.0	7.4	7.5	2.7	3.5	4.3	2.6	2.3	2.2
Cycle Q Clear(g_c), s	3.9	11.5	11.6	2.0	7.4	7.5	2.7	3.5	4.3	2.6	2.3	2.2
Prop In Lane	1.00		0.30	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	442	442	107	407	408	124	711	604	121	708	602
V/C Ratio(X)	0.67	0.68	0.69	0.47	0.49	0.50	0.53	0.18	0.22	0.52	0.12	0.12
Avail Cap(c_a), veh/h	319	625	625	319	625	627	319	711	604	319	708	602
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	33.5	25.4	25.5	34.1	25.1	25.2	33.7	15.4	15.7	33.8	15.1	15.1
Incr Delay (d2), s/veh	5.2	1.9	1.9	3.1	0.9	1.0	3.5	0.6	0.8	3.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.8	5.9	1.1	3.7	3.8	1.4	1.9	2.0	1.4	1.2	1.0
LnGrp Delay(d),s/veh	38.7	27.3	27.4	37.2	26.0	26.1	37.2	16.0	16.5	37.2	15.5	15.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		699			456			329			220	
Approach Delay, s/veh		28.9			27.3			20.5			21.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	33.1	9.0	23.2	9.7	33.0	10.5	21.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.6	6.3	4.0	13.6	4.7	4.3	5.9	9.5				
Green Ext Time (p_c), s	0.1	1.9	0.0	5.1	0.1	1.9	0.1	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				25.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	37	137	52	41	70	22	50	260	86	16	189	14
Future Volume (veh/h)	37	137	52	41	70	22	50	260	86	16	189	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	39	144	55	43	74	23	53	274	91	17	199	15
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	249	91	164	126	39	114	611	203	175	840	63
Arrive On Green	0.10	0.10	0.10	0.09	0.09	0.09	0.06	0.46	0.46	0.10	0.49	0.49
Sat Flow, veh/h	1774	2537	931	1774	1364	424	1774	1339	445	1774	1711	129
Grp Volume(v), veh/h	39	99	100	43	0	97	53	0	365	17	0	214
Grp Sat Flow(s),veh/h/ln	1774	1770	1698	1774	0	1788	1774	0	1784	1774	0	1840
Q Serve(g_s), s	1.4	3.8	4.0	1.6	0.0	3.7	2.0	0.0	9.9	0.6	0.0	4.7
Cycle Q Clear(g_c), s	1.4	3.8	4.0	1.6	0.0	3.7	2.0	0.0	9.9	0.6	0.0	4.7
Prop In Lane	1.00		0.55	1.00		0.24	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	174	174	167	164	0	166	114	0	814	175	0	903
V/C Ratio(X)	0.22	0.57	0.60	0.26	0.00	0.59	0.47	0.00	0.45	0.10	0.00	0.24
Avail Cap(c_a), veh/h	504	503	483	504	0	508	178	0	814	504	0	903
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	30.5	30.6	29.8	0.0	30.8	31.9	0.0	13.1	29.0	0.0	10.4
Incr Delay (d2), s/veh	0.6	2.9	3.5	0.8	0.0	3.3	3.0	0.0	1.8	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	2.0	0.8	0.0	2.0	1.1	0.0	5.3	0.3	0.0	2.5
LnGrp Delay(d),s/veh	30.1	33.4	34.0	30.7	0.0	34.0	34.9	0.0	14.9	29.2	0.0	11.0
LnGrp LOS	C	C	C	C		C	C		B	C		B
Approach Vol, veh/h		238			140			418			231	
Approach Delay, s/veh		33.1			33.0			17.5			12.3	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	36.8		11.4	9.0	39.2		11.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	12.6	11.9		6.0	4.0	6.7		5.7				
Green Ext Time (p_c), s	0.0	2.5		1.0	0.0	3.9		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				22.1								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Existing (2017) Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	520	113	44	257	45	91	208	74	61	132	64
Future Volume (veh/h)	154	520	113	44	257	45	91	208	74	61	132	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	542	118	46	268	47	95	217	77	64	138	67
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	199	746	162	101	611	106	140	713	696	120	692	766
Arrive On Green	0.11	0.26	0.26	0.06	0.20	0.20	0.08	0.38	0.38	0.07	0.37	0.37
Sat Flow, veh/h	1774	2894	628	1774	3018	522	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	160	331	329	46	156	159	95	217	77	64	138	67
Grp Sat Flow(s),veh/h/ln	1774	1770	1752	1774	1770	1771	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.8	13.1	13.2	1.9	5.9	6.1	4.0	6.2	2.2	2.7	3.9	1.8
Cycle Q Clear(g_c), s	6.8	13.1	13.2	1.9	5.9	6.1	4.0	6.2	2.2	2.7	3.9	1.8
Prop In Lane	1.00		0.36	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	456	452	101	358	359	140	713	696	120	692	766
V/C Ratio(X)	0.80	0.72	0.73	0.45	0.43	0.44	0.68	0.30	0.11	0.53	0.20	0.09
Avail Cap(c_a), veh/h	312	611	605	312	611	611	312	713	696	312	692	766
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	33.2	26.0	26.0	35.0	26.8	26.8	34.4	16.5	12.7	34.6	16.4	10.7
Incr Delay (d2), s/veh	8.0	2.8	3.0	3.2	0.8	0.9	5.6	1.1	0.3	3.6	0.6	0.2
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	8.7	6.7	6.7	1.0	3.0	3.1	2.2	3.4	1.0	1.4	2.1	0.8
LnGrp Delay(d),s/veh	41.2	28.8	29.0	38.2	27.6	27.7	39.9	17.7	13.0	38.2	17.0	10.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		820			361			389			269	
Approach Delay, s/veh		31.3			29.0			22.2			20.5	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	33.9	8.9	24.3	10.6	33.0	13.1	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+14), s	11.5	8.2	3.9	15.2	6.0	5.9	8.8	8.1				
Green Ext Time (p_c), s	0.1	2.5	0.0	4.6	0.1	2.5	0.2	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				27.3								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	279	125	161	534	43	107	431	92	52	555	263
Future Volume (veh/h)	133	279	125	161	534	43	107	431	92	52	555	263
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	141	297	133	171	568	46	114	459	98	55	590	280
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	792	354	210	802	65	146	1323	779	109	1249	717
Arrive On Green	0.10	0.22	0.22	0.12	0.24	0.24	0.08	0.37	0.37	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3317	268	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	141	297	133	171	303	311	114	459	98	55	590	280
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1815	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.3	5.7	5.7	7.6	12.6	12.7	5.1	7.5	2.7	2.4	10.5	9.5
Cycle Q Clear(g_c), s	6.3	5.7	5.7	7.6	12.6	12.7	5.1	7.5	2.7	2.4	10.5	9.5
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	792	354	210	428	439	146	1323	779	109	1249	717
V/C Ratio(X)	0.80	0.38	0.38	0.82	0.71	0.71	0.78	0.35	0.13	0.50	0.47	0.39
Avail Cap(c_a), veh/h	297	1161	520	297	581	596	297	1323	779	297	1249	717
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	35.5	26.6	26.6	34.8	28.0	28.0	36.3	18.2	11.1	36.7	20.3	14.7
Incr Delay (d2), s/veh	7.9	0.3	0.7	11.3	2.5	2.5	8.7	0.7	0.3	3.6	1.3	1.6
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	3.4	2.8	2.6	4.4	6.4	6.6	2.9	3.8	1.2	1.3	5.3	4.5
LnGrp Delay(d),s/veh	43.4	26.9	27.2	46.0	30.5	30.5	45.0	18.9	11.4	40.3	21.6	16.3
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		571			785			671			925	
Approach Delay, s/veh		31.0			33.9			22.3			21.1	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	34.7	14.0	22.6	11.2	33.0	12.6	24.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.4	9.5	9.6	7.7	7.1	12.5	8.3	14.7				
Green Ext Time (p_c), s	0.1	7.9	0.2	6.1	0.1	7.3	0.1	4.9				
Intersection Summary												
HCM 2010 Ctrl Delay			26.7									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑↑			↘↗
Traffic Vol, veh/h	0	9	620	0	0	841
Future Vol, veh/h	0	9	620	0	0	841
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	660	0	0	895
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1107	330	0	0	660
Stage 1	660	-	-	-	-
Stage 2	447	-	-	-	-
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	204	666	-	-	924
Stage 1	476	-	-	-	-
Stage 2	611	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	204	666	-	-	924
Mov Cap-2 Maneuver	335	-	-	-	-
Stage 1	476	-	-	-	-
Stage 2	611	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	666	924
HCM Lane V/C Ratio	-	-	0.014	-
HCM Control Delay (s)	-	-	10.5	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	50	112	50	64	4	99	602	78	16	812	41
Future Volume (veh/h)	39	50	112	50	64	4	99	602	78	16	812	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	40	52	115	52	66	4	102	621	80	16	837	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	98	74	164	115	287	244	159	1743	780	48	1522	681
Arrive On Green	0.06	0.14	0.14	0.07	0.15	0.15	0.09	0.49	0.49	0.03	0.43	0.43
Sat Flow, veh/h	1774	517	1144	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	40	0	167	52	66	4	102	621	80	16	837	42
Grp Sat Flow(s),veh/h/ln	1774	0	1661	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.4	0.0	6.3	1.9	2.1	0.1	3.7	7.2	1.8	0.6	11.7	1.0
Cycle Q Clear(g_c), s	1.4	0.0	6.3	1.9	2.1	0.1	3.7	7.2	1.8	0.6	11.7	1.0
Prop In Lane	1.00		0.69	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	0	239	115	287	244	159	1743	780	48	1522	681
V/C Ratio(X)	0.41	0.00	0.70	0.45	0.23	0.02	0.64	0.36	0.10	0.33	0.55	0.06
Avail Cap(c_a), veh/h	361	0	664	361	745	633	361	1743	780	361	1522	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	0.0	27.0	29.8	24.6	23.8	29.1	10.3	9.0	31.7	14.1	11.1
Incr Delay (d2), s/veh	2.7	0.0	3.7	2.7	0.4	0.0	4.3	0.6	0.3	4.0	1.4	0.2
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	0.8	0.0	3.2	1.0	1.1	0.1	2.0	3.6	0.8	0.3	6.0	0.5
LnGrp Delay(d),s/veh	33.0	0.0	30.7	32.6	25.0	23.8	33.4	10.9	9.2	35.7	15.5	11.2
LnGrp LOS	C		C	C	C	C	C	B	A	D	B	B
Approach Vol, veh/h		207			122			803			895	
Approach Delay, s/veh		31.1			28.2			13.6			15.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	37.1	8.8	14.0	10.4	33.0	8.1	14.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.6	9.2	3.9	8.3	5.7	13.7	3.4	4.1				
Green Ext Time (p_c), s	0.0	10.2	0.1	1.2	0.1	8.7	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	257	4	160	267	618	0	0	711	266
Future Volume (veh/h)	0	0	0	257	4	160	267	618	0	0	711	266
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				268	4	167	278	644	0	0	741	277
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				342	5	310	322	2459	0	0	1157	432
Arrive On Green				0.20	0.20	0.20	0.18	0.69	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1749	26	1583	1774	3632	0	0	2616	943
Grp Volume(v), veh/h				272	0	167	278	644	0	0	520	498
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1696
Q Serve(g_s), s				12.0	0.0	7.8	12.5	5.6	0.0	0.0	18.5	18.5
Cycle Q Clear(g_c), s				12.0	0.0	7.8	12.5	5.6	0.0	0.0	18.5	18.5
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				348	0	310	322	2459	0	0	811	778
V/C Ratio(X)				0.78	0.00	0.54	0.86	0.26	0.00	0.00	0.64	0.64
Avail Cap(c_a), veh/h				732	0	653	451	2459	0	0	811	778
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	0.0	29.7	32.7	4.7	0.0	0.0	17.1	17.1
Incr Delay (d2), s/veh				3.9	0.0	1.5	11.8	0.3	0.0	0.0	3.9	4.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.0	3.5	7.2	2.8	0.0	0.0	9.8	9.5
LnGrp Delay(d),s/veh				35.3	0.0	31.2	44.5	4.9	0.0	0.0	20.9	21.1
LnGrp LOS				D		C	D	A			C	C
Approach Vol, veh/h					439			922			1018	
Approach Delay, s/veh					33.7			16.9			21.0	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			19.4	42.2		20.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		7.6			14.5	20.5		14.0				
Green Ext Time (p_c), s		16.5			0.4	7.5		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay				21.7								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	4	371	0	0	0	0	655	140	147	826	0
Future Volume (veh/h)	222	4	371	0	0	0	0	655	140	147	826	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	230	0	379				0	668	143	150	843	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	941	0	420				0	2045	432	190	2267	0
Arrive On Green	0.27	0.00	0.27				0.00	0.49	0.49	0.11	0.64	0.00
Sat Flow, veh/h	3548	0	1583				0	4375	889	1774	3632	0
Grp Volume(v), veh/h	230	0	379				0	536	275	150	843	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1706	1774	1770	0
Q Serve(g_s), s	4.9	0.0	22.1				0.0	9.2	9.4	7.9	10.7	0.0
Cycle Q Clear(g_c), s	4.9	0.0	22.1				0.0	9.2	9.4	7.9	10.7	0.0
Prop In Lane	1.00		1.00				0.00		0.52	1.00		0.00
Lane Grp Cap(c), veh/h	941	0	420				0	1648	829	190	2267	0
V/C Ratio(X)	0.24	0.00	0.90				0.00	0.33	0.33	0.79	0.37	0.00
Avail Cap(c_a), veh/h	1112	0	496				0	1648	829	556	2267	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	0.0	33.9				0.0	15.0	15.0	41.5	8.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	17.8				0.0	0.1	0.2	7.1	0.5	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
%ile BackOfQ(50%),veh/ln	2.4	0.0	11.7				0.0	4.3	4.5	4.2	5.3	0.0
LnGrp Delay(d),s/veh	27.7	0.0	51.7				0.0	15.1	15.2	48.6	8.6	0.0
LnGrp LOS	C		D					B	B	D	A	
Approach Vol, veh/h		609						811			993	
Approach Delay, s/veh		42.6						15.1			14.6	
Approach LOS		D						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.7	50.9		29.8		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	19.9	11.4		24.1		12.7						
Green Ext Time (p_c), s	0.4	9.4		1.2		16.5						
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	0	143	1	0	265	0	0	0	1	0	0	0
Future Vol, veh/h	0	143	1	0	265	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	157	1	0	291	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	291	0	0	158	0	0	304	449	79	370	449	146
Stage 1	-	-	-	-	-	-	158	158	-	291	291	-
Stage 2	-	-	-	-	-	-	146	291	-	79	158	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1268	-	-	1419	-	-	625	504	965	562	504	875
Stage 1	-	-	-	-	-	-	828	766	-	693	670	-
Stage 2	-	-	-	-	-	-	842	670	-	921	766	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1268	-	-	1419	-	-	625	504	965	561	504	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	504	-	561	504	-
Stage 1	-	-	-	-	-	-	828	766	-	693	670	-
Stage 2	-	-	-	-	-	-	842	670	-	920	766	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	965	1268	-	-	1419	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	105	192	42	3	183	5	28	0	3	4	0	57
Future Vol, veh/h	105	192	42	3	183	5	28	0	3	4	0	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	223	49	3	213	6	33	0	3	5	0	66

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	219	0	0	272
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.13
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.219	-	-	2.219
Pot Cap-1 Maneuver	1349	-	-	1290
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1349	-	-	1290
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.1	18.4	10.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	304	1349	-	-	1290	-	-	381	823
HCM Lane V/C Ratio	0.119	0.091	-	-	0.003	-	-	0.012	0.081
HCM Control Delay (s)	18.4	7.9	-	-	7.8	-	-	14.6	9.8
HCM Lane LOS	C	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	0	0.3

Intersection

Int Delay, s/veh 0.4

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	16	182	184	4	0	5
Future Vol, veh/h	16	182	184	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	217	219	5	0	6

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	224	0	-	0	476	221
Stage 1	-	-	-	-	221	-
Stage 2	-	-	-	-	255	-
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	1345	-	-	-	548	819
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1345	-	-	-	539	819
Mov Cap-2 Maneuver	-	-	-	-	608	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	775	-

Approach EB WB SB

HCM Control Delay, s	0.6	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1345	-	-	-	819
HCM Lane V/C Ratio	0.014	-	-	-	0.007
HCM Control Delay (s)	7.7	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 3.3

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	88	95	136	36	18	53
Future Vol, veh/h	88	95	136	36	18	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	106	151	40	20	59

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	191	0	-	0	472	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	301	-
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	1383	-	-	-	551	873
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1383	-	-	-	510	873
Mov Cap-2 Maneuver	-	-	-	-	576	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	695	-

Approach EB WB SB

HCM Control Delay, s 3.8 0 10.2
HCM LOS B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1383	-	-	-	772
HCM Lane V/C Ratio	0.071	-	-	-	0.102
HCM Control Delay (s)	7.8	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	108	3	22	165	32	3	0	15	16	0	3
Future Vol, veh/h	2	108	3	22	165	32	3	0	15	16	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	126	3	26	192	37	3	0	17	19	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	229	0	0	129	0	0	395	412	127	403	396	210
Stage 1	-	-	-	-	-	-	132	132	-	262	262	-
Stage 2	-	-	-	-	-	-	263	280	-	141	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1339	-	-	1457	-	-	565	530	923	558	541	830
Stage 1	-	-	-	-	-	-	871	787	-	743	691	-
Stage 2	-	-	-	-	-	-	742	679	-	862	785	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1339	-	-	1457	-	-	553	518	923	538	529	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	518	-	538	529	-
Stage 1	-	-	-	-	-	-	869	785	-	742	676	-
Stage 2	-	-	-	-	-	-	723	665	-	844	783	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.8			9.5			11.6		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1339	-	-	1457	-	-	570
HCM Lane V/C Ratio	0.025	0.002	-	-	0.018	-	-	0.039
HCM Control Delay (s)	9.5	7.7	0	-	7.5	0	-	11.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	139	140	4	0	6
Future Vol, veh/h	0	139	140	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	160	161	5	0	7

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach



















	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	882
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	9.1
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	394	11	11	672	158	7	0	7	129	0	79
Future Volume (veh/h)	46	394	11	11	672	158	7	0	7	129	0	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	52	448	12	12	764	180	8	0	8	147	0	90
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	1576	42	44	1004	234	361	18	323	731	0	729
Arrive On Green	0.04	0.45	0.45	0.36	0.36	0.36	0.46	0.00	0.46	0.46	0.00	0.46
Sat Flow, veh/h	1774	3522	94	16	2766	646	664	38	702	1402	0	1583
Grp Volume(v), veh/h	52	225	235	515	0	441	16	0	0	147	0	90
Grp Sat Flow(s),veh/h/ln	1774	1770	1846	1846	0	1581	1404	0	0	1402	0	1583
Q Serve(g_s), s	2.8	7.9	7.9	2.0	0.0	24.1	0.0	0.0	0.0	2.0	0.0	3.2
Cycle Q Clear(g_c), s	2.8	7.9	7.9	23.9	0.0	24.1	3.2	0.0	0.0	5.2	0.0	3.2
Prop In Lane	1.00		0.05	0.02		0.41	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	69	792	826	708	0	574	701	0	0	731	0	729
V/C Ratio(X)	0.76	0.28	0.28	0.73	0.00	0.77	0.02	0.00	0.00	0.20	0.00	0.12
Avail Cap(c_a), veh/h	91	833	869	904	0	744	701	0	0	731	0	729
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.5	17.1	17.1	27.4	0.0	27.5	14.4	0.0	0.0	15.6	0.0	15.1
Incr Delay (d2), s/veh	22.5	0.2	0.2	2.2	0.0	3.6	0.1	0.0	0.0	0.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.9	4.0	12.6	0.0	11.0	0.2	0.0	0.0	2.5	0.0	1.4
LnGrp Delay(d),s/veh	69.0	17.3	17.3	29.6	0.0	31.1	14.4	0.0	0.0	16.2	0.0	15.4
LnGrp LOS	E	B	B	C		C	B			B		B
Approach Vol, veh/h		512			956			16			237	
Approach Delay, s/veh		22.5			30.3			14.4			15.9	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		48.3		49.5	8.3	40.0				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		5.2		9.9		7.2	4.8	26.1				
Green Ext Time (p_c), s		1.1		12.0		1.1	0.0	9.4				
Intersection Summary												
HCM 2010 Ctrl Delay				25.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	32	374	124	85	614	84	120	122	51	93	143	80
Future Volume (veh/h)	32	374	124	85	614	84	120	122	51	93	143	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	38	445	148	101	731	100	143	145	61	111	170	95
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	694	229	135	913	125	179	676	574	142	637	542
Arrive On Green	0.05	0.27	0.27	0.08	0.29	0.29	0.10	0.36	0.36	0.08	0.34	0.34
Sat Flow, veh/h	1774	2617	863	1774	3129	428	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	38	300	293	101	413	418	143	145	61	111	170	95
Grp Sat Flow(s),veh/h/ln	1774	1770	1710	1774	1770	1787	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.7	12.5	12.7	4.6	18.0	18.0	6.6	4.5	2.1	5.1	5.5	3.5
Cycle Q Clear(g_c), s	1.7	12.5	12.7	4.6	18.0	18.0	6.6	4.5	2.1	5.1	5.5	3.5
Prop In Lane	1.00		0.50	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	469	453	135	516	522	179	676	574	142	637	542
V/C Ratio(X)	0.44	0.64	0.65	0.75	0.80	0.80	0.80	0.21	0.11	0.78	0.27	0.18
Avail Cap(c_a), veh/h	288	563	544	288	563	569	288	676	574	288	637	542
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	38.5	27.1	27.2	37.7	27.3	27.3	36.6	18.3	17.6	37.6	19.8	19.2
Incr Delay (d2), s/veh	3.4	1.8	2.0	8.1	7.5	7.5	8.0	0.7	0.4	8.9	1.0	0.7
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	0.9	6.3	6.2	2.6	9.8	9.9	3.6	2.4	1.0	2.8	3.0	1.6
LnGrp Delay(d),s/veh	41.9	28.9	29.1	45.8	34.8	34.7	44.6	19.1	18.0	46.5	20.9	19.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		631			932			349			376	
Approach Delay, s/veh		29.8			35.9			29.3			28.2	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	34.7	10.8	26.6	12.9	33.0	8.6	28.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.5	6.5	6.6	14.7	8.6	7.5	3.7	20.0				
Green Ext Time (p_c), s	0.1	2.3	0.1	6.8	0.1	2.3	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay				32.0								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	62	24	51	66	59	36	210	49	43	299	16
Future Volume (veh/h)	0	62	24	51	66	59	36	210	49	43	299	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	78	30	64	82	74	45	262	61	54	374	20
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	218	80	221	112	101	102	647	151	172	845	45
Arrive On Green	0.00	0.09	0.09	0.12	0.12	0.12	0.06	0.44	0.44	0.10	0.48	0.48
Sat Flow, veh/h	1774	2539	929	1774	904	815	1774	1462	340	1774	1752	94
Grp Volume(v), veh/h	0	53	55	64	0	156	45	0	323	54	0	394
Grp Sat Flow(s),veh/h/ln	1774	1770	1699	1774	0	1719	1774	0	1803	1774	0	1846
Q Serve(g_s), s	0.0	2.0	2.2	2.4	0.0	6.3	1.8	0.0	8.8	2.0	0.0	10.1
Cycle Q Clear(g_c), s	0.0	2.0	2.2	2.4	0.0	6.3	1.8	0.0	8.8	2.0	0.0	10.1
Prop In Lane	1.00		0.55	1.00		0.47	1.00		0.19	1.00		0.05
Lane Grp Cap(c), veh/h	153	152	146	221	0	214	102	0	797	172	0	890
V/C Ratio(X)	0.00	0.35	0.38	0.29	0.00	0.73	0.44	0.00	0.41	0.31	0.00	0.44
Avail Cap(c_a), veh/h	495	494	474	495	0	480	175	0	797	495	0	890
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)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.0	31.1	28.6	0.0	30.4	32.8	0.0	13.6	30.3	0.0	12.3
Incr Delay (d2), s/veh	0.0	1.4	1.6	0.7	0.0	4.7	2.9	0.0	1.5	1.0	0.0	1.6
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	0.0	1.0	1.1	1.2	0.0	3.3	0.9	0.0	4.6	1.1	0.0	5.5
LnGrp Delay(d),s/veh	0.0	32.4	32.7	29.4	0.0	35.1	35.7	0.0	15.2	31.3	0.0	13.9
LnGrp LOS		C	C	C		D	D		B	C		B
Approach Vol, veh/h		108			220			368			448	
Approach Delay, s/veh		32.5			33.4			17.7			16.0	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	36.4		10.7	8.7	39.2		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+14), s	11.0	10.8		4.2	3.8	12.1		8.3				
Green Ext Time (p_c), s	0.1	3.4		0.4	0.0	4.7		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay				21.4								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	50	164	67	20	222	34	82	199	59	57	223	87
Future Volume (veh/h)	50	164	67	20	222	34	82	199	59	57	223	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	56	184	75	22	249	38	92	224	66	64	251	98
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	459	180	62	469	71	152	817	750	129	793	781
Arrive On Green	0.07	0.18	0.18	0.04	0.15	0.15	0.09	0.44	0.44	0.07	0.43	0.43
Sat Flow, veh/h	1774	2484	976	1774	3085	465	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	56	129	130	22	141	146	92	224	66	64	251	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1690	1774	1770	1781	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.0	4.3	4.5	0.8	4.9	5.1	3.3	5.1	1.5	2.3	6.0	2.2
Cycle Q Clear(g_c), s	2.0	4.3	4.5	0.8	4.9	5.1	3.3	5.1	1.5	2.3	6.0	2.2
Prop In Lane	1.00		0.58	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	327	312	62	269	271	152	817	750	129	793	781
V/C Ratio(X)	0.47	0.40	0.42	0.35	0.53	0.54	0.61	0.27	0.09	0.50	0.32	0.13
Avail Cap(c_a), veh/h	358	700	669	358	700	705	358	817	750	358	793	781
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	30.0	24.0	24.1	31.6	26.2	26.2	29.5	12.0	9.7	29.9	12.8	9.2
Incr Delay (d2), s/veh	2.8	0.8	0.9	3.4	1.6	1.7	3.8	0.8	0.2	2.9	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	2.2	0.5	2.5	2.6	1.8	2.8	0.7	1.2	3.3	1.0
LnGrp Delay(d),s/veh	32.8	24.8	25.0	34.9	27.7	27.9	33.4	12.8	9.9	32.8	13.8	9.5
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		315			309			382			413	
Approach Delay, s/veh		26.3			28.3			17.3			15.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	33.9	6.9	16.9	10.2	33.0	9.0	14.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.3	7.1	2.8	6.5	5.3	8.0	4.0	7.1				
Green Ext Time (p_c), s	0.1	3.4	0.0	3.2	0.1	3.3	0.1	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay				21.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	450	131	97	323	40	172	673	185	74	529	206
Future Volume (veh/h)	227	450	131	97	323	40	172	673	185	74	529	206
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	459	134	99	330	41	176	687	189	76	540	210
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	268	916	410	132	578	71	213	1368	730	122	1186	770
Arrive On Green	0.15	0.26	0.26	0.07	0.18	0.18	0.12	0.39	0.39	0.07	0.34	0.34
Sat Flow, veh/h	1774	3539	1583	1774	3172	391	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	232	459	134	99	183	188	176	687	189	76	540	210
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1794	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.9	9.4	5.8	4.7	8.0	8.1	8.2	12.6	6.2	3.5	10.2	6.7
Cycle Q Clear(g_c), s	10.9	9.4	5.8	4.7	8.0	8.1	8.2	12.6	6.2	3.5	10.2	6.7
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	916	410	132	322	327	213	1368	730	122	1186	770
V/C Ratio(X)	0.87	0.50	0.33	0.75	0.57	0.58	0.83	0.50	0.26	0.62	0.46	0.27
Avail Cap(c_a), veh/h	282	1103	493	282	551	559	282	1368	730	282	1186	770
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	35.3	26.8	25.5	38.6	31.7	31.8	36.6	19.9	14.0	38.5	22.2	12.9
Incr Delay (d2), s/veh	22.7	0.4	0.5	8.3	1.6	1.6	14.0	1.3	0.9	5.1	1.3	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	7.0	4.6	2.6	2.6	4.1	4.2	4.9	6.4	2.9	1.9	5.2	3.1
LnGrp Delay(d),s/veh	58.0	27.3	26.0	46.9	33.3	33.4	50.6	21.2	14.9	43.7	23.5	13.8
LnGrp LOS	E	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		825			470			1052			826	
Approach Delay, s/veh		35.7			36.2			25.0			22.9	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	37.4	10.8	26.5	14.7	33.0	17.4	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	5.5	14.6	6.7	11.4	10.2	12.2	12.9	10.1				
Green Ext Time (p_c), s	0.1	7.7	0.1	5.1	0.1	8.5	0.0	5.3				
Intersection Summary												
HCM 2010 Ctrl Delay			28.9									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	38	992	0	0	756
Future Vol, veh/h	0	38	992	0	0	756
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1012	0	0	771
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1398	506	0	0	1012
Stage 1	1012	-	-	-	-
Stage 2	386	-	-	-	-
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	132	512	-	-	681
Stage 1	312	-	-	-	-
Stage 2	656	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	132	512	-	-	681
Mov Cap-2 Maneuver	243	-	-	-	-
Stage 1	312	-	-	-	-
Stage 2	656	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	512	681
HCM Lane V/C Ratio	-	-	0.076	-
HCM Control Delay (s)	-	-	12.6	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	105	159	243	97	21	132	966	236	47	696	44
Future Volume (veh/h)	56	105	159	243	97	21	132	966	236	47	696	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	57	106	161	245	98	21	133	976	238	47	703	44
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	131	199	281	546	464	167	1334	597	98	1196	535
Arrive On Green	0.06	0.20	0.20	0.16	0.29	0.29	0.09	0.38	0.38	0.06	0.34	0.34
Sat Flow, veh/h	1774	668	1015	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	57	0	267	245	98	21	133	976	238	47	703	44
Grp Sat Flow(s),veh/h/ln	1774	0	1684	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.6	0.0	12.8	11.4	3.3	0.8	6.2	20.0	9.3	2.2	13.8	1.6
Cycle Q Clear(g_c), s	2.6	0.0	12.8	11.4	3.3	0.8	6.2	20.0	9.3	2.2	13.8	1.6
Prop In Lane	1.00		0.60	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	330	281	546	464	167	1334	597	98	1196	535
V/C Ratio(X)	0.53	0.00	0.81	0.87	0.18	0.05	0.79	0.73	0.40	0.48	0.59	0.08
Avail Cap(c_a), veh/h	284	0	529	284	585	497	284	1334	597	284	1196	535
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	1.00
Uniform Delay (d), s/veh	38.4	0.0	32.4	34.7	22.2	21.4	37.4	22.6	19.3	38.7	23.1	19.0
Incr Delay (d2), s/veh	3.9	0.0	4.9	24.3	0.2	0.0	8.3	3.6	2.0	3.6	2.1	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	1.4	0.0	6.4	7.5	1.7	0.4	3.4	10.4	4.4	1.2	7.1	0.7
LnGrp Delay(d),s/veh	42.3	0.0	37.3	58.9	22.4	21.4	45.7	26.2	21.3	42.2	25.2	19.3
LnGrp LOS	D		D	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h		324			364			1347			794	
Approach Delay, s/veh		38.1			46.9			27.2			25.9	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	36.3	17.8	21.0	12.5	33.0	9.7	29.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.2	22.0	13.4	14.8	8.2	15.8	4.6	5.3				
Green Ext Time (p_c), s	0.0	5.2	0.0	1.8	0.1	9.0	0.1	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			30.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	197	4	210	342	1132	0	0	795	307
Future Volume (veh/h)	0	0	0	197	4	210	342	1132	0	0	795	307
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				205	4	219	356	1179	0	0	828	320
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				314	6	286	397	2506	0	0	1070	413
Arrive On Green				0.18	0.18	0.18	0.22	0.71	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1742	34	1583	1774	3632	0	0	2592	964
Grp Volume(v), veh/h				209	0	219	356	1179	0	0	586	562
Grp Sat Flow(s),veh/h/ln				1776	0	1583	1774	1770	0	0	1770	1693
Q Serve(g_s), s				8.8	0.0	10.6	15.7	11.8	0.0	0.0	22.8	22.9
Cycle Q Clear(g_c), s				8.8	0.0	10.6	15.7	11.8	0.0	0.0	22.8	22.9
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.57
Lane Grp Cap(c), veh/h				320	0	286	397	2506	0	0	758	725
V/C Ratio(X)				0.65	0.00	0.77	0.90	0.47	0.00	0.00	0.77	0.78
Avail Cap(c_a), veh/h				746	0	666	460	2506	0	0	758	725
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	0.0	31.4	30.4	5.2	0.0	0.0	19.7	19.7
Incr Delay (d2), s/veh				2.2	0.0	4.3	18.1	0.6	0.0	0.0	7.5	8.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	5.0	9.7	5.8	0.0	0.0	12.7	12.2
LnGrp Delay(d),s/veh				32.9	0.0	35.7	48.5	5.8	0.0	0.0	27.3	27.7
LnGrp LOS				C		D	D	A			C	C
Approach Vol, veh/h					428			1535			1148	
Approach Delay, s/veh					34.4			15.7			27.5	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			22.6	39.0		19.1				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		13.8			17.7	24.9		12.6				
Green Ext Time (p_c), s		26.3			0.4	6.0		1.9				
Intersection Summary												
HCM 2010 Ctrl Delay				22.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	532	3	334	0	0	0	0	952	252	232	766	0
Future Volume (veh/h)	532	3	334	0	0	0	0	952	252	232	766	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	556	0	348				0	992	262	242	798	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	908	0	405				0	1767	466	284	2296	0
Arrive On Green	0.26	0.00	0.26				0.00	0.44	0.44	0.16	0.65	0.00
Sat Flow, veh/h	3548	0	1583				0	4177	1057	1774	3632	0
Grp Volume(v), veh/h	556	0	348				0	839	415	242	798	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1676	1774	1770	0
Q Serve(g_s), s	13.0	0.0	19.7				0.0	17.3	17.4	12.5	9.6	0.0
Cycle Q Clear(g_c), s	13.0	0.0	19.7				0.0	17.3	17.4	12.5	9.6	0.0
Prop In Lane	1.00		1.00				0.00		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	908	0	405				0	1494	739	284	2296	0
V/C Ratio(X)	0.61	0.00	0.86				0.00	0.56	0.56	0.85	0.35	0.00
Avail Cap(c_a), veh/h	1126	0	503				0	1494	739	563	2296	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	0.0	33.4				0.0	19.6	19.6	38.5	7.5	0.0
Incr Delay (d2), s/veh	0.7	0.0	11.8				0.0	0.5	1.0	7.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	9.9				0.0	8.1	8.2	6.7	4.8	0.0
LnGrp Delay(d),s/veh	31.6	0.0	45.3				0.0	20.1	20.6	45.6	7.9	0.0
LnGrp LOS	C		D					C	C	D	A	
Approach Vol, veh/h		904						1254			1040	
Approach Delay, s/veh		36.9						20.2			16.7	
Approach LOS		D						C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.6	46.0		28.6		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+M), s	14.5	19.4		21.7		11.6						
Green Ext Time (p_c), s	0.6	6.0		2.3		23.3						
Intersection Summary												
HCM 2010 Ctrl Delay			23.8									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
6: Hemlock Ave & New Project Access

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	397	17	0	675	0	0	0	22	0	0	0
Future Vol, veh/h	0	397	17	0	675	0	0	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	422	18	0	718	0	0	0	23	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	718	0	0	440	0	0	790	1149	220	929	1158	359
Stage 1	-	-	-	-	-	-	431	431	-	718	718	-
Stage 2	-	-	-	-	-	-	359	718	-	211	440	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	879	-	-	1116	-	-	281	197	784	222	195	638
Stage 1	-	-	-	-	-	-	573	581	-	386	431	-
Stage 2	-	-	-	-	-	-	632	431	-	771	576	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	879	-	-	1116	-	-	281	197	784	215	195	638
Mov Cap-2 Maneuver	-	-	-	-	-	-	281	197	-	215	195	-
Stage 1	-	-	-	-	-	-	573	581	-	386	431	-
Stage 2	-	-	-	-	-	-	632	431	-	748	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	784	879	-	-	1116	-	-	-
HCM Lane V/C Ratio	0.03	-	-	-	-	-	-	-
HCM Control Delay (s)	9.7	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	175.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	268	310	156	28	264	35	164	2	24	37	0	239
Future Vol, veh/h	268	310	156	28	264	35	164	2	24	37	0	239
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	305	352	177	32	300	40	186	2	27	42	0	272

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	530	0	0	1434	1453	265	1170	1523	320
Stage 1	-	-	-	-	-	-	1050	1050	-	384	384	-
Stage 2	-	-	-	-	-	-	384	403	-	786	1139	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1217	-	-	1035	-	-	~ 103	130	734	159	118	720
Stage 1	-	-	-	-	-	-	244	303	-	638	611	-
Stage 2	-	-	-	-	-	-	638	599	-	352	275	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1217	-	-	1035	-	-	~ 51	94	734	119	86	720
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 51	94	-	119	86	-
Stage 1	-	-	-	-	-	-	~ 183	227	-	478	592	-
Stage 2	-	-	-	-	-	-	385	580	-	251	206	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0.7	\$ 1371.9	18.1
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	58	1217	-	-	1035	-	-	119	720
HCM Lane V/C Ratio	3.723	0.25	-	-	0.031	-	-	0.353	0.377
HCM Control Delay (s)	\$ 1371.9	8.9	-	-	8.6	-	-	50.9	13
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	23.2	1	-	-	0.1	-	-	1.4	1.8

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

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	11	361	317	7	10	10
Future Vol, veh/h	11	361	317	7	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	397	348	8	11	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	356	0	-	0	773
Stage 1	-	-	-	-	352
Stage 2	-	-	-	-	421
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1203	-	-	-	367
Stage 1	-	-	-	-	712
Stage 2	-	-	-	-	662
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1203	-	-	-	362
Mov Cap-2 Maneuver	-	-	-	-	475
Stage 1	-	-	-	-	712
Stage 2	-	-	-	-	653

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1203	-	-	-	563
HCM Lane V/C Ratio	0.01	-	-	-	0.039
HCM Control Delay (s)	8	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	8.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	204	164	105	79	99	221
Future Vol, veh/h	204	164	105	79	99	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	224	180	115	87	109	243

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	202	0	-	0	788 159
Stage 1	-	-	-	-	159 -
Stage 2	-	-	-	-	629 -
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	1370	-	-	-	360 886
Stage 1	-	-	-	-	870 -
Stage 2	-	-	-	-	531 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1370	-	-	-	294 886
Mov Cap-2 Maneuver	-	-	-	-	371 -
Stage 1	-	-	-	-	870 -
Stage 2	-	-	-	-	434 -

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1370	-	-	-	620
HCM Lane V/C Ratio	0.164	-	-	-	0.567
HCM Control Delay (s)	8.1	-	-	-	18.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	3.6

Intersection

Int Delay, s/veh 5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	227	24	88	141	100	24	0	93	84	0	19
Future Vol, veh/h	13	227	24	88	141	100	24	0	93	84	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	244	26	95	152	108	26	0	100	90	0	20

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	259	0	0	270
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	1306	-	-	1293
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1306	-	-	1293
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.1	12.5	22.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	606	1306	-	-	1293	-	-	311
HCM Lane V/C Ratio	0.208	0.011	-	-	0.073	-	-	0.356
HCM Control Delay (s)	12.5	7.8	0	-	8	0	-	22.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	1.6

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	404	200	8	0	9
Future Vol, veh/h	0	404	200	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	430	213	9	0	10

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach



















	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	823
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	599	44	43	376	48	47	0	47	65	0	47
Future Volume (veh/h)	85	599	44	43	376	48	47	0	47	65	0	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	689	51	49	432	55	54	0	54	75	0	54
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1292	96	101	745	93	416	19	375	784	0	809
Arrive On Green	0.06	0.39	0.39	0.28	0.28	0.28	0.51	0.00	0.51	0.51	0.00	0.51
Sat Flow, veh/h	1774	3342	247	189	2673	335	695	38	733	1345	0	1583
Grp Volume(v), veh/h	98	365	375	268	0	268	108	0	0	75	0	54
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1561	0	1636	1466	0	0	1345	0	1583
Q Serve(g_s), s	4.9	14.0	14.0	5.0	0.0	12.5	1.1	0.0	0.0	0.0	0.0	1.5
Cycle Q Clear(g_c), s	4.9	14.0	14.0	12.0	0.0	12.5	3.1	0.0	0.0	1.9	0.0	1.5
Prop In Lane	1.00		0.14	0.18		0.20	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	101	684	704	484	0	456	810	0	0	784	0	809
V/C Ratio(X)	0.97	0.53	0.53	0.55	0.00	0.59	0.13	0.00	0.00	0.10	0.00	0.07
Avail Cap(c_a), veh/h	101	924	950	834	0	855	810	0	0	784	0	809
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	20.9	20.9	26.9	0.0	27.4	11.2	0.0	0.0	11.0	0.0	10.9
Incr Delay (d2), s/veh	80.6	0.6	0.6	1.0	0.0	1.2	0.3	0.0	0.0	0.2	0.0	0.2
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	4.6	6.9	7.1	5.7	0.0	5.7	1.5	0.0	0.0	1.0	0.0	0.7
LnGrp Delay(d),s/veh	122.1	21.5	21.5	27.9	0.0	28.6	11.6	0.0	0.0	11.2	0.0	11.1
LnGrp LOS	F	C	C	C		C	B			B		B
Approach Vol, veh/h		838			536			108				129
Approach Delay, s/veh		33.3			28.2			11.6				11.2
Approach LOS		C			C			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		38.6		49.5	9.5	29.1				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		5.1		16.0		3.9	6.9	14.5				
Green Ext Time (p_c), s		1.3		9.9		1.3	0.0	10.1				
Intersection Summary												
HCM 2010 Ctrl Delay				28.4								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↗
Traffic Volume (veh/h)	87	506	85	54	328	53	61	134	132	58	90	65
Future Volume (veh/h)	87	506	85	54	328	53	61	134	132	58	90	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	550	92	59	357	58	66	146	143	63	98	71
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	783	130	116	744	120	122	697	592	120	694	590
Arrive On Green	0.08	0.26	0.26	0.07	0.24	0.24	0.07	0.37	0.37	0.07	0.37	0.37
Sat Flow, veh/h	1774	3037	506	1774	3054	492	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	95	320	322	59	206	209	66	146	143	63	98	71
Grp Sat Flow(s),veh/h/ln	1774	1770	1773	1774	1770	1776	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.0	12.5	12.6	2.5	7.6	7.7	2.8	4.1	4.8	2.6	2.7	2.3
Cycle Q Clear(g_c), s	4.0	12.5	12.6	2.5	7.6	7.7	2.8	4.1	4.8	2.6	2.7	2.3
Prop In Lane	1.00		0.29	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	456	457	116	431	433	122	697	592	120	694	590
V/C Ratio(X)	0.67	0.70	0.71	0.51	0.48	0.48	0.54	0.21	0.24	0.53	0.14	0.12
Avail Cap(c_a), veh/h	313	613	614	313	613	615	313	697	592	313	694	590
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	34.3	25.7	25.8	34.6	24.7	24.8	34.4	16.3	16.5	34.5	15.9	15.8
Incr Delay (d2), s/veh	5.5	2.3	2.4	3.4	0.8	0.8	3.7	0.7	1.0	3.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.4	6.5	1.3	3.8	3.9	1.5	2.2	2.2	1.4	1.4	1.1
LnGrp Delay(d),s/veh	39.8	28.0	28.1	38.0	25.6	25.6	38.1	16.9	17.4	38.0	16.3	16.2
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		737			474			355			232	
Approach Delay, s/veh		29.6			27.1			21.1			22.2	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	33.1	9.5	24.2	9.8	33.0	10.6	23.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.6	6.8	4.5	14.6	4.8	4.7	6.0	9.7				
Green Ext Time (p_c), s	0.1	2.1	0.1	5.1	0.1	2.1	0.1	6.1				
Intersection Summary												
HCM 2010 Ctrl Delay			26.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	159	66	41	86	22	62	260	86	16	189	33
Future Volume (veh/h)	61	159	66	41	86	22	62	260	86	16	189	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	64	167	69	43	91	23	65	274	91	17	199	35
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	275	109	164	133	34	125	606	201	171	738	130
Arrive On Green	0.11	0.11	0.11	0.09	0.09	0.09	0.07	0.45	0.45	0.10	0.48	0.48
Sat Flow, veh/h	1774	2475	984	1774	1436	363	1774	1339	445	1774	1543	271
Grp Volume(v), veh/h	64	118	118	43	0	114	65	0	365	17	0	234
Grp Sat Flow(s),veh/h/ln	1774	1770	1689	1774	0	1799	1774	0	1784	1774	0	1815
Q Serve(g_s), s	2.4	4.6	4.9	1.6	0.0	4.5	2.6	0.0	10.2	0.6	0.0	5.6
Cycle Q Clear(g_c), s	2.4	4.6	4.9	1.6	0.0	4.5	2.6	0.0	10.2	0.6	0.0	5.6
Prop In Lane	1.00		0.58	1.00		0.20	1.00		0.25	1.00		0.15
Lane Grp Cap(c), veh/h	197	197	188	164	0	166	125	0	807	171	0	868
V/C Ratio(X)	0.32	0.60	0.63	0.26	0.00	0.69	0.52	0.00	0.45	0.10	0.00	0.27
Avail Cap(c_a), veh/h	491	490	468	491	0	498	174	0	807	491	0	868
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.7	30.7	30.8	30.6	0.0	31.9	32.6	0.0	13.7	29.9	0.0	11.4
Incr Delay (d2), s/veh	0.9	2.9	3.5	0.8	0.0	4.9	3.3	0.0	1.8	0.3	0.0	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	1.2	2.4	2.5	0.8	0.0	2.4	1.4	0.0	5.4	0.3	0.0	3.0
LnGrp Delay(d),s/veh	30.7	33.6	34.3	31.5	0.0	36.9	35.9	0.0	15.5	30.2	0.0	12.1
LnGrp LOS	C	C	C	C		D	D		B	C		B
Approach Vol, veh/h		300			157			430			251	
Approach Delay, s/veh		33.3			35.4			18.6			13.3	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.3		12.6	9.6	39.2		11.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	12.6	12.2		6.9	4.6	7.6		6.5				
Green Ext Time (p_c), s	0.0	2.6		1.2	0.0	4.0		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				23.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
 Existing (2017) With Project Weekday PM Peak Hour


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	520	113	44	257	45	91	220	74	61	146	64
Future Volume (veh/h)	154	520	113	44	257	45	91	220	74	61	146	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	542	118	46	268	47	95	229	77	64	152	67
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	199	746	162	101	611	106	140	713	696	120	692	766
Arrive On Green	0.11	0.26	0.26	0.06	0.20	0.20	0.08	0.38	0.38	0.07	0.37	0.37
Sat Flow, veh/h	1774	2894	628	1774	3018	522	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	160	331	329	46	156	159	95	229	77	64	152	67
Grp Sat Flow(s),veh/h/ln	1774	1770	1752	1774	1770	1771	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.8	13.1	13.2	1.9	5.9	6.1	4.0	6.6	2.2	2.7	4.3	1.8
Cycle Q Clear(g_c), s	6.8	13.1	13.2	1.9	5.9	6.1	4.0	6.6	2.2	2.7	4.3	1.8
Prop In Lane	1.00		0.36	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	456	452	101	358	359	140	713	696	120	692	766
V/C Ratio(X)	0.80	0.72	0.73	0.45	0.43	0.44	0.68	0.32	0.11	0.53	0.22	0.09
Avail Cap(c_a), veh/h	312	611	605	312	611	611	312	713	696	312	692	766
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	33.2	26.0	26.0	35.0	26.8	26.8	34.4	16.7	12.7	34.6	16.5	10.7
Incr Delay (d2), s/veh	8.0	2.8	3.0	3.2	0.8	0.9	5.6	1.2	0.3	3.6	0.7	0.2
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	8.7	6.7	6.7	1.0	3.0	3.1	2.2	3.6	1.0	1.4	2.3	0.8
LnGrp Delay(d),s/veh	41.2	28.8	29.0	38.2	27.6	27.7	39.9	17.9	13.0	38.2	17.2	10.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		820			361			401			283	
Approach Delay, s/veh		31.3			29.0			22.2			20.5	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	33.9	8.9	24.3	10.6	33.0	13.1	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+14), s	11.5	8.6	3.9	15.2	6.0	6.3	8.8	8.1				
Green Ext Time (p_c), s	0.1	2.6	0.0	4.6	0.1	2.7	0.2	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				27.2								
HCM 2010 LOS				C								

Near Term Year (2022)

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	315	162	181	598	47	135	489	103	57	632	290
Future Volume (veh/h)	147	315	162	181	598	47	135	489	103	57	632	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	335	172	193	636	50	144	520	110	61	672	309
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	823	368	230	844	66	179	1302	787	110	1165	692
Arrive On Green	0.11	0.23	0.23	0.13	0.25	0.25	0.10	0.37	0.37	0.06	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3325	261	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	156	335	172	193	338	348	144	520	110	61	672	309
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1817	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.4	6.9	8.1	9.2	15.3	15.3	6.9	9.4	3.2	2.9	13.6	11.8
Cycle Q Clear(g_c), s	7.4	6.9	8.1	9.2	15.3	15.3	6.9	9.4	3.2	2.9	13.6	11.8
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	823	368	230	449	461	179	1302	787	110	1165	692
V/C Ratio(X)	0.81	0.41	0.47	0.84	0.75	0.75	0.80	0.40	0.14	0.55	0.58	0.45
Avail Cap(c_a), veh/h	277	1084	485	277	542	556	277	1302	787	277	1165	692
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	37.7	28.2	28.6	36.8	29.8	29.8	38.1	20.3	11.8	39.4	24.0	17.0
Incr Delay (d2), s/veh	11.4	0.3	0.9	17.4	4.8	4.7	9.3	0.9	0.4	4.3	2.1	2.1
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	4.2	3.4	3.6	5.6	8.0	8.2	3.8	4.8	1.5	1.6	7.0	5.5
LnGrp Delay(d),s/veh	49.1	28.5	29.5	54.3	34.6	34.5	47.4	21.2	12.1	43.7	26.1	19.1
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		663			879			774			1042	
Approach Delay, s/veh		33.6			38.9			24.8			25.1	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	36.3	15.7	24.6	13.2	33.0	13.9	26.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.9	11.4	11.2	10.1	8.9	15.6	9.4	17.3				
Green Ext Time (p_c), s	0.1	8.6	0.1	6.6	0.1	7.2	0.1	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			30.3									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	726	0	0	975
Future Vol, veh/h	0	0	726	0	0	975
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	772	0	0	1037
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1291	386	0	0	772	0
Stage 1	772	-	-	-	-	-
Stage 2	519	-	-	-	-	-
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	155	612	-	-	839	-
Stage 1	416	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	155	612	-	-	839	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	562	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	839
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	67	156	63	83	20	124	689	63	20	940	46
Future Volume (veh/h)	45	67	156	63	83	20	124	689	63	20	940	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	46	69	161	65	86	21	128	710	65	21	969	47
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	104	91	213	126	365	310	164	1626	727	59	1416	633
Arrive On Green	0.06	0.18	0.18	0.07	0.20	0.20	0.09	0.46	0.46	0.03	0.40	0.40
Sat Flow, veh/h	1774	497	1161	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	46	0	230	65	86	21	128	710	65	21	969	47
Grp Sat Flow(s),veh/h/ln	1774	0	1658	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.8	0.0	9.4	2.5	2.8	0.8	5.0	9.7	1.6	0.8	16.1	1.3
Cycle Q Clear(g_c), s	1.8	0.0	9.4	2.5	2.8	0.8	5.0	9.7	1.6	0.8	16.1	1.3
Prop In Lane	1.00		0.70	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	0	304	126	365	310	164	1626	727	59	1416	633
V/C Ratio(X)	0.44	0.00	0.76	0.52	0.24	0.07	0.78	0.44	0.09	0.35	0.68	0.07
Avail Cap(c_a), veh/h	336	0	617	336	693	589	336	1626	727	336	1416	633
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	1.00
Uniform Delay (d), s/veh	32.4	0.0	27.6	31.9	24.1	23.3	31.6	13.0	10.9	33.7	17.7	13.2
Incr Delay (d2), s/veh	2.9	0.0	3.8	3.2	0.3	0.1	7.7	0.9	0.2	3.6	2.7	0.2
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	1.0	0.0	4.6	1.3	1.5	0.3	2.8	4.9	0.8	0.5	8.3	0.6
LnGrp Delay(d),s/veh	35.3	0.0	31.4	35.1	24.5	23.4	39.3	13.9	11.1	37.2	20.4	13.4
LnGrp LOS	D		C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		276			172			903			1037	
Approach Delay, s/veh		32.1			28.4			17.3			20.4	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.9	37.2	9.6	17.6	11.1	33.0	8.7	18.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.8	11.7	4.5	11.4	7.0	18.1	3.8	4.8				
Green Ext Time (p_c), s	0.0	10.7	0.1	1.7	0.1	7.4	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			21.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	342	4	168	332	707	0	0	859	327
Future Volume (veh/h)	0	0	0	342	4	168	332	707	0	0	859	327
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				356	4	175	346	736	0	0	895	341
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				428	5	387	383	2311	0	0	969	367
Arrive On Green				0.24	0.24	0.24	0.22	0.65	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1755	20	1583	1774	3632	0	0	2605	953
Grp Volume(v), veh/h				360	0	175	346	736	0	0	629	607
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1695
Q Serve(g_s), s				16.8	0.0	8.2	16.6	8.0	0.0	0.0	29.7	30.0
Cycle Q Clear(g_c), s				16.8	0.0	8.2	16.6	8.0	0.0	0.0	29.7	30.0
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				433	0	387	383	2311	0	0	682	654
V/C Ratio(X)				0.83	0.00	0.45	0.90	0.32	0.00	0.00	0.92	0.93
Avail Cap(c_a), veh/h				688	0	614	424	2311	0	0	682	654
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	28.1	33.4	6.6	0.0	0.0	25.6	25.7
Incr Delay (d2), s/veh				4.8	0.0	0.8	21.1	0.4	0.0	0.0	19.9	21.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	3.7	10.3	4.0	0.0	0.0	18.1	17.9
LnGrp Delay(d),s/veh				36.2	0.0	28.9	54.5	7.0	0.0	0.0	45.5	47.1
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					535			1082			1236	
Approach Delay, s/veh					33.8			22.2			46.3	
Approach LOS					C			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			23.4	38.2		25.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		10.0			18.6	32.0		18.8				
Green Ext Time (p_c), s		21.7			0.3	0.0		2.5				
Intersection Summary												
HCM 2010 Ctrl Delay				34.8								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	4	510	0	0	0	0	796	182	171	995	0
Future Volume (veh/h)	234	4	510	0	0	0	0	796	182	171	995	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	242	0	520				0	812	186	174	1015	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1849	420	213	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.45	0.45	0.12	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	4312	942	1774	3632	0
Grp Volume(v), veh/h	242	0	520				0	663	335	174	1015	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1696	1774	1770	0
Q Serve(g_s), s	5.1	0.0	29.9				0.0	13.5	13.6	9.6	15.6	0.0
Cycle Q Clear(g_c), s	5.1	0.0	29.9				0.0	13.5	13.6	9.6	15.6	0.0
Prop In Lane	1.00		1.00				0.00		0.56	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1512	757	213	2162	0
V/C Ratio(X)	0.23	0.00	1.10				0.00	0.44	0.44	0.82	0.47	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1512	757	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.4	0.0	35.0				0.0	19.1	19.1	42.9	10.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	70.8				0.0	0.2	0.4	7.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	22.3				0.0	6.3	6.4	5.1	7.8	0.0
LnGrp Delay(d),s/veh	26.5	0.0	105.9				0.0	19.3	19.5	50.5	11.3	0.0
LnGrp LOS	C		F					B	B	D	B	
Approach Vol, veh/h		762						998			1189	
Approach Delay, s/veh		80.7						19.4			17.1	
Approach LOS		F						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.5	49.1		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.6	15.6		31.9		17.6						
Green Ext Time (p_c), s	0.4	8.5		0.0		21.5						
Intersection Summary												
HCM 2010 Ctrl Delay			34.3									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	149	1	0	166	0	0	0	1	0	0	0
Future Vol, veh/h	0	149	1	0	166	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	164	1	0	182	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	182	0	0	165	0	0	255	346	82	264	347	91
Stage 1	-	-	-	-	-	-	164	164	-	182	182	-
Stage 2	-	-	-	-	-	-	91	182	-	82	165	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1391	-	-	1411	-	-	677	576	961	667	575	949
Stage 1	-	-	-	-	-	-	822	761	-	802	748	-
Stage 2	-	-	-	-	-	-	906	748	-	917	761	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1391	-	-	1411	-	-	677	576	961	667	575	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	677	576	-	667	575	-
Stage 1	-	-	-	-	-	-	822	761	-	802	748	-
Stage 2	-	-	-	-	-	-	906	748	-	916	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	961	1391	-	-	1411	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↔			↖	↗
Traffic Vol, veh/h	12	139	1	0	159	1	2	0	0	0	0	7
Future Vol, veh/h	12	139	1	0	159	1	2	0	0	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	162	1	0	185	1	2	0	0	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	186	0	0	163	0	0	375	376	81	294	376	185
Stage 1	-	-	-	-	-	-	190	190	-	185	185	-
Stage 2	-	-	-	-	-	-	185	186	-	109	191	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1387	-	-	1414	-	-	569	555	963	647	555	857
Stage 1	-	-	-	-	-	-	794	742	-	816	746	-
Stage 2	-	-	-	-	-	-	816	745	-	885	742	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1387	-	-	1414	-	-	559	549	963	642	549	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	559	549	-	642	549	-
Stage 1	-	-	-	-	-	-	786	735	-	808	746	-
Stage 2	-	-	-	-	-	-	808	745	-	876	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	11.5	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	559	1387	-	-	1414	-	-	-	857
HCM Lane V/C Ratio	0.004	0.01	-	-	-	-	-	-	0.009
HCM Control Delay (s)	11.5	7.6	-	-	0	-	-	0	9.2
HCM Lane LOS	B	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	18	121	153	4	0	6
Future Vol, veh/h	18	121	153	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	144	182	5	0	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	187	0	-	0	372 185
Stage 1	-	-	-	-	185 -
Stage 2	-	-	-	-	187 -
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	1387	-	-	-	629 857
Stage 1	-	-	-	-	847 -
Stage 2	-	-	-	-	845 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1387	-	-	-	619 857
Mov Cap-2 Maneuver	-	-	-	-	665 -
Stage 1	-	-	-	-	847 -
Stage 2	-	-	-	-	831 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	857
HCM Lane V/C Ratio	0.015	-	-	-	0.008
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	13	109	155	20	6	4
Future Vol, veh/h	13	109	155	20	6	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	121	172	22	7	4

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	194	0	-	0	333	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	150	-
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	1379	-	-	-	662	859
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	878	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1379	-	-	-	655	859
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	868	-

Approach EB WB SB

HCM Control Delay, s	0.8	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1379	-	-	-	749
HCM Lane V/C Ratio	0.01	-	-	-	0.015
HCM Control Delay (s)	7.6	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	114	171	7	0	1
Future Vol, veh/h	0	114	171	7	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	133	199	8	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 203
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 838
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 838
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	838
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	9.3
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	115	173	4	0	7
Future Vol, veh/h	0	115	173	4	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	132	199	5	0	8






















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

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	840
HCM Lane V/C Ratio	-	-	-	0.01
HCM Control Delay (s)	-	-	-	9.3
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	51	437	0	0	748	174	0	0	0	142	0	87
Future Volume (veh/h)	51	437	0	0	748	174	0	0	0	142	0	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	58	497	0	0	850	198	0	0	0	161	0	99
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	74	1644	0	0	1077	251	0	831	0	863	0	707
Arrive On Green	0.04	0.46	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.45	0.00	0.45
Sat Flow, veh/h	1774	3632	0	0	2944	664	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	58	497	0	0	527	521	0	0	0	161	0	99
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1746	0	1863	0	1774	0	1583
Q Serve(g_s), s	3.3	8.8	0.0	0.0	26.6	26.7	0.0	0.0	0.0	5.6	0.0	3.7
Cycle Q Clear(g_c), s	3.3	8.8	0.0	0.0	26.6	26.7	0.0	0.0	0.0	5.6	0.0	3.7
Prop In Lane	1.00		0.00	0.00		0.38	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	1644	0	0	669	659	0	831	0	863	0	707
V/C Ratio(X)	0.78	0.30	0.00	0.00	0.79	0.79	0.00	0.00	0.00	0.19	0.00	0.14
Avail Cap(c_a), veh/h	88	1644	0	0	807	796	0	831	0	863	0	707
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.8	16.8	0.0	0.0	27.8	27.8	0.0	0.0	0.0	17.0	0.0	16.5
Incr Delay (d2), s/veh	30.5	0.1	0.0	0.0	4.4	4.5	0.0	0.0	0.0	0.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.3	0.0	0.0	13.9	13.7	0.0	0.0	0.0	2.8	0.0	1.7
LnGrp Delay(d),s/veh	78.3	16.9	0.0	0.0	32.2	32.3	0.0	0.0	0.0	17.5	0.0	16.9
LnGrp LOS	E	B			C	C				B		B
Approach Vol, veh/h		555			1048			0				260
Approach Delay, s/veh		23.3			32.2			0.0				17.3
Approach LOS		C			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		51.3		49.5	8.7	42.6				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		0.0		10.8		7.6	5.3	28.7				
Green Ext Time (p_c), s		0.0		14.0		1.1	0.0	9.4				
Intersection Summary												
HCM 2010 Ctrl Delay				27.5								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	406	137	119	685	94	132	150	74	105	174	91
Future Volume (veh/h)	36	406	137	119	685	94	132	150	74	105	174	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	43	483	163	142	815	112	157	179	88	125	207	108
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	677	227	177	961	132	193	644	548	158	608	516
Arrive On Green	0.05	0.26	0.26	0.10	0.31	0.31	0.11	0.35	0.35	0.09	0.33	0.33
Sat Flow, veh/h	1774	2605	873	1774	3127	430	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	43	327	319	142	461	466	157	179	88	125	207	108
Grp Sat Flow(s),veh/h/ln	1774	1770	1709	1774	1770	1787	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	14.7	14.8	6.8	21.3	21.3	7.6	6.1	3.4	6.0	7.4	4.3
Cycle Q Clear(g_c), s	2.1	14.7	14.8	6.8	21.3	21.3	7.6	6.1	3.4	6.0	7.4	4.3
Prop In Lane	1.00		0.51	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	460	444	177	544	549	193	644	548	158	608	516
V/C Ratio(X)	0.47	0.71	0.72	0.80	0.85	0.85	0.82	0.28	0.16	0.79	0.34	0.21
Avail Cap(c_a), veh/h	274	537	518	274	544	549	274	644	548	274	608	516
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	40.2	29.4	29.4	38.5	28.3	28.3	38.1	20.7	19.8	39.0	22.3	21.3
Incr Delay (d2), s/veh	3.6	3.6	4.0	9.3	12.0	11.9	11.9	1.1	0.6	8.6	1.5	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	1.1	7.6	7.5	3.8	12.2	12.3	4.3	3.3	1.6	3.3	4.1	2.0
LnGrp Delay(d),s/veh	43.9	33.0	33.4	47.8	40.3	40.2	50.0	21.8	20.4	47.6	23.8	22.2
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		689			1069			424			440	
Approach Delay, s/veh		33.9			41.3			31.9			30.2	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	34.7	13.2	27.2	14.0	33.0	9.0	31.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+10), s	10.0	8.1	8.8	16.8	9.6	9.4	4.1	23.3				
Green Ext Time (p_c), s	0.1	2.8	0.1	5.9	0.1	2.8	0.0	2.4				
Intersection Summary												
HCM 2010 Ctrl Delay				36.0								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	10	81	29	76	85	65	40	255	66	47	365	24
Future Volume (veh/h)	10	81	29	76	85	65	40	255	66	47	365	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	12	101	36	95	106	81	50	319	82	59	456	30
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	232	79	254	140	107	107	618	159	167	805	53
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.06	0.43	0.43	0.09	0.47	0.47
Sat Flow, veh/h	1774	2592	885	1774	981	750	1774	1430	368	1774	1729	114
Grp Volume(v), veh/h	12	68	69	95	0	187	50	0	401	59	0	486
Grp Sat Flow(s),veh/h/ln	1774	1770	1707	1774	0	1730	1774	0	1798	1774	0	1843
Q Serve(g_s), s	0.5	2.7	2.9	3.6	0.0	7.7	2.0	0.0	12.2	2.3	0.0	14.3
Cycle Q Clear(g_c), s	0.5	2.7	2.9	3.6	0.0	7.7	2.0	0.0	12.2	2.3	0.0	14.3
Prop In Lane	1.00		0.52	1.00		0.43	1.00		0.20	1.00		0.06
Lane Grp Cap(c), veh/h	159	159	153	254	0	247	107	0	777	167	0	858
V/C Ratio(X)	0.08	0.43	0.45	0.37	0.00	0.76	0.47	0.00	0.52	0.35	0.00	0.57
Avail Cap(c_a), veh/h	478	477	460	478	0	467	169	0	777	478	0	858
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.1	32.1	32.2	28.9	0.0	30.7	33.9	0.0	15.5	31.7	0.0	14.5
Incr Delay (d2), s/veh	0.2	1.8	2.1	0.9	0.0	4.7	3.1	0.0	2.4	1.3	0.0	2.7
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	0.2	1.4	1.4	1.8	0.0	4.0	1.1	0.0	6.5	1.2	0.0	7.8
LnGrp Delay(d),s/veh	31.3	33.9	34.3	29.8	0.0	35.4	37.0	0.0	17.9	32.9	0.0	17.2
LnGrp LOS	C	C	C	C		D	D		B	C		B
Approach Vol, veh/h		149			282			451			545	
Approach Delay, s/veh		33.9			33.5			20.0			18.9	
Approach LOS		C			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	36.7		11.2	9.0	39.2		15.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	14.3	14.2		4.9	4.0	16.3		9.7				
Green Ext Time (p_c), s	0.1	3.3		0.6	0.0	5.6		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay				23.7								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2022) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	189	81	22	247	38	101	224	65	63	252	171
Future Volume (veh/h)	123	189	81	22	247	38	101	224	65	63	252	171
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	138	212	91	25	278	43	113	252	73	71	283	192
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	545	226	68	500	76	155	768	714	131	743	789
Arrive On Green	0.10	0.22	0.22	0.04	0.16	0.16	0.09	0.41	0.41	0.07	0.40	0.40
Sat Flow, veh/h	1774	2441	1013	1774	3079	471	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	138	152	151	25	158	163	113	252	73	71	283	192
Grp Sat Flow(s),veh/h/ln	1774	1770	1684	1774	1770	1780	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.4	5.2	5.5	1.0	5.9	6.0	4.4	6.6	1.9	2.8	7.7	4.9
Cycle Q Clear(g_c), s	5.4	5.2	5.5	1.0	5.9	6.0	4.4	6.6	1.9	2.8	7.7	4.9
Prop In Lane	1.00		0.60	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	395	376	68	287	289	155	768	714	131	743	789
V/C Ratio(X)	0.78	0.38	0.40	0.37	0.55	0.56	0.73	0.33	0.10	0.54	0.38	0.24
Avail Cap(c_a), veh/h	335	656	625	335	656	660	335	768	714	335	743	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	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	31.4	23.6	23.7	33.5	27.5	27.6	31.8	14.3	11.3	31.9	15.2	10.2
Incr Delay (d2), s/veh	7.4	0.6	0.7	3.3	1.7	1.7	6.4	1.1	0.3	3.4	1.5	0.7
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	8.0	2.6	2.6	0.5	3.0	3.1	2.4	3.6	0.9	1.5	4.2	2.3
LnGrp Delay(d),s/veh	38.8	24.2	24.4	36.8	29.2	29.3	38.1	15.4	11.6	35.3	16.7	11.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		441			346			438			546	
Approach Delay, s/veh		28.8			29.8			20.6			17.1	
Approach LOS		C			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	34.0	7.2	20.5	10.8	33.0	11.6	16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.8	8.6	3.0	7.5	6.4	9.7	7.4	8.0				
Green Ext Time (p_c), s	0.1	4.1	0.0	3.6	0.1	4.0	0.2	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			23.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	490	197	109	346	44	245	770	207	82	608	227
Future Volume (veh/h)	251	490	197	109	346	44	245	770	207	82	608	227
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	256	500	201	111	353	45	250	786	211	84	620	232
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	264	914	409	141	597	76	264	1400	752	120	1113	734
Arrive On Green	0.15	0.26	0.26	0.08	0.19	0.19	0.15	0.40	0.40	0.07	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3162	400	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	256	500	201	111	196	202	250	786	211	84	620	232
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1792	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.0	11.1	9.8	5.6	9.2	9.3	12.7	15.6	7.3	4.2	13.2	8.3
Cycle Q Clear(g_c), s	13.0	11.1	9.8	5.6	9.2	9.3	12.7	15.6	7.3	4.2	13.2	8.3
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	914	409	141	334	339	264	1400	752	120	1113	734
V/C Ratio(X)	0.97	0.55	0.49	0.79	0.59	0.60	0.95	0.56	0.28	0.70	0.56	0.32
Avail Cap(c_a), veh/h	264	1035	463	264	517	524	264	1400	752	264	1113	734
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	38.3	29.0	28.5	40.9	33.5	33.6	38.2	21.3	14.4	41.3	25.8	15.3
Incr Delay (d2), s/veh	46.5	0.5	0.9	9.2	1.6	1.7	40.8	1.6	0.9	7.1	2.0	1.1
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	9.7	5.5	4.4	3.1	4.6	4.7	9.2	8.0	3.4	2.3	6.8	3.9
LnGrp Delay(d),s/veh	84.9	29.5	29.5	50.2	35.2	35.3	79.0	22.9	15.3	48.4	27.8	16.4
LnGrp LOS	F	C	C	D	D	D	E	C	B	D	C	B
Approach Vol, veh/h		957			509			1247			936	
Approach Delay, s/veh		44.3			38.5			32.9			26.8	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	40.3	11.7	27.9	18.0	33.0	18.0	21.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	17.6	7.6	13.1	14.7	15.2	15.0	11.3				
Green Ext Time (p_c), s	0.1	7.3	0.1	5.4	0.0	8.4	0.0	5.8				
Intersection Summary												
HCM 2010 Ctrl Delay			35.1									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	0	1222	0	0	913
Future Vol, veh/h	0	0	1222	0	0	913
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1247	0	0	932
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1620	623	0	0	1247
Stage 1	1247	-	-	-	-
Stage 2	373	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	118	429	-	-	554
Stage 1	229	-	-	-	-
Stage 2	631	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	118	429	-	-	554
Mov Cap-2 Maneuver	118	-	-	-	-
Stage 1	229	-	-	-	-
Stage 2	631	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	98	245	91	83	33	226	1183	120	26	869	52
Future Volume (veh/h)	63	98	245	91	83	33	226	1183	120	26	869	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	64	99	247	92	84	33	228	1195	121	26	878	53
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	115	286	128	467	397	264	1558	697	67	1165	521
Arrive On Green	0.06	0.24	0.24	0.07	0.25	0.25	0.15	0.44	0.44	0.04	0.33	0.33
Sat Flow, veh/h	1774	473	1181	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	64	0	346	92	84	33	228	1195	121	26	878	53
Grp Sat Flow(s),veh/h/ln	1774	0	1654	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.0	0.0	17.3	4.4	3.1	1.4	10.9	24.7	4.0	1.2	19.2	2.0
Cycle Q Clear(g_c), s	3.0	0.0	17.3	4.4	3.1	1.4	10.9	24.7	4.0	1.2	19.2	2.0
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	0	401	128	467	397	264	1558	697	67	1165	521
V/C Ratio(X)	0.57	0.00	0.86	0.72	0.18	0.08	0.87	0.77	0.17	0.39	0.75	0.10
Avail Cap(c_a), veh/h	277	0	506	277	570	485	277	1558	697	277	1165	521
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	1.00
Uniform Delay (d), s/veh	39.4	0.0	31.4	39.3	25.4	24.8	36.0	20.5	14.7	40.7	25.9	20.2
Incr Delay (d2), s/veh	4.4	0.0	11.9	7.4	0.2	0.1	23.0	3.7	0.5	3.7	4.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	9.2	2.4	1.6	0.6	7.0	12.7	1.8	0.7	10.0	0.9
LnGrp Delay(d),s/veh	43.8	0.0	43.4	46.7	25.6	24.9	59.0	24.2	15.2	44.4	30.4	20.5
LnGrp LOS	D		D	D	C	C	E	C	B	D	C	C
Approach Vol, veh/h		410			209			1544			957	
Approach Delay, s/veh		43.4			34.8			28.6			30.3	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	42.6	10.7	25.5	17.4	33.0	10.0	26.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	3.2	26.7	6.4	19.3	12.9	21.2	5.0	5.1				
Green Ext Time (p_c), s	0.0	1.6	0.1	1.6	0.0	6.3	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			31.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	347	4	175	442	1362	0	0	948	396
Future Volume (veh/h)	0	0	0	347	4	175	442	1362	0	0	948	396
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				361	4	182	460	1419	0	0	988	412
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				434	5	391	422	2302	0	0	884	364
Arrive On Green				0.25	0.25	0.25	0.24	0.65	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1756	19	1583	1774	3632	0	0	2541	1007
Grp Volume(v), veh/h				365	0	182	460	1419	0	0	711	689
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1685
Q Serve(g_s), s				17.1	0.0	8.6	20.9	20.5	0.0	0.0	31.7	31.7
Cycle Q Clear(g_c), s				17.1	0.0	8.6	20.9	20.5	0.0	0.0	31.7	31.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.60
Lane Grp Cap(c), veh/h				438	0	391	422	2302	0	0	639	609
V/C Ratio(X)				0.83	0.00	0.47	1.09	0.62	0.00	0.00	1.11	1.13
Avail Cap(c_a), veh/h				685	0	611	422	2302	0	0	639	609
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	28.1	33.4	8.9	0.0	0.0	28.0	28.0
Incr Delay (d2), s/veh				5.1	0.0	0.9	69.9	1.2	0.0	0.0	70.4	78.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.9	0.0	3.8	18.3	10.3	0.0	0.0	27.8	27.9
LnGrp Delay(d),s/veh				36.4	0.0	29.0	103.4	10.2	0.0	0.0	98.5	106.9
LnGrp LOS				D		C	F	B			F	F
Approach Vol, veh/h					547			1879			1400	
Approach Delay, s/veh					34.0			33.0			102.6	
Approach LOS					C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			25.4	36.2		26.2				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		22.5			22.9	33.7		19.1				
Green Ext Time (p_c), s		27.8			0.0	0.0		2.6				
Intersection Summary												
HCM 2010 Ctrl Delay				58.6								
HCM 2010 LOS				E								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	3	548	0	0	0	0	1285	431	181	995	0
Future Volume (veh/h)	530	3	548	0	0	0	0	1285	431	181	995	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	554	0	571				0	1339	449	189	1036	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1651	551	228	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.44	0.44	0.13	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	3940	1258	1774	3632	0
Grp Volume(v), veh/h	554	0	571				0	1203	585	189	1036	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1641	1774	1770	0
Q Serve(g_s), s	13.0	0.0	29.9				0.0	30.9	31.2	10.4	16.1	0.0
Cycle Q Clear(g_c), s	13.0	0.0	29.9				0.0	30.9	31.2	10.4	16.1	0.0
Prop In Lane	1.00		1.00				0.00		0.77	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1483	718	228	2162	0
V/C Ratio(X)	0.52	0.00	1.21				0.00	0.81	0.82	0.83	0.48	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1483	718	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.1	0.0	35.0				0.0	24.5	24.6	42.5	10.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	111.3				0.0	3.5	7.3	7.5	0.8	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
%ile BackOfQ(50%),veh/ln	6.4	0.0	27.7				0.0	15.1	15.4	5.6	8.0	0.0
LnGrp Delay(d),s/veh	29.6	0.0	146.3				0.0	28.0	31.8	50.1	11.5	0.0
LnGrp LOS	C		F					C	C	D	B	
Approach Vol, veh/h		1125						1788			1225	
Approach Delay, s/veh		88.8						29.3			17.4	
Approach LOS		F						C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.3	48.3		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	12.4	33.2		31.9		18.1						
Green Ext Time (p_c), s	0.5	0.0		0.0		32.7						
Intersection Summary												
HCM 2010 Ctrl Delay			42.0									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
6: Hemlock Ave & New Project Access

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	255	19	0	213	0	0	0	24	0	0	0
Future Vol, veh/h	0	255	19	0	213	0	0	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	271	20	0	227	0	0	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	508	508	146	336	518	227
Stage 1	-	-	-	-	-	-	281	281	-	227	227	-
Stage 2	-	-	-	-	-	-	227	227	-	109	291	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	483	467	744	615	461	812
Stage 1	0	-	-	0	-	0	637	678	-	747	716	-
Stage 2	0	-	-	0	-	0	747	716	-	846	671	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	483	467	744	594	461	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	483	467	-	594	461	-
Stage 1	-	-	-	-	-	-	637	678	-	747	716	-
Stage 2	-	-	-	-	-	-	747	716	-	817	671	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	744	-	-	-	-
HCM Lane V/C Ratio	0.034	-	-	-	-
HCM Control Delay (s)	10	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection

Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	50	230	4	4	162	6	2	2	0	8	0	39
Future Vol, veh/h	50	230	4	4	162	6	2	2	0	8	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	261	5	5	184	7	2	2	0	9	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	191	0	0	266	0	0	574	577	133	442	577	188
Stage 1	-	-	-	-	-	-	377	377	-	197	197	-
Stage 2	-	-	-	-	-	-	197	200	-	245	380	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1381	-	-	1296	-	-	415	427	892	512	427	853
Stage 1	-	-	-	-	-	-	617	615	-	804	737	-
Stage 2	-	-	-	-	-	-	804	735	-	738	613	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1381	-	-	1296	-	-	380	408	892	492	408	853
Mov Cap-2 Maneuver	-	-	-	-	-	-	380	408	-	492	408	-
Stage 1	-	-	-	-	-	-	592	590	-	771	734	-
Stage 2	-	-	-	-	-	-	759	732	-	705	588	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.2			14.2			10		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	394	1381	-	-	1296	-	-	492	853
HCM Lane V/C Ratio	0.012	0.041	-	-	0.004	-	-	0.018	0.052
HCM Control Delay (s)	14.2	7.7	-	-	7.8	-	-	12.5	9.5
HCM Lane LOS		B	A	-	A	-	-	B	A
HCM 95th %tile Q(veh)		0	0.1	-	0	-	-	0.1	0.2

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	12	227	162	8	11	11
Future Vol, veh/h	12	227	162	8	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	249	178	9	12	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	187	0	-	0	458 182
Stage 1	-	-	-	-	182 -
Stage 2	-	-	-	-	276 -
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	1387	-	-	-	561 861
Stage 1	-	-	-	-	849 -
Stage 2	-	-	-	-	771 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1387	-	-	-	555 861
Mov Cap-2 Maneuver	-	-	-	-	618 -
Stage 1	-	-	-	-	849 -
Stage 2	-	-	-	-	763 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	720
HCM Lane V/C Ratio	0.01	-	-	-	0.034
HCM Control Delay (s)	7.6	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 1.4

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	15	220	155	10	28	18
Future Vol, veh/h	15	220	155	10	28	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	242	170	11	31	20

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	181	0	-	0	451	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	275	-
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	1394	-	-	-	566	867
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1394	-	-	-	559	867
Mov Cap-2 Maneuver	-	-	-	-	620	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	761	-

Approach EB WB SB

HCM Control Delay, s	0.5	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1394	-	-	-	698
HCM Lane V/C Ratio	0.012	-	-	-	0.072
HCM Control Delay (s)	7.6	-	-	-	10.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	1	247	157	22	0	8
Future Vol, veh/h	1	247	157	22	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	266	169	24	0	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	192	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1381	-	862
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1381	-	862
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1381	-	-	-	862
HCM Lane V/C Ratio	0.001	-	-	-	0.01
HCM Control Delay (s)	7.6	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	247	169	9	0	10
Future Vol, veh/h	0	247	169	9	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	263	180	10	0	11

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	857
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.3
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	682	0	0	432	53	0	0	0	72	0	52
Future Volume (veh/h)	94	682	0	0	432	53	0	0	0	72	0	52
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	108	784	0	0	497	61	0	0	0	83	0	60
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	82	1778	0	0	1317	161	0	773	0	802	0	657
Arrive On Green	0.05	0.50	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.41	0.00	0.41
Sat Flow, veh/h	1774	3632	0	0	3269	388	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	108	784	0	0	276	282	0	0	0	83	0	60
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1794	0	1863	0	1774	0	1583
Q Serve(g_s), s	5.0	15.4	0.0	0.0	11.7	11.8	0.0	0.0	0.0	3.1	0.0	2.5
Cycle Q Clear(g_c), s	5.0	15.4	0.0	0.0	11.7	11.8	0.0	0.0	0.0	3.1	0.0	2.5
Prop In Lane	1.00		0.00	0.00		0.22	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	1778	0	0	734	744	0	773	0	802	0	657
V/C Ratio(X)	1.32	0.44	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.10	0.00	0.09
Avail Cap(c_a), veh/h	82	1778	0	0	734	744	0	773	0	802	0	657
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	17.3	0.0	0.0	22.0	22.0	0.0	0.0	0.0	19.5	0.0	19.3
Incr Delay (d2), s/veh	207.5	0.8	0.0	0.0	1.5	1.5	0.0	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	7.7	0.0	0.0	6.1	6.2	0.0	0.0	0.0	1.6	0.0	1.1
LnGrp Delay(d),s/veh	259.3	18.1	0.0	0.0	23.5	23.5	0.0	0.0	0.0	19.8	0.0	19.6
LnGrp LOS	F	B			C	C				B		B
Approach Vol, veh/h		892			558			0				143
Approach Delay, s/veh		47.3			23.5			0.0				19.7
Approach LOS		D			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		17.4		5.1	7.0	13.8		0.0				
Green Ext Time (p_c), s		10.6		0.6	0.0	11.1		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				36.5								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	523	94	113	355	62	67	171	203	66	125	74
Future Volume (veh/h)	100	523	94	113	355	62	67	171	203	66	125	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	109	568	102	123	386	67	73	186	221	72	136	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	783	140	157	815	140	124	663	564	124	662	563
Arrive On Green	0.08	0.26	0.26	0.09	0.27	0.27	0.07	0.36	0.36	0.07	0.36	0.36
Sat Flow, veh/h	1774	3000	537	1774	3021	520	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	109	334	336	123	225	228	73	186	221	72	136	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1768	1774	1770	1771	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.8	13.8	13.9	5.4	8.5	8.7	3.2	5.7	8.4	3.2	4.1	2.7
Cycle Q Clear(g_c), s	4.8	13.8	13.9	5.4	8.5	8.7	3.2	5.7	8.4	3.2	4.1	2.7
Prop In Lane	1.00		0.30	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	462	462	157	478	478	124	663	564	124	662	563
V/C Ratio(X)	0.77	0.72	0.73	0.78	0.47	0.48	0.59	0.28	0.39	0.58	0.21	0.14
Avail Cap(c_a), veh/h	299	585	585	299	585	586	299	663	564	299	662	563
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	36.2	27.0	27.0	35.8	24.5	24.5	36.1	18.5	19.3	36.1	17.9	17.5
Incr Delay (d2), s/veh	8.6	3.3	3.4	8.3	0.7	0.7	4.3	1.1	2.0	4.3	0.7	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	2.7	7.1	7.1	3.0	4.2	4.3	1.7	3.1	4.0	1.7	2.2	1.3
LnGrp Delay(d),s/veh	44.7	30.2	30.4	44.1	25.2	25.3	40.5	19.5	21.4	40.4	18.6	18.0
LnGrp LOS	D	C	C	D	C	C	D	B	C	D	B	B
Approach Vol, veh/h		779			576			480			288	
Approach Delay, s/veh		32.3			29.2			23.5			23.9	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	33.0	11.6	25.4	10.1	33.0	10.9	26.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	10.7	10.4	7.4	15.9	5.2	6.1	6.8	10.7				
Green Ext Time (p_c), s	0.1	2.7	0.1	5.0	0.1	2.9	0.1	6.4				
Intersection Summary												
HCM 2010 Ctrl Delay				28.4								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	151	57	107	77	24	55	394	163	18	309	15
Future Volume (veh/h)	41	151	57	107	77	24	55	394	163	18	309	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	159	60	113	81	25	58	415	172	19	325	16
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	266	97	173	133	41	118	565	234	172	848	42
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.07	0.45	0.45	0.10	0.48	0.48
Sat Flow, veh/h	1774	2544	925	1774	1367	422	1774	1252	519	1774	1761	87
Grp Volume(v), veh/h	43	109	110	113	0	106	58	0	587	19	0	341
Grp Sat Flow(s),veh/h/ln	1774	1770	1700	1774	0	1788	1774	0	1771	1774	0	1847
Q Serve(g_s), s	1.6	4.2	4.5	4.4	0.0	4.1	2.3	0.0	19.6	0.7	0.0	8.5
Cycle Q Clear(g_c), s	1.6	4.2	4.5	4.4	0.0	4.1	2.3	0.0	19.6	0.7	0.0	8.5
Prop In Lane	1.00		0.54	1.00		0.24	1.00		0.29	1.00		0.05
Lane Grp Cap(c), veh/h	185	185	177	173	0	175	118	0	799	172	0	889
V/C Ratio(X)	0.23	0.59	0.62	0.65	0.00	0.61	0.49	0.00	0.73	0.11	0.00	0.38
Avail Cap(c_a), veh/h	495	494	474	495	0	499	175	0	799	495	0	889
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	30.8	30.9	31.3	0.0	31.2	32.4	0.0	16.2	29.7	0.0	11.9
Incr Delay (d2), s/veh	0.6	3.0	3.5	4.1	0.0	3.4	3.1	0.0	5.9	0.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.2	2.3	2.4	0.0	2.2	1.2	0.0	10.8	0.4	0.0	4.6
LnGrp Delay(d),s/veh	30.3	33.8	34.4	35.4	0.0	34.6	35.6	0.0	22.2	30.0	0.0	13.1
LnGrp LOS	C	C	C	D		C	D		C	C		B
Approach Vol, veh/h		262			219			645			360	
Approach Delay, s/veh		33.5			35.0			23.4			14.0	
Approach LOS		C			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.0		12.0	9.3	39.2		11.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1/2), s	12.5	21.6		6.5	4.3	10.5		6.4				
Green Ext Time (p_c), s	0.0	0.1		1.1	0.0	6.8		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			24.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2022) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	578	160	49	292	50	132	235	82	67	151	267
Future Volume (veh/h)	381	578	160	49	292	50	132	235	82	67	151	267
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	397	602	167	51	304	52	138	245	85	70	157	278
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	283	809	224	102	587	99	173	684	673	118	627	786
Arrive On Green	0.16	0.30	0.30	0.06	0.19	0.19	0.10	0.37	0.37	0.07	0.34	0.34
Sat Flow, veh/h	1774	2740	759	1774	3030	512	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	397	388	381	51	176	180	138	245	85	70	157	278
Grp Sat Flow(s),veh/h/ln	1774	1770	1729	1774	1770	1772	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.1	2.8	3.2	5.2	9.1
Cycle Q Clear(g_c), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.1	2.8	3.2	5.2	9.1
Prop In Lane	1.00		0.44	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	523	511	102	343	343	173	684	673	118	627	786
V/C Ratio(X)	1.40	0.74	0.75	0.50	0.51	0.52	0.80	0.36	0.13	0.59	0.25	0.35
Avail Cap(c_a), veh/h	283	554	541	283	554	555	283	684	673	283	627	786
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	35.6	26.9	26.9	38.7	30.6	30.6	37.4	19.5	14.8	38.4	20.3	13.0
Incr Delay (d2), s/veh	201.3	5.1	5.3	3.7	1.2	1.2	8.2	1.5	0.4	4.6	1.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	8.9	8.8	1.3	3.8	3.9	3.5	4.4	1.3	1.7	2.8	4.2
LnGrp Delay(d),s/veh	236.8	32.0	32.2	42.4	31.8	31.9	45.5	21.0	15.2	43.0	21.3	14.3
LnGrp LOS	F	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		1166			407			468			505	
Approach Delay, s/veh		101.8			33.1			27.2			20.4	
Approach LOS		F			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	35.6	9.4	29.5	12.7	33.0	18.0	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.2	10.1	4.4	18.8	8.4	11.1	15.5	9.7				
Green Ext Time (p_c), s	0.1	3.5	0.0	4.1	0.1	3.4	0.0	6.7				
Intersection Summary												
HCM 2010 Ctrl Delay			61.0									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	309	161	181	592	47	132	487	103	57	631	290
Future Volume (veh/h)	147	309	161	181	592	47	132	487	103	57	631	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	329	171	193	630	50	140	518	110	61	671	309
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	820	367	230	841	67	175	1300	787	111	1172	696
Arrive On Green	0.11	0.23	0.23	0.13	0.25	0.25	0.10	0.37	0.37	0.06	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3323	263	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	156	329	171	193	335	345	140	518	110	61	671	309
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1816	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.4	6.8	8.0	9.1	15.0	15.1	6.6	9.3	3.2	2.9	13.5	11.7
Cycle Q Clear(g_c), s	7.4	6.8	8.0	9.1	15.0	15.1	6.6	9.3	3.2	2.9	13.5	11.7
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	820	367	230	448	460	175	1300	787	111	1172	696
V/C Ratio(X)	0.81	0.40	0.47	0.84	0.75	0.75	0.80	0.40	0.14	0.55	0.57	0.44
Avail Cap(c_a), veh/h	278	1090	488	278	545	559	278	1300	787	278	1172	696
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	37.5	28.0	28.5	36.6	29.6	29.6	38.0	20.2	11.7	39.2	23.8	16.8
Incr Delay (d2), s/veh	11.2	0.3	0.9	17.2	4.6	4.5	8.4	0.9	0.4	4.2	2.0	2.1
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	4.2	3.3	3.6	5.6	7.9	8.1	3.7	4.7	1.5	1.5	6.9	5.5
LnGrp Delay(d),s/veh	48.7	28.3	29.4	53.8	34.2	34.1	46.4	21.1	12.1	43.4	25.8	18.9
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		656			873			768			1041	
Approach Delay, s/veh		33.5			38.5			24.4			24.8	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	36.1	15.7	24.4	13.0	33.0	13.8	26.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.9	11.3	11.1	10.0	8.6	15.5	9.4	17.1				
Green Ext Time (p_c), s	0.1	8.6	0.1	6.6	0.1	7.2	0.1	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			30.0									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↑↓
Traffic Vol, veh/h	0	9	712	0	0	973
Future Vol, veh/h	0	9	712	0	0	973
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	757	0	0	1035
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1275	379	0	0	757
Stage 1	757	-	-	-	-
Stage 2	518	-	-	-	-
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	159	619	-	-	850
Stage 1	424	-	-	-	-
Stage 2	563	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	159	619	-	-	850
Mov Cap-2 Maneuver	291	-	-	-	-
Stage 1	424	-	-	-	-
Stage 2	563	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	619	850
HCM Lane V/C Ratio	-	-	0.015	-
HCM Control Delay (s)	-	-	10.9	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	56	156	56	72	6	124	689	84	18	940	46
Future Volume (veh/h)	45	56	156	56	72	6	124	689	84	18	940	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	46	58	161	58	74	6	128	710	87	19	969	47
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	105	77	214	120	345	293	165	1658	742	55	1438	643
Arrive On Green	0.06	0.18	0.18	0.07	0.19	0.19	0.09	0.47	0.47	0.03	0.41	0.41
Sat Flow, veh/h	1774	437	1212	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	46	0	219	58	74	6	128	710	87	19	969	47
Grp Sat Flow(s),veh/h/ln	1774	0	1649	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.8	0.0	8.8	2.2	2.4	0.2	4.9	9.4	2.2	0.7	15.7	1.3
Cycle Q Clear(g_c), s	1.8	0.0	8.8	2.2	2.4	0.2	4.9	9.4	2.2	0.7	15.7	1.3
Prop In Lane	1.00		0.74	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	291	120	345	293	165	1658	742	55	1438	643
V/C Ratio(X)	0.44	0.00	0.75	0.48	0.21	0.02	0.78	0.43	0.12	0.35	0.67	0.07
Avail Cap(c_a), veh/h	342	0	623	342	704	598	342	1658	742	342	1438	643
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	1.00
Uniform Delay (d), s/veh	31.9	0.0	27.4	31.5	24.3	23.4	31.1	12.4	10.5	33.3	17.0	12.7
Incr Delay (d2), s/veh	2.9	0.0	3.9	3.0	0.3	0.0	7.7	0.8	0.3	3.7	2.5	0.2
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	0.9	0.0	4.3	1.2	1.2	0.1	2.8	4.7	1.0	0.4	8.2	0.6
LnGrp Delay(d),s/veh	34.7	0.0	31.3	34.5	24.6	23.4	38.8	13.2	10.8	37.0	19.6	13.0
LnGrp LOS	C		C	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		265			138			925			1035	
Approach Delay, s/veh		31.9			28.7			16.5			19.6	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	37.3	9.2	16.9	11.0	33.0	8.6	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.7	11.4	4.2	10.8	6.9	17.7	3.8	4.4				
Green Ext Time (p_c), s	0.0	10.9	0.1	1.6	0.1	7.7	0.0	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			20.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕↕			↕↕	
Traffic Volume (veh/h)	0	0	0	342	4	177	332	719	0	0	852	327
Future Volume (veh/h)	0	0	0	342	4	177	332	719	0	0	852	327
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				356	4	184	346	749	0	0	888	341
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				429	5	387	383	2310	0	0	966	369
Arrive On Green				0.24	0.24	0.24	0.22	0.65	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1755	20	1583	1774	3632	0	0	2599	958
Grp Volume(v), veh/h				360	0	184	346	749	0	0	626	603
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1694
Q Serve(g_s), s				16.8	0.0	8.7	16.6	8.2	0.0	0.0	29.4	29.7
Cycle Q Clear(g_c), s				16.8	0.0	8.7	16.6	8.2	0.0	0.0	29.4	29.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.57
Lane Grp Cap(c), veh/h				434	0	387	383	2310	0	0	682	653
V/C Ratio(X)				0.83	0.00	0.48	0.90	0.32	0.00	0.00	0.92	0.92
Avail Cap(c_a), veh/h				688	0	614	424	2310	0	0	682	653
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	28.3	33.4	6.7	0.0	0.0	25.6	25.7
Incr Delay (d2), s/veh				4.8	0.0	0.9	21.1	0.4	0.0	0.0	19.4	20.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	3.9	10.3	4.1	0.0	0.0	17.9	17.5
LnGrp Delay(d),s/veh				36.1	0.0	29.2	54.5	7.1	0.0	0.0	44.9	46.4
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					544			1095			1229	
Approach Delay, s/veh					33.8			22.1			45.7	
Approach LOS					C			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			23.4	38.2		25.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		10.2			18.6	31.7		18.8				
Green Ext Time (p_c), s		21.7			0.3	0.0		2.6				
Intersection Summary												
HCM 2010 Ctrl Delay				34.4								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	4	510	0	0	0	0	795	182	168	991	0
Future Volume (veh/h)	247	4	510	0	0	0	0	795	182	168	991	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	255	0	520				0	811	186	171	1011	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1855	422	210	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.45	0.45	0.12	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	4311	943	1774	3632	0
Grp Volume(v), veh/h	255	0	520				0	663	334	171	1011	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1696	1774	1770	0
Q Serve(g_s), s	5.4	0.0	29.9				0.0	13.4	13.6	9.4	15.6	0.0
Cycle Q Clear(g_c), s	5.4	0.0	29.9				0.0	13.4	13.6	9.4	15.6	0.0
Prop In Lane	1.00		1.00				0.00		0.56	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1518	760	210	2162	0
V/C Ratio(X)	0.24	0.00	1.10				0.00	0.44	0.44	0.82	0.47	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1518	760	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.5	0.0	35.0				0.0	18.9	19.0	43.0	10.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	70.8				0.0	0.2	0.4	7.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	22.3				0.0	6.3	6.4	5.0	7.8	0.0
LnGrp Delay(d),s/veh	26.6	0.0	105.9				0.0	19.1	19.4	50.6	11.3	0.0
LnGrp LOS	C		F					B	B	D	B	
Approach Vol, veh/h		775						997			1182	
Approach Delay, s/veh		79.8						19.2			17.0	
Approach LOS		E						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.3	49.3		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.4	15.6		31.9		17.6						
Green Ext Time (p_c), s	0.4	8.6		0.0		21.4						
Intersection Summary												
HCM 2010 Ctrl Delay			34.2									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	157	1	0	281	0	0	0	1	0	0	0
Future Vol, veh/h	0	157	1	0	281	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	173	1	0	309	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	174	0	0	327	482	87	395	483	154
Stage 1	-	-	-	-	-	-	173	173	-	309	309	-
Stage 2	-	-	-	-	-	-	154	309	-	86	174	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1248	-	-	1400	-	-	602	482	954	539	482	864
Stage 1	-	-	-	-	-	-	812	755	-	676	658	-
Stage 2	-	-	-	-	-	-	833	658	-	912	754	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1248	-	-	1400	-	-	602	482	954	538	482	864
Mov Cap-2 Maneuver	-	-	-	-	-	-	602	482	-	538	482	-
Stage 1	-	-	-	-	-	-	812	755	-	676	658	-
Stage 2	-	-	-	-	-	-	833	658	-	911	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	954	1248	-	-	1400	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	106	205	42	3	198	5	28	0	3	4	0	58
Future Vol, veh/h	106	205	42	3	198	5	28	0	3	4	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	238	49	3	230	6	33	0	3	5	0	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	287	0	0	749	752	144	606	774	233
Stage 1	-	-	-	-	-	-	509	509	-	240	240	-
Stage 2	-	-	-	-	-	-	240	243	-	366	534	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1330	-	-	1274	-	-	314	338	878	395	329	805
Stage 1	-	-	-	-	-	-	516	537	-	763	706	-
Stage 2	-	-	-	-	-	-	763	704	-	627	524	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1274	-	-	267	306	878	365	298	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	306	-	365	298	-
Stage 1	-	-	-	-	-	-	468	487	-	692	704	-
Stage 2	-	-	-	-	-	-	697	702	-	567	476	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0.1			19.4			10.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	286	1330	-	-	1274	-	-	365	805
HCM Lane V/C Ratio	0.126	0.093	-	-	0.003	-	-	0.013	0.084
HCM Control Delay (s)	19.4	8	-	-	7.8	-	-	15	9.9
HCM Lane LOS	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	0	0.3

Intersection

Int Delay, s/veh 0.5

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	18	193	198	4	0	6
Future Vol, veh/h	18	193	198	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	230	236	5	0	7

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	240	0	-	0	511	238
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	273	-
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	1327	-	-	-	523	801
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1327	-	-	-	514	801
Mov Cap-2 Maneuver	-	-	-	-	590	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	759	-

Approach EB WB SB

HCM Control Delay, s	0.7	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1327	-	-	-	801
HCM Lane V/C Ratio	0.016	-	-	-	0.009
HCM Control Delay (s)	7.8	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	89	105	151	38	19	53
Future Vol, veh/h	89	105	151	38	19	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	117	168	42	21	59

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	210	0	-	0	503 189
Stage 1	-	-	-	-	189 -
Stage 2	-	-	-	-	314 -
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	1361	-	-	-	528 853
Stage 1	-	-	-	-	843 -
Stage 2	-	-	-	-	741 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1361	-	-	-	487 853
Mov Cap-2 Maneuver	-	-	-	-	560 -
Stage 1	-	-	-	-	843 -
Stage 2	-	-	-	-	683 -

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	750
HCM Lane V/C Ratio	0.073	-	-	-	0.107
HCM Control Delay (s)	7.9	-	-	-	10.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	119	3	22	181	33	3	0	15	16	0	3
Future Vol, veh/h	2	119	3	22	181	33	3	0	15	16	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	138	3	26	210	38	3	0	17	19	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	142	0	0	428	445	140	434	428	230
Stage 1	-	-	-	-	-	-	145	145	-	281	281	-
Stage 2	-	-	-	-	-	-	283	300	-	153	147	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1317	-	-	1441	-	-	537	508	908	532	519	809
Stage 1	-	-	-	-	-	-	858	777	-	726	678	-
Stage 2	-	-	-	-	-	-	724	666	-	849	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1317	-	-	1441	-	-	525	496	908	513	507	809
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	496	-	513	507	-
Stage 1	-	-	-	-	-	-	856	775	-	725	664	-
Stage 2	-	-	-	-	-	-	706	652	-	831	773	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.7			9.6			11.9		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1317	-	-	1441	-	-	544
HCM Lane V/C Ratio	0.026	0.002	-	-	0.018	-	-	0.041
HCM Control Delay (s)	9.6	7.7	0	-	7.5	0	-	11.9
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	150	156	4	0	7
Future Vol, veh/h	0	150	156	4	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	172	179	5	0	8






















Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 182
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 861
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 861
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	861
HCM Lane V/C Ratio	-	-	-	0.009
HCM Control Delay (s)	-	-	-	9.2
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	51	436	11	11	747	174	7	0	7	142	0	87
Future Volume (veh/h)	51	436	11	11	747	174	7	0	7	142	0	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	58	495	12	12	849	198	8	0	8	161	0	99
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1650	40	42	1056	244	343	17	306	707	0	703
Arrive On Green	0.04	0.47	0.47	0.38	0.38	0.38	0.44	0.00	0.44	0.44	0.00	0.44
Sat Flow, veh/h	1774	3532	86	15	2773	641	652	38	690	1402	0	1583
Grp Volume(v), veh/h	58	248	259	571	0	488	16	0	0	161	0	99
Grp Sat Flow(s),veh/h/ln	1774	1770	1848	1847	0	1582	1379	0	0	1402	0	1583
Q Serve(g_s), s	3.3	8.8	8.8	4.1	0.0	28.0	0.0	0.0	0.0	2.4	0.0	3.8
Cycle Q Clear(g_c), s	3.3	8.8	8.8	27.8	0.0	28.0	3.8	0.0	0.0	6.2	0.0	3.8
Prop In Lane	1.00		0.05	0.02		0.41	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	74	827	863	740	0	603	666	0	0	707	0	703
V/C Ratio(X)	0.78	0.30	0.30	0.77	0.00	0.81	0.02	0.00	0.00	0.23	0.00	0.14
Avail Cap(c_a), veh/h	88	827	863	872	0	718	666	0	0	707	0	703
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.1	16.7	16.7	28.0	0.0	28.1	15.8	0.0	0.0	17.3	0.0	16.7
Incr Delay (d2), s/veh	30.8	0.2	0.2	3.6	0.0	6.0	0.1	0.0	0.0	0.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.3	4.5	15.0	0.0	13.2	0.3	0.0	0.0	2.9	0.0	1.7
LnGrp Delay(d),s/veh	78.9	16.9	16.9	31.6	0.0	34.1	15.9	0.0	0.0	18.0	0.0	17.1
LnGrp LOS	E	B	B	C		C	B			B		B
Approach Vol, veh/h		565			1059			16			260	
Approach Delay, s/veh		23.3			32.7			15.9			17.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		51.9		49.5	8.8	43.1				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		5.8		10.8		8.2	5.3	30.0				
Green Ext Time (p_c), s		1.2		13.8		1.2	0.0	8.6				
Intersection Summary												
HCM 2010 Ctrl Delay				27.7								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	412	137	114	680	94	132	146	69	105	173	91
Future Volume (veh/h)	36	412	137	114	680	94	132	146	69	105	173	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	43	490	163	136	810	112	157	174	82	125	206	108
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	687	227	170	958	132	193	645	548	158	608	517
Arrive On Green	0.05	0.26	0.26	0.10	0.31	0.31	0.11	0.35	0.35	0.09	0.33	0.33
Sat Flow, veh/h	1774	2615	865	1774	3124	432	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	43	331	322	136	459	463	157	174	82	125	206	108
Grp Sat Flow(s),veh/h/ln	1774	1770	1710	1774	1770	1787	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	14.8	14.9	6.5	21.2	21.2	7.6	5.9	3.1	6.0	7.3	4.3
Cycle Q Clear(g_c), s	2.1	14.8	14.9	6.5	21.2	21.2	7.6	5.9	3.1	6.0	7.3	4.3
Prop In Lane	1.00		0.51	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	465	449	170	542	548	193	645	548	158	608	517
V/C Ratio(X)	0.47	0.71	0.72	0.80	0.85	0.85	0.82	0.27	0.15	0.79	0.34	0.21
Avail Cap(c_a), veh/h	274	537	519	274	542	548	274	645	548	274	608	517
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	40.2	29.2	29.2	38.6	28.3	28.3	38.0	20.6	19.7	39.0	22.2	21.2
Incr Delay (d2), s/veh	3.6	3.7	4.0	8.4	11.8	11.7	11.9	1.0	0.6	8.6	1.5	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	1.1	7.6	7.6	3.6	12.1	12.2	4.3	3.2	1.5	3.3	4.0	2.0
LnGrp Delay(d),s/veh	43.8	32.9	33.2	47.0	40.1	40.0	49.9	21.6	20.2	47.6	23.7	22.1
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		696			1058			413			439	
Approach Delay, s/veh		33.7			41.0			32.1			30.1	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	34.7	12.9	27.4	14.0	33.0	9.0	31.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	10.0	7.9	8.5	16.9	9.6	9.3	4.1	23.2				
Green Ext Time (p_c), s	0.1	2.8	0.1	6.0	0.1	2.7	0.0	2.6				
Intersection Summary												
HCM 2010 Ctrl Delay				35.8								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	1	70	27	76	74	65	40	255	66	47	365	18
Future Volume (veh/h)	1	70	27	76	74	65	40	255	66	47	365	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	88	34	95	92	81	50	319	82	59	456	22
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	222	82	241	124	109	108	625	161	169	831	40
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.06	0.44	0.44	0.10	0.47	0.47
Sat Flow, veh/h	1774	2535	933	1774	915	806	1774	1430	368	1774	1763	85
Grp Volume(v), veh/h	1	60	62	95	0	173	50	0	401	59	0	478
Grp Sat Flow(s),veh/h/ln	1774	1770	1698	1774	0	1721	1774	0	1798	1774	0	1848
Q Serve(g_s), s	0.0	2.4	2.5	3.6	0.0	7.1	2.0	0.0	11.9	2.3	0.0	13.6
Cycle Q Clear(g_c), s	0.0	2.4	2.5	3.6	0.0	7.1	2.0	0.0	11.9	2.3	0.0	13.6
Prop In Lane	1.00		0.55	1.00		0.47	1.00		0.20	1.00		0.05
Lane Grp Cap(c), veh/h	155	155	148	241	0	233	108	0	786	169	0	871
V/C Ratio(X)	0.01	0.39	0.42	0.39	0.00	0.74	0.46	0.00	0.51	0.35	0.00	0.55
Avail Cap(c_a), veh/h	484	483	464	484	0	470	171	0	786	484	0	871
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.7	31.7	31.8	29.0	0.0	30.6	33.4	0.0	15.0	31.2	0.0	13.9
Incr Delay (d2), s/veh	0.0	1.6	1.9	1.0	0.0	4.6	3.1	0.0	2.4	1.2	0.0	2.5
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	0.0	1.2	1.3	1.8	0.0	3.7	1.1	0.0	6.4	1.2	0.0	7.5
LnGrp Delay(d),s/veh	30.7	33.3	33.7	30.1	0.0	35.2	36.5	0.0	17.4	32.4	0.0	16.4
LnGrp LOS	C	C	C	C		D	D		B	C		B
Approach Vol, veh/h		123			268			451			537	
Approach Delay, s/veh		33.5			33.4			19.5			18.1	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	36.7		10.9	9.0	39.2		14.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	11.3	13.9		4.5	4.0	15.6		9.1				
Green Ext Time (p_c), s	0.1	3.4		0.5	0.0	5.6		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			22.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
 Future (2022) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	189	81	22	247	38	101	224	65	63	250	171
Future Volume (veh/h)	123	189	81	22	247	38	101	224	65	63	250	171
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	138	212	91	25	278	43	113	252	73	71	281	192
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	545	226	68	500	76	155	768	714	131	743	789
Arrive On Green	0.10	0.22	0.22	0.04	0.16	0.16	0.09	0.41	0.41	0.07	0.40	0.40
Sat Flow, veh/h	1774	2441	1013	1774	3079	471	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	138	152	151	25	158	163	113	252	73	71	281	192
Grp Sat Flow(s),veh/h/ln	1774	1770	1684	1774	1770	1780	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.4	5.2	5.5	1.0	5.9	6.0	4.4	6.6	1.9	2.8	7.6	4.9
Cycle Q Clear(g_c), s	5.4	5.2	5.5	1.0	5.9	6.0	4.4	6.6	1.9	2.8	7.6	4.9
Prop In Lane	1.00		0.60	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	395	376	68	287	289	155	768	714	131	743	789
V/C Ratio(X)	0.78	0.38	0.40	0.37	0.55	0.56	0.73	0.33	0.10	0.54	0.38	0.24
Avail Cap(c_a), veh/h	335	656	625	335	656	660	335	768	714	335	743	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	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	31.4	23.6	23.7	33.5	27.5	27.6	31.8	14.3	11.3	31.9	15.2	10.2
Incr Delay (d2), s/veh	7.4	0.6	0.7	3.3	1.7	1.7	6.4	1.1	0.3	3.4	1.5	0.7
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	8.0	2.6	2.6	0.5	3.0	3.1	2.4	3.6	0.9	1.5	4.2	2.3
LnGrp Delay(d),s/veh	38.8	24.2	24.4	36.8	29.2	29.3	38.1	15.4	11.6	35.3	16.7	11.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		441			346			438			544	
Approach Delay, s/veh		28.8			29.8			20.6			17.1	
Approach LOS		C			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	34.0	7.2	20.5	10.8	33.0	11.6	16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.8	8.6	3.0	7.5	6.4	9.6	7.4	8.0				
Green Ext Time (p_c), s	0.1	4.1	0.0	3.6	0.1	4.0	0.2	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			23.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	499	208	109	357	44	260	784	207	82	620	227
Future Volume (veh/h)	251	499	208	109	357	44	260	784	207	82	620	227
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	256	509	212	111	364	45	265	800	211	84	633	232
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	263	924	413	141	610	75	263	1394	749	120	1108	731
Arrive On Green	0.15	0.26	0.26	0.08	0.19	0.19	0.15	0.39	0.39	0.07	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3174	390	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	256	509	212	111	202	207	265	800	211	84	633	232
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1794	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.1	11.3	10.4	5.6	9.5	9.6	13.5	16.1	7.4	4.2	13.6	8.4
Cycle Q Clear(g_c), s	13.1	11.3	10.4	5.6	9.5	9.6	13.5	16.1	7.4	4.2	13.6	8.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	924	413	141	340	345	263	1394	749	120	1108	731
V/C Ratio(X)	0.97	0.55	0.51	0.79	0.59	0.60	1.01	0.57	0.28	0.70	0.57	0.32
Avail Cap(c_a), veh/h	263	1031	461	263	515	522	263	1394	749	263	1108	731
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	38.6	29.0	28.7	41.1	33.5	33.6	38.8	21.6	14.6	41.5	26.1	15.5
Incr Delay (d2), s/veh	47.7	0.5	1.0	9.3	1.7	1.7	57.2	1.7	0.9	7.1	2.1	1.1
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	9.9	5.6	4.7	3.1	4.8	4.9	10.8	8.2	3.4	2.3	7.0	3.9
LnGrp Delay(d),s/veh	86.3	29.5	29.7	50.4	35.2	35.2	96.0	23.3	15.5	48.7	28.3	16.6
LnGrp LOS	F	C	C	D	D	D	F	C	B	D	C	B
Approach Vol, veh/h		977			520			1276			949	
Approach Delay, s/veh		44.4			38.4			37.1			27.2	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	40.3	11.7	28.3	18.0	33.0	18.0	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	18.1	7.6	13.3	15.5	15.6	15.1	11.6				
Green Ext Time (p_c), s	0.1	7.1	0.1	5.5	0.0	8.4	0.0	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay			36.7									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	38	1213	0	0	936
Future Vol, veh/h	0	38	1213	0	0	936
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1238	0	0	955
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1620	619	0	0	1238	0
Stage 1	1238	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	118	432	-	-	558	-
Stage 1	232	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	118	432	-	-	558	-
Mov Cap-2 Maneuver	118	-	-	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	624	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	432	558
HCM Lane V/C Ratio	-	-	0.09	-
HCM Control Delay (s)	-	-	14.2	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	114	245	252	105	24	226	1183	247	49	869	52
Future Volume (veh/h)	63	114	245	252	105	24	226	1183	247	49	869	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	64	115	247	255	106	24	228	1195	249	49	878	53
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	127	273	247	598	508	247	1348	603	94	1042	466
Arrive On Green	0.06	0.24	0.24	0.14	0.32	0.32	0.14	0.38	0.38	0.05	0.29	0.29
Sat Flow, veh/h	1774	528	1134	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	64	0	362	255	106	24	228	1195	249	49	878	53
Grp Sat Flow(s),veh/h/ln	1774	0	1663	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.4	0.0	20.5	13.5	4.0	1.0	12.3	30.6	11.2	2.6	22.5	2.4
Cycle Q Clear(g_c), s	3.4	0.0	20.5	13.5	4.0	1.0	12.3	30.6	11.2	2.6	22.5	2.4
Prop In Lane	1.00		0.68	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	400	247	598	508	247	1348	603	94	1042	466
V/C Ratio(X)	0.61	0.00	0.90	1.03	0.18	0.05	0.92	0.89	0.41	0.52	0.84	0.11
Avail Cap(c_a), veh/h	247	0	455	247	598	508	247	1348	603	247	1042	466
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	1.00
Uniform Delay (d), s/veh	44.4	0.0	35.7	41.7	23.7	22.7	41.1	28.0	22.0	44.6	32.1	24.9
Incr Delay (d2), s/veh	5.5	0.0	19.8	65.4	0.1	0.0	36.7	8.9	2.1	4.4	8.3	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	1.8	0.0	11.6	11.0	2.1	0.4	8.5	16.6	5.2	1.4	12.2	1.1
LnGrp Delay(d),s/veh	50.0	0.0	55.4	107.1	23.8	22.7	77.9	36.9	24.1	49.1	40.3	25.4
LnGrp LOS	D		E	F	C	C	E	D	C	D	D	C
Approach Vol, veh/h		426			385			1672			980	
Approach Delay, s/veh		54.6			78.9			40.6			40.0	
Approach LOS		D			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	41.4	18.0	27.8	18.0	33.0	10.2	35.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.6	32.6	15.5	22.5	14.3	24.5	5.4	6.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	3.6	0.1	3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			46.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	347	4	231	442	1433	0	0	1034	471
Future Volume (veh/h)	0	0	0	347	4	231	442	1433	0	0	1034	471
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				361	4	241	460	1493	0	0	1077	491
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				437	5	394	421	2297	0	0	860	381
Arrive On Green				0.25	0.25	0.25	0.24	0.65	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1756	19	1583	1774	3632	0	0	2481	1058
Grp Volume(v), veh/h				365	0	241	460	1493	0	0	790	778
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1676
Q Serve(g_s), s				17.1	0.0	11.9	20.9	22.5	0.0	0.0	31.7	31.7
Cycle Q Clear(g_c), s				17.1	0.0	11.9	20.9	22.5	0.0	0.0	31.7	31.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.63
Lane Grp Cap(c), veh/h				442	0	394	421	2297	0	0	638	604
V/C Ratio(X)				0.83	0.00	0.61	1.09	0.65	0.00	0.00	1.24	1.29
Avail Cap(c_a), veh/h				684	0	610	421	2297	0	0	638	604
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	29.3	33.5	9.4	0.0	0.0	28.1	28.1
Incr Delay (d2), s/veh				4.9	0.0	1.5	70.9	1.4	0.0	0.0	120.9	141.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.9	0.0	5.3	18.5	11.2	0.0	0.0	36.8	38.4
LnGrp Delay(d),s/veh				36.2	0.0	30.8	104.4	10.8	0.0	0.0	149.0	169.9
LnGrp LOS				D		C	F	B			F	F
Approach Vol, veh/h					606			1953			1568	
Approach Delay, s/veh					34.0			32.9			159.4	
Approach LOS					C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			25.4	36.2		26.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		24.5			22.9	33.7		19.1				
Green Ext Time (p_c), s		28.2			0.0	0.0		2.8				
Intersection Summary												
HCM 2010 Ctrl Delay				81.1								
HCM 2010 LOS				F								

HCM 2010 Signalized Intersection Summary
 5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	3	548	0	0	0	0	1296	431	252	1010	0
Future Volume (veh/h)	590	3	548	0	0	0	0	1296	431	252	1010	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	617	0	571				0	1350	449	262	1052	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1498	495	302	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.40	0.40	0.17	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	3949	1251	1774	3632	0
Grp Volume(v), veh/h	617	0	571				0	1209	590	262	1052	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1642	1774	1770	0
Q Serve(g_s), s	14.8	0.0	29.9				0.0	33.5	33.8	14.4	16.5	0.0
Cycle Q Clear(g_c), s	14.8	0.0	29.9				0.0	33.5	33.8	14.4	16.5	0.0
Prop In Lane	1.00		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1343	650	302	2162	0
V/C Ratio(X)	0.58	0.00	1.21				0.00	0.90	0.91	0.87	0.49	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1343	650	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	35.0				0.0	28.4	28.5	40.4	10.8	0.0
Incr Delay (d2), s/veh	0.8	0.0	111.3				0.0	8.6	16.5	7.6	0.8	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
%ile BackOfQ(50%),veh/ln	7.3	0.0	27.7				0.0	17.2	18.2	7.7	8.1	0.0
LnGrp Delay(d),s/veh	30.5	0.0	146.3				0.0	37.0	44.9	48.0	11.6	0.0
LnGrp LOS	C		F					D	D	D	B	
Approach Vol, veh/h		1188						1799			1314	
Approach Delay, s/veh		86.2						39.6			18.8	
Approach LOS		F						D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.5	44.1		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+110), s	110.4	35.8		31.9		18.5						
Green Ext Time (p_c), s	0.6	0.0		0.0		32.7						
Intersection Summary												
HCM 2010 Ctrl Delay			46.1									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
6: Hemlock Ave & New Project Access

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	421	19	0	695	0	0	0	24	0	0	0
Future Vol, veh/h	0	421	19	0	695	0	0	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	448	20	0	739	0	0	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1197	1197	234	918	1207	739
Stage 1	-	-	-	-	-	-	458	458	-	739	739	-
Stage 2	-	-	-	-	-	-	739	739	-	179	468	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	178	185	655	268	183	416
Stage 1	0	-	-	0	-	0	483	566	-	397	423	-
Stage 2	0	-	-	0	-	0	397	423	-	768	560	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	178	185	655	258	183	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	178	185	-	258	183	-
Stage 1	-	-	-	-	-	-	483	566	-	397	423	-
Stage 2	-	-	-	-	-	-	397	423	-	738	560	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.7	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	655	-	-	-	-
HCM Lane V/C Ratio	0.039	-	-	-	-
HCM Control Delay (s)	10.7	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection

Int Delay, s/veh 200.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	273	332	156	28	279	36	164	2	24	38	0	243
Future Vol, veh/h	273	332	156	28	279	36	164	2	24	38	0	243
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	310	377	177	32	317	41	186	2	27	43	0	276

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	358	0	0	555
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.13
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.219	-	-	2.219
Pot Cap-1 Maneuver	1199	-	-	1013
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1199	-	-	1013
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.7	\$ 1617.9	19.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	51	1199	-	-	1013	-	-	109	703
HCM Lane V/C Ratio	4.234	0.259	-	-	0.031	-	-	0.396	0.393
HCM Control Delay (s)	\$ 1617.9	9	-	-	8.7	-	-	58.2	13.4
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	24	1	-	-	0.1	-	-	1.6	1.9

Notes

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

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	12	382	332	8	11	11
Future Vol, veh/h	12	382	332	8	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	420	365	9	12	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	374	0	-	0	815 369
Stage 1	-	-	-	-	369 -
Stage 2	-	-	-	-	446 -
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	1184	-	-	-	347 677
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	645 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1184	-	-	-	342 677
Mov Cap-2 Maneuver	-	-	-	-	459 -
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	636 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1184	-	-	-	547
HCM Lane V/C Ratio	0.011	-	-	-	0.044
HCM Control Delay (s)	8.1	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	8.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	205	185	120	80	102	223
Future Vol, veh/h	205	185	120	80	102	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	225	203	132	88	112	245

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	220	0	-	0	830 176
Stage 1	-	-	-	-	176 -
Stage 2	-	-	-	-	654 -
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	1349	-	-	-	340 867
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	517 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1349	-	-	-	276 867
Mov Cap-2 Maneuver	-	-	-	-	357 -
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	420 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1349	-	-	-	599
HCM Lane V/C Ratio	0.167	-	-	-	0.596
HCM Control Delay (s)	8.2	-	-	-	19.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	3.9

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	250	24	88	156	102	24	0	93	84	0	20
Future Vol, veh/h	13	250	24	88	156	102	24	0	93	84	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	269	26	95	168	110	26	0	100	90	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	295	0	0	733	777	282	772	735	223
Stage 1	-	-	-	-	-	-	310	310	-	412	412	-
Stage 2	-	-	-	-	-	-	423	467	-	360	323	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1286	-	-	1266	-	-	336	328	757	317	347	817
Stage 1	-	-	-	-	-	-	700	659	-	617	594	-
Stage 2	-	-	-	-	-	-	609	562	-	658	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1286	-	-	1266	-	-	302	295	757	254	312	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	295	-	254	312	-
Stage 1	-	-	-	-	-	-	691	650	-	609	541	-
Stage 2	-	-	-	-	-	-	540	511	-	564	642	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			2.1			13			24.7		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	578	1286	-	-	1266	-	-	293
HCM Lane V/C Ratio	0.218	0.011	-	-	0.075	-	-	0.382
HCM Control Delay (s)	13	7.8	0	-	8.1	0	-	24.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	1.7

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	427	216	9	0	10
Future Vol, veh/h	0	427	216	9	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	454	230	10	0	11






















Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 235
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 804
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 804
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	804
HCM Lane V/C Ratio	-	-	-	0.013
HCM Control Delay (s)	-	-	-	9.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	94	670	44	43	420	53	47	0	47	72	0	52
Future Volume (veh/h)	94	670	44	43	420	53	47	0	47	72	0	52
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	108	770	51	49	483	61	54	0	54	83	0	60
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1693	112	117	1095	137	334	16	300	630	0	657
Arrive On Green	0.05	0.50	0.50	0.41	0.41	0.41	0.41	0.00	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1774	3370	223	189	2639	330	685	38	723	1345	0	1583
Grp Volume(v), veh/h	108	404	417	290	0	303	108	0	0	83	0	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1823	1521	0	1637	1445	0	0	1345	0	1583
Q Serve(g_s), s	5.0	16.0	16.0	2.8	0.0	14.4	2.8	0.0	0.0	0.0	0.0	2.5
Cycle Q Clear(g_c), s	5.0	16.0	16.0	12.5	0.0	14.4	5.3	0.0	0.0	3.8	0.0	2.5
Prop In Lane	1.00		0.12	0.17		0.20	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	82	889	916	670	0	679	649	0	0	630	0	657
V/C Ratio(X)	1.32	0.45	0.46	0.43	0.00	0.45	0.17	0.00	0.00	0.13	0.00	0.09
Avail Cap(c_a), veh/h	82	889	916	670	0	679	649	0	0	630	0	657
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	17.4	17.4	22.1	0.0	22.8	20.1	0.0	0.0	19.7	0.0	19.3
Incr Delay (d2), s/veh	207.5	1.7	1.6	2.0	0.0	2.1	0.6	0.0	0.0	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.2	8.4	6.4	0.0	6.9	2.1	0.0	0.0	1.6	0.0	1.1
LnGrp Delay(d),s/veh	259.3	19.1	19.0	24.1	0.0	24.9	20.6	0.0	0.0	20.1	0.0	19.6
LnGrp LOS	F	B	B	C		C	C			C		B
Approach Vol, veh/h		929			593			108			143	
Approach Delay, s/veh		47.0			24.5			20.6			19.9	
Approach LOS		D			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		18.0		5.8	7.0	16.4		7.3				
Green Ext Time (p_c), s		10.9		1.3	0.0	11.2		1.3				
Intersection Summary												
HCM 2010 Ctrl Delay				35.7								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	558	94	121	363	62	67	185	213	66	136	74
Future Volume (veh/h)	100	558	94	121	363	62	67	185	213	66	136	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	109	607	102	132	395	67	73	201	232	72	148	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	812	136	167	857	144	123	650	553	122	650	552
Arrive On Green	0.08	0.27	0.27	0.09	0.28	0.28	0.07	0.35	0.35	0.07	0.35	0.35
Sat Flow, veh/h	1774	3034	509	1774	3032	510	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	109	354	355	132	229	233	73	201	232	72	148	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1773	1774	1770	1773	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.9	14.9	15.0	6.0	8.7	8.9	3.3	6.4	9.1	3.2	4.6	2.8
Cycle Q Clear(g_c), s	4.9	14.9	15.0	6.0	8.7	8.9	3.3	6.4	9.1	3.2	4.6	2.8
Prop In Lane	1.00		0.29	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	474	475	167	500	501	123	650	553	122	650	552
V/C Ratio(X)	0.78	0.75	0.75	0.79	0.46	0.46	0.59	0.31	0.42	0.59	0.23	0.14
Avail Cap(c_a), veh/h	293	574	575	293	574	575	293	650	553	293	650	552
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	36.9	27.4	27.4	36.2	24.2	24.2	36.9	19.4	20.3	36.9	18.8	18.3
Incr Delay (d2), s/veh	8.9	4.3	4.4	8.1	0.7	0.7	4.5	1.2	2.3	4.4	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	7.8	7.9	3.3	4.4	4.4	1.8	3.5	4.3	1.7	2.5	1.3
LnGrp Delay(d),s/veh	45.9	31.7	31.8	44.4	24.8	24.9	41.4	20.6	22.6	41.4	19.6	18.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		818			594			506			300	
Approach Delay, s/veh		33.6			29.2			24.5			24.6	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	33.0	12.2	26.4	10.2	33.0	11.0	27.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.2	11.1	8.0	17.0	5.3	6.6	6.9	10.9				
Green Ext Time (p_c), s	0.1	2.9	0.1	4.9	0.1	3.1	0.1	6.6				
Intersection Summary												
HCM 2010 Ctrl Delay				29.1								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	65	173	71	107	93	24	67	394	163	18	309	34
Future Volume (veh/h)	65	173	71	107	93	24	67	394	163	18	309	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	182	75	113	98	25	71	415	172	19	325	36
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	291	115	182	147	37	128	557	231	167	768	85
Arrive On Green	0.12	0.12	0.12	0.10	0.10	0.10	0.07	0.44	0.44	0.09	0.47	0.47
Sat Flow, veh/h	1774	2475	983	1774	1433	365	1774	1252	519	1774	1648	183
Grp Volume(v), veh/h	68	128	129	113	0	123	71	0	587	19	0	361
Grp Sat Flow(s),veh/h/ln	1774	1770	1689	1774	0	1798	1774	0	1771	1774	0	1831
Q Serve(g_s), s	2.6	5.1	5.4	4.5	0.0	4.9	2.9	0.0	20.5	0.7	0.0	9.8
Cycle Q Clear(g_c), s	2.6	5.1	5.4	4.5	0.0	4.9	2.9	0.0	20.5	0.7	0.0	9.8
Prop In Lane	1.00		0.58	1.00		0.20	1.00		0.29	1.00		0.10
Lane Grp Cap(c), veh/h	208	208	198	182	0	184	128	0	787	167	0	853
V/C Ratio(X)	0.33	0.62	0.65	0.62	0.00	0.67	0.55	0.00	0.75	0.11	0.00	0.42
Avail Cap(c_a), veh/h	479	478	456	479	0	485	169	0	787	479	0	853
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	31.3	31.4	32.0	0.0	32.2	33.4	0.0	17.2	30.9	0.0	13.2
Incr Delay (d2), s/veh	0.9	3.0	3.6	3.5	0.0	4.1	3.7	0.0	6.4	0.3	0.0	1.5
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	1.3	2.7	2.7	2.4	0.0	2.6	1.5	0.0	11.3	0.4	0.0	5.3
LnGrp Delay(d),s/veh	31.1	34.2	35.0	35.5	0.0	36.3	37.0	0.0	23.5	31.2	0.0	14.8
LnGrp LOS	C	C	C	D		D	D		C	C		B
Approach Vol, veh/h		325			236			658			380	
Approach Delay, s/veh		33.9			35.9			25.0			15.6	
Approach LOS		C			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.6		13.2	9.9	39.2		12.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1/2), s	12.5	22.5		7.4	4.9	11.8		6.9				
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	6.8		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay				26.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	578	160	49	292	50	132	247	82	67	165	267
Future Volume (veh/h)	381	578	160	49	292	50	132	247	82	67	165	267
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	397	602	167	51	304	52	138	257	85	70	172	278
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	283	809	224	102	587	99	173	684	673	118	627	786
Arrive On Green	0.16	0.30	0.30	0.06	0.19	0.19	0.10	0.37	0.37	0.07	0.34	0.34
Sat Flow, veh/h	1774	2740	759	1774	3030	512	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	397	388	381	51	176	180	138	257	85	70	172	278
Grp Sat Flow(s),veh/h/ln	1774	1770	1729	1774	1770	1772	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.6	2.8	3.2	5.7	9.1
Cycle Q Clear(g_c), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.6	2.8	3.2	5.7	9.1
Prop In Lane	1.00		0.44	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	523	511	102	343	343	173	684	673	118	627	786
V/C Ratio(X)	1.40	0.74	0.75	0.50	0.51	0.52	0.80	0.38	0.13	0.59	0.27	0.35
Avail Cap(c_a), veh/h	283	554	541	283	554	555	283	684	673	283	627	786
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	35.6	26.9	26.9	38.7	30.6	30.6	37.4	19.6	14.8	38.4	20.5	13.0
Incr Delay (d2), s/veh	201.3	5.1	5.3	3.7	1.2	1.2	8.2	1.6	0.4	4.6	1.1	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	12.3	8.9	8.8	1.3	3.8	3.9	3.5	4.7	1.3	1.7	3.1	4.2
LnGrp Delay(d),s/veh	236.8	32.0	32.2	42.4	31.8	31.9	45.5	21.2	15.2	43.0	21.6	14.3
LnGrp LOS	F	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		1166			407			480			520	
Approach Delay, s/veh		101.8			33.1			27.1			20.6	
Approach LOS		F			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	35.6	9.4	29.5	12.7	33.0	18.0	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.2	10.6	4.4	18.8	8.4	11.1	15.5	9.7				
Green Ext Time (p_c), s	0.1	3.6	0.0	4.1	0.1	3.6	0.0	6.7				
Intersection Summary												
HCM 2010 Ctrl Delay			60.6									
HCM 2010 LOS			E									

General Plan (2035)

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	365	161	221	735	58	130	478	112	62	661	313
Future Volume (veh/h)	168	365	161	221	735	58	130	478	112	62	661	313
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	179	388	171	235	782	62	138	509	119	66	703	333
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	880	394	261	915	73	171	1222	780	110	1101	683
Arrive On Green	0.12	0.25	0.25	0.15	0.28	0.28	0.10	0.35	0.35	0.06	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3323	263	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	179	388	171	235	416	428	138	509	119	66	703	333
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1816	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.0	8.5	8.3	11.9	20.4	20.4	7.0	10.1	3.8	3.3	15.6	13.9
Cycle Q Clear(g_c), s	9.0	8.5	8.3	11.9	20.4	20.4	7.0	10.1	3.8	3.3	15.6	13.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	880	394	261	488	500	171	1222	780	110	1101	683
V/C Ratio(X)	0.84	0.44	0.43	0.90	0.85	0.85	0.81	0.42	0.15	0.60	0.64	0.49
Avail Cap(c_a), veh/h	261	1024	458	261	512	525	261	1222	780	261	1101	683
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	39.4	29.0	29.0	38.4	31.4	31.4	40.6	22.9	12.7	41.8	27.1	18.7
Incr Delay (d2), s/veh	17.7	0.3	0.8	30.7	12.8	12.6	10.2	1.0	0.4	5.1	2.8	2.5
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	5.5	4.2	3.7	8.0	11.7	12.0	3.9	5.1	1.7	1.8	8.0	6.5
LnGrp Delay(d),s/veh	57.1	29.4	29.7	69.1	44.2	44.0	50.8	24.0	13.2	47.0	30.0	21.2
LnGrp LOS	E	C	C	E	D	D	D	C	B	D	C	C
Approach Vol, veh/h		738			1079			766			1102	
Approach Delay, s/veh		36.2			49.6			27.1			28.3	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	36.1	18.0	27.3	13.3	33.0	15.5	29.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	5.3	12.1	13.9	10.5	9.0	17.6	11.0	22.4				
Green Ext Time (p_c), s	0.1	8.6	0.0	7.9	0.1	6.6	0.1	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↑↓
Traffic Vol, veh/h	0	0	719	0	0	1043
Future Vol, veh/h	0	0	719	0	0	1043
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	765	0	0	1110
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1320	382	0	0	765
Stage 1	765	-	-	-	-
Stage 2	555	-	-	-	-
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	148	616	-	-	844
Stage 1	420	-	-	-	-
Stage 2	539	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	148	616	-	-	844
Mov Cap-2 Maneuver	282	-	-	-	-
Stage 1	420	-	-	-	-
Stage 2	539	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	844	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	71	132	67	90	23	109	672	77	18	1012	41
Future Volume (veh/h)	49	71	132	67	90	23	109	672	77	18	1012	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	73	136	69	93	24	112	693	79	19	1043	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	112	100	186	131	339	288	158	1650	738	55	1445	647
Arrive On Green	0.06	0.17	0.17	0.07	0.18	0.18	0.09	0.47	0.47	0.03	0.41	0.41
Sat Flow, veh/h	1774	584	1087	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	51	0	209	69	93	24	112	693	79	19	1043	42
Grp Sat Flow(s),veh/h/ln	1774	0	1671	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.9	0.0	8.3	2.6	3.0	0.9	4.3	9.1	2.0	0.7	17.3	1.1
Cycle Q Clear(g_c), s	1.9	0.0	8.3	2.6	3.0	0.9	4.3	9.1	2.0	0.7	17.3	1.1
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	112	0	286	131	339	288	158	1650	738	55	1445	647
V/C Ratio(X)	0.46	0.00	0.73	0.53	0.27	0.08	0.71	0.42	0.11	0.35	0.72	0.06
Avail Cap(c_a), veh/h	343	0	634	343	707	601	343	1650	738	343	1445	647
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	1.00
Uniform Delay (d), s/veh	31.5	0.0	27.4	31.1	24.6	23.7	30.9	12.4	10.5	33.1	17.3	12.6
Incr Delay (d2), s/veh	2.9	0.0	3.6	3.2	0.4	0.1	5.8	0.8	0.3	3.7	3.2	0.2
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	1.0	0.0	4.1	1.4	1.6	0.4	2.3	4.6	0.9	0.4	9.0	0.5
LnGrp Delay(d),s/veh	34.4	0.0	31.0	34.4	25.0	23.8	36.7	13.1	10.8	36.8	20.5	12.7
LnGrp LOS	C		C	C	C	C	D	B	B	D	C	B
Approach Vol, veh/h		260			186			884			1104	
Approach Delay, s/veh		31.7			28.3			15.9			20.5	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	37.0	9.7	16.4	10.7	33.0	8.9	17.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.7	11.1	4.6	10.3	6.3	19.3	3.9	5.0				
Green Ext Time (p_c), s	0.0	11.3	0.1	1.7	0.1	6.9	0.1	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			20.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	302	4	181	307	676	0	0	868	346
Future Volume (veh/h)	0	0	0	302	4	181	307	676	0	0	868	346
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				315	4	189	320	704	0	0	904	360
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				390	5	352	361	2377	0	0	1030	408
Arrive On Green				0.22	0.22	0.22	0.20	0.67	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1753	22	1583	1774	3632	0	0	2571	981
Grp Volume(v), veh/h				319	0	189	320	704	0	0	644	620
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1690
Q Serve(g_s), s				14.5	0.0	9.0	14.9	6.9	0.0	0.0	28.4	28.8
Cycle Q Clear(g_c), s				14.5	0.0	9.0	14.9	6.9	0.0	0.0	28.4	28.8
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				395	0	352	361	2377	0	0	735	702
V/C Ratio(X)				0.81	0.00	0.54	0.89	0.30	0.00	0.00	0.88	0.88
Avail Cap(c_a), veh/h				708	0	631	436	2377	0	0	735	702
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	29.2	32.9	5.7	0.0	0.0	22.8	22.9
Incr Delay (d2), s/veh				3.9	0.0	1.3	17.2	0.3	0.0	0.0	13.8	15.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.5	0.0	4.0	9.0	3.4	0.0	0.0	16.6	16.2
LnGrp Delay(d),s/veh				35.3	0.0	30.4	50.1	6.0	0.0	0.0	36.7	38.0
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					508			1024			1264	
Approach Delay, s/veh					33.5			19.8			37.3	
Approach LOS					C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			21.8	39.8		23.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		8.9			16.9	30.8		16.5				
Green Ext Time (p_c), s		21.9			0.4	0.8		2.4				
Intersection Summary												
HCM 2010 Ctrl Delay				30.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	4	526	0	0	0	0	701	155	180	995	0
Future Volume (veh/h)	274	4	526	0	0	0	0	701	155	180	995	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	283	0	537				0	715	158	184	1015	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1840	402	223	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.44	0.44	0.13	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	4346	913	1774	3632	0
Grp Volume(v), veh/h	283	0	537				0	579	294	184	1015	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1702	1774	1770	0
Q Serve(g_s), s	6.1	0.0	29.9				0.0	11.5	11.7	10.1	15.6	0.0
Cycle Q Clear(g_c), s	6.1	0.0	29.9				0.0	11.5	11.7	10.1	15.6	0.0
Prop In Lane	1.00		1.00				0.00		0.54	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1493	749	223	2162	0
V/C Ratio(X)	0.27	0.00	1.13				0.00	0.39	0.39	0.83	0.47	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1493	749	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	0.0	35.0				0.0	18.9	18.9	42.7	10.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	83.6				0.0	0.2	0.3	7.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	24.0				0.0	5.4	5.6	5.4	7.8	0.0
LnGrp Delay(d),s/veh	26.8	0.0	118.7				0.0	19.0	19.3	50.2	11.3	0.0
LnGrp LOS	C		F					B	B	D	B	
Approach Vol, veh/h		820						873			1199	
Approach Delay, s/veh		87.0						19.1			17.3	
Approach LOS		F						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.1	48.5		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.2	13.7		31.9		17.6						
Green Ext Time (p_c), s	0.4	9.3		0.0		19.6						
Intersection Summary												
HCM 2010 Ctrl Delay			37.6									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	165	1	0	180	0	0	0	1	0	0	0
Future Vol, veh/h	0	165	1	0	180	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	181	1	0	198	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	182	0	0	281	380	91	289	380	99
Stage 1	-	-	-	-	-	-	182	182	-	198	198	-
Stage 2	-	-	-	-	-	-	99	198	-	91	182	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1372	-	-	1391	-	-	649	551	949	641	551	937
Stage 1	-	-	-	-	-	-	802	748	-	785	736	-
Stage 2	-	-	-	-	-	-	896	736	-	906	748	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1372	-	-	1391	-	-	649	551	949	640	551	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	649	551	-	640	551	-
Stage 1	-	-	-	-	-	-	802	748	-	785	736	-
Stage 2	-	-	-	-	-	-	896	736	-	905	748	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	949	1372	-	-	1391	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↔			↖	↗
Traffic Vol, veh/h	11	156	1	0	174	1	2	0	0	0	0	6
Future Vol, veh/h	11	156	1	0	174	1	2	0	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	181	1	0	202	1	2	0	0	0	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	183	0	0	411	411	91	319	411	203
Stage 1	-	-	-	-	-	-	208	208	-	203	203	-
Stage 2	-	-	-	-	-	-	203	203	-	116	208	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1367	-	-	1391	-	-	538	530	949	622	530	837
Stage 1	-	-	-	-	-	-	775	729	-	798	733	-
Stage 2	-	-	-	-	-	-	798	733	-	877	729	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1367	-	-	1391	-	-	530	525	949	617	525	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	530	525	-	617	525	-
Stage 1	-	-	-	-	-	-	768	722	-	790	733	-
Stage 2	-	-	-	-	-	-	791	733	-	869	722	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	11.8	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	530	1367	-	-	1391	-	-	-	837
HCM Lane V/C Ratio	0.004	0.009	-	-	-	-	-	-	0.008
HCM Control Delay (s)	11.8	7.7	-	-	0	-	-	0	9.3
HCM Lane LOS	B	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-	0

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	21	135	169	4	0	5
Future Vol, veh/h	21	135	169	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	161	201	5	0	6

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	206	0	-	0	415	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	211	-
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	1365	-	-	-	594	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1365	-	-	-	582	837
Mov Cap-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	808	-

Approach EB WB SB

HCM Control Delay, s	1	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1365	-	-	-	837
HCM Lane V/C Ratio	0.018	-	-	-	0.007
HCM Control Delay (s)	7.7	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection

Int Delay, s/veh 0.5

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	12	124	170	23	5	4
Future Vol, veh/h	12	124	170	23	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	138	189	26	6	4

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	214	0	-	0	366	202
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	164	-
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	1356	-	-	-	634	839
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1356	-	-	-	628	839
Mov Cap-2 Maneuver	-	-	-	-	672	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	856	-

Approach EB WB SB

HCM Control Delay, s	0.7	0	10
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1356	-	-	-	737
HCM Lane V/C Ratio	0.01	-	-	-	0.014
HCM Control Delay (s)	7.7	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	128	190	6	0	1
Future Vol, veh/h	0	128	190	6	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	149	221	7	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 224
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 815
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 815
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	815
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	129	192	4	0	6
Future Vol, veh/h	0	129	192	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	148	221	5	0	7

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach






















	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	817
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	71	480	0	0	913	213	0	0	0	164	0	109
Future Volume (veh/h)	71	480	0	0	913	213	0	0	0	164	0	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	545	0	0	1038	242	0	0	0	186	0	124
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	83	1741	0	0	1149	267	0	789	0	819	0	670
Arrive On Green	0.05	0.49	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.42	0.00	0.42
Sat Flow, veh/h	1774	3632	0	0	2946	663	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	81	545	0	0	642	638	0	0	0	186	0	124
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1746	0	1863	0	1774	0	1583
Q Serve(g_s), s	4.8	9.8	0.0	0.0	36.2	36.5	0.0	0.0	0.0	7.2	0.0	5.2
Cycle Q Clear(g_c), s	4.8	9.8	0.0	0.0	36.2	36.5	0.0	0.0	0.0	7.2	0.0	5.2
Prop In Lane	1.00		0.00	0.00		0.38	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1741	0	0	712	703	0	789	0	819	0	670
V/C Ratio(X)	0.97	0.31	0.00	0.00	0.90	0.91	0.00	0.00	0.00	0.23	0.00	0.18
Avail Cap(c_a), veh/h	83	1741	0	0	766	756	0	789	0	819	0	670
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.6	16.2	0.0	0.0	29.8	29.9	0.0	0.0	0.0	19.7	0.0	19.2
Incr Delay (d2), s/veh	88.4	0.1	0.0	0.0	13.3	14.1	0.0	0.0	0.0	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.8	0.0	0.0	20.3	20.3	0.0	0.0	0.0	3.7	0.0	2.4
LnGrp Delay(d),s/veh	139.0	16.3	0.0	0.0	43.1	44.0	0.0	0.0	0.0	20.4	0.0	19.8
LnGrp LOS	F	B			D	D				C		B
Approach Vol, veh/h		626			1280			0				310
Approach Delay, s/veh		32.2			43.5			0.0				20.1
Approach LOS		C			D							C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		56.8		49.5	9.5	47.3				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		0.0		11.8		9.2	6.8	38.5				
Green Ext Time (p_c), s		0.0		17.6		1.3	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay				37.1								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	443	164	265	829	139	170	256	116	133	204	115
Future Volume (veh/h)	37	443	164	265	829	139	170	256	116	133	204	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	44	527	195	315	987	165	202	305	138	158	243	137
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	605	223	251	1001	167	235	602	512	191	556	473
Arrive On Green	0.05	0.24	0.24	0.14	0.33	0.33	0.13	0.32	0.32	0.11	0.30	0.30
Sat Flow, veh/h	1774	2534	934	1774	3036	507	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	44	367	355	315	575	577	202	305	138	158	243	137
Grp Sat Flow(s),veh/h/ln	1774	1770	1698	1774	1770	1773	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.3	19.0	19.2	13.5	30.8	30.8	10.6	12.6	6.2	8.3	10.0	6.3
Cycle Q Clear(g_c), s	2.3	19.0	19.2	13.5	30.8	30.8	10.6	12.6	6.2	8.3	10.0	6.3
Prop In Lane	1.00		0.55	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	423	405	251	584	585	235	602	512	191	556	473
V/C Ratio(X)	0.49	0.87	0.87	1.25	0.99	0.99	0.86	0.51	0.27	0.83	0.44	0.29
Avail Cap(c_a), veh/h	251	491	472	251	584	585	251	602	512	251	556	473
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	44.1	34.9	34.9	41.0	31.7	31.8	40.5	26.1	23.9	41.7	27.0	25.7
Incr Delay (d2), s/veh	4.1	13.9	14.9	143.0	33.4	33.7	23.8	3.0	1.3	15.7	2.5	1.5
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	1.2	10.9	10.6	16.5	20.4	20.5	6.8	7.0	2.9	4.9	5.5	3.0
LnGrp Delay(d),s/veh	48.2	48.7	49.9	184.0	65.1	65.5	64.3	29.1	25.2	57.4	29.5	27.2
LnGrp LOS	D	D	D	F	E	E	E	C	C	E	C	C
Approach Vol, veh/h		766			1467			645			538	
Approach Delay, s/veh		49.2			90.8			39.3			37.1	
Approach LOS		D			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	35.3	18.0	27.3	17.1	33.0	9.3	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+10), s	11.0	14.6	15.5	21.2	12.6	12.0	4.3	32.8				
Green Ext Time (p_c), s	0.1	3.7	0.0	1.6	0.1	3.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			63.3									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	9	88	36	96	97	109	46	400	94	83	529	27
Future Volume (veh/h)	9	88	36	96	97	109	46	400	94	83	529	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	110	45	120	121	136	58	500	118	104	661	34
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	215	84	326	147	165	113	604	142	157	771	40
Arrive On Green	0.09	0.09	0.09	0.18	0.18	0.18	0.06	0.41	0.41	0.09	0.44	0.44
Sat Flow, veh/h	1774	2490	971	1774	802	902	1774	1458	344	1774	1756	90
Grp Volume(v), veh/h	11	77	78	120	0	257	58	0	618	104	0	695
Grp Sat Flow(s),veh/h/ln	1774	1770	1691	1774	0	1704	1774	0	1802	1774	0	1847
Q Serve(g_s), s	0.5	3.3	3.5	4.7	0.0	11.5	2.5	0.0	24.2	4.5	0.0	26.8
Cycle Q Clear(g_c), s	0.5	3.3	3.5	4.7	0.0	11.5	2.5	0.0	24.2	4.5	0.0	26.8
Prop In Lane	1.00		0.57	1.00		0.53	1.00		0.19	1.00		0.05
Lane Grp Cap(c), veh/h	153	153	146	326	0	313	113	0	746	157	0	810
V/C Ratio(X)	0.07	0.50	0.54	0.37	0.00	0.82	0.51	0.00	0.83	0.66	0.00	0.86
Avail Cap(c_a), veh/h	451	450	430	451	0	433	159	0	746	451	0	810
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	34.5	34.6	28.3	0.0	31.0	35.8	0.0	20.7	34.9	0.0	20.0
Incr Delay (d2), s/veh	0.2	2.5	3.1	0.7	0.0	8.7	3.6	0.0	10.3	4.7	0.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.8	2.4	0.0	6.1	1.3	0.0	14.1	2.4	0.0	16.1
LnGrp Delay(d),s/veh	33.4	37.1	37.7	29.0	0.0	39.7	39.4	0.0	30.9	39.6	0.0	31.3
LnGrp LOS	C	D	D	C		D	D		C	D		C
Approach Vol, veh/h		166			377			676			799	
Approach Delay, s/veh		37.1			36.3			31.7			32.4	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.2		11.3	9.5	39.2		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	10.5	26.2		5.5	4.5	28.8		13.5				
Green Ext Time (p_c), s	0.2	0.0		0.7	0.0	4.0		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay				33.3								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	400	152
Future Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	400	152
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	112	454	188	45	519	66	193	415	139	115	449	171
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	659	271	96	766	97	230	712	691	147	625	659
Arrive On Green	0.08	0.27	0.27	0.05	0.24	0.24	0.13	0.38	0.38	0.08	0.34	0.34
Sat Flow, veh/h	1774	2449	1006	1774	3161	401	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	112	327	315	45	290	295	193	415	139	115	449	171
Grp Sat Flow(s),veh/h/ln	1774	1770	1685	1774	1770	1792	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.9	6.0
Cycle Q Clear(g_c), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.9	6.0
Prop In Lane	1.00		0.60	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	476	454	96	429	434	230	712	691	147	625	659
V/C Ratio(X)	0.78	0.69	0.69	0.47	0.68	0.68	0.84	0.58	0.20	0.78	0.72	0.26
Avail Cap(c_a), veh/h	282	552	525	282	552	559	282	712	691	282	625	659
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(l)	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	38.3	27.8	27.9	39.0	29.2	29.2	36.1	20.9	14.8	38.2	24.7	16.2
Incr Delay (d2), s/veh	8.9	2.9	3.3	3.6	2.2	2.3	16.6	3.5	0.7	8.8	7.0	1.0
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	2.9	7.3	7.1	1.1	6.4	6.5	5.5	8.4	2.1	3.0	10.4	2.8
LnGrp Delay(d),s/veh	47.3	30.8	31.2	42.6	31.4	31.5	52.7	24.3	15.5	47.1	31.7	17.2
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		754			630			747			735	
Approach Delay, s/veh		33.4			32.2			30.0			30.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	37.0	9.1	27.4	15.5	33.0	11.4	25.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	17.0	17.0	4.1	16.3	11.0	19.9	7.3	14.7				
Green Ext Time (p_c), s	0.1	5.1	0.0	5.4	0.1	4.2	0.1	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				31.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	841	170	137	497	60	167	694	195	79	537	216
Future Volume (veh/h)	267	841	170	137	497	60	167	694	195	79	537	216
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	272	858	173	140	507	61	170	708	199	81	548	220
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	258	1016	454	173	761	91	204	1259	718	117	1086	716
Arrive On Green	0.15	0.29	0.29	0.10	0.24	0.24	0.12	0.36	0.36	0.07	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3183	382	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	272	858	173	140	281	287	170	708	199	81	548	220
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1795	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.5	21.2	8.1	7.2	13.3	13.4	8.7	15.0	7.3	4.2	11.8	8.2
Cycle Q Clear(g_c), s	13.5	21.2	8.1	7.2	13.3	13.4	8.7	15.0	7.3	4.2	11.8	8.2
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1016	454	173	423	429	204	1259	718	117	1086	716
V/C Ratio(X)	1.06	0.84	0.38	0.81	0.66	0.67	0.83	0.56	0.28	0.69	0.50	0.31
Avail Cap(c_a), veh/h	258	1016	454	258	505	512	258	1259	718	258	1086	716
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	39.7	31.2	26.5	41.1	32.0	32.0	40.2	24.1	15.9	42.5	26.4	16.2
Incr Delay (d2), s/veh	71.3	6.7	0.5	11.1	2.5	2.6	16.7	1.8	1.0	7.1	1.7	1.1
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	11.7	11.3	3.6	4.1	6.8	6.9	5.2	7.6	3.4	2.3	6.0	3.8
LnGrp Delay(d),s/veh	111.0	37.8	27.0	52.2	34.5	34.6	57.0	25.9	16.8	49.5	28.1	17.3
LnGrp LOS	F	D	C	D	C	C	E	C	B	D	C	B
Approach Vol, veh/h		1303			708			1077			849	
Approach Delay, s/veh		51.7			38.0			29.1			27.3	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	37.6	13.6	31.2	15.2	33.0	18.0	26.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	17.0	9.2	23.2	10.7	13.8	15.5	15.4				
Green Ext Time (p_c), s	0.1	7.0	0.1	2.5	0.1	8.2	0.0	6.8				
Intersection Summary												
HCM 2010 Ctrl Delay			37.8									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	0	1056	0	0	843
Future Vol, veh/h	0	0	1056	0	0	843
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1078	0	0	860
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1422	539	0	0	1078	0
Stage 1	1078	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	155	487	-	-	643	-
Stage 1	281	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	155	487	-	-	643	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	643
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	144	259	97	90	35	162	981	134	24	806	44
Future Volume (veh/h)	91	144	259	97	90	35	162	981	134	24	806	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	92	145	262	98	91	35	164	991	135	24	814	44
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	162	294	131	510	434	200	1447	647	63	1173	525
Arrive On Green	0.07	0.27	0.27	0.07	0.27	0.27	0.11	0.41	0.41	0.04	0.33	0.33
Sat Flow, veh/h	1774	596	1077	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	92	0	407	98	91	35	164	991	135	24	814	44
Grp Sat Flow(s),veh/h/ln	1774	0	1673	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.4	0.0	20.1	4.7	3.2	1.4	7.8	19.8	4.7	1.1	17.2	1.6
Cycle Q Clear(g_c), s	4.4	0.0	20.1	4.7	3.2	1.4	7.8	19.8	4.7	1.1	17.2	1.6
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	0	456	131	510	434	200	1447	647	63	1173	525
V/C Ratio(X)	0.72	0.00	0.89	0.75	0.18	0.08	0.82	0.68	0.21	0.38	0.69	0.08
Avail Cap(c_a), veh/h	279	0	516	279	574	488	279	1447	647	279	1173	525
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	1.00
Uniform Delay (d), s/veh	39.0	0.0	30.1	39.1	23.8	23.2	37.3	20.9	16.4	40.5	24.9	19.8
Incr Delay (d2), s/veh	7.2	0.0	16.4	8.4	0.2	0.1	12.5	2.7	0.7	3.7	3.4	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	2.4	0.0	11.3	2.6	1.7	0.6	4.5	10.2	2.2	0.6	8.9	0.8
LnGrp Delay(d),s/veh	46.3	0.0	46.4	47.4	24.0	23.3	49.8	23.5	17.2	44.3	28.3	20.1
LnGrp LOS	D		D	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		499			224			1290			882	
Approach Delay, s/veh		46.4			34.1			26.2			28.4	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	39.7	10.8	27.9	14.2	33.0	10.7	28.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	3.1	21.8	6.7	22.1	9.8	19.2	6.4	5.2				
Green Ext Time (p_c), s	0.0	5.5	0.1	1.3	0.1	7.2	0.1	3.4				
Intersection Summary												
HCM 2010 Ctrl Delay			30.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	242	4	189	377	1096	0	0	874	292
Future Volume (veh/h)	0	0	0	242	4	189	377	1096	0	0	874	292
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				252	4	197	393	1142	0	0	910	304
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				328	5	298	430	2483	0	0	1054	351
Arrive On Green				0.19	0.19	0.19	0.24	0.70	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1748	28	1583	1774	3632	0	0	2703	869
Grp Volume(v), veh/h				256	0	197	393	1142	0	0	616	598
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1709
Q Serve(g_s), s				11.1	0.0	9.4	17.5	11.6	0.0	0.0	25.9	26.1
Cycle Q Clear(g_c), s				11.1	0.0	9.4	17.5	11.6	0.0	0.0	25.9	26.1
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.51
Lane Grp Cap(c), veh/h				334	0	298	430	2483	0	0	714	690
V/C Ratio(X)				0.77	0.00	0.66	0.91	0.46	0.00	0.00	0.86	0.87
Avail Cap(c_a), veh/h				739	0	659	456	2483	0	0	714	690
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	0.0	30.7	30.0	5.4	0.0	0.0	22.2	22.3
Incr Delay (d2), s/veh				3.7	0.0	2.5	22.1	0.6	0.0	0.0	13.0	13.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.8	0.0	4.3	11.2	5.8	0.0	0.0	15.2	14.9
LnGrp Delay(d),s/veh				35.1	0.0	33.2	52.1	6.0	0.0	0.0	35.2	36.1
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					453			1535			1214	
Approach Delay, s/veh					34.2			17.8			35.6	
Approach LOS					C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			24.2	37.4		19.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		13.6			19.5	28.1		13.1				
Green Ext Time (p_c), s		26.8			0.2	3.3		2.2				
Intersection Summary												
HCM 2010 Ctrl Delay				26.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	3	354	0	0	0	0	981	322	191	931	0
Future Volume (veh/h)	502	3	354	0	0	0	0	981	322	191	931	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	525	0	369				0	1022	335	199	970	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	942	0	420				0	1736	569	240	2266	0
Arrive On Green	0.27	0.00	0.27				0.00	0.46	0.46	0.14	0.64	0.00
Sat Flow, veh/h	3548	0	1583				0	3959	1242	1774	3632	0
Grp Volume(v), veh/h	525	0	369				0	914	443	199	970	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1644	1774	1770	0
Q Serve(g_s), s	12.2	0.0	21.3				0.0	19.1	19.1	10.4	13.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	21.3				0.0	19.1	19.1	10.4	13.0	0.0
Prop In Lane	1.00		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	942	0	420				0	1552	752	240	2266	0
V/C Ratio(X)	0.56	0.00	0.88				0.00	0.59	0.59	0.83	0.43	0.00
Avail Cap(c_a), veh/h	1112	0	496				0	1552	752	556	2266	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	0.0	33.6				0.0	19.2	19.2	40.2	8.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	14.5				0.0	0.6	1.2	7.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	11.0				0.0	9.0	8.9	5.6	6.5	0.0
LnGrp Delay(d),s/veh	30.7	0.0	48.1				0.0	19.8	20.4	47.4	9.1	0.0
LnGrp LOS	C		D					B	C	D	A	
Approach Vol, veh/h		894						1357			1169	
Approach Delay, s/veh		37.9						20.0			15.6	
Approach LOS		D						C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.4	48.2		29.8		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+I), s	11.4	21.1		23.3		15.0						
Green Ext Time (p_c), s	0.5	5.0		2.0		27.1						
Intersection Summary												
HCM 2010 Ctrl Delay			23.2									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
6: Hemlock Ave & New Project Access

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	306	22	0	228	0	0	0	22	0	0	0
Future Vol, veh/h	0	306	22	0	228	0	0	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	23	0	243	0	0	0	23	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	580	580	174	373	592	243
Stage 1	-	-	-	-	-	-	337	337	-	243	243	-
Stage 2	-	-	-	-	-	-	243	243	-	130	349	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	436	425	714	584	418	795
Stage 1	0	-	-	0	-	0	584	640	-	732	704	-
Stage 2	0	-	-	0	-	0	732	704	-	822	633	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	436	425	714	565	418	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	436	425	-	565	418	-
Stage 1	-	-	-	-	-	-	584	640	-	732	704	-
Stage 2	-	-	-	-	-	-	732	704	-	795	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.2	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	714	-	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-	-
HCM Control Delay (s)	10.2	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↔			↖	↗
Traffic Vol, veh/h	55	273	4	4	182	5	2	2	0	7	0	35
Future Vol, veh/h	55	273	4	4	182	5	2	2	0	7	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	310	5	5	207	6	2	2	0	8	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	315	0	0	657	660	157	500	659	210
Stage 1	-	-	-	-	-	-	438	438	-	219	219	-
Stage 2	-	-	-	-	-	-	219	222	-	281	440	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1356	-	-	1244	-	-	364	382	861	467	383	830
Stage 1	-	-	-	-	-	-	568	578	-	783	721	-
Stage 2	-	-	-	-	-	-	783	719	-	703	577	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1356	-	-	1244	-	-	333	363	861	447	364	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	363	-	447	364	-
Stage 1	-	-	-	-	-	-	542	551	-	747	718	-
Stage 2	-	-	-	-	-	-	742	716	-	668	550	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.2			15.5			10.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	347	1356	-	-	1244	-	-	447	830
HCM Lane V/C Ratio	0.013	0.046	-	-	0.004	-	-	0.018	0.048
HCM Control Delay (s)	15.5	7.8	-	-	7.9	-	-	13.2	9.6
HCM Lane LOS		C	A	-	-	A	-	B	A
HCM 95th %tile Q(veh)		0	0.1	-	-	0	-	0.1	0.2

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	11	271	182	7	10	10
Future Vol, veh/h	11	271	182	7	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	298	200	8	11	11

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	208	0	-	0	526	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	322	-
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	1363	-	-	-	512	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	506	837
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	727	-

Approach EB WB SB

HCM Control Delay, s	0.3	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1363	-	-	-	687
HCM Lane V/C Ratio	0.009	-	-	-	0.032
HCM Control Delay (s)	7.7	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 1.2

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	19	259	175	9	25	16
Future Vol, veh/h	19	259	175	9	25	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	285	192	10	27	18

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	202	0	-	0	523	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	326	-
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	1370	-	-	-	514	844
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1370	-	-	-	505	844
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	718	-

Approach EB WB SB

HCM Control Delay, s	0.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1370	-	-	-	660
HCM Lane V/C Ratio	0.015	-	-	-	0.068
HCM Control Delay (s)	7.7	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	1	284	177	25	0	7
Future Vol, veh/h	1	284	177	25	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	305	190	27	0	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	217	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1353	-	837
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1353	-	837
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	837
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.7	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	284	193	8	0	9
Future Vol, veh/h	0	284	193	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	302	205	9	0	10

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach



















	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	830
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	991	0	0	618	58	0	0	0	85	0	62
Future Volume (veh/h)	120	991	0	0	618	58	0	0	0	85	0	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	138	1139	0	0	710	67	0	0	0	98	0	71
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	82	1778	0	0	1356	128	0	773	0	802	0	657
Arrive On Green	0.05	0.50	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.41	0.00	0.41
Sat Flow, veh/h	1774	3632	0	0	3363	308	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	138	1139	0	0	384	393	0	0	0	98	0	71
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1808	0	1863	0	1774	0	1583
Q Serve(g_s), s	5.0	25.6	0.0	0.0	17.6	17.6	0.0	0.0	0.0	3.7	0.0	3.0
Cycle Q Clear(g_c), s	5.0	25.6	0.0	0.0	17.6	17.6	0.0	0.0	0.0	3.7	0.0	3.0
Prop In Lane	1.00		0.00	0.00		0.17	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	1778	0	0	734	750	0	773	0	802	0	657
V/C Ratio(X)	1.69	0.64	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.12	0.00	0.11
Avail Cap(c_a), veh/h	82	1778	0	0	734	750	0	773	0	802	0	657
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	19.8	0.0	0.0	23.7	23.7	0.0	0.0	0.0	19.7	0.0	19.5
Incr Delay (d2), s/veh	356.5	1.8	0.0	0.0	2.7	2.6	0.0	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	12.9	0.0	0.0	9.1	9.3	0.0	0.0	0.0	1.9	0.0	1.4
LnGrp Delay(d),s/veh	408.3	21.6	0.0	0.0	26.4	26.3	0.0	0.0	0.0	20.0	0.0	19.8
LnGrp LOS	F	C			C	C				B		B
Approach Vol, veh/h		1277			777			0				169
Approach Delay, s/veh		63.4			26.4			0.0				19.9
Approach LOS		E			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		27.6		5.7	7.0	19.6		0.0				
Green Ext Time (p_c), s		12.0		0.7	0.0	15.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				47.1								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	801	120	86	475	83	121	250	242	78	184	90
Future Volume (veh/h)	122	801	120	86	475	83	121	250	242	78	184	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	871	130	93	516	90	132	272	263	85	200	98
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	934	139	127	845	147	166	652	554	124	608	517
Arrive On Green	0.09	0.30	0.30	0.07	0.28	0.28	0.09	0.35	0.35	0.07	0.33	0.33
Sat Flow, veh/h	1774	3090	461	1774	3016	524	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	133	499	502	93	302	304	132	272	263	85	200	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1774	1770	1770	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.4	23.9	23.9	4.5	12.9	13.0	6.4	9.7	11.3	4.1	7.1	3.9
Cycle Q Clear(g_c), s	6.4	23.9	23.9	4.5	12.9	13.0	6.4	9.7	11.3	4.1	7.1	3.9
Prop In Lane	1.00		0.26	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	535	539	127	496	496	166	652	554	124	608	517
V/C Ratio(X)	0.80	0.93	0.93	0.73	0.61	0.61	0.80	0.42	0.47	0.68	0.33	0.19
Avail Cap(c_a), veh/h	274	537	541	274	537	537	274	652	554	274	608	517
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	38.7	29.6	29.6	39.7	27.3	27.3	38.8	21.6	22.1	39.7	22.2	21.1
Incr Delay (d2), s/veh	8.4	23.3	23.2	7.8	1.8	1.8	8.4	2.0	2.9	6.5	1.4	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	15.1	15.2	2.5	6.5	6.6	3.5	5.3	5.4	2.2	3.9	1.8
LnGrp Delay(d),s/veh	47.2	52.9	52.8	47.5	29.0	29.1	47.2	23.6	25.0	46.2	23.6	21.9
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1134			699			667			383	
Approach Delay, s/veh		52.2			31.5			28.8			28.2	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	35.0	10.8	30.9	12.7	33.0	12.7	29.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	13.3	13.3	6.5	25.9	8.4	9.1	8.4	15.0				
Green Ext Time (p_c), s	0.1	3.7	0.1	0.5	0.1	4.0	0.1	7.4				
Intersection Summary												
HCM 2010 Ctrl Delay				38.6								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	42	172	72	86	85	107	65	480	156	36	339	24
Future Volume (veh/h)	42	172	72	86	85	107	65	480	156	36	339	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	44	181	76	91	89	113	68	505	164	38	357	25
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	280	113	269	113	144	122	564	183	157	754	53
Arrive On Green	0.11	0.11	0.11	0.15	0.15	0.15	0.07	0.42	0.42	0.09	0.44	0.44
Sat Flow, veh/h	1774	2461	995	1774	747	948	1774	1348	438	1774	1721	121
Grp Volume(v), veh/h	44	128	129	91	0	202	68	0	669	38	0	382
Grp Sat Flow(s),veh/h/ln	1774	1770	1687	1774	0	1695	1774	0	1786	1774	0	1841
Q Serve(g_s), s	1.8	5.5	5.8	3.6	0.0	9.1	2.9	0.0	27.6	1.6	0.0	11.6
Cycle Q Clear(g_c), s	1.8	5.5	5.8	3.6	0.0	9.1	2.9	0.0	27.6	1.6	0.0	11.6
Prop In Lane	1.00		0.59	1.00		0.56	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	202	202	192	269	0	257	122	0	747	157	0	807
V/C Ratio(X)	0.22	0.64	0.67	0.34	0.00	0.79	0.56	0.00	0.90	0.24	0.00	0.47
Avail Cap(c_a), veh/h	450	449	428	450	0	430	159	0	747	450	0	807
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	33.5	33.6	30.0	0.0	32.3	35.7	0.0	21.4	33.6	0.0	15.8
Incr Delay (d2), s/veh	0.5	3.3	4.0	0.7	0.0	5.2	4.0	0.0	15.5	0.8	0.0	2.0
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	0.9	2.9	2.9	1.8	0.0	4.6	1.6	0.0	16.8	0.8	0.0	6.3
LnGrp Delay(d),s/veh	32.4	36.8	37.6	30.8	0.0	37.6	39.7	0.0	36.9	34.4	0.0	17.7
LnGrp LOS	C	D	D	C		D	D		D	C		B
Approach Vol, veh/h		301			293			737			420	
Approach Delay, s/veh		36.5			35.5			37.2			19.2	
Approach LOS		D			D			D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.6		13.5	9.9	39.2		16.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	13.6	29.6		7.8	4.9	13.6		11.1				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	7.5		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			32.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	965	208	99	567	85	231	393	184	111	242	119
Future Volume (veh/h)	234	965	208	99	567	85	231	393	184	111	242	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	244	1005	217	103	591	89	241	409	192	116	252	124
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	251	858	185	131	705	106	251	668	685	146	557	698
Arrive On Green	0.14	0.30	0.30	0.07	0.23	0.23	0.14	0.36	0.36	0.08	0.30	0.30
Sat Flow, veh/h	1774	2898	624	1774	3087	464	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	244	613	609	103	338	342	241	409	192	116	252	124
Grp Sat Flow(s),veh/h/ln	1774	1770	1753	1774	1770	1781	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.2	7.5	6.1	10.4	4.5
Cycle Q Clear(g_c), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.2	7.5	6.1	10.4	4.5
Prop In Lane	1.00		0.36	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	524	519	131	404	407	251	668	685	146	557	698
V/C Ratio(X)	0.97	1.17	1.17	0.78	0.84	0.84	0.96	0.61	0.28	0.79	0.45	0.18
Avail Cap(c_a), veh/h	251	524	519	251	492	495	251	668	685	251	557	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	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	40.7	33.5	33.5	43.4	35.1	35.1	40.6	25.1	17.5	42.9	27.1	16.2
Incr Delay (d2), s/veh	48.4	95.1	97.0	9.8	10.2	10.4	45.2	4.2	1.0	9.3	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	27.5	27.5	3.0	9.6	9.7	9.5	9.6	3.5	3.4	5.8	2.1
LnGrp Delay(d),s/veh	89.1	128.6	130.5	53.2	45.3	45.5	85.8	29.3	18.5	52.2	29.7	16.7
LnGrp LOS	F	F	F	D	D	D	F	C	B	D	C	B
Approach Vol, veh/h		1466			783			842			492	
Approach Delay, s/veh		122.8			46.4			43.0			31.7	
Approach LOS		F			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	38.7	11.5	32.7	18.0	33.0	18.0	26.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	19.2	19.2	7.4	30.2	14.9	12.4	15.0	19.5				
Green Ext Time (p_c), s	0.1	3.6	0.1	0.0	0.0	4.8	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay				74.9								
HCM 2010 LOS				E								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	499	208	109	357	44	260	784	207	82	620	227
Future Volume (veh/h)	251	499	208	109	357	44	260	784	207	82	620	227
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	256	509	212	111	364	45	265	800	211	84	633	232
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	263	924	413	141	610	75	263	1394	749	120	1108	731
Arrive On Green	0.15	0.26	0.26	0.08	0.19	0.19	0.15	0.39	0.39	0.07	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3174	390	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	256	509	212	111	202	207	265	800	211	84	633	232
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1794	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.1	11.3	10.4	5.6	9.5	9.6	13.5	16.1	7.4	4.2	13.6	8.4
Cycle Q Clear(g_c), s	13.1	11.3	10.4	5.6	9.5	9.6	13.5	16.1	7.4	4.2	13.6	8.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	924	413	141	340	345	263	1394	749	120	1108	731
V/C Ratio(X)	0.97	0.55	0.51	0.79	0.59	0.60	1.01	0.57	0.28	0.70	0.57	0.32
Avail Cap(c_a), veh/h	263	1031	461	263	515	522	263	1394	749	263	1108	731
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	38.6	29.0	28.7	41.1	33.5	33.6	38.8	21.6	14.6	41.5	26.1	15.5
Incr Delay (d2), s/veh	47.7	0.5	1.0	9.3	1.7	1.7	57.2	1.7	0.9	7.1	2.1	1.1
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	9.9	5.6	4.7	3.1	4.8	4.9	10.8	8.2	3.4	2.3	7.0	3.9
LnGrp Delay(d),s/veh	86.3	29.5	29.7	50.4	35.2	35.2	96.0	23.3	15.5	48.7	28.3	16.6
LnGrp LOS	F	C	C	D	D	D	F	C	B	D	C	B
Approach Vol, veh/h		977			520			1276			949	
Approach Delay, s/veh		44.4			38.4			37.1			27.2	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	40.3	11.7	28.3	18.0	33.0	18.0	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	18.1	7.6	13.3	15.5	15.6	15.1	11.6				
Green Ext Time (p_c), s	0.1	7.1	0.1	5.5	0.0	8.4	0.0	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay			36.7									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑↓			↙↘
Traffic Vol, veh/h	0	38	1213	0	0	936
Future Vol, veh/h	0	38	1213	0	0	936
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1238	0	0	955
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1620	619	0	0	1238
Stage 1	1238	-	-	-	-
Stage 2	382	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	118	432	-	-	558
Stage 1	232	-	-	-	-
Stage 2	624	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	118	432	-	-	558
Mov Cap-2 Maneuver	118	-	-	-	-
Stage 1	232	-	-	-	-
Stage 2	624	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	432	558
HCM Lane V/C Ratio	-	-	0.09	-
HCM Control Delay (s)	-	-	14.2	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	114	245	252	105	24	226	1183	247	49	869	52
Future Volume (veh/h)	63	114	245	252	105	24	226	1183	247	49	869	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	64	115	247	255	106	24	228	1195	249	49	878	53
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	127	273	247	598	508	247	1348	603	94	1042	466
Arrive On Green	0.06	0.24	0.24	0.14	0.32	0.32	0.14	0.38	0.38	0.05	0.29	0.29
Sat Flow, veh/h	1774	528	1134	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	64	0	362	255	106	24	228	1195	249	49	878	53
Grp Sat Flow(s),veh/h/ln	1774	0	1663	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.4	0.0	20.5	13.5	4.0	1.0	12.3	30.6	11.2	2.6	22.5	2.4
Cycle Q Clear(g_c), s	3.4	0.0	20.5	13.5	4.0	1.0	12.3	30.6	11.2	2.6	22.5	2.4
Prop In Lane	1.00		0.68	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	400	247	598	508	247	1348	603	94	1042	466
V/C Ratio(X)	0.61	0.00	0.90	1.03	0.18	0.05	0.92	0.89	0.41	0.52	0.84	0.11
Avail Cap(c_a), veh/h	247	0	455	247	598	508	247	1348	603	247	1042	466
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	1.00
Uniform Delay (d), s/veh	44.4	0.0	35.7	41.7	23.7	22.7	41.1	28.0	22.0	44.6	32.1	24.9
Incr Delay (d2), s/veh	5.5	0.0	19.8	65.4	0.1	0.0	36.7	8.9	2.1	4.4	8.3	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	1.8	0.0	11.6	11.0	2.1	0.4	8.5	16.6	5.2	1.4	12.2	1.1
LnGrp Delay(d),s/veh	50.0	0.0	55.4	107.1	23.8	22.7	77.9	36.9	24.1	49.1	40.3	25.4
LnGrp LOS	D		E	F	C	C	E	D	C	D	D	C
Approach Vol, veh/h		426			385			1672			980	
Approach Delay, s/veh		54.6			78.9			40.6			40.0	
Approach LOS		D			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	41.4	18.0	27.8	18.0	33.0	10.2	35.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.6	32.6	15.5	22.5	14.3	24.5	5.4	6.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	3.6	0.1	3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			46.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕↕			↕↕	
Traffic Volume (veh/h)	0	0	0	347	4	231	442	1433	0	0	1034	471
Future Volume (veh/h)	0	0	0	347	4	231	442	1433	0	0	1034	471
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				361	4	241	460	1493	0	0	1077	491
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				437	5	394	421	2297	0	0	860	381
Arrive On Green				0.25	0.25	0.25	0.24	0.65	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1756	19	1583	1774	3632	0	0	2481	1058
Grp Volume(v), veh/h				365	0	241	460	1493	0	0	790	778
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1676
Q Serve(g_s), s				17.1	0.0	11.9	20.9	22.5	0.0	0.0	31.7	31.7
Cycle Q Clear(g_c), s				17.1	0.0	11.9	20.9	22.5	0.0	0.0	31.7	31.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.63
Lane Grp Cap(c), veh/h				442	0	394	421	2297	0	0	638	604
V/C Ratio(X)				0.83	0.00	0.61	1.09	0.65	0.00	0.00	1.24	1.29
Avail Cap(c_a), veh/h				684	0	610	421	2297	0	0	638	604
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	29.3	33.5	9.4	0.0	0.0	28.1	28.1
Incr Delay (d2), s/veh				4.9	0.0	1.5	70.9	1.4	0.0	0.0	120.9	141.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.9	0.0	5.3	18.5	11.2	0.0	0.0	36.8	38.4
LnGrp Delay(d),s/veh				36.2	0.0	30.8	104.4	10.8	0.0	0.0	149.0	169.9
LnGrp LOS				D		C	F	B			F	F
Approach Vol, veh/h					606			1953			1568	
Approach Delay, s/veh					34.0			32.9			159.4	
Approach LOS					C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			25.4	36.2		26.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		24.5			22.9	33.7		19.1				
Green Ext Time (p_c), s		28.2			0.0	0.0		2.8				
Intersection Summary												
HCM 2010 Ctrl Delay				81.1								
HCM 2010 LOS				F								

HCM 2010 Signalized Intersection Summary
 5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	3	548	0	0	0	0	1296	431	252	1010	0
Future Volume (veh/h)	590	3	548	0	0	0	0	1296	431	252	1010	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	617	0	571				0	1350	449	262	1052	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1498	495	302	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.40	0.40	0.17	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	3949	1251	1774	3632	0
Grp Volume(v), veh/h	617	0	571				0	1209	590	262	1052	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1642	1774	1770	0
Q Serve(g_s), s	14.8	0.0	29.9				0.0	33.5	33.8	14.4	16.5	0.0
Cycle Q Clear(g_c), s	14.8	0.0	29.9				0.0	33.5	33.8	14.4	16.5	0.0
Prop In Lane	1.00		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1343	650	302	2162	0
V/C Ratio(X)	0.58	0.00	1.21				0.00	0.90	0.91	0.87	0.49	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1343	650	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	35.0				0.0	28.4	28.5	40.4	10.8	0.0
Incr Delay (d2), s/veh	0.8	0.0	111.3				0.0	8.6	16.5	7.6	0.8	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
%ile BackOfQ(50%),veh/ln	7.3	0.0	27.7				0.0	17.2	18.2	7.7	8.1	0.0
LnGrp Delay(d),s/veh	30.5	0.0	146.3				0.0	37.0	44.9	48.0	11.6	0.0
LnGrp LOS	C		F					D	D	D	B	
Approach Vol, veh/h		1188						1799			1314	
Approach Delay, s/veh		86.2						39.6			18.8	
Approach LOS		F						D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.5	44.1		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+110), s	110.4	35.8		31.9		18.5						
Green Ext Time (p_c), s	0.6	0.0		0.0		32.7						
Intersection Summary												
HCM 2010 Ctrl Delay			46.1									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
6: Hemlock Ave & New Project Access

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	421	19	0	695	0	0	0	24	0	0	0
Future Vol, veh/h	0	421	19	0	695	0	0	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	448	20	0	739	0	0	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1197	1197	234	918	1207	739
Stage 1	-	-	-	-	-	-	458	458	-	739	739	-
Stage 2	-	-	-	-	-	-	739	739	-	179	468	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	178	185	655	268	183	416
Stage 1	0	-	-	0	-	0	483	566	-	397	423	-
Stage 2	0	-	-	0	-	0	397	423	-	768	560	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	178	185	655	258	183	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	178	185	-	258	183	-
Stage 1	-	-	-	-	-	-	483	566	-	397	423	-
Stage 2	-	-	-	-	-	-	397	423	-	738	560	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.7	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	655	-	-	-	-
HCM Lane V/C Ratio	0.039	-	-	-	-
HCM Control Delay (s)	10.7	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection

Int Delay, s/veh 200.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	273	332	156	28	279	36	164	2	24	38	0	243
Future Vol, veh/h	273	332	156	28	279	36	164	2	24	38	0	243
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	310	377	177	32	317	41	186	2	27	43	0	276

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	358	0	0	555
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.13
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.219	-	-	2.219
Pot Cap-1 Maneuver	1199	-	-	1013
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1199	-	-	1013
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.7	\$ 1617.9	19.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	51	1199	-	-	1013	-	-	109	703
HCM Lane V/C Ratio	4.234	0.259	-	-	0.031	-	-	0.396	0.393
HCM Control Delay (s)	\$ 1617.9	9	-	-	8.7	-	-	58.2	13.4
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	24	1	-	-	0.1	-	-	1.6	1.9

Notes

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

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	12	382	332	8	11	11
Future Vol, veh/h	12	382	332	8	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	420	365	9	12	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	374	0	-	0	815 369
Stage 1	-	-	-	-	369 -
Stage 2	-	-	-	-	446 -
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	1184	-	-	-	347 677
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	645 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1184	-	-	-	342 677
Mov Cap-2 Maneuver	-	-	-	-	459 -
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	636 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1184	-	-	-	547
HCM Lane V/C Ratio	0.011	-	-	-	0.044
HCM Control Delay (s)	8.1	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	8.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	205	185	120	80	102	223
Future Vol, veh/h	205	185	120	80	102	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	225	203	132	88	112	245

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	220	0	-	0	830 176
Stage 1	-	-	-	-	176 -
Stage 2	-	-	-	-	654 -
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	1349	-	-	-	340 867
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	517 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1349	-	-	-	276 867
Mov Cap-2 Maneuver	-	-	-	-	357 -
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	420 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1349	-	-	-	599
HCM Lane V/C Ratio	0.167	-	-	-	0.596
HCM Control Delay (s)	8.2	-	-	-	19.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	3.9

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	250	24	88	156	102	24	0	93	84	0	20
Future Vol, veh/h	13	250	24	88	156	102	24	0	93	84	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	269	26	95	168	110	26	0	100	90	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	295	0	0	733	777	282	772	735	223
Stage 1	-	-	-	-	-	-	310	310	-	412	412	-
Stage 2	-	-	-	-	-	-	423	467	-	360	323	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1286	-	-	1266	-	-	336	328	757	317	347	817
Stage 1	-	-	-	-	-	-	700	659	-	617	594	-
Stage 2	-	-	-	-	-	-	609	562	-	658	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1286	-	-	1266	-	-	302	295	757	254	312	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	295	-	254	312	-
Stage 1	-	-	-	-	-	-	691	650	-	609	541	-
Stage 2	-	-	-	-	-	-	540	511	-	564	642	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			2.1			13			24.7		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	578	1286	-	-	1266	-	-	293
HCM Lane V/C Ratio	0.218	0.011	-	-	0.075	-	-	0.382
HCM Control Delay (s)	13	7.8	0	-	8.1	0	-	24.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	1.7

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	427	216	9	0	10
Future Vol, veh/h	0	427	216	9	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	454	230	10	0	11






















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

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	804
HCM Lane V/C Ratio	-	-	-	0.013
HCM Control Delay (s)	-	-	-	9.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	94	670	44	43	420	53	47	0	47	72	0	52
Future Volume (veh/h)	94	670	44	43	420	53	47	0	47	72	0	52
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	108	770	51	49	483	61	54	0	54	83	0	60
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1693	112	117	1095	137	334	16	300	630	0	657
Arrive On Green	0.05	0.50	0.50	0.41	0.41	0.41	0.41	0.00	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1774	3370	223	189	2639	330	685	38	723	1345	0	1583
Grp Volume(v), veh/h	108	404	417	290	0	303	108	0	0	83	0	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1823	1521	0	1637	1445	0	0	1345	0	1583
Q Serve(g_s), s	5.0	16.0	16.0	2.8	0.0	14.4	2.8	0.0	0.0	0.0	0.0	2.5
Cycle Q Clear(g_c), s	5.0	16.0	16.0	12.5	0.0	14.4	5.3	0.0	0.0	3.8	0.0	2.5
Prop In Lane	1.00		0.12	0.17		0.20	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	82	889	916	670	0	679	649	0	0	630	0	657
V/C Ratio(X)	1.32	0.45	0.46	0.43	0.00	0.45	0.17	0.00	0.00	0.13	0.00	0.09
Avail Cap(c_a), veh/h	82	889	916	670	0	679	649	0	0	630	0	657
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	17.4	17.4	22.1	0.0	22.8	20.1	0.0	0.0	19.7	0.0	19.3
Incr Delay (d2), s/veh	207.5	1.7	1.6	2.0	0.0	2.1	0.6	0.0	0.0	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.2	8.4	6.4	0.0	6.9	2.1	0.0	0.0	1.6	0.0	1.1
LnGrp Delay(d),s/veh	259.3	19.1	19.0	24.1	0.0	24.9	20.6	0.0	0.0	20.1	0.0	19.6
LnGrp LOS	F	B	B	C		C	C			C		B
Approach Vol, veh/h		929			593			108			143	
Approach Delay, s/veh		47.0			24.5			20.6			19.9	
Approach LOS		D			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		18.0		5.8	7.0	16.4		7.3				
Green Ext Time (p_c), s		10.9		1.3	0.0	11.2		1.3				
Intersection Summary												
HCM 2010 Ctrl Delay				35.7								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	558	94	121	363	62	67	185	213	66	136	74
Future Volume (veh/h)	100	558	94	121	363	62	67	185	213	66	136	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	109	607	102	132	395	67	73	201	232	72	148	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	812	136	167	857	144	123	650	553	122	650	552
Arrive On Green	0.08	0.27	0.27	0.09	0.28	0.28	0.07	0.35	0.35	0.07	0.35	0.35
Sat Flow, veh/h	1774	3034	509	1774	3032	510	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	109	354	355	132	229	233	73	201	232	72	148	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1773	1774	1770	1773	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.9	14.9	15.0	6.0	8.7	8.9	3.3	6.4	9.1	3.2	4.6	2.8
Cycle Q Clear(g_c), s	4.9	14.9	15.0	6.0	8.7	8.9	3.3	6.4	9.1	3.2	4.6	2.8
Prop In Lane	1.00		0.29	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	474	475	167	500	501	123	650	553	122	650	552
V/C Ratio(X)	0.78	0.75	0.75	0.79	0.46	0.46	0.59	0.31	0.42	0.59	0.23	0.14
Avail Cap(c_a), veh/h	293	574	575	293	574	575	293	650	553	293	650	552
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	36.9	27.4	27.4	36.2	24.2	24.2	36.9	19.4	20.3	36.9	18.8	18.3
Incr Delay (d2), s/veh	8.9	4.3	4.4	8.1	0.7	0.7	4.5	1.2	2.3	4.4	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	7.8	7.9	3.3	4.4	4.4	1.8	3.5	4.3	1.7	2.5	1.3
LnGrp Delay(d),s/veh	45.9	31.7	31.8	44.4	24.8	24.9	41.4	20.6	22.6	41.4	19.6	18.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		818			594			506			300	
Approach Delay, s/veh		33.6			29.2			24.5			24.6	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	33.0	12.2	26.4	10.2	33.0	11.0	27.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.2	11.1	8.0	17.0	5.3	6.6	6.9	10.9				
Green Ext Time (p_c), s	0.1	2.9	0.1	4.9	0.1	3.1	0.1	6.6				
Intersection Summary												
HCM 2010 Ctrl Delay				29.1								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	173	71	107	93	24	67	394	163	18	309	34
Future Volume (veh/h)	65	173	71	107	93	24	67	394	163	18	309	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	182	75	113	98	25	71	415	172	19	325	36
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	291	115	182	147	37	128	557	231	167	768	85
Arrive On Green	0.12	0.12	0.12	0.10	0.10	0.10	0.07	0.44	0.44	0.09	0.47	0.47
Sat Flow, veh/h	1774	2475	983	1774	1433	365	1774	1252	519	1774	1648	183
Grp Volume(v), veh/h	68	128	129	113	0	123	71	0	587	19	0	361
Grp Sat Flow(s),veh/h/ln	1774	1770	1689	1774	0	1798	1774	0	1771	1774	0	1831
Q Serve(g_s), s	2.6	5.1	5.4	4.5	0.0	4.9	2.9	0.0	20.5	0.7	0.0	9.8
Cycle Q Clear(g_c), s	2.6	5.1	5.4	4.5	0.0	4.9	2.9	0.0	20.5	0.7	0.0	9.8
Prop In Lane	1.00		0.58	1.00		0.20	1.00		0.29	1.00		0.10
Lane Grp Cap(c), veh/h	208	208	198	182	0	184	128	0	787	167	0	853
V/C Ratio(X)	0.33	0.62	0.65	0.62	0.00	0.67	0.55	0.00	0.75	0.11	0.00	0.42
Avail Cap(c_a), veh/h	479	478	456	479	0	485	169	0	787	479	0	853
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	31.3	31.4	32.0	0.0	32.2	33.4	0.0	17.2	30.9	0.0	13.2
Incr Delay (d2), s/veh	0.9	3.0	3.6	3.5	0.0	4.1	3.7	0.0	6.4	0.3	0.0	1.5
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	1.3	2.7	2.7	2.4	0.0	2.6	1.5	0.0	11.3	0.4	0.0	5.3
LnGrp Delay(d),s/veh	31.1	34.2	35.0	35.5	0.0	36.3	37.0	0.0	23.5	31.2	0.0	14.8
LnGrp LOS	C	C	C	D		D	D		C	C		B
Approach Vol, veh/h		325			236			658			380	
Approach Delay, s/veh		33.9			35.9			25.0			15.6	
Approach LOS		C			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.6		13.2	9.9	39.2		12.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1/2), s	12.5	22.5		7.4	4.9	11.8		6.9				
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	6.8		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay				26.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	578	160	49	292	50	132	247	82	67	165	267
Future Volume (veh/h)	381	578	160	49	292	50	132	247	82	67	165	267
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	397	602	167	51	304	52	138	257	85	70	172	278
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	283	809	224	102	587	99	173	684	673	118	627	786
Arrive On Green	0.16	0.30	0.30	0.06	0.19	0.19	0.10	0.37	0.37	0.07	0.34	0.34
Sat Flow, veh/h	1774	2740	759	1774	3030	512	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	397	388	381	51	176	180	138	257	85	70	172	278
Grp Sat Flow(s),veh/h/ln	1774	1770	1729	1774	1770	1772	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.6	2.8	3.2	5.7	9.1
Cycle Q Clear(g_c), s	13.5	16.8	16.8	2.4	7.5	7.7	6.4	8.6	2.8	3.2	5.7	9.1
Prop In Lane	1.00		0.44	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	523	511	102	343	343	173	684	673	118	627	786
V/C Ratio(X)	1.40	0.74	0.75	0.50	0.51	0.52	0.80	0.38	0.13	0.59	0.27	0.35
Avail Cap(c_a), veh/h	283	554	541	283	554	555	283	684	673	283	627	786
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	35.6	26.9	26.9	38.7	30.6	30.6	37.4	19.6	14.8	38.4	20.5	13.0
Incr Delay (d2), s/veh	201.3	5.1	5.3	3.7	1.2	1.2	8.2	1.6	0.4	4.6	1.1	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	12.3	8.9	8.8	1.3	3.8	3.9	3.5	4.7	1.3	1.7	3.1	4.2
LnGrp Delay(d),s/veh	236.8	32.0	32.2	42.4	31.8	31.9	45.5	21.2	15.2	43.0	21.6	14.3
LnGrp LOS	F	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		1166			407			480			520	
Approach Delay, s/veh		101.8			33.1			27.1			20.6	
Approach LOS		F			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	35.6	9.4	29.5	12.7	33.0	18.0	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	11.2	10.6	4.4	18.8	8.4	11.1	15.5	9.7				
Green Ext Time (p_c), s	0.1	3.6	0.0	4.1	0.1	3.6	0.0	6.7				
Intersection Summary												
HCM 2010 Ctrl Delay			60.6									
HCM 2010 LOS			E									

General Plan (2035)

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	365	161	221	735	58	130	478	112	62	661	313
Future Volume (veh/h)	168	365	161	221	735	58	130	478	112	62	661	313
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	179	388	171	235	782	62	138	509	119	66	703	333
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	880	394	261	915	73	171	1222	780	110	1101	683
Arrive On Green	0.12	0.25	0.25	0.15	0.28	0.28	0.10	0.35	0.35	0.06	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3323	263	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	179	388	171	235	416	428	138	509	119	66	703	333
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1816	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.0	8.5	8.3	11.9	20.4	20.4	7.0	10.1	3.8	3.3	15.6	13.9
Cycle Q Clear(g_c), s	9.0	8.5	8.3	11.9	20.4	20.4	7.0	10.1	3.8	3.3	15.6	13.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	880	394	261	488	500	171	1222	780	110	1101	683
V/C Ratio(X)	0.84	0.44	0.43	0.90	0.85	0.85	0.81	0.42	0.15	0.60	0.64	0.49
Avail Cap(c_a), veh/h	261	1024	458	261	512	525	261	1222	780	261	1101	683
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	39.4	29.0	29.0	38.4	31.4	31.4	40.6	22.9	12.7	41.8	27.1	18.7
Incr Delay (d2), s/veh	17.7	0.3	0.8	30.7	12.8	12.6	10.2	1.0	0.4	5.1	2.8	2.5
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	5.5	4.2	3.7	8.0	11.7	12.0	3.9	5.1	1.7	1.8	8.0	6.5
LnGrp Delay(d),s/veh	57.1	29.4	29.7	69.1	44.2	44.0	50.8	24.0	13.2	47.0	30.0	21.2
LnGrp LOS	E	C	C	E	D	D	D	C	B	D	C	C
Approach Vol, veh/h		738			1079			766			1102	
Approach Delay, s/veh		36.2			49.6			27.1			28.3	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	36.1	18.0	27.3	13.3	33.0	15.5	29.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	5.3	12.1	13.9	10.5	9.0	17.6	11.0	22.4				
Green Ext Time (p_c), s	0.1	8.6	0.0	7.9	0.1	6.6	0.1	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↑↓
Traffic Vol, veh/h	0	0	719	0	0	1043
Future Vol, veh/h	0	0	719	0	0	1043
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	765	0	0	1110
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1320	382	0	0	765
Stage 1	765	-	-	-	-
Stage 2	555	-	-	-	-
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	148	616	-	-	844
Stage 1	420	-	-	-	-
Stage 2	539	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	148	616	-	-	844
Mov Cap-2 Maneuver	282	-	-	-	-
Stage 1	420	-	-	-	-
Stage 2	539	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	844	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	71	132	67	90	23	109	672	77	18	1012	41
Future Volume (veh/h)	49	71	132	67	90	23	109	672	77	18	1012	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	73	136	69	93	24	112	693	79	19	1043	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	112	100	186	131	339	288	158	1650	738	55	1445	647
Arrive On Green	0.06	0.17	0.17	0.07	0.18	0.18	0.09	0.47	0.47	0.03	0.41	0.41
Sat Flow, veh/h	1774	584	1087	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	51	0	209	69	93	24	112	693	79	19	1043	42
Grp Sat Flow(s),veh/h/ln	1774	0	1671	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.9	0.0	8.3	2.6	3.0	0.9	4.3	9.1	2.0	0.7	17.3	1.1
Cycle Q Clear(g_c), s	1.9	0.0	8.3	2.6	3.0	0.9	4.3	9.1	2.0	0.7	17.3	1.1
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	112	0	286	131	339	288	158	1650	738	55	1445	647
V/C Ratio(X)	0.46	0.00	0.73	0.53	0.27	0.08	0.71	0.42	0.11	0.35	0.72	0.06
Avail Cap(c_a), veh/h	343	0	634	343	707	601	343	1650	738	343	1445	647
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	1.00
Uniform Delay (d), s/veh	31.5	0.0	27.4	31.1	24.6	23.7	30.9	12.4	10.5	33.1	17.3	12.6
Incr Delay (d2), s/veh	2.9	0.0	3.6	3.2	0.4	0.1	5.8	0.8	0.3	3.7	3.2	0.2
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	1.0	0.0	4.1	1.4	1.6	0.4	2.3	4.6	0.9	0.4	9.0	0.5
LnGrp Delay(d),s/veh	34.4	0.0	31.0	34.4	25.0	23.8	36.7	13.1	10.8	36.8	20.5	12.7
LnGrp LOS	C		C	C	C	C	D	B	B	D	C	B
Approach Vol, veh/h		260			186			884			1104	
Approach Delay, s/veh		31.7			28.3			15.9			20.5	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	37.0	9.7	16.4	10.7	33.0	8.9	17.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.7	11.1	4.6	10.3	6.3	19.3	3.9	5.0				
Green Ext Time (p_c), s	0.0	11.3	0.1	1.7	0.1	6.9	0.1	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			20.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	302	4	181	307	676	0	0	868	346
Future Volume (veh/h)	0	0	0	302	4	181	307	676	0	0	868	346
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				315	4	189	320	704	0	0	904	360
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				390	5	352	361	2377	0	0	1030	408
Arrive On Green				0.22	0.22	0.22	0.20	0.67	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1753	22	1583	1774	3632	0	0	2571	981
Grp Volume(v), veh/h				319	0	189	320	704	0	0	644	620
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1690
Q Serve(g_s), s				14.5	0.0	9.0	14.9	6.9	0.0	0.0	28.4	28.8
Cycle Q Clear(g_c), s				14.5	0.0	9.0	14.9	6.9	0.0	0.0	28.4	28.8
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				395	0	352	361	2377	0	0	735	702
V/C Ratio(X)				0.81	0.00	0.54	0.89	0.30	0.00	0.00	0.88	0.88
Avail Cap(c_a), veh/h				708	0	631	436	2377	0	0	735	702
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	29.2	32.9	5.7	0.0	0.0	22.8	22.9
Incr Delay (d2), s/veh				3.9	0.0	1.3	17.2	0.3	0.0	0.0	13.8	15.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.5	0.0	4.0	9.0	3.4	0.0	0.0	16.6	16.2
LnGrp Delay(d),s/veh				35.3	0.0	30.4	50.1	6.0	0.0	0.0	36.7	38.0
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					508			1024			1264	
Approach Delay, s/veh					33.5			19.8			37.3	
Approach LOS					C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			21.8	39.8		23.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		8.9			16.9	30.8		16.5				
Green Ext Time (p_c), s		21.9			0.4	0.8		2.4				
Intersection Summary												
HCM 2010 Ctrl Delay				30.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	4	526	0	0	0	0	701	155	180	995	0
Future Volume (veh/h)	274	4	526	0	0	0	0	701	155	180	995	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	283	0	537				0	715	158	184	1015	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1840	402	223	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.44	0.44	0.13	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	4346	913	1774	3632	0
Grp Volume(v), veh/h	283	0	537				0	579	294	184	1015	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1702	1774	1770	0
Q Serve(g_s), s	6.1	0.0	29.9				0.0	11.5	11.7	10.1	15.6	0.0
Cycle Q Clear(g_c), s	6.1	0.0	29.9				0.0	11.5	11.7	10.1	15.6	0.0
Prop In Lane	1.00		1.00				0.00		0.54	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1493	749	223	2162	0
V/C Ratio(X)	0.27	0.00	1.13				0.00	0.39	0.39	0.83	0.47	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1493	749	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	0.0	35.0				0.0	18.9	18.9	42.7	10.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	83.6				0.0	0.2	0.3	7.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	24.0				0.0	5.4	5.6	5.4	7.8	0.0
LnGrp Delay(d),s/veh	26.8	0.0	118.7				0.0	19.0	19.3	50.2	11.3	0.0
LnGrp LOS	C		F					B	B	D	B	
Approach Vol, veh/h		820						873			1199	
Approach Delay, s/veh		87.0						19.1			17.3	
Approach LOS		F						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.1	48.5		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+1/2), s	13.7	13.7		31.9		17.6						
Green Ext Time (p_c), s	0.4	9.3		0.0		19.6						
Intersection Summary												
HCM 2010 Ctrl Delay			37.6									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	165	1	0	180	0	0	0	1	0	0	0
Future Vol, veh/h	0	165	1	0	180	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	181	1	0	198	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	182	0	0	281	380	91	289	380	99
Stage 1	-	-	-	-	-	-	182	182	-	198	198	-
Stage 2	-	-	-	-	-	-	99	198	-	91	182	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1372	-	-	1391	-	-	649	551	949	641	551	937
Stage 1	-	-	-	-	-	-	802	748	-	785	736	-
Stage 2	-	-	-	-	-	-	896	736	-	906	748	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1372	-	-	1391	-	-	649	551	949	640	551	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	649	551	-	640	551	-
Stage 1	-	-	-	-	-	-	802	748	-	785	736	-
Stage 2	-	-	-	-	-	-	896	736	-	905	748	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	949	1372	-	-	1391	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↔			↖	↗
Traffic Vol, veh/h	11	156	1	0	174	1	2	0	0	0	0	6
Future Vol, veh/h	11	156	1	0	174	1	2	0	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	181	1	0	202	1	2	0	0	0	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	183	0	0	411	411	91	319	411	203
Stage 1	-	-	-	-	-	-	208	208	-	203	203	-
Stage 2	-	-	-	-	-	-	203	203	-	116	208	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1367	-	-	1391	-	-	538	530	949	622	530	837
Stage 1	-	-	-	-	-	-	775	729	-	798	733	-
Stage 2	-	-	-	-	-	-	798	733	-	877	729	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1367	-	-	1391	-	-	530	525	949	617	525	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	530	525	-	617	525	-
Stage 1	-	-	-	-	-	-	768	722	-	790	733	-
Stage 2	-	-	-	-	-	-	791	733	-	869	722	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	11.8	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	530	1367	-	-	1391	-	-	-	837
HCM Lane V/C Ratio	0.004	0.009	-	-	-	-	-	-	0.008
HCM Control Delay (s)	11.8	7.7	-	-	0	-	-	0	9.3
HCM Lane LOS	B	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-	0

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	21	135	169	4	0	5
Future Vol, veh/h	21	135	169	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	161	201	5	0	6

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	206	0	-	0	415	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	211	-
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	1365	-	-	-	594	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1365	-	-	-	582	837
Mov Cap-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	808	-

Approach EB WB SB

HCM Control Delay, s	1	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1365	-	-	-	837
HCM Lane V/C Ratio	0.018	-	-	-	0.007
HCM Control Delay (s)	7.7	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection

Int Delay, s/veh 0.5

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	12	124	170	23	5	4
Future Vol, veh/h	12	124	170	23	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	138	189	26	6	4

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	214	0	-	0	366	202
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	164	-
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	1356	-	-	-	634	839
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1356	-	-	-	628	839
Mov Cap-2 Maneuver	-	-	-	-	672	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	856	-

Approach EB WB SB

HCM Control Delay, s	0.7	0	10
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1356	-	-	-	737
HCM Lane V/C Ratio	0.01	-	-	-	0.014
HCM Control Delay (s)	7.7	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	128	190	6	0	1
Future Vol, veh/h	0	128	190	6	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	149	221	7	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 224
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- 0 815
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 815
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	815
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	129	192	4	0	6
Future Vol, veh/h	0	129	192	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	148	221	5	0	7

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach






















	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	817
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	71	480	0	0	913	213	0	0	0	164	0	109
Future Volume (veh/h)	71	480	0	0	913	213	0	0	0	164	0	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	545	0	0	1038	242	0	0	0	186	0	124
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	83	1741	0	0	1149	267	0	789	0	819	0	670
Arrive On Green	0.05	0.49	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.42	0.00	0.42
Sat Flow, veh/h	1774	3632	0	0	2946	663	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	81	545	0	0	642	638	0	0	0	186	0	124
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1746	0	1863	0	1774	0	1583
Q Serve(g_s), s	4.8	9.8	0.0	0.0	36.2	36.5	0.0	0.0	0.0	7.2	0.0	5.2
Cycle Q Clear(g_c), s	4.8	9.8	0.0	0.0	36.2	36.5	0.0	0.0	0.0	7.2	0.0	5.2
Prop In Lane	1.00		0.00	0.00		0.38	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1741	0	0	712	703	0	789	0	819	0	670
V/C Ratio(X)	0.97	0.31	0.00	0.00	0.90	0.91	0.00	0.00	0.00	0.23	0.00	0.18
Avail Cap(c_a), veh/h	83	1741	0	0	766	756	0	789	0	819	0	670
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.6	16.2	0.0	0.0	29.8	29.9	0.0	0.0	0.0	19.7	0.0	19.2
Incr Delay (d2), s/veh	88.4	0.1	0.0	0.0	13.3	14.1	0.0	0.0	0.0	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.8	0.0	0.0	20.3	20.3	0.0	0.0	0.0	3.7	0.0	2.4
LnGrp Delay(d),s/veh	139.0	16.3	0.0	0.0	43.1	44.0	0.0	0.0	0.0	20.4	0.0	19.8
LnGrp LOS	F	B			D	D				C		B
Approach Vol, veh/h		626			1280			0				310
Approach Delay, s/veh		32.2			43.5			0.0				20.1
Approach LOS		C			D							C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		56.8		49.5	9.5	47.3				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		0.0		11.8		9.2	6.8	38.5				
Green Ext Time (p_c), s		0.0		17.6		1.3	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay				37.1								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	443	164	265	829	139	170	256	116	133	204	115
Future Volume (veh/h)	37	443	164	265	829	139	170	256	116	133	204	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	44	527	195	315	987	165	202	305	138	158	243	137
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	605	223	251	1001	167	235	602	512	191	556	473
Arrive On Green	0.05	0.24	0.24	0.14	0.33	0.33	0.13	0.32	0.32	0.11	0.30	0.30
Sat Flow, veh/h	1774	2534	934	1774	3036	507	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	44	367	355	315	575	577	202	305	138	158	243	137
Grp Sat Flow(s),veh/h/ln	1774	1770	1698	1774	1770	1773	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.3	19.0	19.2	13.5	30.8	30.8	10.6	12.6	6.2	8.3	10.0	6.3
Cycle Q Clear(g_c), s	2.3	19.0	19.2	13.5	30.8	30.8	10.6	12.6	6.2	8.3	10.0	6.3
Prop In Lane	1.00		0.55	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	423	405	251	584	585	235	602	512	191	556	473
V/C Ratio(X)	0.49	0.87	0.87	1.25	0.99	0.99	0.86	0.51	0.27	0.83	0.44	0.29
Avail Cap(c_a), veh/h	251	491	472	251	584	585	251	602	512	251	556	473
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	44.1	34.9	34.9	41.0	31.7	31.8	40.5	26.1	23.9	41.7	27.0	25.7
Incr Delay (d2), s/veh	4.1	13.9	14.9	143.0	33.4	33.7	23.8	3.0	1.3	15.7	2.5	1.5
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	1.2	10.9	10.6	16.5	20.4	20.5	6.8	7.0	2.9	4.9	5.5	3.0
LnGrp Delay(d),s/veh	48.2	48.7	49.9	184.0	65.1	65.5	64.3	29.1	25.2	57.4	29.5	27.2
LnGrp LOS	D	D	D	F	E	E	E	C	C	E	C	C
Approach Vol, veh/h		766			1467			645			538	
Approach Delay, s/veh		49.2			90.8			39.3			37.1	
Approach LOS		D			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	35.3	18.0	27.3	17.1	33.0	9.3	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+10), s	11.0	14.6	15.5	21.2	12.6	12.0	4.3	32.8				
Green Ext Time (p_c), s	0.1	3.7	0.0	1.6	0.1	3.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			63.3									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	9	88	36	96	97	109	46	400	94	83	529	27
Future Volume (veh/h)	9	88	36	96	97	109	46	400	94	83	529	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	110	45	120	121	136	58	500	118	104	661	34
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	215	84	326	147	165	113	604	142	157	771	40
Arrive On Green	0.09	0.09	0.09	0.18	0.18	0.18	0.06	0.41	0.41	0.09	0.44	0.44
Sat Flow, veh/h	1774	2490	971	1774	802	902	1774	1458	344	1774	1756	90
Grp Volume(v), veh/h	11	77	78	120	0	257	58	0	618	104	0	695
Grp Sat Flow(s),veh/h/ln	1774	1770	1691	1774	0	1704	1774	0	1802	1774	0	1847
Q Serve(g_s), s	0.5	3.3	3.5	4.7	0.0	11.5	2.5	0.0	24.2	4.5	0.0	26.8
Cycle Q Clear(g_c), s	0.5	3.3	3.5	4.7	0.0	11.5	2.5	0.0	24.2	4.5	0.0	26.8
Prop In Lane	1.00		0.57	1.00		0.53	1.00		0.19	1.00		0.05
Lane Grp Cap(c), veh/h	153	153	146	326	0	313	113	0	746	157	0	810
V/C Ratio(X)	0.07	0.50	0.54	0.37	0.00	0.82	0.51	0.00	0.83	0.66	0.00	0.86
Avail Cap(c_a), veh/h	451	450	430	451	0	433	159	0	746	451	0	810
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	34.5	34.6	28.3	0.0	31.0	35.8	0.0	20.7	34.9	0.0	20.0
Incr Delay (d2), s/veh	0.2	2.5	3.1	0.7	0.0	8.7	3.6	0.0	10.3	4.7	0.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.8	2.4	0.0	6.1	1.3	0.0	14.1	2.4	0.0	16.1
LnGrp Delay(d),s/veh	33.4	37.1	37.7	29.0	0.0	39.7	39.4	0.0	30.9	39.6	0.0	31.3
LnGrp LOS	C	D	D	C		D	D		C	D		C
Approach Vol, veh/h		166			377			676			799	
Approach Delay, s/veh		37.1			36.3			31.7			32.4	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.2		11.3	9.5	39.2		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	10.5	26.2		5.5	4.5	28.8		13.5				
Green Ext Time (p_c), s	0.2	0.0		0.7	0.0	4.0		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2035) Without Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	400	152
Future Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	400	152
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	112	454	188	45	519	66	193	415	139	115	449	171
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	659	271	96	766	97	230	712	691	147	625	659
Arrive On Green	0.08	0.27	0.27	0.05	0.24	0.24	0.13	0.38	0.38	0.08	0.34	0.34
Sat Flow, veh/h	1774	2449	1006	1774	3161	401	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	112	327	315	45	290	295	193	415	139	115	449	171
Grp Sat Flow(s),veh/h/ln	1774	1770	1685	1774	1770	1792	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.9	6.0
Cycle Q Clear(g_c), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.9	6.0
Prop In Lane	1.00		0.60	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	476	454	96	429	434	230	712	691	147	625	659
V/C Ratio(X)	0.78	0.69	0.69	0.47	0.68	0.68	0.84	0.58	0.20	0.78	0.72	0.26
Avail Cap(c_a), veh/h	282	552	525	282	552	559	282	712	691	282	625	659
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	38.3	27.8	27.9	39.0	29.2	29.2	36.1	20.9	14.8	38.2	24.7	16.2
Incr Delay (d2), s/veh	8.9	2.9	3.3	3.6	2.2	2.3	16.6	3.5	0.7	8.8	7.0	1.0
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	2.9	7.3	7.1	1.1	6.4	6.5	5.5	8.4	2.1	3.0	10.4	2.8
LnGrp Delay(d),s/veh	47.3	30.8	31.2	42.6	31.4	31.5	52.7	24.3	15.5	47.1	31.7	17.2
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		754			630			747			735	
Approach Delay, s/veh		33.4			32.2			30.0			30.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	37.0	9.1	27.4	15.5	33.0	11.4	25.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	17.0	17.0	4.1	16.3	11.0	19.9	7.3	14.7				
Green Ext Time (p_c), s	0.1	5.1	0.0	5.4	0.1	4.2	0.1	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				31.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	841	170	137	497	60	167	694	195	79	537	216
Future Volume (veh/h)	267	841	170	137	497	60	167	694	195	79	537	216
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	272	858	173	140	507	61	170	708	199	81	548	220
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	258	1016	454	173	761	91	204	1259	718	117	1086	716
Arrive On Green	0.15	0.29	0.29	0.10	0.24	0.24	0.12	0.36	0.36	0.07	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3183	382	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	272	858	173	140	281	287	170	708	199	81	548	220
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1795	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.5	21.2	8.1	7.2	13.3	13.4	8.7	15.0	7.3	4.2	11.8	8.2
Cycle Q Clear(g_c), s	13.5	21.2	8.1	7.2	13.3	13.4	8.7	15.0	7.3	4.2	11.8	8.2
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1016	454	173	423	429	204	1259	718	117	1086	716
V/C Ratio(X)	1.06	0.84	0.38	0.81	0.66	0.67	0.83	0.56	0.28	0.69	0.50	0.31
Avail Cap(c_a), veh/h	258	1016	454	258	505	512	258	1259	718	258	1086	716
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	39.7	31.2	26.5	41.1	32.0	32.0	40.2	24.1	15.9	42.5	26.4	16.2
Incr Delay (d2), s/veh	71.3	6.7	0.5	11.1	2.5	2.6	16.7	1.8	1.0	7.1	1.7	1.1
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	11.7	11.3	3.6	4.1	6.8	6.9	5.2	7.6	3.4	2.3	6.0	3.8
LnGrp Delay(d),s/veh	111.0	37.8	27.0	52.2	34.5	34.6	57.0	25.9	16.8	49.5	28.1	17.3
LnGrp LOS	F	D	C	D	C	C	E	C	B	D	C	B
Approach Vol, veh/h		1303			708			1077			849	
Approach Delay, s/veh		51.7			38.0			29.1			27.3	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	37.6	13.6	31.2	15.2	33.0	18.0	26.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	17.0	9.2	23.2	10.7	13.8	15.5	15.4				
Green Ext Time (p_c), s	0.1	7.0	0.1	2.5	0.1	8.2	0.0	6.8				
Intersection Summary												
HCM 2010 Ctrl Delay			37.8									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	0	1056	0	0	843
Future Vol, veh/h	0	0	1056	0	0	843
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1078	0	0	860
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1422	539	0	0	1078
Stage 1	1078	-	-	-	-
Stage 2	344	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	155	487	-	-	643
Stage 1	281	-	-	-	-
Stage 2	653	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	155	487	-	-	643
Mov Cap-2 Maneuver	155	-	-	-	-
Stage 1	281	-	-	-	-
Stage 2	653	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	643
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	144	259	97	90	35	162	981	134	24	806	44
Future Volume (veh/h)	91	144	259	97	90	35	162	981	134	24	806	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	92	145	262	98	91	35	164	991	135	24	814	44
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	162	294	131	510	434	200	1447	647	63	1173	525
Arrive On Green	0.07	0.27	0.27	0.07	0.27	0.27	0.11	0.41	0.41	0.04	0.33	0.33
Sat Flow, veh/h	1774	596	1077	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	92	0	407	98	91	35	164	991	135	24	814	44
Grp Sat Flow(s),veh/h/ln	1774	0	1673	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.4	0.0	20.1	4.7	3.2	1.4	7.8	19.8	4.7	1.1	17.2	1.6
Cycle Q Clear(g_c), s	4.4	0.0	20.1	4.7	3.2	1.4	7.8	19.8	4.7	1.1	17.2	1.6
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	0	456	131	510	434	200	1447	647	63	1173	525
V/C Ratio(X)	0.72	0.00	0.89	0.75	0.18	0.08	0.82	0.68	0.21	0.38	0.69	0.08
Avail Cap(c_a), veh/h	279	0	516	279	574	488	279	1447	647	279	1173	525
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	1.00
Uniform Delay (d), s/veh	39.0	0.0	30.1	39.1	23.8	23.2	37.3	20.9	16.4	40.5	24.9	19.8
Incr Delay (d2), s/veh	7.2	0.0	16.4	8.4	0.2	0.1	12.5	2.7	0.7	3.7	3.4	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	2.4	0.0	11.3	2.6	1.7	0.6	4.5	10.2	2.2	0.6	8.9	0.8
LnGrp Delay(d),s/veh	46.3	0.0	46.4	47.4	24.0	23.3	49.8	23.5	17.2	44.3	28.3	20.1
LnGrp LOS	D		D	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		499			224			1290			882	
Approach Delay, s/veh		46.4			34.1			26.2			28.4	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	39.7	10.8	27.9	14.2	33.0	10.7	28.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	3.1	21.8	6.7	22.1	9.8	19.2	6.4	5.2				
Green Ext Time (p_c), s	0.0	5.5	0.1	1.3	0.1	7.2	0.1	3.4				
Intersection Summary												
HCM 2010 Ctrl Delay			30.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	242	4	189	377	1096	0	0	874	292
Future Volume (veh/h)	0	0	0	242	4	189	377	1096	0	0	874	292
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				252	4	197	393	1142	0	0	910	304
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				328	5	298	430	2483	0	0	1054	351
Arrive On Green				0.19	0.19	0.19	0.24	0.70	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1748	28	1583	1774	3632	0	0	2703	869
Grp Volume(v), veh/h				256	0	197	393	1142	0	0	616	598
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1709
Q Serve(g_s), s				11.1	0.0	9.4	17.5	11.6	0.0	0.0	25.9	26.1
Cycle Q Clear(g_c), s				11.1	0.0	9.4	17.5	11.6	0.0	0.0	25.9	26.1
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.51
Lane Grp Cap(c), veh/h				334	0	298	430	2483	0	0	714	690
V/C Ratio(X)				0.77	0.00	0.66	0.91	0.46	0.00	0.00	0.86	0.87
Avail Cap(c_a), veh/h				739	0	659	456	2483	0	0	714	690
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	0.0	30.7	30.0	5.4	0.0	0.0	22.2	22.3
Incr Delay (d2), s/veh				3.7	0.0	2.5	22.1	0.6	0.0	0.0	13.0	13.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.8	0.0	4.3	11.2	5.8	0.0	0.0	15.2	14.9
LnGrp Delay(d),s/veh				35.1	0.0	33.2	52.1	6.0	0.0	0.0	35.2	36.1
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					453			1535			1214	
Approach Delay, s/veh					34.2			17.8			35.6	
Approach LOS					C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			24.2	37.4		19.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		13.6			19.5	28.1		13.1				
Green Ext Time (p_c), s		26.8			0.2	3.3		2.2				
Intersection Summary												
HCM 2010 Ctrl Delay				26.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	3	354	0	0	0	0	981	322	191	931	0
Future Volume (veh/h)	502	3	354	0	0	0	0	981	322	191	931	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	525	0	369				0	1022	335	199	970	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	942	0	420				0	1736	569	240	2266	0
Arrive On Green	0.27	0.00	0.27				0.00	0.46	0.46	0.14	0.64	0.00
Sat Flow, veh/h	3548	0	1583				0	3959	1242	1774	3632	0
Grp Volume(v), veh/h	525	0	369				0	914	443	199	970	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1644	1774	1770	0
Q Serve(g_s), s	12.2	0.0	21.3				0.0	19.1	19.1	10.4	13.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	21.3				0.0	19.1	19.1	10.4	13.0	0.0
Prop In Lane	1.00		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	942	0	420				0	1552	752	240	2266	0
V/C Ratio(X)	0.56	0.00	0.88				0.00	0.59	0.59	0.83	0.43	0.00
Avail Cap(c_a), veh/h	1112	0	496				0	1552	752	556	2266	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	0.0	33.6				0.0	19.2	19.2	40.2	8.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	14.5				0.0	0.6	1.2	7.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	11.0				0.0	9.0	8.9	5.6	6.5	0.0
LnGrp Delay(d),s/veh	30.7	0.0	48.1				0.0	19.8	20.4	47.4	9.1	0.0
LnGrp LOS	C		D					B	C	D	A	
Approach Vol, veh/h		894						1357			1169	
Approach Delay, s/veh		37.9						20.0			15.6	
Approach LOS		D						C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.4	48.2		29.8		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+1/2), s	12.4	21.1		23.3		15.0						
Green Ext Time (p_c), s	0.5	5.0		2.0		27.1						
Intersection Summary												
HCM 2010 Ctrl Delay			23.2									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	306	22	0	228	0	0	0	22	0	0	0
Future Vol, veh/h	0	306	22	0	228	0	0	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	23	0	243	0	0	0	23	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	580	580	174	373	592	243
Stage 1	-	-	-	-	-	-	337	337	-	243	243	-
Stage 2	-	-	-	-	-	-	243	243	-	130	349	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	436	425	714	584	418	795
Stage 1	0	-	-	0	-	0	584	640	-	732	704	-
Stage 2	0	-	-	0	-	0	732	704	-	822	633	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	436	425	714	565	418	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	436	425	-	565	418	-
Stage 1	-	-	-	-	-	-	584	640	-	732	704	-
Stage 2	-	-	-	-	-	-	732	704	-	795	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.2	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	714	-	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-	-
HCM Control Delay (s)	10.2	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↗			↔			↖	↗
Traffic Vol, veh/h	55	273	4	4	182	5	2	2	0	7	0	35
Future Vol, veh/h	55	273	4	4	182	5	2	2	0	7	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	310	5	5	207	6	2	2	0	8	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	315	0	0	657	660	157	500	659	210
Stage 1	-	-	-	-	-	-	438	438	-	219	219	-
Stage 2	-	-	-	-	-	-	219	222	-	281	440	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1356	-	-	1244	-	-	364	382	861	467	383	830
Stage 1	-	-	-	-	-	-	568	578	-	783	721	-
Stage 2	-	-	-	-	-	-	783	719	-	703	577	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1356	-	-	1244	-	-	333	363	861	447	364	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	363	-	447	364	-
Stage 1	-	-	-	-	-	-	542	551	-	747	718	-
Stage 2	-	-	-	-	-	-	742	716	-	668	550	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.2			15.5			10.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	347	1356	-	-	1244	-	-	447	830
HCM Lane V/C Ratio	0.013	0.046	-	-	0.004	-	-	0.018	0.048
HCM Control Delay (s)	15.5	7.8	-	-	7.9	-	-	13.2	9.6
HCM Lane LOS		C	A	-	-	A	-	B	A
HCM 95th %tile Q(veh)		0	0.1	-	-	0	-	0.1	0.2

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	11	271	182	7	10	10
Future Vol, veh/h	11	271	182	7	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	298	200	8	11	11

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	208	0	-	0	526	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	322	-
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	1363	-	-	-	512	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	506	837
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	727	-

Approach EB WB SB

HCM Control Delay, s	0.3	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1363	-	-	-	687
HCM Lane V/C Ratio	0.009	-	-	-	0.032
HCM Control Delay (s)	7.7	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 1.2

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	19	259	175	9	25	16
Future Vol, veh/h	19	259	175	9	25	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	285	192	10	27	18

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	202	0	-	0	523	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	326	-
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	1370	-	-	-	514	844
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1370	-	-	-	505	844
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	718	-

Approach EB WB SB

HCM Control Delay, s	0.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1370	-	-	-	660
HCM Lane V/C Ratio	0.015	-	-	-	0.068
HCM Control Delay (s)	7.7	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	1	284	177	25	0	7
Future Vol, veh/h	1	284	177	25	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	305	190	27	0	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	217	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1353	-	837
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1353	-	837
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	837
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.7	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	284	193	8	0	9
Future Vol, veh/h	0	284	193	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	302	205	9	0	10



















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

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	830
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	991	0	0	618	58	0	0	0	85	0	62
Future Volume (veh/h)	120	991	0	0	618	58	0	0	0	85	0	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	138	1139	0	0	710	67	0	0	0	98	0	71
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	82	1778	0	0	1356	128	0	773	0	802	0	657
Arrive On Green	0.05	0.50	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.41	0.00	0.41
Sat Flow, veh/h	1774	3632	0	0	3363	308	0	1863	0	1774	0	1583
Grp Volume(v), veh/h	138	1139	0	0	384	393	0	0	0	98	0	71
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1808	0	1863	0	1774	0	1583
Q Serve(g_s), s	5.0	25.6	0.0	0.0	17.6	17.6	0.0	0.0	0.0	3.7	0.0	3.0
Cycle Q Clear(g_c), s	5.0	25.6	0.0	0.0	17.6	17.6	0.0	0.0	0.0	3.7	0.0	3.0
Prop In Lane	1.00		0.00	0.00		0.17	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	1778	0	0	734	750	0	773	0	802	0	657
V/C Ratio(X)	1.69	0.64	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.12	0.00	0.11
Avail Cap(c_a), veh/h	82	1778	0	0	734	750	0	773	0	802	0	657
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	19.8	0.0	0.0	23.7	23.7	0.0	0.0	0.0	19.7	0.0	19.5
Incr Delay (d2), s/veh	356.5	1.8	0.0	0.0	2.7	2.6	0.0	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	12.9	0.0	0.0	9.1	9.3	0.0	0.0	0.0	1.9	0.0	1.4
LnGrp Delay(d),s/veh	408.3	21.6	0.0	0.0	26.4	26.3	0.0	0.0	0.0	20.0	0.0	19.8
LnGrp LOS	F	C			C	C				B		B
Approach Vol, veh/h		1277			777			0				169
Approach Delay, s/veh		63.4			26.4			0.0				19.9
Approach LOS		E			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		27.6		5.7	7.0	19.6		0.0				
Green Ext Time (p_c), s		12.0		0.7	0.0	15.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				47.1								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	801	120	86	475	83	121	250	242	78	184	90
Future Volume (veh/h)	122	801	120	86	475	83	121	250	242	78	184	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	871	130	93	516	90	132	272	263	85	200	98
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	934	139	127	845	147	166	652	554	124	608	517
Arrive On Green	0.09	0.30	0.30	0.07	0.28	0.28	0.09	0.35	0.35	0.07	0.33	0.33
Sat Flow, veh/h	1774	3090	461	1774	3016	524	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	133	499	502	93	302	304	132	272	263	85	200	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1774	1770	1770	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.4	23.9	23.9	4.5	12.9	13.0	6.4	9.7	11.3	4.1	7.1	3.9
Cycle Q Clear(g_c), s	6.4	23.9	23.9	4.5	12.9	13.0	6.4	9.7	11.3	4.1	7.1	3.9
Prop In Lane	1.00		0.26	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	535	539	127	496	496	166	652	554	124	608	517
V/C Ratio(X)	0.80	0.93	0.93	0.73	0.61	0.61	0.80	0.42	0.47	0.68	0.33	0.19
Avail Cap(c_a), veh/h	274	537	541	274	537	537	274	652	554	274	608	517
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	38.7	29.6	29.6	39.7	27.3	27.3	38.8	21.6	22.1	39.7	22.2	21.1
Incr Delay (d2), s/veh	8.4	23.3	23.2	7.8	1.8	1.8	8.4	2.0	2.9	6.5	1.4	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	15.1	15.2	2.5	6.5	6.6	3.5	5.3	5.4	2.2	3.9	1.8
LnGrp Delay(d),s/veh	47.2	52.9	52.8	47.5	29.0	29.1	47.2	23.6	25.0	46.2	23.6	21.9
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1134			699			667			383	
Approach Delay, s/veh		52.2			31.5			28.8			28.2	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	35.0	10.8	30.9	12.7	33.0	12.7	29.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	10.1	13.3	6.5	25.9	8.4	9.1	8.4	15.0				
Green Ext Time (p_c), s	0.1	3.7	0.1	0.5	0.1	4.0	0.1	7.4				
Intersection Summary												
HCM 2010 Ctrl Delay				38.6								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	42	172	72	86	85	107	65	480	156	36	339	24
Future Volume (veh/h)	42	172	72	86	85	107	65	480	156	36	339	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	44	181	76	91	89	113	68	505	164	38	357	25
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	280	113	269	113	144	122	564	183	157	754	53
Arrive On Green	0.11	0.11	0.11	0.15	0.15	0.15	0.07	0.42	0.42	0.09	0.44	0.44
Sat Flow, veh/h	1774	2461	995	1774	747	948	1774	1348	438	1774	1721	121
Grp Volume(v), veh/h	44	128	129	91	0	202	68	0	669	38	0	382
Grp Sat Flow(s),veh/h/ln	1774	1770	1687	1774	0	1695	1774	0	1786	1774	0	1841
Q Serve(g_s), s	1.8	5.5	5.8	3.6	0.0	9.1	2.9	0.0	27.6	1.6	0.0	11.6
Cycle Q Clear(g_c), s	1.8	5.5	5.8	3.6	0.0	9.1	2.9	0.0	27.6	1.6	0.0	11.6
Prop In Lane	1.00		0.59	1.00		0.56	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	202	202	192	269	0	257	122	0	747	157	0	807
V/C Ratio(X)	0.22	0.64	0.67	0.34	0.00	0.79	0.56	0.00	0.90	0.24	0.00	0.47
Avail Cap(c_a), veh/h	450	449	428	450	0	430	159	0	747	450	0	807
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	33.5	33.6	30.0	0.0	32.3	35.7	0.0	21.4	33.6	0.0	15.8
Incr Delay (d2), s/veh	0.5	3.3	4.0	0.7	0.0	5.2	4.0	0.0	15.5	0.8	0.0	2.0
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	0.9	2.9	2.9	1.8	0.0	4.6	1.6	0.0	16.8	0.8	0.0	6.3
LnGrp Delay(d),s/veh	32.4	36.8	37.6	30.8	0.0	37.6	39.7	0.0	36.9	34.4	0.0	17.7
LnGrp LOS	C	D	D	C		D	D		D	C		B
Approach Vol, veh/h		301			293			737			420	
Approach Delay, s/veh		36.5			35.5			37.2			19.2	
Approach LOS		D			D			D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.6		13.5	9.9	39.2		16.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	13.6	29.6		7.8	4.9	13.6		11.1				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	7.5		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			32.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2035) Without-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	965	208	99	567	85	231	393	184	111	242	119
Future Volume (veh/h)	234	965	208	99	567	85	231	393	184	111	242	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	244	1005	217	103	591	89	241	409	192	116	252	124
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	251	858	185	131	705	106	251	668	685	146	557	698
Arrive On Green	0.14	0.30	0.30	0.07	0.23	0.23	0.14	0.36	0.36	0.08	0.30	0.30
Sat Flow, veh/h	1774	2898	624	1774	3087	464	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	244	613	609	103	338	342	241	409	192	116	252	124
Grp Sat Flow(s),veh/h/ln	1774	1770	1753	1774	1770	1781	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.2	7.5	6.1	10.4	4.5
Cycle Q Clear(g_c), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.2	7.5	6.1	10.4	4.5
Prop In Lane	1.00		0.36	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	524	519	131	404	407	251	668	685	146	557	698
V/C Ratio(X)	0.97	1.17	1.17	0.78	0.84	0.84	0.96	0.61	0.28	0.79	0.45	0.18
Avail Cap(c_a), veh/h	251	524	519	251	492	495	251	668	685	251	557	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	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	40.7	33.5	33.5	43.4	35.1	35.1	40.6	25.1	17.5	42.9	27.1	16.2
Incr Delay (d2), s/veh	48.4	95.1	97.0	9.8	10.2	10.4	45.2	4.2	1.0	9.3	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	27.5	27.5	3.0	9.6	9.7	9.5	9.6	3.5	3.4	5.8	2.1
LnGrp Delay(d),s/veh	89.1	128.6	130.5	53.2	45.3	45.5	85.8	29.3	18.5	52.2	29.7	16.7
LnGrp LOS	F	F	F	D	D	D	F	C	B	D	C	B
Approach Vol, veh/h		1466			783			842			492	
Approach Delay, s/veh		122.8			46.4			43.0			31.7	
Approach LOS		F			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	38.7	11.5	32.7	18.0	33.0	18.0	26.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	19.2	19.2	7.4	30.2	14.9	12.4	15.0	19.5				
Green Ext Time (p_c), s	0.1	3.6	0.1	0.0	0.0	4.8	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay				74.9								
HCM 2010 LOS				E								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	359	160	221	729	58	127	476	112	62	660	313
Future Volume (veh/h)	168	359	160	221	729	58	127	476	112	62	660	313
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	179	382	170	235	776	62	135	506	119	66	702	333
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	877	392	262	914	73	168	1220	780	111	1105	685
Arrive On Green	0.12	0.25	0.25	0.15	0.28	0.28	0.09	0.34	0.34	0.06	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3320	265	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	179	382	170	235	413	425	135	506	119	66	702	333
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1816	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.0	8.3	8.3	11.9	20.2	20.2	6.8	10.0	3.8	3.3	15.5	13.8
Cycle Q Clear(g_c), s	9.0	8.3	8.3	11.9	20.2	20.2	6.8	10.0	3.8	3.3	15.5	13.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	877	392	262	487	500	168	1220	780	111	1105	685
V/C Ratio(X)	0.84	0.44	0.43	0.90	0.85	0.85	0.80	0.41	0.15	0.60	0.64	0.49
Avail Cap(c_a), veh/h	262	1028	460	262	514	527	262	1220	780	262	1105	685
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	39.2	28.9	28.9	38.2	31.3	31.3	40.5	22.9	12.7	41.7	26.9	18.6
Incr Delay (d2), s/veh	17.5	0.3	0.8	30.0	12.2	12.0	9.5	1.0	0.4	5.1	2.8	2.5
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	5.5	4.1	3.7	8.0	11.5	11.8	3.8	5.0	1.7	1.8	8.0	6.5
LnGrp Delay(d),s/veh	56.8	29.3	29.7	68.2	43.5	43.3	50.0	23.9	13.1	46.7	29.7	21.0
LnGrp LOS	E	C	C	E	D	D	D	C	B	D	C	C
Approach Vol, veh/h		731			1073			760			1101	
Approach Delay, s/veh		36.1			48.8			26.8			28.1	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	36.0	18.0	27.1	13.1	33.0	15.5	29.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	5.3	12.0	13.9	10.3	8.8	17.5	11.0	22.2				
Green Ext Time (p_c), s	0.1	8.6	0.0	7.8	0.1	6.6	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			35.5									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	705	0	0	1041
Future Vol, veh/h	0	9	705	0	0	1041
Conflicting Peds, #/hr	0	0	0	0	0	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	750	0	0	1107
























Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1304	375	0	0	750
Stage 1	750	-	-	-	-
Stage 2	554	-	-	-	-
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	152	623	-	-	855
Stage 1	427	-	-	-	-
Stage 2	539	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	152	623	-	-	855
Mov Cap-2 Maneuver	285	-	-	-	-
Stage 1	427	-	-	-	-
Stage 2	539	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	623	855
HCM Lane V/C Ratio	-	-	0.015	-
HCM Control Delay (s)	-	-	10.9	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 2010 Signalized Intersection Summary
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	60	132	60	79	9	109	672	98	16	1012	41
Future Volume (veh/h)	49	60	132	60	79	9	109	672	98	16	1012	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	62	136	62	81	9	112	693	101	16	1043	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
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	112	85	187	125	319	271	159	1689	756	48	1466	656
Arrive On Green	0.06	0.16	0.16	0.07	0.17	0.17	0.09	0.48	0.48	0.03	0.41	0.41
Sat Flow, veh/h	1774	520	1141	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	51	0	198	62	81	9	112	693	101	16	1043	42
Grp Sat Flow(s),veh/h/ln	1774	0	1661	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.9	0.0	7.8	2.3	2.6	0.3	4.2	8.8	2.5	0.6	16.8	1.1
Cycle Q Clear(g_c), s	1.9	0.0	7.8	2.3	2.6	0.3	4.2	8.8	2.5	0.6	16.8	1.1
Prop In Lane	1.00		0.69	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	112	0	272	125	319	271	159	1689	756	48	1466	656
V/C Ratio(X)	0.45	0.00	0.73	0.49	0.25	0.03	0.70	0.41	0.13	0.34	0.71	0.06
Avail Cap(c_a), veh/h	348	0	640	348	717	610	348	1689	756	348	1466	656
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	1.00
Uniform Delay (d), s/veh	31.1	0.0	27.3	30.8	24.7	23.8	30.4	11.7	10.0	32.9	16.7	12.1
Incr Delay (d2), s/veh	2.8	0.0	3.7	3.0	0.4	0.0	5.6	0.7	0.4	4.1	3.0	0.2
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	1.0	0.0	3.9	1.2	1.4	0.1	2.3	4.4	1.1	0.4	8.7	0.5
LnGrp Delay(d),s/veh	33.9	0.0	31.0	33.8	25.1	23.8	36.0	12.4	10.4	37.0	19.7	12.3
LnGrp LOS	C		C	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		249			152			906			1101	
Approach Delay, s/veh		31.6			28.6			15.1			19.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	37.3	9.4	15.8	10.7	33.0	8.9	16.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	2.6	10.8	4.3	9.8	6.2	18.8	3.9	4.6				
Green Ext Time (p_c), s	0.0	11.5	0.1	1.5	0.1	7.2	0.1	1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			19.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
 4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	302	4	190	307	688	0	0	861	346
Future Volume (veh/h)	0	0	0	302	4	190	307	688	0	0	861	346
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				315	4	198	320	717	0	0	897	360
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				391	5	353	360	2376	0	0	1026	410
Arrive On Green				0.22	0.22	0.22	0.20	0.67	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1753	22	1583	1774	3632	0	0	2565	986
Grp Volume(v), veh/h				319	0	198	320	717	0	0	641	616
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1689
Q Serve(g_s), s				14.5	0.0	9.4	14.9	7.1	0.0	0.0	28.2	28.6
Cycle Q Clear(g_c), s				14.5	0.0	9.4	14.9	7.1	0.0	0.0	28.2	28.6
Prop In Lane				0.99		1.00	1.00		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				396	0	353	360	2376	0	0	735	701
V/C Ratio(X)				0.81	0.00	0.56	0.89	0.30	0.00	0.00	0.87	0.88
Avail Cap(c_a), veh/h				708	0	631	436	2376	0	0	735	701
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	29.4	32.9	5.8	0.0	0.0	22.8	22.9
Incr Delay (d2), s/veh				3.9	0.0	1.4	17.2	0.3	0.0	0.0	13.5	14.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.5	0.0	4.3	9.0	3.5	0.0	0.0	16.5	16.0
LnGrp Delay(d),s/veh				35.2	0.0	30.8	50.1	6.1	0.0	0.0	36.3	37.6
LnGrp LOS				D		C	D	A			D	D
Approach Vol, veh/h					517			1037			1257	
Approach Delay, s/veh					33.5			19.7			36.9	
Approach LOS					C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			21.8	39.8		23.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		9.1			16.9	30.6		16.5				
Green Ext Time (p_c), s		21.9			0.4	1.0		2.5				
Intersection Summary												
HCM 2010 Ctrl Delay				29.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘					↑↑↑		↖	↗	
Traffic Volume (veh/h)	287	4	526	0	0	0	0	700	155	177	991	0
Future Volume (veh/h)	287	4	526	0	0	0	0	700	155	177	991	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	296	0	537				0	714	158	181	1011	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1061	0	473				0	1847	404	220	2162	0
Arrive On Green	0.30	0.00	0.30				0.00	0.44	0.44	0.12	0.61	0.00
Sat Flow, veh/h	3548	0	1583				0	4345	914	1774	3632	0
Grp Volume(v), veh/h	296	0	537				0	578	294	181	1011	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1701	1774	1770	0
Q Serve(g_s), s	6.4	0.0	29.9				0.0	11.5	11.7	10.0	15.6	0.0
Cycle Q Clear(g_c), s	6.4	0.0	29.9				0.0	11.5	11.7	10.0	15.6	0.0
Prop In Lane	1.00		1.00				0.00		0.54	1.00		0.00
Lane Grp Cap(c), veh/h	1061	0	473				0	1499	752	220	2162	0
V/C Ratio(X)	0.28	0.00	1.13				0.00	0.39	0.39	0.82	0.47	0.00
Avail Cap(c_a), veh/h	1061	0	473				0	1499	752	530	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	35.0				0.0	18.8	18.8	42.7	10.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	83.6				0.0	0.2	0.3	7.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	24.0				0.0	5.4	5.5	5.3	7.8	0.0
LnGrp Delay(d),s/veh	26.9	0.0	118.7				0.0	18.9	19.1	50.3	11.3	0.0
LnGrp LOS	C		F					B	B	D	B	
Approach Vol, veh/h		833						872			1192	
Approach Delay, s/veh		86.1						19.0			17.2	
Approach LOS		F						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.9	48.7		34.4		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+1.0), s	12.0	13.7		31.9		17.6						
Green Ext Time (p_c), s	0.4	9.3		0.0		19.6						
Intersection Summary												
HCM 2010 Ctrl Delay			37.6									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	173	1	0	295	0	0	0	1	0	0	0
Future Vol, veh/h	0	173	1	0	295	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	190	1	0	324	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	324	0	0	191	0	0	353	515	96	419	515	162
Stage 1	-	-	-	-	-	-	191	191	-	324	324	-
Stage 2	-	-	-	-	-	-	162	324	-	95	191	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1233	-	-	1380	-	-	577	462	942	518	462	854
Stage 1	-	-	-	-	-	-	792	741	-	662	648	-
Stage 2	-	-	-	-	-	-	824	648	-	901	741	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1233	-	-	1380	-	-	577	462	942	517	462	854
Mov Cap-2 Maneuver	-	-	-	-	-	-	577	462	-	517	462	-
Stage 1	-	-	-	-	-	-	792	741	-	662	648	-
Stage 2	-	-	-	-	-	-	824	648	-	900	741	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	942	1233	-	-	1380	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-	-	-	-
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕			↕			↕	↙
Traffic Vol, veh/h	105	222	42	3	213	5	28	0	3	4	0	57
Future Vol, veh/h	105	222	42	3	213	5	28	0	3	4	0	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	258	49	3	248	6	33	0	3	5	0	66

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	253	0	0	307
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.13
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.219	-	-	2.219
Pot Cap-1 Maneuver	1311	-	-	1252
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1311	-	-	1252
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0.1	20.4	10.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	270	1311	-	-	1252	-	-	350	787
HCM Lane V/C Ratio	0.134	0.093	-	-	0.003	-	-	0.013	0.084
HCM Control Delay (s)	20.4	8	-	-	7.9	-	-	15.4	10
HCM Lane LOS	C	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0	-	-	0	0.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	21	207	214	4	0	5
Future Vol, veh/h	21	207	214	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	246	255	5	0	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	260	0	-	0	553 257
Stage 1	-	-	-	-	257 -
Stage 2	-	-	-	-	296 -
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	1304	-	-	-	494 782
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	755 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1304	-	-	-	483 782
Mov Cap-2 Maneuver	-	-	-	-	567 -
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	738 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1304	-	-	-	782
HCM Lane V/C Ratio	0.019	-	-	-	0.008
HCM Control Delay (s)	7.8	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	88	120	166	41	18	53
Future Vol, veh/h	88	120	166	41	18	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	133	184	46	20	59

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	230	0	-	0	536 207
Stage 1	-	-	-	-	207 -
Stage 2	-	-	-	-	329 -
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	1338	-	-	-	505 833
Stage 1	-	-	-	-	828 -
Stage 2	-	-	-	-	729 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1338	-	-	-	465 833
Mov Cap-2 Maneuver	-	-	-	-	544 -
Stage 1	-	-	-	-	828 -
Stage 2	-	-	-	-	671 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1338	-	-	-	734
HCM Lane V/C Ratio	0.073	-	-	-	0.107
HCM Control Delay (s)	7.9	-	-	-	10.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	133	3	22	200	32	3	0	15	16	0	3
Future Vol, veh/h	2	133	3	22	200	32	3	0	15	16	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	155	3	26	233	37	3	0	17	19	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	270	0	0	158	0	0	465	482	156	472	465	251
Stage 1	-	-	-	-	-	-	161	161	-	302	302	-
Stage 2	-	-	-	-	-	-	304	321	-	170	163	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1293	-	-	1422	-	-	508	484	890	502	495	788
Stage 1	-	-	-	-	-	-	841	765	-	707	664	-
Stage 2	-	-	-	-	-	-	705	652	-	832	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1293	-	-	1422	-	-	497	472	890	483	483	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	497	472	-	483	483	-
Stage 1	-	-	-	-	-	-	839	763	-	706	649	-
Stage 2	-	-	-	-	-	-	686	638	-	814	761	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.7			9.7			12.3		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	786	1293	-	-	1422	-	-	514
HCM Lane V/C Ratio	0.027	0.002	-	-	0.018	-	-	0.043
HCM Control Delay (s)	9.7	7.8	0	-	7.6	0	-	12.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	164	175	4	0	6
Future Vol, veh/h	0	164	175	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	189	201	5	0	7



















Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 203
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.22
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.318
Pot Cap-1 Maneuver	0	-	- - 0 838
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 838
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	838
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	9.3
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	479	11	11	912	213	7	0	7	164	0	109
Future Volume (veh/h)	71	479	11	11	912	213	7	0	7	164	0	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	544	12	12	1036	242	8	0	8	186	0	124
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	1757	39	39	1132	262	311	16	276	658	0	665
Arrive On Green	0.05	0.50	0.50	0.41	0.41	0.41	0.42	0.00	0.42	0.42	0.00	0.42
Sat Flow, veh/h	1774	3541	78	12	2776	642	620	38	658	1402	0	1583
Grp Volume(v), veh/h	81	272	284	693	0	597	16	0	0	186	0	124
Grp Sat Flow(s),veh/h/ln	1774	1770	1849	1848	0	1582	1316	0	0	1402	0	1583
Q Serve(g_s), s	4.9	9.8	9.8	11.3	0.0	38.5	0.0	0.0	0.0	4.0	0.0	5.3
Cycle Q Clear(g_c), s	4.9	9.8	9.8	38.0	0.0	38.5	5.3	0.0	0.0	9.3	0.0	5.3
Prop In Lane	1.00		0.04	0.02		0.41	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	83	878	918	787	0	645	603	0	0	658	0	665
V/C Ratio(X)	0.98	0.31	0.31	0.88	0.00	0.93	0.03	0.00	0.00	0.28	0.00	0.19
Avail Cap(c_a), veh/h	83	878	918	827	0	679	603	0	0	658	0	665
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	16.1	16.1	30.0	0.0	30.2	18.3	0.0	0.0	20.7	0.0	19.6
Incr Delay (d2), s/veh	91.6	0.2	0.2	10.5	0.0	18.2	0.1	0.0	0.0	1.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.8	5.0	21.6	0.0	20.0	0.3	0.0	0.0	3.9	0.0	2.4
LnGrp Delay(d),s/veh	142.7	16.3	16.3	40.5	0.0	48.4	18.3	0.0	0.0	21.8	0.0	20.2
LnGrp LOS	F	B	B	D		D	B			C		C
Approach Vol, veh/h		637			1290			16			310	
Approach Delay, s/veh		32.3			44.2			18.3			21.2	
Approach LOS		C			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		49.5		57.7		49.5	9.5	48.2				
Change Period (Y+Rc), s		4.5		4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		45.0		46.0		45.0	5.0	46.0				
Max Q Clear Time (g_c+I1), s		7.3		11.8		11.3	6.9	40.5				
Green Ext Time (p_c), s		1.5		17.4		1.4	0.0	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay				37.5								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	449	164	260	824	139	170	252	111	133	203	115
Future Volume (veh/h)	37	449	164	260	824	139	170	252	111	133	203	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	44	535	195	310	981	165	202	300	132	158	242	137
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	612	222	250	1004	169	235	601	511	191	555	472
Arrive On Green	0.05	0.24	0.24	0.14	0.33	0.33	0.13	0.32	0.32	0.11	0.30	0.30
Sat Flow, veh/h	1774	2545	924	1774	3033	510	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	44	371	359	310	572	574	202	300	132	158	242	137
Grp Sat Flow(s),veh/h/ln	1774	1770	1700	1774	1770	1773	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.3	19.3	19.4	13.5	30.6	30.6	10.7	12.4	5.9	8.3	10.0	6.4
Cycle Q Clear(g_c), s	2.3	19.3	19.4	13.5	30.6	30.6	10.7	12.4	5.9	8.3	10.0	6.4
Prop In Lane	1.00		0.54	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	425	409	250	586	587	235	601	511	191	555	472
V/C Ratio(X)	0.49	0.87	0.88	1.24	0.98	0.98	0.86	0.50	0.26	0.83	0.44	0.29
Avail Cap(c_a), veh/h	250	490	471	250	586	587	250	601	511	250	555	472
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	44.2	34.9	35.0	41.1	31.6	31.6	40.6	26.2	23.9	41.8	27.1	25.8
Incr Delay (d2), s/veh	4.1	14.4	15.5	136.5	31.1	31.5	23.9	2.9	1.2	15.8	2.5	1.6
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	11.2	11.1	10.8	16.0	20.0	20.1	6.8	6.9	2.7	4.9	5.6	3.0
LnGrp Delay(d),s/veh	48.3	49.3	50.4	177.5	62.7	63.1	64.5	29.1	25.2	57.6	29.6	27.4
LnGrp LOS	D	D	D	F	E	E	E	C	C	E	C	C
Approach Vol, veh/h		774			1456			634			537	
Approach Delay, s/veh		49.8			87.3			39.6			37.2	
Approach LOS		D			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	35.4	18.0	27.5	17.2	33.0	9.3	36.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+10), s	11.0	14.4	15.5	21.4	12.7	12.0	4.3	32.6				
Green Ext Time (p_c), s	0.1	3.6	0.0	1.6	0.0	3.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			62.0									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	0	77	34	96	86	109	46	400	94	83	529	21
Future Volume (veh/h)	0	77	34	96	86	109	46	400	94	83	529	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	96	42	120	108	136	58	500	118	104	661	26
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	207	86	315	133	168	114	610	144	159	790	31
Arrive On Green	0.00	0.09	0.09	0.18	0.18	0.18	0.06	0.42	0.42	0.09	0.44	0.44
Sat Flow, veh/h	1774	2441	1013	1774	751	945	1774	1458	344	1774	1780	70
Grp Volume(v), veh/h	0	68	70	120	0	244	58	0	618	104	0	687
Grp Sat Flow(s),veh/h/ln	1774	1770	1684	1774	0	1696	1774	0	1802	1774	0	1850
Q Serve(g_s), s	0.0	2.9	3.1	4.7	0.0	10.8	2.5	0.0	23.8	4.4	0.0	25.7
Cycle Q Clear(g_c), s	0.0	2.9	3.1	4.7	0.0	10.8	2.5	0.0	23.8	4.4	0.0	25.7
Prop In Lane	1.00		0.60	1.00		0.56	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	151	150	143	315	0	301	114	0	753	159	0	821
V/C Ratio(X)	0.00	0.45	0.49	0.38	0.00	0.81	0.51	0.00	0.82	0.66	0.00	0.84
Avail Cap(c_a), veh/h	456	455	433	456	0	436	161	0	753	456	0	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)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.1	34.2	28.4	0.0	30.9	35.4	0.0	20.2	34.5	0.0	19.3
Incr Delay (d2), s/veh	0.0	2.1	2.6	0.8	0.0	7.3	3.5	0.0	9.7	4.5	0.0	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.5	2.3	0.0	5.7	1.3	0.0	13.7	2.4	0.0	15.2
LnGrp Delay(d),s/veh	0.0	36.2	36.7	29.2	0.0	38.3	38.9	0.0	29.9	39.0	0.0	29.2
LnGrp LOS		D	D	C		D	D		C	D		C
Approach Vol, veh/h		138			364			676			791	
Approach Delay, s/veh		36.5			35.3			30.7			30.5	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	37.2		11.2	9.5	39.2		18.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	10.4	25.8		5.1	4.5	27.7		12.8				
Green Ext Time (p_c), s	0.2	0.0		0.6	0.0	4.5		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				31.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd
























Festival at Moreno Valley Mixed Use
 Future (2035) With Project Weekday AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	398	152
Future Volume (veh/h)	100	404	167	40	462	59	172	369	124	102	398	152
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	112	454	188	45	519	66	193	415	139	115	447	171
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	659	271	96	766	97	230	712	691	147	625	659
Arrive On Green	0.08	0.27	0.27	0.05	0.24	0.24	0.13	0.38	0.38	0.08	0.34	0.34
Sat Flow, veh/h	1774	2449	1006	1774	3161	401	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	112	327	315	45	290	295	193	415	139	115	447	171
Grp Sat Flow(s),veh/h/ln	1774	1770	1685	1774	1770	1792	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.8	6.0
Cycle Q Clear(g_c), s	5.3	14.1	14.3	2.1	12.6	12.7	9.0	15.0	4.6	5.4	17.8	6.0
Prop In Lane	1.00		0.60	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	476	454	96	429	434	230	712	691	147	625	659
V/C Ratio(X)	0.78	0.69	0.69	0.47	0.68	0.68	0.84	0.58	0.20	0.78	0.72	0.26
Avail Cap(c_a), veh/h	282	552	525	282	552	559	282	712	691	282	625	659
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	38.3	27.8	27.9	39.0	29.2	29.2	36.1	20.9	14.8	38.2	24.7	16.2
Incr Delay (d2), s/veh	8.9	2.9	3.3	3.6	2.2	2.3	16.6	3.5	0.7	8.8	6.9	1.0
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	2.9	7.3	7.1	1.1	6.4	6.5	5.5	8.4	2.1	3.0	10.4	2.8
LnGrp Delay(d),s/veh	47.3	30.8	31.2	42.6	31.4	31.5	52.7	24.3	15.5	47.1	31.6	17.2
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		754			630			747			733	
Approach Delay, s/veh		33.4			32.2			30.0			30.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	37.0	9.1	27.4	15.5	33.0	11.4	25.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	17.0	17.0	4.1	16.3	11.0	19.8	7.3	14.7				
Green Ext Time (p_c), s	0.1	5.1	0.0	5.4	0.1	4.2	0.1	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay				31.6								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	850	181	137	508	60	182	708	195	79	549	216
Future Volume (veh/h)	267	850	181	137	508	60	182	708	195	79	549	216
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	272	867	185	140	518	61	186	722	199	81	560	220
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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	255	1007	450	173	760	89	220	1279	726	116	1072	707
Arrive On Green	0.14	0.28	0.28	0.10	0.24	0.24	0.12	0.36	0.36	0.07	0.30	0.30
Sat Flow, veh/h	1774	3539	1583	1774	3192	375	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	272	867	185	140	286	293	186	722	199	81	560	220
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1797	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.5	21.8	8.9	7.3	13.8	13.9	9.7	15.4	7.3	4.2	12.3	8.4
Cycle Q Clear(g_c), s	13.5	21.8	8.9	7.3	13.8	13.9	9.7	15.4	7.3	4.2	12.3	8.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1007	450	173	422	428	220	1279	726	116	1072	707
V/C Ratio(X)	1.07	0.86	0.41	0.81	0.68	0.68	0.85	0.56	0.27	0.70	0.52	0.31
Avail Cap(c_a), veh/h	255	1007	450	255	499	506	255	1279	726	255	1072	707
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	40.3	31.9	27.3	41.6	32.6	32.6	40.3	24.1	15.8	43.0	27.1	16.7
Incr Delay (d2), s/veh	75.6	7.7	0.6	11.6	3.0	3.0	20.2	1.8	0.9	7.3	1.8	1.1
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	11.9	11.7	3.9	4.1	7.1	7.3	6.0	7.8	3.4	2.3	6.3	3.9
LnGrp Delay(d),s/veh	115.9	39.6	27.9	53.2	35.5	35.6	60.5	25.9	16.7	50.4	29.0	17.9
LnGrp LOS	F	D	C	D	D	D	E	C	B	D	C	B
Approach Vol, veh/h		1324			719			1107			861	
Approach Delay, s/veh		53.7			39.0			30.1			28.1	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	38.5	13.7	31.3	16.1	33.0	18.0	26.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	6.2	17.4	9.3	23.8	11.7	14.3	15.5	15.9				
Green Ext Time (p_c), s	0.1	6.9	0.1	2.1	0.1	8.2	0.0	6.5				
Intersection Summary												
HCM 2010 Ctrl Delay			39.0									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓			↔↔↔
Traffic Vol, veh/h	0	38	1047	0	0	866
Future Vol, veh/h	0	38	1047	0	0	866
Conflicting Peds, #/hr	0	0	0	0	0	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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1068	0	0	884
























Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1421	534	0	0	1068	0
Stage 1	1068	-	-	-	-	-
Stage 2	353	-	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	155	491	-	-	648	-
Stage 1	285	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	155	491	-	-	648	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	491	648
HCM Lane V/C Ratio	-	-	0.079	-
HCM Control Delay (s)	-	-	13	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 2010 Signalized Intersection Summary
 3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	160	259	258	112	26	162	981	261	47	806	44
Future Volume (veh/h)	91	160	259	258	112	26	162	981	261	47	806	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	92	162	262	261	113	26	164	991	264	47	814	44
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	173	279	247	637	542	197	1251	560	92	1042	466
Arrive On Green	0.07	0.27	0.27	0.14	0.34	0.34	0.11	0.35	0.35	0.05	0.29	0.29
Sat Flow, veh/h	1774	642	1038	1774	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	92	0	424	261	113	26	164	991	264	47	814	44
Grp Sat Flow(s),veh/h/ln	1774	0	1680	1774	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.9	0.0	23.9	13.5	4.1	1.1	8.8	24.3	12.5	2.5	20.4	2.0
Cycle Q Clear(g_c), s	4.9	0.0	23.9	13.5	4.1	1.1	8.8	24.3	12.5	2.5	20.4	2.0
Prop In Lane	1.00		0.62	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	0	452	247	637	542	197	1251	560	92	1042	466
V/C Ratio(X)	0.78	0.00	0.94	1.06	0.18	0.05	0.83	0.79	0.47	0.51	0.78	0.09
Avail Cap(c_a), veh/h	247	0	460	247	637	542	247	1251	560	247	1042	466
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	1.00
Uniform Delay (d), s/veh	44.5	0.0	34.6	41.7	22.3	21.3	42.2	28.1	24.3	44.7	31.3	24.8
Incr Delay (d2), s/veh	10.5	0.0	26.8	72.4	0.1	0.0	17.5	5.2	2.8	4.3	5.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	14.4	11.5	2.1	0.5	5.2	12.7	5.9	1.3	10.8	0.9
LnGrp Delay(d),s/veh	55.0	0.0	61.4	114.1	22.4	21.3	59.6	33.3	27.1	49.0	37.1	25.2
LnGrp LOS	D		E	F	C	C	E	C	C	D	D	C
Approach Vol, veh/h		516			400			1419			905	
Approach Delay, s/veh		60.3			82.2			35.2			37.2	
Approach LOS		E			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	38.7	18.0	30.6	15.2	33.0	10.9	37.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+I1), s	4.5	26.3	15.5	25.9	10.8	22.4	6.9	6.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.2	0.1	5.1	0.1	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			45.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕↕			↕↕	
Traffic Volume (veh/h)	0	0	0	242	4	245	377	1167	0	0	960	367
Future Volume (veh/h)	0	0	0	242	4	245	377	1167	0	0	960	367
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				252	4	255	393	1216	0	0	1000	382
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				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	0	0	2	2
Cap, veh/h				358	6	324	429	2431	0	0	984	372
Arrive On Green				0.20	0.20	0.20	0.24	0.69	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1748	28	1583	1774	3632	0	0	2608	950
Grp Volume(v), veh/h				256	0	255	393	1216	0	0	700	682
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1774	1770	0	0	1770	1695
Q Serve(g_s), s				11.1	0.0	12.7	17.9	13.6	0.0	0.0	32.5	32.5
Cycle Q Clear(g_c), s				11.1	0.0	12.7	17.9	13.6	0.0	0.0	32.5	32.5
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				364	0	324	429	2431	0	0	692	663
V/C Ratio(X)				0.70	0.00	0.79	0.92	0.50	0.00	0.00	1.01	1.03
Avail Cap(c_a), veh/h				724	0	646	446	2431	0	0	692	663
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	0.0	31.3	30.7	6.2	0.0	0.0	25.3	25.3
Incr Delay (d2), s/veh				2.5	0.0	4.2	23.3	0.7	0.0	0.0	37.1	42.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.7	0.0	5.9	11.5	6.8	0.0	0.0	22.9	22.9
LnGrp Delay(d),s/veh				33.2	0.0	35.5	54.0	6.9	0.0	0.0	62.5	67.6
LnGrp LOS				C		D	D	A			F	F
Approach Vol, veh/h					511			1609			1382	
Approach Delay, s/veh					34.4			18.4			65.0	
Approach LOS					C			B			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.6			24.6	37.0		21.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		57.1			20.9	31.7		33.9				
Max Q Clear Time (g_c+I1), s		15.6			19.9	34.5		14.7				
Green Ext Time (p_c), s		29.5			0.1	0.0		2.3				
Intersection Summary												
HCM 2010 Ctrl Delay				39.1								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	562	3	354	0	0	0	0	992	322	262	946	0
Future Volume (veh/h)	562	3	354	0	0	0	0	992	322	262	946	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	587	0	369				0	1033	335	273	985	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	946	0	422				0	1577	511	315	2262	0
Arrive On Green	0.27	0.00	0.27				0.00	0.41	0.41	0.18	0.64	0.00
Sat Flow, veh/h	3548	0	1583				0	3970	1233	1774	3632	0
Grp Volume(v), veh/h	587	0	369				0	921	447	273	985	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1645	1774	1770	0
Q Serve(g_s), s	13.9	0.0	21.3				0.0	20.9	20.9	14.3	13.3	0.0
Cycle Q Clear(g_c), s	13.9	0.0	21.3				0.0	20.9	20.9	14.3	13.3	0.0
Prop In Lane	1.00		1.00				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	946	0	422				0	1406	682	315	2262	0
V/C Ratio(X)	0.62	0.00	0.87				0.00	0.65	0.66	0.87	0.44	0.00
Avail Cap(c_a), veh/h	1110	0	495				0	1406	682	555	2262	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.8	0.0	33.5				0.0	22.5	22.5	38.2	8.6	0.0
Incr Delay (d2), s/veh	0.8	0.0	14.2				0.0	1.1	2.3	7.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	11.0				0.0	9.9	9.9	7.6	6.6	0.0
LnGrp Delay(d),s/veh	31.6	0.0	47.7				0.0	23.6	24.8	45.5	9.2	0.0
LnGrp LOS	C		D					C	C	D	A	
Approach Vol, veh/h		956						1368			1258	
Approach Delay, s/veh		37.8						24.0			17.1	
Approach LOS		D						C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.5	44.1		30.0		65.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.9	26.7		29.9		61.1						
Max Q Clear Time (g_c+11), s	11.3	22.9		23.3		15.3						
Green Ext Time (p_c), s	0.7	3.5		2.2		27.4						
Intersection Summary												
HCM 2010 Ctrl Delay			25.3									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑			↔			↔	
Traffic Vol, veh/h	0	472	22	0	710	0	0	0	22	0	0	0
Future Vol, veh/h	0	472	22	0	710	0	0	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	502	23	0	755	0	0	0	23	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1269	1269	263	956	1281	755
Stage 1	-	-	-	-	-	-	514	514	-	755	755	-
Stage 2	-	-	-	-	-	-	755	755	-	201	526	-
Critical Hdwy	-	-	-	-	-	-	6.78	6.53	7.13	6.78	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	7.33	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.73	5.53	-
Follow-up Hdwy	-	-	-	-	-	-	3.669	4.019	3.919	3.669	4.019	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	0	160	168	627	254	165	408
Stage 1	0	-	-	0	-	0	443	534	-	389	416	-
Stage 2	0	-	-	0	-	0	389	416	-	745	528	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	160	168	627	245	165	408
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	168	-	245	165	-
Stage 1	-	-	-	-	-	-	443	534	-	389	416	-
Stage 2	-	-	-	-	-	-	389	416	-	717	528	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	627	-	-	-	-
HCM Lane V/C Ratio	0.037	-	-	-	-
HCM Control Delay (s)	11	-	-	-	0
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection												
Int Delay, s/veh	237.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↗
Traffic Vol, veh/h	278	375	156	28	299	35	164	2	24	37	0	239
Future Vol, veh/h	278	375	156	28	299	35	164	2	24	37	0	239
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	180	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	316	426	177	32	340	40	186	2	27	42	0	272

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	380	0	0	603	0	0	1570	1590	302	1269	1658	360
Stage 1	-	-	-	-	-	-	1147	1147	-	423	423	-
Stage 2	-	-	-	-	-	-	423	443	-	846	1235	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1177	-	-	973	-	-	~ 82	107	695	135	97	684
Stage 1	-	-	-	-	-	-	212	273	-	608	587	-
Stage 2	-	-	-	-	-	-	608	575	-	324	248	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1177	-	-	973	-	-	~ 38	76	695	98	69	684
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 38	76	-	98	69	-
Stage 1	-	-	-	-	-	-	~ 155	200	-	445	568	-
Stage 2	-	-	-	-	-	-	355	556	-	225	181	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.7	\$ 1997.3	20.8
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	43	1177	-	-	973	-	-	98	684
HCM Lane V/C Ratio	5.021	0.268	-	-	0.033	-	-	0.429	0.397
HCM Control Delay (s)	\$ 1997.3	9.2	-	-	8.8	-	-	66.9	13.7
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	24.9	1.1	-	-	0.1	-	-	1.8	1.9

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

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	11	426	352	7	10	10
Future Vol, veh/h	11	426	352	7	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	468	387	8	11	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	395	0	-	0	883 391
Stage 1	-	-	-	-	391 -
Stage 2	-	-	-	-	492 -
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	1164	-	-	-	316 658
Stage 1	-	-	-	-	683 -
Stage 2	-	-	-	-	615 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1164	-	-	-	312 658
Mov Cap-2 Maneuver	-	-	-	-	435 -
Stage 1	-	-	-	-	683 -
Stage 2	-	-	-	-	606 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1164	-	-	-	524
HCM Lane V/C Ratio	0.01	-	-	-	0.042
HCM Control Delay (s)	8.1	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 8.7

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	209	224	140	79	99	221
Future Vol, veh/h	209	224	140	79	99	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	230	246	154	87	109	243

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	241	0	-	0	902	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	705	-
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	1326	-	-	-	308	844
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1326	-	-	-	246	844
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	392	-

Approach EB WB SB

HCM Control Delay, s	4	0	20.9
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1326	-	-	-	570
HCM Lane V/C Ratio	0.173	-	-	-	0.617
HCM Control Delay (s)	8.3	-	-	-	20.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	4.2

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	287	24	88	176	105	24	0	93	84	0	19
Future Vol, veh/h	13	287	24	88	176	105	24	0	93	84	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	309	26	95	189	113	26	0	100	90	0	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	334	0	0	794	840	322	834	797	246
Stage 1	-	-	-	-	-	-	349	349	-	435	435	-
Stage 2	-	-	-	-	-	-	445	491	-	399	362	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1225	-	-	306	302	719	288	319	793
Stage 1	-	-	-	-	-	-	667	633	-	600	580	-
Stage 2	-	-	-	-	-	-	592	548	-	627	625	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1259	-	-	1225	-	-	274	269	719	227	285	793
Mov Cap-2 Maneuver	-	-	-	-	-	-	274	269	-	227	285	-
Stage 1	-	-	-	-	-	-	658	624	-	592	525	-
Stage 2	-	-	-	-	-	-	522	496	-	532	616	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2	13.7	28.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1259	-	-	1225	-	-	261
HCM Lane V/C Ratio	0.233	0.011	-	-	0.077	-	-	0.424
HCM Control Delay (s)	13.7	7.9	0	-	8.2	0	-	28.6
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.3	-	-	2

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	464	240	8	0	9
Future Vol, veh/h	0	464	240	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	494	255	9	0	10

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach






















	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	779
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.7
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 2010 Signalized Intersection Summary
 12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	120	979	44	43	606	58	47	0	47	85	0	62
Future Volume (veh/h)	120	979	44	43	606	58	47	0	47	85	0	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	138	1125	51	49	697	67	54	0	54	98	0	71
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1732	79	82	1093	108	329	16	295	626	0	657
Arrive On Green	0.05	0.50	0.50	0.41	0.41	0.41	0.41	0.00	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1774	3448	156	108	2635	260	673	38	711	1345	0	1583
Grp Volume(v), veh/h	138	577	599	388	0	425	108	0	0	98	0	71
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1355	0	1649	1423	0	0	1345	0	1583
Q Serve(g_s), s	5.0	26.1	26.2	9.0	0.0	22.0	2.8	0.0	0.0	0.0	0.0	3.0
Cycle Q Clear(g_c), s	5.0	26.1	26.2	25.7	0.0	22.0	5.8	0.0	0.0	4.8	0.0	3.0
Prop In Lane	1.00		0.09	0.13		0.16	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	82	889	922	599	0	684	640	0	0	626	0	657
V/C Ratio(X)	1.69	0.65	0.65	0.65	0.00	0.62	0.17	0.00	0.00	0.16	0.00	0.11
Avail Cap(c_a), veh/h	82	889	922	599	0	684	640	0	0	626	0	657
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	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	19.9	19.9	24.9	0.0	25.0	20.2	0.0	0.0	20.0	0.0	19.5
Incr Delay (d2), s/veh	356.5	3.7	3.5	5.4	0.0	4.2	0.6	0.0	0.0	0.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	13.6	14.0	10.4	0.0	10.8	2.2	0.0	0.0	1.9	0.0	1.4
LnGrp Delay(d),s/veh	408.3	23.6	23.5	30.2	0.0	29.2	20.8	0.0	0.0	20.5	0.0	19.8
LnGrp LOS	F	C	C	C		C	C			C		B
Approach Vol, veh/h		1314			813			108			169	
Approach Delay, s/veh		64.0			29.7			20.8			20.2	
Approach LOS		E			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.0		49.5	9.5	49.5		49.5				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		45.0		45.0	5.0	45.0		45.0				
Max Q Clear Time (g_c+I1), s		28.2		6.8	7.0	27.7		7.8				
Green Ext Time (p_c), s		12.0		1.5	0.0	12.3		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay				47.4								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	122	836	120	94	483	83	121	264	252	78	195	90
Future Volume (veh/h)	122	836	120	94	483	83	121	264	252	78	195	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	909	130	102	525	90	132	287	274	85	212	98
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	940	134	131	854	146	166	649	552	124	606	515
Arrive On Green	0.09	0.30	0.30	0.07	0.28	0.28	0.09	0.35	0.35	0.07	0.33	0.33
Sat Flow, veh/h	1774	3109	445	1774	3025	517	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	133	517	522	102	306	309	132	287	274	85	212	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1784	1774	1770	1772	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.4	25.3	25.3	5.0	13.2	13.3	6.4	10.4	11.9	4.1	7.6	3.9
Cycle Q Clear(g_c), s	6.4	25.3	25.3	5.0	13.2	13.3	6.4	10.4	11.9	4.1	7.6	3.9
Prop In Lane	1.00		0.25	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	535	539	131	499	500	166	649	552	124	606	515
V/C Ratio(X)	0.80	0.97	0.97	0.78	0.61	0.62	0.80	0.44	0.50	0.69	0.35	0.19
Avail Cap(c_a), veh/h	273	535	539	273	535	536	273	649	552	273	606	515
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	38.9	30.1	30.1	39.9	27.3	27.3	38.9	22.0	22.5	39.8	22.5	21.3
Incr Delay (d2), s/veh	8.4	30.5	30.4	9.5	1.9	1.9	8.5	2.2	3.2	6.6	1.6	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	16.9	17.0	2.8	6.6	6.8	3.5	5.7	5.7	2.2	4.2	1.8
LnGrp Delay(d),s/veh	47.3	60.7	60.6	49.4	29.2	29.3	47.4	24.2	25.7	46.4	24.1	22.1
LnGrp LOS	D	E	E	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1172			717			693			395	
Approach Delay, s/veh		59.1			32.1			29.2			28.4	
Approach LOS		E			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	35.1	11.0	31.0	12.7	33.0	12.7	29.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	13.9	13.9	7.0	27.3	8.4	9.6	8.4	15.3				
Green Ext Time (p_c), s	0.1	3.8	0.1	0.0	0.1	4.2	0.1	7.5				
Intersection Summary												
HCM 2010 Ctrl Delay				41.6								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	194	86	86	101	107	77	480	156	36	339	43
Future Volume (veh/h)	66	194	86	86	101	107	77	480	156	36	339	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	69	204	91	91	106	113	81	505	164	38	357	45
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	304	131	283	132	140	128	552	179	151	687	87
Arrive On Green	0.13	0.13	0.13	0.16	0.16	0.16	0.07	0.41	0.41	0.09	0.42	0.42
Sat Flow, veh/h	1774	2411	1038	1774	826	881	1774	1348	438	1774	1622	204
Grp Volume(v), veh/h	69	148	147	91	0	219	81	0	669	38	0	402
Grp Sat Flow(s),veh/h/ln	1774	1770	1680	1774	0	1707	1774	0	1786	1774	0	1827
Q Serve(g_s), s	2.9	6.5	6.9	3.7	0.0	10.1	3.6	0.0	29.0	1.6	0.0	13.3
Cycle Q Clear(g_c), s	2.9	6.5	6.9	3.7	0.0	10.1	3.6	0.0	29.0	1.6	0.0	13.3
Prop In Lane	1.00		0.62	1.00		0.52	1.00		0.25	1.00		0.11
Lane Grp Cap(c), veh/h	223	223	211	283	0	272	128	0	732	151	0	773
V/C Ratio(X)	0.31	0.66	0.70	0.32	0.00	0.80	0.64	0.00	0.91	0.25	0.00	0.52
Avail Cap(c_a), veh/h	435	434	412	435	0	419	154	0	732	435	0	773
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(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.6	34.2	34.3	30.5	0.0	33.2	37.0	0.0	22.8	35.0	0.0	17.5
Incr Delay (d2), s/veh	0.8	3.4	4.1	0.7	0.0	6.4	6.1	0.0	17.9	0.9	0.0	2.5
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	1.5	3.4	3.4	1.9	0.0	5.3	2.0	0.0	17.8	0.8	0.0	7.2
LnGrp Delay(d),s/veh	33.4	37.5	38.4	31.2	0.0	39.6	43.1	0.0	40.8	35.9	0.0	20.0
LnGrp LOS	C	D	D	C		D	D		D	D		B
Approach Vol, veh/h		364			310			750			440	
Approach Delay, s/veh		37.1			37.1			41.0			21.4	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	38.1		14.8	10.4	39.2		17.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.1	21.7		20.1	7.1	34.7		20.1				
Max Q Clear Time (g_c+1), s	13.6	31.0		8.9	5.6	15.3		12.1				
Green Ext Time (p_c), s	0.0	0.0		1.4	0.0	7.4		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay				35.0								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
 15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
 Future (2035) With-Project Weekday PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	965	208	99	567	85	231	405	184	111	256	119
Future Volume (veh/h)	234	965	208	99	567	85	231	405	184	111	256	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	244	1005	217	103	591	89	241	422	192	116	267	124
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
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	251	858	185	131	705	106	251	668	685	146	557	698
Arrive On Green	0.14	0.30	0.30	0.07	0.23	0.23	0.14	0.36	0.36	0.08	0.30	0.30
Sat Flow, veh/h	1774	2898	624	1774	3087	464	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	244	613	609	103	338	342	241	422	192	116	267	124
Grp Sat Flow(s),veh/h/ln	1774	1770	1753	1774	1770	1781	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.9	7.5	6.1	11.2	4.5
Cycle Q Clear(g_c), s	13.0	28.2	28.2	5.4	17.4	17.5	12.9	17.9	7.5	6.1	11.2	4.5
Prop In Lane	1.00		0.36	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	524	519	131	404	407	251	668	685	146	557	698
V/C Ratio(X)	0.97	1.17	1.17	0.78	0.84	0.84	0.96	0.63	0.28	0.79	0.48	0.18
Avail Cap(c_a), veh/h	251	524	519	251	492	495	251	668	685	251	557	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	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	40.7	33.5	33.5	43.4	35.1	35.1	40.6	25.3	17.5	42.9	27.3	16.2
Incr Delay (d2), s/veh	48.4	95.1	97.0	9.8	10.2	10.4	45.2	4.5	1.0	9.3	2.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	27.5	27.5	3.0	9.6	9.7	9.5	10.0	3.5	3.4	6.2	2.1
LnGrp Delay(d),s/veh	89.1	128.6	130.5	53.2	45.3	45.5	85.8	29.8	18.5	52.2	30.2	16.7
LnGrp LOS	F	F	F	D	D	D	F	C	B	D	C	B
Approach Vol, veh/h		1466			783			855			507	
Approach Delay, s/veh		122.8			46.4			43.1			32.0	
Approach LOS		F			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	38.7	11.5	32.7	18.0	33.0	18.0	26.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	28.5	13.5	26.5	13.5	28.5	13.5	26.5				
Max Q Clear Time (g_c+1), s	19.9	19.9	7.4	30.2	14.9	13.2	15.0	19.5				
Green Ext Time (p_c), s	0.1	3.5	0.1	0.0	0.0	4.9	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			74.6									
HCM 2010 LOS			E									

Synchro Queue Reports

Existing

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	141	303	134	171	620	117	461	98	55	591	280
v/c Ratio	0.62	0.37	0.28	0.70	0.73	0.54	0.37	0.11	0.31	0.50	0.31
Control Delay	51.5	30.6	7.1	55.2	36.7	48.9	24.5	5.1	45.6	28.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	30.6	7.1	55.2	36.7	48.9	24.5	5.1	45.6	28.2	7.8
Queue Length 50th (ft)	79	79	0	97	175	66	106	6	31	151	38
Queue Length 95th (ft)	149	120	44	#201	244	127	170	34	70	226	98
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	278	1091	580	278	1085	278	1258	927	278	1174	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.28	0.23	0.62	0.57	0.42	0.37	0.11	0.20	0.50	0.30

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	178	59	77	19	102	621	59	19	837	42
v/c Ratio	0.20	0.56	0.28	0.27	0.06	0.41	0.30	0.06	0.10	0.52	0.05
Control Delay	35.4	23.7	35.5	31.2	0.3	36.0	10.6	0.5	35.6	19.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	23.7	35.5	31.2	0.3	36.0	10.6	0.5	35.6	19.2	0.1
Queue Length 50th (ft)	17	38	25	32	0	44	68	0	8	156	0
Queue Length 95th (ft)	50	103	66	74	0	98	175	4	31	277	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	351	709	351	725	686	351	2092	983	351	1615	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.25	0.17	0.11	0.03	0.29	0.30	0.06	0.05	0.52	0.05

Intersection Summary

Queues

4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use

Existing (2017) Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	272	157	278	631	1025
v/c Ratio	0.70	0.39	0.77	0.26	0.71
Control Delay	40.7	18.7	46.8	6.5	24.7
Queue Delay	0.0	0.0	0.2	0.5	0.4
Total Delay	40.7	18.7	47.0	7.0	25.0
Queue Length 50th (ft)	134	39	137	58	220
Queue Length 95th (ft)	213	90	#246	114	#394
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	712	676	437	2390	1446
Starvation Cap Reductn	0	0	12	1270	101
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.23	0.65	0.56	0.76

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour

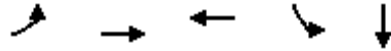


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	109	108	379	812	153	847
v/c Ratio	0.31	0.31	0.81	0.33	0.59	0.35
Control Delay	31.1	31.0	31.0	15.3	46.0	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9
Total Delay	31.1	31.0	31.0	15.3	46.0	8.0
Queue Length 50th (ft)	54	53	108	90	81	87
Queue Length 95th (ft)	101	100	211	168	150	172
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	567	570	651	2466	597	2442
Starvation Cap Reductn	0	0	0	0	0	1218
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.19	0.58	0.33	0.26	0.69

Intersection Summary

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	52	449	945	147	90
v/c Ratio	0.55	0.30	0.78	0.22	0.10
Control Delay	70.5	17.8	31.5	18.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.5	17.8	31.5	18.4	0.2
Queue Length 50th (ft)	32	90	263	53	0
Queue Length 95th (ft)	#96	119	323	111	0
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	94	2093	1701	676	860
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.21	0.56	0.22	0.10

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour

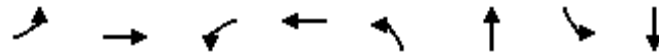


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	586	107	837	143	150	67	111	171	95
v/c Ratio	0.24	0.66	0.51	0.78	0.63	0.22	0.10	0.52	0.28	0.16
Control Delay	44.7	32.5	47.9	34.5	51.7	25.3	1.5	48.2	26.7	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	32.5	47.9	34.5	51.7	25.3	1.5	48.2	26.7	4.4
Queue Length 50th (ft)	22	152	60	239	80	65	0	63	77	0
Queue Length 95th (ft)	51	199	109	298	140	118	4	113	133	21
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	275	1071	275	1149	275	690	659	275	612	597
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	0.14	0.55	0.39	0.73	0.52	0.22	0.10	0.40	0.28	0.16

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	124	64	170	45	324	54	402
v/c Ratio	0.06	0.31	0.24	0.57	0.26	0.36	0.27	0.43
Control Delay	34.4	27.7	31.5	32.2	39.3	17.0	37.0	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	27.7	31.5	32.2	39.3	17.0	37.0	17.0
Queue Length 50th (ft)	5	22	28	62	21	102	25	135
Queue Length 95th (ft)	19	43	57	107	50	179	55	212
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	495	974	495	512	174	893	495	933
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	0.02	0.13	0.13	0.33	0.26	0.36	0.11	0.43

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	259	22	287	92	224	66	64	253	98
v/c Ratio	0.26	0.41	0.12	0.51	0.38	0.28	0.07	0.29	0.32	0.10
Control Delay	36.0	23.6	35.5	31.5	36.5	18.2	3.2	36.1	19.6	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	23.6	35.5	31.5	36.5	18.2	3.2	36.1	19.6	3.3
Queue Length 50th (ft)	24	43	10	62	40	69	0	28	82	2
Queue Length 95th (ft)	62	81	33	107	89	143	19	68	168	24
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	354	1366	354	1371	354	812	1119	354	786	1106
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	0.16	0.19	0.06	0.21	0.26	0.28	0.06	0.18	0.32	0.09

Intersection Summary

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	232	450	122	99	359	160	672	189	76	528	210
v/c Ratio	0.85	0.59	0.28	0.49	0.57	0.67	0.49	0.21	0.40	0.46	0.22
Control Delay	66.2	34.9	8.6	45.9	35.4	51.6	24.4	6.7	44.5	26.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	34.9	8.6	45.9	35.4	51.6	24.4	6.7	44.5	26.2	2.7
Queue Length 50th (ft)	126	121	3	52	94	83	146	22	40	120	0
Queue Length 95th (ft)	#292	176	47	108	137	#176	253	69	88	195	37
Internal Link Dist (ft)		1991			1226		585			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	273	1074	560	273	1066	273	1361	976	273	1155	941
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.42	0.22	0.36	0.34	0.59	0.49	0.19	0.28	0.46	0.22

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	57	251	83	76	30	133	976	110	24	703	44
v/c Ratio	0.28	0.67	0.37	0.18	0.07	0.52	0.55	0.13	0.13	0.50	0.06
Control Delay	40.0	30.5	40.3	28.6	0.3	42.9	18.8	4.4	39.7	23.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	40.0	30.5	40.3	28.6	0.3	42.9	19.3	4.4	39.7	23.4	0.2
Queue Length 50th (ft)	27	77	40	33	0	63	149	0	11	147	0
Queue Length 95th (ft)	70	164	92	73	0	136	355	32	39	258	0
Internal Link Dist (ft)		2085		313			354			702	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	335	682	335	693	661	335	1774	851	335	1416	702
Starvation Cap Reductn	0	0	0	0	0	0	375	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.37	0.25	0.11	0.05	0.40	0.70	0.13	0.07	0.50	0.06

Intersection Summary

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	209	160	356	1105	981
v/c Ratio	0.65	0.45	0.79	0.44	0.71
Control Delay	40.1	18.8	43.9	6.3	23.8
Queue Delay	0.0	0.0	3.2	1.3	0.2
Total Delay	40.1	18.8	47.1	7.5	24.0
Queue Length 50th (ft)	99	34	167	103	204
Queue Length 95th (ft)	166	87	#336	186	314
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	743	711	457	2497	1379
Starvation Cap Reductn	0	0	43	1099	59
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	0.86	0.79	0.74

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

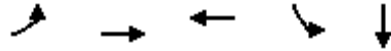


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	246	249	348	1243	168	782
v/c Ratio	0.64	0.65	0.67	0.53	0.62	0.33
Control Delay	39.6	39.8	19.5	19.0	46.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9
Total Delay	39.6	39.8	19.5	19.0	46.8	8.4
Queue Length 50th (ft)	134	136	71	168	92	88
Queue Length 95th (ft)	215	218	163	282	160	156
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	553	555	658	2351	583	2382
Starvation Cap Reductn	0	0	0	0	0	1226
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.45	0.53	0.53	0.29	0.68

Intersection Summary

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	98	702	501	75	54
v/c Ratio	1.21	0.40	0.34	0.13	0.06
Control Delay	211.7	17.6	21.8	20.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	211.7	17.6	21.8	20.5	0.1
Queue Length 50th (ft)	~83	153	118	32	0
Queue Length 95th (ft)	#183	190	154	61	0
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	81	1777	1453	584	861
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.21	0.40	0.34	0.13	0.06

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

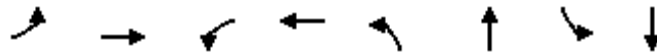


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	604	50	406	66	130	133	63	86	71
v/c Ratio	0.42	0.64	0.26	0.53	0.32	0.18	0.19	0.31	0.12	0.10
Control Delay	41.7	29.4	40.7	30.0	40.9	22.6	5.5	40.9	22.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	29.4	40.7	30.0	40.9	22.6	5.5	40.9	22.2	1.8
Queue Length 50th (ft)	47	146	25	94	33	47	0	31	30	0
Queue Length 95th (ft)	103	222	64	152	78	107	41	75	75	11
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	324	1259	324	1260	324	724	697	324	722	684
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	0.29	0.48	0.15	0.32	0.20	0.18	0.19	0.19	0.12	0.10

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	39	199	43	97	53	365	17	214
v/c Ratio	0.18	0.43	0.19	0.41	0.31	0.35	0.10	0.23
Control Delay	33.5	26.6	33.1	33.2	39.4	12.0	35.7	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	26.6	33.1	33.2	39.4	12.0	35.7	13.9
Queue Length 50th (ft)	17	35	19	38	24	76	8	61
Queue Length 95th (ft)	46	70	49	85	63	214	28	122
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	495	986	495	512	174	1032	495	949
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	0.08	0.20	0.09	0.19	0.30	0.35	0.03	0.23

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	160	660	46	315	95	217	77	64	138	67
v/c Ratio	0.64	0.67	0.26	0.45	0.44	0.32	0.09	0.34	0.21	0.07
Control Delay	49.2	31.3	42.7	30.3	44.3	24.1	3.9	43.2	24.3	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	31.3	42.7	30.3	44.3	24.1	3.9	43.2	24.3	3.8
Queue Length 50th (ft)	83	166	24	75	50	87	0	33	54	0
Queue Length 95th (ft)	#175	247	61	120	104	169	24	77	114	22
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	297	1152	297	1153	297	684	967	297	660	943
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	0.54	0.57	0.15	0.27	0.32	0.32	0.08	0.22	0.21	0.07

Intersection Summary

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

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	141	297	133	171	614	114	459	98	55	590	280
v/c Ratio	0.62	0.36	0.28	0.70	0.72	0.53	0.36	0.11	0.31	0.50	0.31
Control Delay	51.3	30.5	7.1	55.0	36.5	48.4	24.4	5.1	45.5	28.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	30.5	7.1	55.0	36.5	48.4	24.4	5.1	45.5	28.0	7.6
Queue Length 50th (ft)	78	77	0	96	172	63	105	6	31	149	35
Queue Length 95th (ft)	149	117	44	#201	242	124	168	34	70	226	96
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	278	1094	581	278	1088	278	1259	928	278	1177	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.27	0.23	0.62	0.56	0.41	0.36	0.11	0.20	0.50	0.30

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	167	52	66	4	102	621	80	16	837	42
v/c Ratio	0.20	0.54	0.25	0.26	0.01	0.41	0.29	0.08	0.09	0.51	0.05
Control Delay	34.4	19.6	34.5	31.8	0.0	35.0	9.8	1.7	34.5	18.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	19.6	34.5	31.8	0.0	35.0	9.8	1.7	34.5	18.1	0.1
Queue Length 50th (ft)	17	24	22	27	0	42	63	0	7	148	0
Queue Length 95th (ft)	49	84	59	66	0	95	165	13	27	264	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	352	718	352	727	688	352	2139	1002	352	1652	800
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.23	0.15	0.09	0.01	0.29	0.29	0.08	0.05	0.51	0.05

Intersection Summary

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	272	167	278	644	1018
v/c Ratio	0.70	0.41	0.77	0.27	0.70
Control Delay	40.7	18.8	46.8	6.5	24.5
Queue Delay	0.0	0.0	0.2	0.6	0.4
Total Delay	40.7	18.8	47.0	7.0	24.9
Queue Length 50th (ft)	134	41	137	60	217
Queue Length 95th (ft)	213	94	#246	116	#374
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	712	679	437	2390	1446
Starvation Cap Reductn	0	0	12	1264	101
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.25	0.65	0.57	0.76

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour

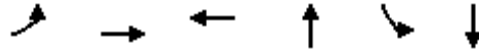


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	116	115	379	811	150	843
v/c Ratio	0.33	0.33	0.81	0.33	0.59	0.34
Control Delay	31.6	31.5	30.7	15.2	45.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9
Total Delay	31.6	31.5	30.7	15.2	45.8	7.9
Queue Length 50th (ft)	58	57	107	89	80	86
Queue Length 95th (ft)	106	105	210	167	147	171
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	568	570	653	2476	598	2444
Starvation Cap Reductn	0	0	0	0	0	1220
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.20	0.58	0.33	0.25	0.69

Intersection Summary

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	52	461	957	16	147	90
v/c Ratio	0.57	0.30	0.80	0.02	0.22	0.11
Control Delay	72.9	17.4	32.6	0.1	19.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	17.4	32.6	0.1	19.3	0.3
Queue Length 50th (ft)	33	92	274	0	55	0
Queue Length 95th (ft)	#96	122	337	0	112	0
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	92	2046	1582	784	654	848
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	0.57	0.23	0.60	0.02	0.22	0.11

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	593	101	831	143	145	61	111	170	95
v/c Ratio	0.24	0.67	0.49	0.78	0.63	0.21	0.09	0.52	0.28	0.16
Control Delay	44.7	32.7	47.4	34.4	51.6	25.2	0.8	48.1	26.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	32.7	47.4	34.4	51.6	25.2	0.8	48.1	26.6	4.4
Queue Length 50th (ft)	22	154	57	236	80	62	0	63	76	0
Queue Length 95th (ft)	51	202	104	295	140	115	0	113	132	21
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	275	1073	275	1149	275	692	660	275	613	598
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	0.14	0.55	0.37	0.72	0.52	0.21	0.09	0.40	0.28	0.16

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	108	64	157	45	324	54	394
v/c Ratio	0.28	0.25	0.55	0.26	0.36	0.27	0.41
Control Delay	27.2	32.0	30.7	38.7	16.3	36.4	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	32.0	30.7	38.7	16.3	36.4	16.1
Queue Length 50th (ft)	18	28	53	21	99	25	127
Queue Length 95th (ft)	38	57	96	50	173	53	201
Internal Link Dist (ft)	299		2291		1240		1355
Turn Bay Length (ft)		80		145		100	
Base Capacity (vph)	962	490	508	173	911	490	953
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.13	0.31	0.26	0.36	0.11	0.41

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	259	22	287	92	224	66	64	251	98
v/c Ratio	0.26	0.41	0.12	0.51	0.38	0.28	0.07	0.29	0.32	0.10
Control Delay	36.0	23.6	35.5	31.5	36.5	18.2	3.2	36.1	19.6	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	23.6	35.5	31.5	36.5	18.2	3.2	36.1	19.6	3.3
Queue Length 50th (ft)	24	43	10	62	40	69	0	28	81	2
Queue Length 95th (ft)	62	81	33	107	89	143	19	68	167	24
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	354	1366	354	1371	354	812	1119	354	786	1106
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	0.16	0.19	0.06	0.21	0.26	0.28	0.06	0.18	0.32	0.09

Intersection Summary

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	232	459	134	99	371	176	687	189	76	540	210
v/c Ratio	0.86	0.60	0.31	0.49	0.59	0.72	0.50	0.21	0.40	0.47	0.22
Control Delay	67.5	35.1	10.1	46.3	35.8	54.7	24.7	6.9	44.8	26.6	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	35.1	10.1	46.3	35.8	54.7	24.7	6.9	44.8	26.6	2.8
Queue Length 50th (ft)	126	123	9	52	98	93	152	23	40	123	1
Queue Length 95th (ft)	#294	180	55	108	142	#203	260	70	88	201	38
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	271	1065	556	271	1056	271	1365	974	271	1145	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.43	0.24	0.37	0.35	0.65	0.50	0.19	0.28	0.47	0.22

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	57	267	245	98	21	133	976	238	47	703	44
v/c Ratio	0.33	0.74	0.89	0.20	0.04	0.59	0.66	0.33	0.28	0.60	0.07
Control Delay	43.8	36.7	71.5	28.4	0.1	48.6	25.7	12.6	43.3	28.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	43.8	36.7	71.5	28.4	0.1	48.6	26.0	12.6	43.3	28.4	0.2
Queue Length 50th (ft)	30	101	134	43	0	70	240	45	25	169	0
Queue Length 95th (ft)	71	186	#310	89	0	138	#406	122	62	266	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	276	570	276	571	565	276	1488	732	276	1167	598
Starvation Cap Reductn	0	0	0	0	0	0	102	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.47	0.89	0.17	0.04	0.48	0.70	0.33	0.17	0.60	0.07

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	209	219	356	1179	1148
v/c Ratio	0.63	0.62	0.80	0.47	0.84
Control Delay	39.3	28.5	44.6	6.8	29.0
Queue Delay	0.0	0.0	3.3	1.6	0.6
Total Delay	39.3	28.5	47.9	8.3	29.6
Queue Length 50th (ft)	99	69	167	114	256
Queue Length 95th (ft)	166	139	#341	212	#439
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	740	700	455	2486	1373
Starvation Cap Reductn	0	0	43	1060	51
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.31	0.86	0.83	0.87

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour

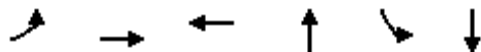


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	277	280	348	1255	242	798
v/c Ratio	0.68	0.68	0.65	0.60	0.71	0.34
Control Delay	40.5	40.7	19.1	23.4	46.9	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	1.0
Total Delay	40.5	40.7	19.1	23.4	47.0	9.1
Queue Length 50th (ft)	155	156	76	199	136	101
Queue Length 95th (ft)	243	246	168	311	212	160
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	542	544	644	2099	571	2335
Starvation Cap Reductn	0	0	0	0	34	1192
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.51	0.54	0.60	0.45	0.70

Intersection Summary

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	98	740	536	108	75	54
v/c Ratio	0.94	0.58	0.74	0.13	0.11	0.05
Control Delay	117.6	23.4	35.3	6.3	11.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.6	23.4	35.3	6.3	11.8	0.1
Queue Length 50th (ft)	53	162	134	12	19	0
Queue Length 95th (ft)	#154	205	181	40	46	0
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	104	2306	1565	827	682	1014
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	0.94	0.32	0.34	0.13	0.11	0.05

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour

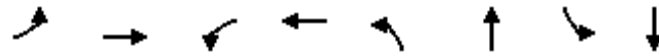


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	642	59	415	66	146	143	63	98	71
v/c Ratio	0.42	0.72	0.30	0.50	0.33	0.21	0.21	0.32	0.14	0.11
Control Delay	43.0	32.9	42.0	29.0	42.1	23.7	5.5	42.1	23.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	32.9	42.0	29.0	42.1	23.7	5.5	42.1	23.4	1.9
Queue Length 50th (ft)	48	160	30	96	34	56	0	32	37	0
Queue Length 95th (ft)	104	241	72	155	78	119	43	76	85	11
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	316	1226	316	1226	316	705	688	316	702	668
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	0.30	0.52	0.19	0.34	0.21	0.21	0.21	0.20	0.14	0.11

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	236	43	114	65	365	17	234
v/c Ratio	0.28	0.48	0.18	0.46	0.38	0.36	0.10	0.27
Control Delay	35.6	28.0	33.6	36.3	43.4	13.0	37.1	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	28.0	33.6	36.3	43.4	13.0	37.1	15.7
Queue Length 50th (ft)	29	44	19	48	31	82	8	68
Queue Length 95th (ft)	68	82	50	101	76	230	29	141
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	481	962	481	499	170	1026	481	883
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	0.13	0.25	0.09	0.23	0.38	0.36	0.04	0.27

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	160	660	46	315	95	229	77	64	152	67
v/c Ratio	0.64	0.67	0.26	0.45	0.44	0.33	0.09	0.34	0.23	0.07
Control Delay	49.2	31.3	42.7	30.3	44.3	24.4	3.9	43.2	24.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	31.3	42.7	30.3	44.3	24.4	3.9	43.2	24.4	3.8
Queue Length 50th (ft)	83	166	24	75	50	93	0	33	61	0
Queue Length 95th (ft)	#175	247	61	120	104	179	24	77	125	22
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	297	1152	297	1153	297	684	967	297	660	943
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	0.54	0.57	0.15	0.27	0.32	0.33	0.08	0.22	0.23	0.07

Intersection Summary

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

Near Term Year (2022)

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	156	335	172	193	686	144	520	110	61	672	309
v/c Ratio	0.69	0.40	0.34	0.79	0.79	0.66	0.40	0.12	0.36	0.62	0.37
Control Delay	57.1	31.6	6.6	64.9	40.1	55.1	25.8	5.8	47.4	32.1	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	31.6	6.6	64.9	40.1	55.1	25.8	5.8	47.4	32.1	11.2
Queue Length 50th (ft)	94	91	0	120	207	87	133	10	37	195	70
Queue Length 95th (ft)	#176	131	50	#237	274	152	194	40	76	261	136
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	256	1008	574	256	1003	256	1286	915	256	1084	851
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.33	0.30	0.75	0.68	0.56	0.40	0.12	0.24	0.62	0.36

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	230	65	86	21	128	710	65	21	969	47
v/c Ratio	0.23	0.64	0.31	0.23	0.05	0.50	0.38	0.07	0.12	0.66	0.06
Control Delay	37.7	25.5	38.0	29.7	0.2	40.1	14.7	1.0	37.5	24.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	25.5	38.0	29.7	0.2	40.1	14.7	1.0	37.5	24.5	0.2
Queue Length 50th (ft)	21	52	29	37	0	57	86	0	9	205	0
Queue Length 95th (ft)	57	129	73	80	0	124	219	7	34	#382	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	342	704	342	708	673	342	1845	880	342	1477	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.33	0.19	0.12	0.03	0.37	0.38	0.07	0.06	0.66	0.06

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	360	175	346	736	1236
v/c Ratio	0.77	0.38	0.87	0.33	0.98
Control Delay	42.0	18.5	57.9	8.9	50.7
Queue Delay	0.0	0.0	6.9	0.8	8.3
Total Delay	42.0	18.5	64.8	9.8	59.0
Queue Length 50th (ft)	189	49	189	91	-354
Queue Length 95th (ft)	284	103	#390	164	#598
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	670	638	412	2251	1260
Starvation Cap Reductn	0	0	39	1141	44
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.27	0.93	0.66	1.02

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



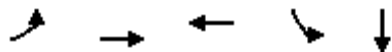
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	122	121	520	998	174	1015
v/c Ratio	0.25	0.25	0.95	0.47	0.65	0.46
Control Delay	28.3	28.3	56.2	21.4	50.3	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	3.2
Total Delay	28.3	28.3	56.2	21.4	50.3	14.4
Queue Length 50th (ft)	62	61	256	157	106	171
Queue Length 95th (ft)	111	110	#466	218	165	217
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	508	510	564	2110	536	2190
Starvation Cap Reductn	0	0	0	0	0	1045
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.24	0.92	0.47	0.32	0.89

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	58	497	1048	161	99
v/c Ratio	0.64	0.31	0.80	0.25	0.12
Control Delay	81.6	17.5	32.1	20.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	81.6	17.5	32.1	20.2	0.3
Queue Length 50th (ft)	38	101	306	64	0
Queue Length 95th (ft)	#108	132	372	122	0
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	90	2010	1636	649	822
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.25	0.64	0.25	0.12

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour

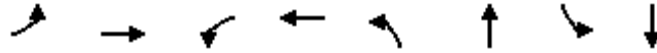


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	646	142	927	157	179	88	125	207	108
v/c Ratio	0.27	0.77	0.65	0.80	0.69	0.30	0.15	0.59	0.36	0.19
Control Delay	46.2	37.3	54.2	35.8	56.2	27.7	3.5	51.8	28.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	37.3	54.2	35.8	56.2	27.7	3.5	51.8	28.9	5.7
Queue Length 50th (ft)	25	180	84	280	93	84	0	74	101	0
Queue Length 95th (ft)	56	223	139	341	152	138	17	124	158	29
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	261	1018	261	1153	261	597	586	261	580	572
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	0.16	0.63	0.54	0.80	0.60	0.30	0.15	0.48	0.36	0.19

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	137	95	187	50	402	59	486
v/c Ratio	0.07	0.34	0.33	0.60	0.30	0.53	0.30	0.56
Control Delay	35.1	28.0	32.8	33.6	41.1	22.0	38.0	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	28.0	32.8	33.6	41.1	22.0	38.0	20.4
Queue Length 50th (ft)	6	25	43	72	24	140	28	178
Queue Length 95th (ft)	21	47	77	119	55	237	59	275
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	477	944	477	495	168	753	477	862
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	0.03	0.15	0.20	0.38	0.30	0.53	0.12	0.56

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2022) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	303	25	321	113	252	73	71	283	192
v/c Ratio	0.56	0.35	0.15	0.57	0.48	0.35	0.08	0.35	0.41	0.20
Control Delay	42.9	22.3	38.8	34.3	41.4	21.4	3.6	39.9	23.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	22.3	38.8	34.3	41.4	21.4	3.6	39.9	23.4	3.6
Queue Length 50th (ft)	66	54	12	76	54	91	0	34	108	8
Queue Length 95th (ft)	130	93	38	122	110	174	21	77	202	41
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	312	1214	312	1212	312	725	1016	312	694	1022
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	0.44	0.25	0.08	0.26	0.36	0.35	0.07	0.23	0.41	0.19

Intersection Summary

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	256	500	201	111	398	250	786	211	84	620	232
v/c Ratio	0.98	0.63	0.44	0.54	0.58	0.96	0.58	0.23	0.44	0.56	0.26
Control Delay	92.7	35.9	14.2	49.2	35.5	87.4	27.4	8.1	46.8	29.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.7	35.9	14.2	49.2	35.5	87.4	27.4	8.1	46.8	29.5	5.9
Queue Length 50th (ft)	148	138	31	61	106	144	193	32	46	154	21
Queue Length 95th (ft)	#338	196	93	122	152	#328	314	87	96	238	71
Internal Link Dist (ft)		1991			1226		585			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	261	1028	555	261	1020	261	1347	955	261	1106	884
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.49	0.36	0.43	0.39	0.96	0.58	0.22	0.32	0.56	0.26

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	346	92	84	33	228	1195	121	26	878	53
v/c Ratio	0.35	0.80	0.45	0.21	0.08	0.80	0.67	0.14	0.17	0.73	0.09
Control Delay	44.3	35.6	45.5	29.4	0.4	60.0	23.7	5.6	43.1	31.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Total Delay	44.3	35.6	45.5	29.4	0.4	60.0	25.0	5.6	43.1	31.7	0.3
Queue Length 50th (ft)	34	119	48	38	0	124	232	2	14	227	0
Queue Length 95th (ft)	79	226	104	79	0	#293	#560	41	42	#385	0
Internal Link Dist (ft)		2085		313			354			702	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	285	610	285	594	583	285	1781	853	285	1206	615
Starvation Cap Reductn	0	0	0	0	0	0	352	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.57	0.32	0.14	0.06	0.80	0.84	0.14	0.09	0.73	0.09

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	365	182	460	1419	1401
v/c Ratio	0.77	0.39	1.12	0.63	1.13
Control Delay	42.3	18.9	116.6	12.8	99.5
Queue Delay	0.0	0.0	0.9	16.0	0.1
Total Delay	42.3	18.9	117.4	28.9	99.6
Queue Length 50th (ft)	192	53	~306	235	-483
Queue Length 95th (ft)	290	108	#560	398	#716
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	668	636	410	2245	1235
Starvation Cap Reductn	0	0	34	844	39
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.29	1.22	1.01	1.17

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



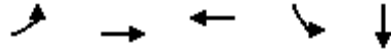
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	276	279	571	1788	189	1036
v/c Ratio	0.55	0.55	1.03	0.88	0.67	0.48
Control Delay	34.4	34.5	75.3	33.2	50.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.1	4.6
Total Delay	34.4	34.5	75.3	33.2	50.6	16.2
Queue Length 50th (ft)	154	156	~336	363	115	176
Queue Length 95th (ft)	243	246	#547	#531	176	223
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	502	504	554	2034	529	2162
Starvation Cap Reductn	0	0	0	0	18	1035
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.55	1.03	0.88	0.37	0.92

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	108	784	558	83	60
v/c Ratio	1.33	0.44	0.38	0.14	0.07
Control Delay	253.6	18.3	22.4	20.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	253.6	18.3	22.4	20.6	0.2
Queue Length 50th (ft)	~98	176	135	35	0
Queue Length 95th (ft)	#201	215	173	66	0
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	81	1777	1453	584	840
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.33	0.44	0.38	0.14	0.07

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour

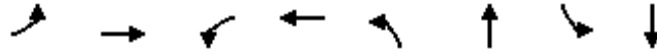


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	670	123	453	73	186	221	72	136	80
v/c Ratio	0.49	0.73	0.53	0.48	0.36	0.28	0.33	0.36	0.20	0.13
Control Delay	46.6	34.4	47.7	28.6	44.6	26.4	8.6	44.7	25.9	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	34.4	47.7	28.6	44.6	26.4	8.6	44.7	25.9	2.7
Queue Length 50th (ft)	60	180	68	110	40	81	17	40	58	0
Queue Length 95th (ft)	119	262	132	171	86	154	77	85	116	17
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	299	1160	299	1164	299	665	680	299	664	638
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	0.36	0.58	0.41	0.39	0.24	0.28	0.33	0.24	0.20	0.13

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	43	219	113	106	58	587	19	341
v/c Ratio	0.19	0.46	0.46	0.41	0.35	0.66	0.11	0.39
Control Delay	34.2	28.3	38.1	32.6	41.7	21.3	37.0	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	28.3	38.1	32.6	41.7	21.3	37.0	17.0
Queue Length 50th (ft)	20	42	53	43	28	160	9	112
Queue Length 95th (ft)	51	79	106	93	69	#467	31	210
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	480	957	480	498	169	892	480	868
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	0.09	0.23	0.24	0.21	0.34	0.66	0.04	0.39

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2022) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	397	769	51	356	138	245	85	70	157	278
v/c Ratio	1.49	0.75	0.31	0.49	0.62	0.36	0.10	0.39	0.27	0.29
Control Delay	271.9	34.5	45.1	32.2	51.3	25.5	3.8	45.8	26.4	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	271.9	34.5	45.1	32.2	51.3	25.5	3.8	45.8	26.4	3.3
Queue Length 50th (ft)	~335	210	29	91	78	109	0	40	70	5
Queue Length 95th (ft)	#538	296	66	135	143	193	25	83	129	49
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	266	1044	266	1036	266	690	941	266	592	945
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	1.49	0.74	0.19	0.34	0.52	0.36	0.09	0.26	0.27	0.29

Intersection Summary

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

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	156	329	171	193	680	140	518	110	61	671	309
v/c Ratio	0.69	0.39	0.34	0.79	0.78	0.64	0.40	0.12	0.36	0.62	0.37
Control Delay	56.9	31.5	6.7	64.6	39.8	54.4	25.8	5.8	47.4	31.9	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	31.5	6.7	64.6	39.8	54.4	25.8	5.8	47.4	31.9	10.9
Queue Length 50th (ft)	94	88	0	119	204	84	132	10	37	193	67
Queue Length 95th (ft)	#176	129	50	#237	271	148	193	40	76	261	133
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	257	1011	574	257	1006	257	1286	916	257	1088	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.33	0.30	0.75	0.68	0.54	0.40	0.12	0.24	0.62	0.36

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	219	58	74	6	128	710	87	19	969	47
v/c Ratio	0.22	0.61	0.27	0.26	0.02	0.48	0.36	0.09	0.10	0.62	0.06
Control Delay	35.9	21.0	35.9	31.5	0.2	37.4	12.9	2.3	36.2	21.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	21.0	35.9	31.5	0.2	37.4	12.9	2.3	36.2	21.6	0.2
Queue Length 50th (ft)	20	36	25	31	0	55	81	0	8	195	0
Queue Length 95th (ft)	56	108	65	72	0	120	207	18	31	#345	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	358	741	358	741	699	358	1975	934	358	1573	767
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.30	0.16	0.10	0.01	0.36	0.36	0.09	0.05	0.62	0.06

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	360	184	346	749	1229
v/c Ratio	0.77	0.40	0.87	0.33	0.98
Control Delay	42.0	19.2	57.9	9.0	49.6
Queue Delay	0.0	0.0	6.9	0.9	7.6
Total Delay	42.0	19.2	64.8	9.9	57.1
Queue Length 50th (ft)	189	54	189	93	348
Queue Length 95th (ft)	284	109	#390	166	#593
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	670	638	412	2251	1260
Starvation Cap Reductn	0	0	39	1135	44
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.29	0.93	0.67	1.01

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



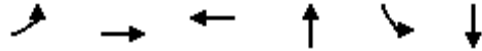
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	129	127	520	997	171	1011
v/c Ratio	0.27	0.26	0.95	0.47	0.64	0.46
Control Delay	28.6	28.5	55.9	21.3	50.2	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	3.2
Total Delay	28.6	28.5	55.9	21.3	50.2	14.2
Queue Length 50th (ft)	65	64	256	157	104	170
Queue Length 95th (ft)	116	114	#465	217	162	216
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	509	511	565	2118	536	2191
Starvation Cap Reductn	0	0	0	0	0	1047
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.25	0.92	0.47	0.32	0.88

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	58	508	1060	16	161	99
v/c Ratio	0.66	0.31	0.83	0.02	0.26	0.12
Control Delay	84.2	17.1	33.7	0.1	21.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.2	17.1	33.7	0.1	21.1	0.3
Queue Length 50th (ft)	39	103	319	0	68	0
Queue Length 95th (ft)	#108	134	389	0	122	0
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	88	1966	1521	754	628	810
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	0.66	0.26	0.70	0.02	0.26	0.12

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour

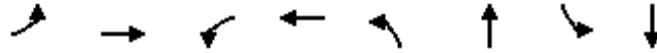


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	653	136	922	157	174	82	125	206	108
v/c Ratio	0.27	0.77	0.63	0.80	0.69	0.29	0.14	0.59	0.36	0.19
Control Delay	46.2	37.5	53.2	35.6	56.2	27.5	2.9	51.8	28.8	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	37.5	53.2	35.6	56.2	27.5	2.9	51.8	28.8	5.7
Queue Length 50th (ft)	25	182	80	278	93	81	0	74	100	0
Queue Length 95th (ft)	56	226	134	338	152	135	14	124	158	29
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	261	1019	261	1152	261	598	587	261	580	572
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	0.16	0.64	0.52	0.80	0.60	0.29	0.14	0.48	0.36	0.19

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	1	122	95	174	50	402	59	479
v/c Ratio	0.01	0.30	0.34	0.57	0.29	0.46	0.29	0.52
Control Delay	34.0	27.5	33.3	31.5	39.9	18.7	37.1	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	27.5	33.3	31.5	39.9	18.7	37.1	18.6
Queue Length 50th (ft)	0	21	43	62	24	135	27	170
Queue Length 95th (ft)	5	42	77	108	54	228	58	262
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	500	982	500	517	176	880	500	928
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	0.00	0.12	0.19	0.34	0.28	0.46	0.12	0.52

Intersection Summary

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2022) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	303	25	321	113	252	73	71	281	192
v/c Ratio	0.56	0.35	0.15	0.57	0.48	0.35	0.08	0.35	0.40	0.20
Control Delay	42.9	22.3	38.8	34.3	41.4	21.4	3.6	39.9	23.4	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	22.3	38.8	34.3	41.4	21.4	3.6	39.9	23.4	3.5
Queue Length 50th (ft)	66	54	12	76	54	91	0	34	108	8
Queue Length 95th (ft)	130	93	38	122	110	174	21	77	200	41
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	312	1214	312	1212	312	725	1016	312	694	1023
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	0.44	0.25	0.08	0.26	0.36	0.35	0.07	0.23	0.40	0.19

Intersection Summary

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	256	509	212	111	409	265	800	211	84	633	232
v/c Ratio	0.98	0.63	0.45	0.54	0.59	1.02	0.60	0.23	0.44	0.57	0.26
Control Delay	93.4	36.0	14.7	49.3	35.7	101.7	27.8	8.3	46.9	29.9	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.4	36.0	14.7	49.3	35.7	101.7	27.8	8.3	46.9	29.9	6.5
Queue Length 50th (ft)	148	141	35	61	110	~156	198	32	46	158	24
Queue Length 95th (ft)	#338	200	99	122	156	#352	320	88	96	244	76
Internal Link Dist (ft)		1991			1226		585			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	261	1025	557	261	1017	261	1343	952	261	1103	877
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.50	0.38	0.43	0.40	1.02	0.60	0.22	0.32	0.57	0.26

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	362	255	106	24	228	1195	249	49	878	53
v/c Ratio	0.37	0.84	1.00	0.20	0.05	0.89	0.82	0.34	0.31	0.81	0.09
Control Delay	46.9	41.9	97.8	28.1	0.2	75.8	33.2	14.0	46.2	37.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Total Delay	46.9	41.9	97.8	28.1	0.2	75.8	34.4	14.0	46.2	37.9	0.3
Queue Length 50th (ft)	36	148	~154	49	0	135	354	55	28	253	0
Queue Length 95th (ft)	79	254	#337	96	0	#293	#586	136	65	#385	0
Internal Link Dist (ft)		2085		313			354			702	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	256	551	256	552	550	256	1465	722	256	1084	565
Starvation Cap Reductn	0	0	0	0	0	0	107	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.66	1.00	0.19	0.04	0.89	0.88	0.34	0.19	0.81	0.09

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	365	241	460	1493	1568
v/c Ratio	0.77	0.51	1.12	0.67	1.27
Control Delay	41.9	23.7	117.6	13.6	155.3
Queue Delay	0.0	0.0	0.9	26.9	0.1
Total Delay	41.9	23.7	118.5	40.4	155.4
Queue Length 50th (ft)	192	83	~306	257	-588
Queue Length 95th (ft)	290	153	#560	435	#834
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	667	635	409	2239	1235
Starvation Cap Reductn	0	0	34	812	33
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.38	1.23	1.05	1.30

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



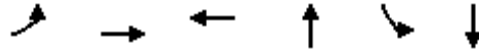
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	307	311	571	1799	263	1052
v/c Ratio	0.61	0.62	1.04	0.98	0.74	0.49
Control Delay	36.3	36.4	77.2	48.0	49.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.4	5.0
Total Delay	36.3	36.4	77.2	48.0	50.1	16.7
Queue Length 50th (ft)	175	178	~340	395	158	180
Queue Length 95th (ft)	272	276	#551	#597	226	228
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	502	504	551	1838	529	2162
Starvation Cap Reductn	0	0	0	0	59	1028
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.62	1.04	0.98	0.56	0.93

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	108	821	593	108	83	60
v/c Ratio	1.33	0.46	0.50	0.17	0.15	0.07
Control Delay	253.6	18.4	24.6	10.4	20.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	253.6	18.4	24.6	10.4	20.9	0.2
Queue Length 50th (ft)	~98	185	153	20	35	0
Queue Length 95th (ft)	#201	226	196	52	66	0
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	81	1766	1191	647	539	846
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	1.33	0.46	0.50	0.17	0.15	0.07

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour

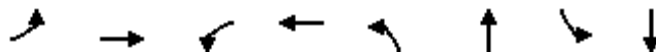


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	709	132	462	73	201	232	72	148	80
v/c Ratio	0.51	0.78	0.59	0.44	0.38	0.32	0.36	0.38	0.24	0.13
Control Delay	47.8	37.3	50.0	27.7	45.7	27.1	9.8	45.7	26.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	37.3	50.0	27.7	45.7	27.1	9.8	45.7	26.3	2.7
Queue Length 50th (ft)	61	196	74	113	41	92	25	41	66	0
Queue Length 95th (ft)	119	280	140	174	86	166	89	85	125	17
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	279	1083	279	1089	279	621	643	279	620	603
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	0.39	0.65	0.47	0.42	0.26	0.32	0.36	0.26	0.24	0.13

Intersection Summary

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	257	113	123	71	587	19	361
v/c Ratio	0.29	0.52	0.48	0.49	0.44	0.65	0.12	0.44
Control Delay	35.9	29.6	40.2	37.1	46.3	21.6	38.0	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	29.6	40.2	37.1	46.3	21.6	38.0	18.9
Queue Length 50th (ft)	32	50	54	53	35	164	9	122
Queue Length 95th (ft)	72	91	109	110	#85	#489	32	233
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	459	918	459	477	162	908	459	825
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	0.28	0.25	0.26	0.44	0.65	0.04	0.44

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2022) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	397	769	51	356	138	257	85	70	172	278
v/c Ratio	1.49	0.75	0.31	0.49	0.62	0.37	0.10	0.39	0.29	0.29
Control Delay	271.9	34.5	45.1	32.2	51.3	25.7	3.8	45.8	26.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	271.9	34.5	45.1	32.2	51.3	25.7	3.8	45.8	26.7	3.3
Queue Length 50th (ft)	~335	210	29	91	78	115	0	40	78	5
Queue Length 95th (ft)	#538	296	66	135	143	203	25	83	140	49
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	266	1044	266	1036	266	690	941	266	592	945
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	1.49	0.74	0.19	0.34	0.52	0.37	0.09	0.26	0.29	0.29

Intersection Summary

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

General Plan (2035)

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	179	388	171	235	844	138	509	119	66	703	333
v/c Ratio	0.77	0.43	0.33	0.95	0.90	0.65	0.41	0.13	0.39	0.67	0.41
Control Delay	64.1	31.8	8.9	89.6	48.6	55.8	27.1	5.7	48.5	34.4	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	31.8	8.9	89.6	48.6	55.8	27.1	5.7	48.5	34.4	12.9
Queue Length 50th (ft)	111	106	11	151	269	84	132	11	40	208	86
Queue Length 95th (ft)	#214	151	62	#304	#386	147	191	42	80	275	157
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	247	973	543	247	969	247	1227	884	247	1047	821
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.40	0.31	0.95	0.87	0.56	0.41	0.13	0.27	0.67	0.41

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	209	69	93	24	112	693	79	19	1043	42
v/c Ratio	0.25	0.62	0.32	0.25	0.06	0.46	0.38	0.09	0.10	0.70	0.06
Control Delay	37.5	26.8	37.8	30.0	0.3	39.1	14.6	1.9	37.1	25.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	26.8	37.8	30.0	0.3	39.1	14.6	1.9	37.1	25.4	0.1
Queue Length 50th (ft)	23	52	31	40	0	50	84	0	8	224	0
Queue Length 95th (ft)	62	127	76	86	0	110	212	14	32	#428	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	341	692	341	704	670	341	1844	880	341	1491	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.30	0.20	0.13	0.04	0.33	0.38	0.09	0.06	0.70	0.06

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	319	189	320	704	1264
v/c Ratio	0.74	0.43	0.82	0.30	0.95
Control Delay	41.3	19.7	52.1	7.8	42.6
Queue Delay	0.0	0.0	2.7	0.7	3.8
Total Delay	41.3	19.7	54.9	8.5	46.4
Queue Length 50th (ft)	162	53	165	78	347
Queue Length 95th (ft)	250	111	#336	144	#593
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	688	657	423	2314	1334
Starvation Cap Reductn	0	0	40	1186	43
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.29	0.84	0.62	0.98

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



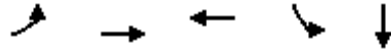
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	143	141	537	873	184	1015
v/c Ratio	0.29	0.28	0.97	0.42	0.66	0.47
Control Delay	28.9	28.8	60.1	21.2	50.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	3.7
Total Delay	28.9	28.8	60.1	21.2	50.4	15.0
Queue Length 50th (ft)	73	72	272	134	112	171
Queue Length 95th (ft)	128	126	#491	189	172	217
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	505	507	560	2063	532	2174
Starvation Cap Reductn	0	0	0	0	16	1045
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.28	0.96	0.42	0.36	0.90

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	81	545	1280	186	124
v/c Ratio	1.00	0.31	0.89	0.32	0.17
Control Delay	152.2	16.5	38.1	23.5	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	152.2	16.5	38.1	23.5	3.0
Queue Length 50th (ft)	~58	113	416	87	0
Queue Length 95th (ft)	#155	145	497	140	25
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	81	1821	1485	588	743
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.00	0.30	0.86	0.32	0.17

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



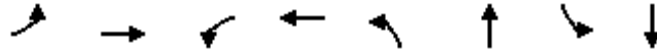
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	722	315	1152	202	305	138	158	243	137
v/c Ratio	0.29	0.82	1.29	0.94	0.85	0.54	0.25	0.71	0.45	0.25
Control Delay	47.5	40.5	192.3	47.0	73.0	33.7	8.8	60.0	31.9	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	40.5	192.3	47.0	73.0	33.7	8.8	60.0	31.9	8.8
Queue Length 50th (ft)	27	208	~261	~410	127	166	11	97	127	10
Queue Length 95th (ft)	56	252	#390	#514	#223	233	48	153	184	48
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	245	962	245	1229	245	563	559	245	545	545
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	0.18	0.75	1.29	0.94	0.82	0.54	0.25	0.64	0.45	0.25

Intersection Summary

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

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	155	120	257	58	618	104	695
v/c Ratio	0.06	0.39	0.37	0.73	0.37	0.85	0.46	0.86
Control Delay	36.1	28.8	33.4	38.1	45.4	39.7	41.4	36.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	28.8	33.4	38.1	45.4	39.7	41.4	36.4
Queue Length 50th (ft)	5	28	55	102	29	293	51	328
Queue Length 95th (ft)	19	52	93	158	63	#510	91	#507
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	446	886	446	470	157	723	446	806
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	0.02	0.17	0.27	0.55	0.37	0.85	0.23	0.86

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2035) Without Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	112	642	45	585	193	415	139	115	449	171
v/c Ratio	0.54	0.71	0.28	0.73	0.78	0.61	0.16	0.55	0.77	0.21
Control Delay	49.4	32.4	45.5	37.8	61.2	32.2	5.1	49.6	40.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	32.4	45.5	37.8	61.2	32.2	5.1	49.6	40.3	8.3
Queue Length 50th (ft)	62	160	25	163	109	206	7	64	237	26
Queue Length 95th (ft)	121	225	61	224	#233	#377	41	124	#428	67
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	263	1069	263	1027	263	683	946	263	586	855
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	0.43	0.60	0.17	0.57	0.73	0.61	0.15	0.44	0.77	0.20

Intersection Summary

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

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	272	858	173	140	568	170	708	199	81	548	220
v/c Ratio	1.10	0.90	0.34	0.66	0.65	0.75	0.58	0.23	0.45	0.52	0.27
Control Delay	128.2	48.8	13.1	56.2	35.6	62.2	30.0	8.2	49.2	31.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.2	48.8	13.1	56.2	35.6	62.2	30.0	8.2	49.2	31.3	7.8
Queue Length 50th (ft)	~202	277	28	85	163	105	198	32	49	154	32
Queue Length 95th (ft)	#364	#395	84	148	221	#199	277	78	94	208	77
Internal Link Dist (ft)		1991			1226		585			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	247	971	518	247	965	247	1229	892	247	1045	828
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.88	0.33	0.57	0.59	0.69	0.58	0.22	0.33	0.52	0.27

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	92	407	98	91	35	164	991	135	24	814	44
v/c Ratio	0.45	0.85	0.48	0.20	0.07	0.68	0.60	0.17	0.16	0.70	0.07
Control Delay	47.4	43.7	47.9	29.2	0.3	54.9	23.8	6.8	44.6	32.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Total Delay	47.4	43.7	47.9	29.2	0.3	54.9	24.6	6.8	44.6	32.4	0.2
Queue Length 50th (ft)	53	183	57	43	0	95	215	6	14	234	0
Queue Length 95th (ft)	104	#342	109	86	0	#189	#390	50	40	327	0
Internal Link Dist (ft)		2085		313			354			702	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	277	579	277	574	568	277	1655	801	277	1171	601
Starvation Cap Reductn	0	0	0	0	0	0	356	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.70	0.35	0.16	0.06	0.59	0.76	0.17	0.09	0.70	0.07

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	256	197	393	1142	1214
v/c Ratio	0.69	0.50	0.89	0.47	0.92
Control Delay	40.4	21.8	56.0	7.7	37.6
Queue Delay	0.0	0.0	11.4	1.7	2.7
Total Delay	40.4	21.8	67.4	9.5	40.3
Queue Length 50th (ft)	125	55	197	123	298
Queue Length 95th (ft)	200	116	#412	229	#517
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	719	686	442	2415	1320
Starvation Cap Reductn	0	0	40	1044	51
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.29	0.98	0.83	0.96

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour

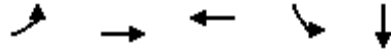


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	261	265	369	1357	199	970
v/c Ratio	0.65	0.65	0.76	0.61	0.66	0.41
Control Delay	39.1	39.4	31.2	22.0	47.3	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.1	1.5
Total Delay	39.1	39.4	31.2	22.0	47.3	10.3
Queue Length 50th (ft)	145	147	129	208	112	129
Queue Length 95th (ft)	228	232	233	326	182	204
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	544	546	603	2216	573	2341
Starvation Cap Reductn	0	0	0	0	21	1115
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.49	0.61	0.61	0.36	0.79

Intersection Summary

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	138	1139	777	98	71
v/c Ratio	1.70	0.64	0.53	0.17	0.09
Control Delay	396.1	21.9	25.2	21.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	396.1	21.9	25.2	21.0	0.2
Queue Length 50th (ft)	~141	294	206	42	0
Queue Length 95th (ft)	#256	347	253	76	0
Internal Link Dist (ft)		1226	1262		1473
Turn Bay Length (ft)	150			40	
Base Capacity (vph)	81	1777	1455	584	780
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.70	0.64	0.53	0.17	0.09

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



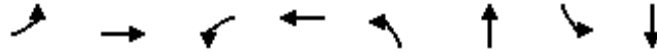
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	1001	93	606	132	272	263	85	200	98
v/c Ratio	0.62	0.98	0.48	0.69	0.61	0.41	0.40	0.45	0.35	0.17
Control Delay	53.0	58.7	48.7	35.5	52.7	28.3	14.3	48.1	28.7	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	58.7	48.7	35.5	52.7	28.3	14.3	48.1	28.7	4.7
Queue Length 50th (ft)	77	~341	54	169	77	130	52	50	95	0
Queue Length 95th (ft)	142	#502	105	235	141	226	133	97	167	29
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	261	1019	261	1015	261	662	657	261	579	572
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	0.51	0.98	0.36	0.60	0.51	0.41	0.40	0.33	0.35	0.17

Intersection Summary

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

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	44	257	91	202	68	669	38	382
v/c Ratio	0.19	0.53	0.33	0.65	0.43	0.81	0.22	0.47
Control Delay	35.8	30.6	35.1	33.7	48.1	32.3	40.6	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	30.6	35.1	33.7	48.1	32.3	40.6	21.2
Queue Length 50th (ft)	21	51	43	71	34	304	19	139
Queue Length 95th (ft)	54	95	89	146	#89	#674	52	273
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	447	899	447	474	158	828	447	807
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	0.10	0.29	0.20	0.43	0.43	0.81	0.09	0.47

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2035) Without-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	244	1222	103	680	241	409	192	116	252	124
v/c Ratio	1.00	1.26	0.53	0.78	0.99	0.69	0.24	0.58	0.46	0.16
Control Delay	101.8	158.2	51.4	40.7	98.7	37.9	6.9	53.0	32.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.8	158.2	51.4	40.7	98.7	37.9	6.9	53.0	32.2	7.7
Queue Length 50th (ft)	~159	~502	62	203	154	229	23	70	131	18
Queue Length 95th (ft)	#318	#663	114	268	#314	#377	64	126	209	51
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	244	968	244	953	244	590	855	244	543	791
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	1.00	1.26	0.42	0.71	0.99	0.69	0.22	0.48	0.46	0.16

Intersection Summary

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

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	179	382	170	235	838	135	506	119	66	702	333
v/c Ratio	0.77	0.42	0.33	0.95	0.90	0.64	0.41	0.13	0.39	0.67	0.41
Control Delay	64.0	31.7	8.7	89.0	48.0	55.2	27.1	5.7	48.5	34.3	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	31.7	8.7	89.0	48.0	55.2	27.1	5.7	48.5	34.3	12.7
Queue Length 50th (ft)	110	104	10	150	265	82	131	11	40	207	85
Queue Length 95th (ft)	#214	150	61	#304	#382	144	189	42	80	275	156
Internal Link Dist (ft)		1991			1226		695			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	248	975	544	248	970	248	1227	884	248	1049	823
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.39	0.31	0.95	0.86	0.54	0.41	0.13	0.27	0.67	0.40

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	198	62	81	9	112	693	101	16	1043	42
v/c Ratio	0.25	0.59	0.29	0.29	0.03	0.44	0.33	0.10	0.09	0.66	0.05
Control Delay	35.9	22.9	36.0	31.8	0.1	36.8	11.1	3.0	36.1	22.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	22.9	36.0	31.8	0.1	36.8	11.1	3.0	36.1	22.5	0.1
Queue Length 50th (ft)	22	39	27	34	0	48	79	0	7	214	0
Queue Length 95th (ft)	60	108	69	77	0	108	200	24	28	#410	0
Internal Link Dist (ft)		2085		364			354			592	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	355	724	355	734	694	355	2074	975	355	1586	773
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.27	0.17	0.11	0.01	0.32	0.33	0.10	0.05	0.66	0.05

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	319	198	320	717	1257
v/c Ratio	0.74	0.45	0.82	0.31	0.94
Control Delay	41.3	20.0	52.1	7.8	41.7
Queue Delay	0.0	0.0	2.7	0.7	3.2
Total Delay	41.3	20.0	54.9	8.5	44.9
Queue Length 50th (ft)	162	56	165	80	344
Queue Length 95th (ft)	250	116	#336	147	#588
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	688	659	423	2314	1335
Starvation Cap Reductn	0	0	40	1180	42
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.30	0.84	0.63	0.97

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



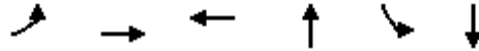
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	149	148	537	872	181	1011
v/c Ratio	0.30	0.30	0.97	0.42	0.66	0.46
Control Delay	29.1	29.0	59.8	21.0	50.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	3.6
Total Delay	29.1	29.0	59.8	21.0	50.4	14.9
Queue Length 50th (ft)	76	75	271	134	110	170
Queue Length 95th (ft)	132	131	#490	188	170	216
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	505	507	562	2073	532	2175
Starvation Cap Reductn	0	0	0	0	0	1047
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.29	0.96	0.42	0.34	0.90

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	81	557	1291	16	186	124
v/c Ratio	1.00	0.31	0.94	0.02	0.32	0.17
Control Delay	155.2	16.4	43.7	0.1	23.8	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	155.2	16.4	43.7	0.1	23.8	3.0
Queue Length 50th (ft)	~58	115	437	0	87	0
Queue Length 95th (ft)	#155	148	#564	0	141	25
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	81	1798	1394	689	574	737
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	1.00	0.31	0.93	0.02	0.32	0.17

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	730	310	1146	202	300	132	158	242	137
v/c Ratio	0.29	0.82	1.27	0.93	0.85	0.53	0.24	0.72	0.44	0.25
Control Delay	47.5	40.9	185.5	46.2	73.2	33.5	8.2	60.1	31.9	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	40.9	185.5	46.2	73.2	33.5	8.2	60.1	31.9	8.8
Queue Length 50th (ft)	27	212	~254	~393	127	163	8	97	127	10
Queue Length 95th (ft)	56	255	#384	#510	#223	229	44	153	184	48
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	245	961	245	1230	245	562	558	245	544	544
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	0.18	0.76	1.27	0.93	0.82	0.53	0.24	0.64	0.44	0.25

Intersection Summary

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

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	120	244	58	618	104	687
v/c Ratio	0.36	0.39	0.71	0.37	0.84	0.46	0.84
Control Delay	28.1	33.7	35.9	44.6	38.0	40.7	34.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	33.7	35.9	44.6	38.0	40.7	34.0
Queue Length 50th (ft)	24	55	91	29	283	50	313
Queue Length 95th (ft)	47	93	145	63	#505	90	#492
Internal Link Dist (ft)	299		2291		1240		1355
Turn Bay Length (ft)		80		145		100	
Base Capacity (vph)	893	451	478	159	732	451	817
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.27	0.51	0.36	0.84	0.23	0.84

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2035) With Project Weekday AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	112	642	45	585	193	415	139	115	447	171
v/c Ratio	0.54	0.71	0.28	0.73	0.78	0.61	0.16	0.55	0.76	0.21
Control Delay	49.4	32.4	45.5	37.8	61.2	32.2	5.1	49.6	40.1	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	32.4	45.5	37.8	61.2	32.2	5.1	49.6	40.1	8.3
Queue Length 50th (ft)	62	160	25	163	109	206	7	64	236	26
Queue Length 95th (ft)	121	225	61	224	#233	#377	41	124	#425	67
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	263	1069	263	1027	263	683	946	263	586	855
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	0.43	0.60	0.17	0.57	0.73	0.61	0.15	0.44	0.76	0.20

Intersection Summary

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

Queues
1: Heacock St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	272	867	185	140	579	186	722	199	81	560	220
v/c Ratio	1.11	0.91	0.36	0.66	0.66	0.80	0.59	0.23	0.45	0.54	0.27
Control Delay	130.6	50.1	14.4	56.5	36.1	66.9	30.2	8.3	49.4	31.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.6	50.1	14.4	56.5	36.1	66.9	30.2	8.3	49.4	31.7	8.7
Queue Length 50th (ft)	~202	282	34	85	167	116	204	33	49	158	38
Queue Length 95th (ft)	#364	#402	93	148	225	#226	283	79	94	214	84
Internal Link Dist (ft)		1991			1226		585			1447	
Turn Bay Length (ft)	90		65	135		140		45	100		95
Base Capacity (vph)	245	966	516	245	959	245	1234	892	245	1039	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.90	0.36	0.57	0.60	0.76	0.59	0.22	0.33	0.54	0.27

Intersection Summary

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

Queues
3: Heacock St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	92	424	261	113	26	164	991	264	47	814	44
v/c Ratio	0.49	0.90	1.05	0.20	0.05	0.73	0.72	0.38	0.31	0.77	0.08
Control Delay	50.1	51.4	112.9	28.3	0.2	60.5	31.0	15.6	47.5	37.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	50.1	51.4	112.9	28.3	0.2	60.5	31.6	15.6	47.5	37.5	0.3
Queue Length 50th (ft)	56	212	~189	54	0	101	302	69	29	253	0
Queue Length 95th (ft)	104	#376	#345	103	0	#189	#436	148	64	327	0
Internal Link Dist (ft)		2085		313			354			702	
Turn Bay Length (ft)	70		360		200	100		50	95		
Base Capacity (vph)	249	524	249	570	565	249	1377	686	249	1054	552
Starvation Cap Reductn	0	0	0	0	0	0	113	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.81	1.05	0.20	0.05	0.66	0.78	0.38	0.19	0.77	0.08

Intersection Summary

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

Queues
4: Heacock St & SR 60 WB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	256	255	393	1216	1382
v/c Ratio	0.68	0.66	0.89	0.50	1.05
Control Delay	40.0	30.8	56.4	8.2	65.3
Queue Delay	0.0	0.0	11.3	2.1	14.0
Total Delay	40.0	30.8	67.7	10.2	79.2
Queue Length 50th (ft)	125	91	201	142	-414
Queue Length 95th (ft)	200	167	#412	251	#628
Internal Link Dist (ft)	1003			225	354
Turn Bay Length (ft)		30	200		
Base Capacity (vph)	717	678	441	2410	1319
Starvation Cap Reductn	0	0	39	1000	43
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.38	0.98	0.86	1.08

Intersection Summary

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

Queues
5: Heacock St & SR 60 EB Ramp

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



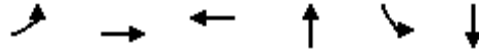
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	292	296	369	1368	273	985
v/c Ratio	0.69	0.70	0.75	0.69	0.74	0.43
Control Delay	40.8	41.1	30.3	26.8	47.1	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.3	1.7
Total Delay	40.8	41.1	30.3	26.8	47.4	11.0
Queue Length 50th (ft)	166	168	132	235	155	138
Queue Length 95th (ft)	257	261	236	#387	232	209
Internal Link Dist (ft)		711		649		225
Turn Bay Length (ft)					190	
Base Capacity (vph)	536	538	593	1983	565	2309
Starvation Cap Reductn	0	0	0	0	57	1097
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.55	0.62	0.69	0.54	0.81

Intersection Summary

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

Queues
12: Driveway/Davis St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	138	1176	813	108	98	71
v/c Ratio	1.70	0.67	0.73	0.17	0.18	0.09
Control Delay	396.1	22.4	31.1	10.5	21.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	396.1	22.4	31.1	10.5	21.3	0.2
Queue Length 50th (ft)	~141	308	242	20	42	0
Queue Length 95th (ft)	#256	362	302	52	77	0
Internal Link Dist (ft)		1226	1262	148		1473
Turn Bay Length (ft)	150				40	
Base Capacity (vph)	81	1768	1108	644	539	782
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	1.70	0.67	0.73	0.17	0.18	0.09

Intersection Summary

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

Queues
13: Indian St & Ironwood Ave

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



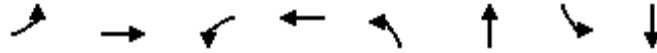
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	1039	102	615	132	287	274	85	212	98
v/c Ratio	0.62	1.02	0.51	0.70	0.61	0.43	0.42	0.45	0.37	0.17
Control Delay	53.1	69.2	49.6	35.7	52.9	28.9	15.2	48.2	29.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	69.2	49.6	35.7	52.9	28.9	15.2	48.2	29.2	4.7
Queue Length 50th (ft)	78	~371	60	172	77	139	58	50	103	0
Queue Length 95th (ft)	142	#530	113	239	141	238	143	97	176	29
Internal Link Dist (ft)		1262		2351		1355			1475	
Turn Bay Length (ft)	95		100		110		50	80		50
Base Capacity (vph)	260	1014	260	1012	260	660	654	260	578	570
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	0.51	1.02	0.39	0.61	0.51	0.43	0.42	0.33	0.37	0.17

Intersection Summary

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

Queues
14: Indian St & Hemlock Ave

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	69	295	91	219	81	669	38	402
v/c Ratio	0.29	0.57	0.31	0.68	0.53	0.83	0.22	0.51
Control Delay	37.4	31.7	35.0	37.6	53.8	34.7	41.7	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	31.7	35.0	37.6	53.8	34.7	41.7	22.8
Queue Length 50th (ft)	34	61	43	86	42	320	19	155
Queue Length 95th (ft)	76	108	91	169	#114	#688	53	295
Internal Link Dist (ft)		299		2291		1240		1355
Turn Bay Length (ft)	150		80		145		100	
Base Capacity (vph)	438	883	438	461	154	810	438	786
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	0.16	0.33	0.21	0.48	0.53	0.83	0.09	0.51

Intersection Summary

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

Queues
15: Indian St & Sunnymead Blvd

Festival at Moreno Valley Mixed Use
Future (2035) With-Project Weekday PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	244	1222	103	680	241	422	192	116	267	124
v/c Ratio	1.00	1.26	0.53	0.78	0.99	0.72	0.24	0.58	0.49	0.16
Control Delay	101.8	158.2	51.4	40.7	98.7	38.9	6.9	53.0	32.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.8	158.2	51.4	40.7	98.7	38.9	6.9	53.0	32.8	7.7
Queue Length 50th (ft)	~159	~502	62	203	154	238	23	70	140	18
Queue Length 95th (ft)	#318	#663	114	268	#314	#397	64	126	221	51
Internal Link Dist (ft)		683		1025		879			1240	
Turn Bay Length (ft)	90		100		145		105	90		60
Base Capacity (vph)	244	968	244	953	244	590	855	244	543	791
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	1.00	1.26	0.42	0.71	0.99	0.72	0.22	0.48	0.49	0.16

Intersection Summary

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

SimTraffic Queue Reports

Existing

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Vehicles Entered	0	393	149	0	0	398	345	0	274	340	0	0
Vehicles Exited	125	155	131	125	152	271	325	113	184	230	88	49
Hourly Exit Rate	125	155	131	125	152	271	325	113	184	230	88	49

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Vehicles Entered	526	349	0	2773
Vehicles Exited	310	245	275	2776
Hourly Exit Rate	310	245	275	2776

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	All
Movements Served	T	TR	LT	T	
Vehicles Entered	297	333	399	433	1461
Vehicles Exited	282	350	332	495	1460
Hourly Exit Rate	282	350	332	495	1460

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Vehicles Entered	137	75	1	145	1	0	357	380	0	0	348	463
Vehicles Exited	39	171	50	79	17	95	267	308	63	17	359	439
Hourly Exit Rate	39	171	50	79	17	95	267	308	63	17	359	439

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Vehicles Entered	45	1954
Vehicles Exited	45	1949
Hourly Exit Rate	45	1949

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Vehicles Entered	422	0	1	646	222	406	554	2251
Vehicles Exited	268	155	285	328	252	459	494	2240
Hourly Exit Rate	268	155	285	328	252	459	494	2240

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Vehicles Entered	183	42	365	505	137	156	1	619	334	2342
Vehicles Exited	168	47	374	473	160	164	145	422	387	2338
Hourly Exit Rate	168	47	374	473	160	164	145	422	387	2338

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Vehicles Entered	71	72	122	25	1	291
Vehicles Exited	64	79	122	24	1	290
Hourly Exit Rate	64	79	122	24	1	290

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	All
Movements Served	L	T	TR	L	TR	LTR	R	
Vehicles Entered	0	66	77	0	142	1	4	291
Vehicles Exited	10	57	78	0	142	1	4	293
Hourly Exit Rate	10	57	78	0	142	1	4	293

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Vehicles Entered	132	143	5	280
Vehicles Exited	132	144	5	280
Hourly Exit Rate	132	144	5	280

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Vehicles Entered	114	156	10	278
Vehicles Exited	114	156	9	278
Hourly Exit Rate	114	156	9	278

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Vehicles Entered	104	158	1	263
Vehicles Exited	104	158	1	263
Hourly Exit Rate	104	158	1	263

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Vehicles Entered	103	157	7	267
Vehicles Exited	102	157	7	266
Hourly Exit Rate	102	157	7	266

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Vehicles Entered	0	209	231	404	422	0	213	1480
Vehicles Exited	45	170	228	386	433	131	84	1478
Hourly Exit Rate	45	170	228	386	433	131	84	1478

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Vehicles Entered	0	254	280	0	598	195	0	300	0	0	308	0
Vehicles Exited	30	208	294	90	319	384	122	128	50	89	147	71
Hourly Exit Rate	30	208	294	90	319	384	122	128	50	89	147	71

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Vehicles Entered	1935
Vehicles Exited	1932
Hourly Exit Rate	1932

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Vehicles Entered	0	77	30	0	191	0	294	0	368	960
Vehicles Exited	8	45	53	53	138	33	259	35	335	957
Hourly Exit Rate	8	45	53	53	138	33	259	35	335	957

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Vehicles Entered	0	183	88	0	217	65	0	345	0	0	398	0
Vehicles Exited	48	126	96	22	164	98	82	200	63	60	254	86
Hourly Exit Rate	48	126	96	22	164	98	82	200	63	60	254	86

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Vehicles Entered	1295
Vehicles Exited	1299
Hourly Exit Rate	1299

Total Network Performance

Vehicles Entered	6077
Vehicles Exited	6053
Hourly Exit Rate	6053
Input Volume	24251
% of Volume	25

Queuing and Blocking Report
Existing (2017) Weekday AM Peak Hour

12/04/2017

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	176	150	90	160	268	266	161	181	200	70	124
Average Queue (ft)	74	79	68	45	106	143	152	76	74	98	39	49
95th Queue (ft)	120	148	132	98	178	258	257	139	148	171	88	111
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	10	5	11	1	7	12		2	1	31	2	1
Queuing Penalty (veh)	15	7	14	2	19	20		4	1	29	5	2

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	219	275	120
Average Queue (ft)	128	137	99
95th Queue (ft)	204	242	145
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	18	13	8
Queuing Penalty (veh)	9	34	23

Intersection: 2: Heacock St & New Project Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report
Existing (2017) Weekday AM Peak Hour

12/04/2017

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T	
Maximum Queue (ft)	71	142	80	99	20	123	190	199	75	89	251	279	
Average Queue (ft)	25	63	31	37	7	57	70	79	26	17	111	139	
95th Queue (ft)	57	116	68	79	22	113	148	155	70	56	210	238	
Link Distance (ft)	2106	2106		357			350	350			592	592	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)			360		200	100				50	95		
Storage Blk Time (%)						1	3	14	0				10
Queuing Penalty (veh)						3	3	8	0				2

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	44
Average Queue (ft)	12
95th Queue (ft)	33
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	316	58	224	298	259	344	360
Average Queue (ft)	179	49	167	123	85	190	223
95th Queue (ft)	295	65	239	261	181	310	343
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				2	0	0	1
Queuing Penalty (veh)				11	1	0	2
Storage Bay Dist (ft)			30	200			
Storage Blk Time (%)	55	11	7	0			
Queuing Penalty (veh)	83	28	22	1			

Queuing and Blocking Report
Existing (2017) Weekday AM Peak Hour

12/04/2017

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	177	138	208	282	240	113	186	176	198
Average Queue (ft)	96	33	101	143	68	31	89	74	72
95th Queue (ft)	157	92	173	242	164	77	158	149	157
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							0	0	
Queuing Penalty (veh)							2	0	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	17
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	NB	SB
Directions Served	L	LTR	R
Maximum Queue (ft)	20	17	25
Average Queue (ft)	1	1	3
95th Queue (ft)	10	8	17
Link Distance (ft)		157	573
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	180		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	31	28
Average Queue (ft)	2	4
95th Queue (ft)	15	20
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	23	31
Average Queue (ft)	2	9
95th Queue (ft)	15	31
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Hemlock Ave & West Access

Movement	SB
Directions Served	R
Maximum Queue (ft)	9
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	328
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
Existing (2017) Weekday AM Peak Hour

12/04/2017

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	110	137	160	294	322	64	141
Average Queue (ft)	42	68	83	174	198	44	45
95th Queue (ft)	88	126	144	275	305	74	116
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	0	0				14	3
Queuing Penalty (veh)	0	0				11	4

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	83	198	207	124	271	296	132	206	74	105	219	75
Average Queue (ft)	25	85	107	70	131	155	83	75	29	62	88	37
95th Queue (ft)	69	160	189	131	221	242	139	161	72	111	182	78
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	0	6		2	14		7	16	1	10	20	1
Queuing Penalty (veh)	0	2		7	12		12	27	2	22	36	3

Queuing and Blocking Report
Existing (2017) Weekday AM Peak Hour

12/04/2017

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	33	65	72	99	141	88	204	113	216
Average Queue (ft)	6	30	28	39	65	29	80	32	95
95th Queue (ft)	25	57	58	81	118	65	155	78	181
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				1	6		1		8
Queuing Penalty (veh)				2	3		0		4

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	93	138	96	60	131	122	113	170	107	114	269	85
Average Queue (ft)	32	54	28	17	72	44	56	69	24	47	93	37
95th Queue (ft)	67	105	64	46	117	92	97	130	64	98	194	93
Link Distance (ft)		715	715		1059	1059		913			1227	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	1	2			2		0	2	0	1	12	1
Queuing Penalty (veh)	0	1			0		0	3	0	3	18	4

Network Summary

Network wide Queuing Penalty: 527

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	43.6	52.1	33.0	3.1	38.6	34.6	32.5	42.0	25.3	34.1	5.6	40.3
Vehicles Entered	0	562	217	0	0	238	228	0	432	552	0	0
Vehicles Exited	225	200	241	121	103	163	209	144	334	315	183	71
Hourly Exit Rate	225	200	241	121	103	163	209	144	334	315	183	71

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	28.1	28.8	9.5	30.0
Vehicles Entered	501	299	0	3029
Vehicles Exited	279	233	212	3034
Hourly Exit Rate	279	233	212	3034

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	SB	All
Movements Served	T	TR	LT	T	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	2.6	2.6	2.7	1.8	2.8	2.5
Vehicles Entered	484	553	339	237	162	1775
Vehicles Exited	459	580	294	397	48	1778
Hourly Exit Rate	459	580	294	397	48	1778

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	35.1	20.7	30.9	24.7	7.9	34.5	17.8	17.9	1.2	37.6	20.1	21.2
Vehicles Entered	178	115	0	190	0	0	539	667	0	0	315	407
Vehicles Exited	50	243	68	88	32	134	450	515	109	20	320	388
Hourly Exit Rate	50	243	68	88	32	134	450	515	109	20	320	388

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.0
Total Del/Veh (s)	3.3	19.9
Vehicles Entered	48	2458
Vehicles Exited	45	2463
Hourly Exit Rate	45	2463

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.2
Total Del/Veh (s)	39.3	5.3	39.5	12.4	9.5	22.8	25.2	21.0
Vehicles Entered	339	0	0	869	551	384	547	2689
Vehicles Exited	190	148	354	521	543	443	487	2686
Hourly Exit Rate	190	148	354	521	543	443	487	2686

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	46.1	27.7	11.5	28.8	19.8	10.6	39.7	10.4	10.1	21.4
Vehicles Entered	357	123	323	661	256	297	1	565	333	2916
Vehicles Exited	298	178	331	571	312	326	158	381	356	2910
Hourly Exit Rate	298	178	331	571	312	326	158	381	356	2910

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	EB	WB	NB	All
Movements Served	T	T	TR	T	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.5	1.4	0.5	0.3	2.8	0.8
Vehicles Entered	114	31	105	190	24	464
Vehicles Exited	107	36	108	190	24	465
Hourly Exit Rate	107	36	108	190	24	465

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									0.0
Total Del/Veh (s)	2.0	0.2	0.2	1.8	0.4	8.1	5.6	2.7	0.8
Vehicles Entered	2	116	145	7	147	3	6	38	462
Vehicles Exited	48	70	145	7	146	3	6	38	463
Hourly Exit Rate	48	70	145	7	146	3	6	38	463

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.3	0.5	3.9	0.6
Vehicles Entered	216	152	18	387
Vehicles Exited	216	151	18	385
Hourly Exit Rate	216	151	18	385

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	0.5	5.0	1.0
Vehicles Entered	214	148	41	403
Vehicles Exited	214	147	40	402
Hourly Exit Rate	214	147	40	402

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	0.3	2.0	0.4
Vehicles Entered	229	160	8	398
Vehicles Exited	229	161	8	398
Hourly Exit Rate	229	161	8	398

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.1	1.6	2.5	0.8
Vehicles Entered	227	163	8	398
Vehicles Exited	227	163	8	398
Hourly Exit Rate	227	163	8	398

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Denied Del/Veh (s)								0.2
Total Del/Veh (s)	100.0	20.4	18.1	20.9	21.6	17.5	7.5	24.2
Vehicles Entered	0	281	435	220	238	0	111	1285
Vehicles Exited	75	269	366	216	237	62	49	1274
Hourly Exit Rate	75	269	366	216	237	62	49	1274

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	37.2	26.2	26.9	38.5	25.7	22.5	35.5	22.5	3.9	37.0	20.8	2.8
Vehicles Entered	0	310	364	0	346	73	0	317	0	0	213	0
Vehicles Exited	92	263	325	47	171	202	63	133	119	58	85	69
Hourly Exit Rate	92	263	325	47	171	202	63	133	119	58	85	69

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	24.4
Vehicles Entered	1624
Vehicles Exited	1628
Hourly Exit Rate	1628

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	26.3	32.3	16.7	26.8	25.9	34.1	12.1	41.6	12.2	18.3
Vehicles Entered	0	177	53	0	128	0	408	0	231	997
Vehicles Exited	33	82	113	40	88	51	358	17	216	999
Hourly Exit Rate	33	82	113	40	88	51	358	17	216	999

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	40.4	30.9	21.9	40.6	31.4	20.7	38.7	20.7	10.1	39.3	22.0	7.9
Vehicles Entered	0	529	263	0	263	82	0	375	0	0	291	0
Vehicles Exited	154	333	306	43	178	125	88	209	76	60	166	64
Hourly Exit Rate	154	333	306	43	178	125	88	209	76	60	166	64

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	26.7
Vehicles Entered	1803
Vehicles Exited	1802
Hourly Exit Rate	1802

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	58.4
Vehicles Entered	6950
Vehicles Exited	6943
Hourly Exit Rate	6943
Input Volume	27855
% of Volume	25

Queuing and Blocking Report
Existing (2017) Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	114	364	368	90	157	191	204	164	274	310	70	125
Average Queue (ft)	110	196	170	61	67	85	103	104	145	176	54	63
95th Queue (ft)	126	332	296	114	128	157	173	175	259	295	94	117
Link Distance (ft)		2012	2012			1213	1213		586	586		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	47	11	31	1	1	3		3	10	37	8	2
Queuing Penalty (veh)	103	25	37	1	2	3		10	16	69	25	6

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	231	242	120
Average Queue (ft)	126	118	81
95th Queue (ft)	198	206	141
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	16	11	3
Queuing Penalty (veh)	12	23	9

Intersection: 2: Heacock St & New Project Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report
Existing (2017) Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	78	200	104	108	56	124	349	340	75	98	268	284
Average Queue (ft)	32	93	42	40	14	78	149	165	42	20	125	141
95th Queue (ft)	66	168	85	84	39	136	289	298	93	62	241	246
Link Distance (ft)	2106	2106		306			337	337			702	702
Upstream Blk Time (%)							0	0				
Queuing Penalty (veh)							3	2				
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						4	13	30	1		14	
Queuing Penalty (veh)						20	17	33	3		3	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	49
Average Queue (ft)	13
95th Queue (ft)	35
Link Distance (ft)	702
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	253	64	224	319	273	316	334
Average Queue (ft)	140	50	187	185	125	163	192
95th Queue (ft)	230	67	256	347	247	280	317
Link Distance (ft)	1034			257	257	337	337
Upstream Blk Time (%)				7	0	0	0
Queuing Penalty (veh)				50	3	0	1
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	55	18	16	2			
Queuing Penalty (veh)	84	37	84	5			

Queuing and Blocking Report
Existing (2017) Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	386	341	195	441	329	212	188	239	225
Average Queue (ft)	191	131	90	232	160	88	100	92	91
95th Queue (ft)	317	266	162	382	292	178	168	191	186
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							0	1	
Queuing Penalty (veh)							1	1	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	40
Average Queue (ft)	14
95th Queue (ft)	36
Link Distance (ft)	238
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	WB	NB	SB	SB
Directions Served	L	L	LTR	LT	R
Maximum Queue (ft)	48	20	24	26	49
Average Queue (ft)	5	1	2	5	16
95th Queue (ft)	26	9	12	20	35
Link Distance (ft)		285	155	572	572
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	180				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	29	33
Average Queue (ft)	2	12
95th Queue (ft)	14	35
Link Distance (ft)	285	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	34	39
Average Queue (ft)	3	23
95th Queue (ft)	19	45
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Hemlock Ave & West Access

Movement	EB	SB
Directions Served	LT	R
Maximum Queue (ft)	10	23
Average Queue (ft)	1	5
95th Queue (ft)	8	21
Link Distance (ft)	622	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	7
95th Queue (ft)	28
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	174	270	252	176	197	63	88
Average Queue (ft)	86	117	130	88	96	31	27
95th Queue (ft)	162	222	221	153	163	66	67
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	5	3				8	2
Queuing Penalty (veh)	16	3				4	1

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	119	231	240	97	152	161	116	173	75	99	146	75
Average Queue (ft)	69	123	140	33	71	82	47	59	45	44	46	31
95th Queue (ft)	122	215	229	73	117	135	95	134	84	85	104	70
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	2	13		0	2		0	12	3	3	8	1
Queuing Penalty (veh)	4	11		0	1		1	23	6	4	10	1

Queuing and Blocking Report
Existing (2017) Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) Weekday PM Peak Hour

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	70	93	97	81	115	120	206	56	153
Average Queue (ft)	23	47	50	29	52	43	94	17	69
95th Queue (ft)	58	79	87	67	96	91	179	46	127
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				0	3		2		3
Queuing Penalty (veh)				0	1		1		0

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	313	263	113	176	147	152	187	130	109	195	85
Average Queue (ft)	97	173	135	34	87	57	66	89	40	50	73	37
95th Queue (ft)	136	279	230	82	142	116	115	156	98	97	139	93
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	21	24		0	6		0	5	0	2	12	1
Queuing Penalty (veh)	55	37		0	3		0	8	0	3	15	2

Network Summary

Network wide Queuing Penalty: 900

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	38.0	32.2	30.7	6.4	40.5	33.1	33.3	37.6	21.5	25.6	6.6	43.5
Vehicles Entered	0	410	156	0	0	415	347	0	281	341	0	0
Vehicles Exited	136	153	144	129	167	274	323	101	196	228	98	47
Hourly Exit Rate	136	153	144	129	167	274	323	101	196	228	98	47

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	26.0	32.4	10.2	27.4
Vehicles Entered	535	354	0	2838
Vehicles Exited	322	251	269	2838
Hourly Exit Rate	322	251	269	2838

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	All
Movements Served	LR	T	TR	LT	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	4.3	1.8	1.8	2.9	2.1	2.1
Vehicles Entered	8	312	332	419	450	1521
Vehicles Exited	8	293	349	347	521	1517
Hourly Exit Rate	8	293	349	347	521	1517

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	31.0	16.7	30.0	7.4	3.3	29.6	10.3	10.2	1.2	34.9	13.7	16.0
Vehicles Entered	132	70	0	258	0	0	366	408	0	0	363	484
Vehicles Exited	38	162	44	211	3	93	285	320	79	15	368	461
Hourly Exit Rate	38	162	44	211	3	93	285	320	79	15	368	461

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.0
Total Del/Veh (s)	2.0	13.6
Vehicles Entered	45	2127
Vehicles Exited	44	2123
Hourly Exit Rate	44	2123

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.3
Total Del/Veh (s)	39.7	2.4	37.9	11.2	8.9	25.5	28.2	23.4
Vehicles Entered	416	0	2	622	237	410	576	2262
Vehicles Exited	251	163	254	337	271	469	521	2265
Hourly Exit Rate	251	163	254	337	271	469	521	2265

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	32.9	26.5	12.5	15.7	11.4	4.3	37.2	8.3	7.7	14.4
Vehicles Entered	183	49	353	483	139	144	1	624	353	2327
Vehicles Exited	166	56	361	452	167	153	155	432	392	2333
Hourly Exit Rate	166	56	361	452	167	153	155	432	392	2333

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.5	0.6	0.2	0.3	2.8	0.5
Vehicles Entered	76	74	169	96	1	416
Vehicles Exited	76	75	174	91	1	416
Hourly Exit Rate	76	75	174	91	1	416

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									0.1
Total Del/Veh (s)	2.3	0.5	0.3	1.6	0.2	5.6	6.1	2.7	1.1
Vehicles Entered	54	183	105	3	190	31	3	53	622
Vehicles Exited	97	137	107	3	189	31	3	53	620
Hourly Exit Rate	97	137	107	3	189	31	3	53	620

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	0.4	2.7	0.5
Vehicles Entered	205	194	4	403
Vehicles Exited	205	195	4	402
Hourly Exit Rate	205	195	4	402

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.8	0.7	4.2	1.8
Vehicles Entered	191	171	75	436
Vehicles Exited	189	171	75	435
Hourly Exit Rate	189	171	75	435

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.4	0.7	3.6	4.8	1.0
Vehicles Entered	112	210	16	20	358
Vehicles Exited	112	210	16	20	358
Hourly Exit Rate	112	210	16	20	358

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.2	1.4	2.3	0.8
Vehicles Entered	137	137	6	280
Vehicles Exited	138	136	6	280
Hourly Exit Rate	138	136	6	280

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	54.4	17.1	17.9	27.0	28.1	7.4	12.5	12.5	23.4
Vehicles Entered	0	211	257	421	435	17	0	212	1554
Vehicles Exited	45	179	249	407	446	17	128	82	1554
Hourly Exit Rate	45	179	249	407	446	17	128	82	1554

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	47.0	24.7	24.9	42.7	26.6	26.6	37.8	27.5	2.4	39.6	26.0	4.9
Vehicles Entered	0	267	296	0	593	196	0	306	0	0	300	0
Vehicles Exited	32	222	307	85	327	376	122	129	55	75	146	80
Hourly Exit Rate	32	222	307	85	327	376	122	129	55	75	146	80

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	26.8
Vehicles Entered	1957
Vehicles Exited	1956
Hourly Exit Rate	1956

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)									0.1
Total Del/Veh (s)	14.7	14.1	24.9	20.5	30.2	12.1	29.7	11.9	15.6
Vehicles Entered	109	28	0	176	0	293	0	363	967
Vehicles Exited	91	47	47	128	33	261	47	315	969
Hourly Exit Rate	91	47	47	128	33	261	47	315	969

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	33.6	23.5	10.7	35.1	26.0	15.6	29.4	14.2	6.2	34.1	19.5	6.3
Vehicles Entered	0	191	91	0	226	59	0	340	0	0	374	0
Vehicles Exited	48	134	100	22	165	97	74	202	64	52	235	88
Hourly Exit Rate	48	134	100	22	165	97	74	202	64	52	235	88

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	19.4
Vehicles Entered	1282
Vehicles Exited	1281
Hourly Exit Rate	1281

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	51.0
Vehicles Entered	6519
Vehicles Exited	6515
Hourly Exit Rate	6515
Input Volume	25503
% of Volume	26

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	222	179	90	160	298	293	162	191	217	71	124
Average Queue (ft)	80	86	76	51	109	149	159	69	84	109	43	48
95th Queue (ft)	128	162	144	101	180	272	271	128	156	192	93	108
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	13	6	16	2	9	10		1	1	30	5	1
Queuing Penalty (veh)	18	7	20	3	23	16		1	2	28	12	3

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	225	264	120
Average Queue (ft)	132	141	95
95th Queue (ft)	199	231	148
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	18	14	7
Queuing Penalty (veh)	10	37	19

Intersection: 2: Heacock St & New Project Access

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	7
95th Queue (ft)	27
Link Distance (ft)	461
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
Existing (2017) With Project Weekday AM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	58	146	61	86	20	119	190	190	75	69	259	292
Average Queue (ft)	25	60	29	30	1	54	69	81	30	13	113	139
95th Queue (ft)	53	114	59	65	10	108	145	159	76	43	209	241
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						1	2	14	0		8	
Queuing Penalty (veh)						4	2	11	1		1	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	35
Average Queue (ft)	9
95th Queue (ft)	26
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	319	57	222	284	198	352	374
Average Queue (ft)	181	49	148	107	76	200	231
95th Queue (ft)	294	63	230	226	156	336	358
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				1	0	0	1
Queuing Penalty (veh)				6	0	1	4
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	55	11	5	0			
Queuing Penalty (veh)	88	29	15	0			

Queuing and Blocking Report
Existing (2017) With Project Weekday AM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	168	133	203	291	216	100	185	208	204
Average Queue (ft)	92	40	94	137	67	27	96	87	82
95th Queue (ft)	150	96	161	234	154	62	157	180	176
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							0	0	
Queuing Penalty (veh)							1	1	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	17
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	60	9	11	5	2	48	28	52
Average Queue (ft)	12	0	0	0	0	15	3	23
95th Queue (ft)	39	7	8	4	2	36	17	43
Link Distance (ft)		222	222	284	284	157	573	573
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	180							
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	44	27
Average Queue (ft)	3	3
95th Queue (ft)	21	18
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	69	4	62
Average Queue (ft)	15	0	31
95th Queue (ft)	48	3	52
Link Distance (ft)	542	620	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Hemlock Ave & West Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	12	38	35	28
Average Queue (ft)	1	4	13	12
95th Queue (ft)	8	23	38	31
Link Distance (ft)	620	105	225	328
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	118	156	174	336	372	44	64	152
Average Queue (ft)	39	65	91	184	204	8	44	41
95th Queue (ft)	82	131	159	300	331	31	74	109
Link Distance (ft)		1213	1213	1261	1261	182		1507
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	0	0					14	4
Queuing Penalty (veh)	0	0					11	5

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	114	206	218	124	298	322	134	251	76	105	238	76
Average Queue (ft)	28	91	116	65	137	156	82	79	27	58	77	40
95th Queue (ft)	75	175	197	125	241	258	140	171	73	102	164	83
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	0	9		2	14		7	17	1	6	19	2
Queuing Penalty (veh)	1	3		6	12		12	29	1	13	34	5

Queuing and Blocking Report
Existing (2017) With Project Weekday AM Peak Hour

Festival at Moreno Valley Mixed Use
Existing (2017) With Project Weekday AM Peak Hour

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	56	65	90	176	96	185	123	204
Average Queue (ft)	28	24	33	65	29	71	40	90
95th Queue (ft)	53	53	70	126	74	151	90	167
Link Distance (ft)	318	318		2337		1227		1353
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			80		145		100	
Storage Blk Time (%)			1	5		1	0	7
Queuing Penalty (veh)			1	3		1	1	3

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	79	122	86	86	157	133	102	188	111	104	273	85
Average Queue (ft)	31	57	30	20	72	41	53	73	27	44	93	39
95th Queue (ft)	65	104	64	61	130	95	92	145	81	91	195	93
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	0	2		0	3			3	0	1	13	1
Queuing Penalty (veh)	0	1		0	1			4	0	3	19	4

Network Summary

Network wide Queuing Penalty: 537

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	46.3	73.6	36.4	4.5	44.7	29.2	28.0	44.8	29.4	40.2	4.6	42.4
Vehicles Entered	0	578	224	0	0	213	246	0	489	561	0	0
Vehicles Exited	228	197	245	132	91	161	215	172	353	325	194	71
Hourly Exit Rate	228	197	245	132	91	161	215	172	353	325	194	71

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	28.9	30.9	10.5	33.0
Vehicles Entered	510	299	0	3121
Vehicles Exited	294	235	207	3120
Hourly Exit Rate	294	235	207	3120

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	All
Movements Served	LR	T	TR	LT	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	9.0	3.0	2.8	2.8	2.2	2.8
Vehicles Entered	33	563	503	361	392	1851
Vehicles Exited	32	514	558	330	425	1859
Hourly Exit Rate	32	514	558	330	425	1859

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	32.7	28.2	72.8	10.3	9.5	46.0	32.8	41.5	1.5	43.0	29.0	32.1
Vehicles Entered	208	122	0	662	0	0	584	774	0	0	353	387
Vehicles Exited	64	267	245	398	18	125	528	467	237	48	324	370
Hourly Exit Rate	64	267	245	398	18	125	528	467	237	48	324	370

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.0
Total Del/Veh (s)	3.3	31.4
Vehicles Entered	48	3138
Vehicles Exited	47	3137
Hourly Exit Rate	47	3137

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.3
Total Del/Veh (s)	48.0	8.3	45.0	16.8	16.0	34.8	37.9	28.5
Vehicles Entered	408	0	0	829	672	495	618	3021
Vehicles Exited	201	209	342	559	598	549	561	3021
Hourly Exit Rate	201	209	342	559	598	549	561	3021

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	64.2	43.9	11.7	45.9	36.0	21.5	37.6	12.6	11.2	31.0
Vehicles Entered	376	164	321	624	295	305	2	677	325	3087
Vehicles Exited	297	227	333	531	343	357	236	391	375	3090
Hourly Exit Rate	297	227	333	531	343	357	236	391	375	3090

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.2	0.8	6.6	8.4	3.6	4.9
Vehicles Entered	197	221	351	328	22	1118
Vehicles Exited	199	218	414	260	22	1114
Hourly Exit Rate	199	218	414	260	22	1114

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									2.1
Total Del/Veh (s)	3.7	0.8	0.7	3.7	1.6	51.5	21.5	7.8	9.5
Vehicles Entered	111	326	298	32	295	192	38	237	1530
Vehicles Exited	272	173	291	33	294	189	34	241	1528
Hourly Exit Rate	272	173	291	33	294	189	34	241	1528

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.7	0.5	6.7	0.8
Vehicles Entered	364	322	20	706
Vehicles Exited	364	321	20	705
Hourly Exit Rate	364	321	20	705

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.1
Total Del/Veh (s)	2.8	1.4	11.2	5.6
Vehicles Entered	361	189	320	868
Vehicles Exited	360	189	320	868
Hourly Exit Rate	360	189	320	868

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	1.2	1.6	5.6	8.6	2.9
Vehicles Entered	260	338	115	99	812
Vehicles Exited	261	338	115	100	813
Hourly Exit Rate	261	338	115	100	813

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.4	1.7	4.3	0.9
Vehicles Entered	398	213	11	622
Vehicles Exited	397	214	10	620
Hourly Exit Rate	397	214	10	620

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	67.4	18.9	20.1	31.9	24.2	8.1	10.8	6.1	23.4
Vehicles Entered	0	277	455	229	219	97	0	110	1387
Vehicles Exited	83	289	352	202	243	97	58	52	1375
Hourly Exit Rate	83	289	352	202	243	97	58	52	1375

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	41.1	24.3	25.1	39.1	25.3	23.8	36.9	25.0	4.0	37.3	19.5	3.0
Vehicles Entered	0	336	363	0	355	74	0	334	0	0	206	0
Vehicles Exited	86	277	339	50	179	202	54	152	127	59	89	57
Hourly Exit Rate	86	277	339	50	179	202	54	152	127	59	89	57

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	24.3
Vehicles Entered	1667
Vehicles Exited	1670
Hourly Exit Rate	1670

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	25.3	15.7	15.8	26.6	29.3	35.4	14.5	34.4	12.9	18.3
Vehicles Entered	0	286	111	0	143	0	417	0	226	1183
Vehicles Exited	60	187	150	35	109	62	356	18	208	1184
Hourly Exit Rate	60	187	150	35	109	62	356	18	208	1184

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	40.9	30.6	20.4	41.1	29.9	19.7	38.7	20.9	9.5	40.8	20.2	8.0
Vehicles Entered	0	520	274	0	271	85	0	376	0	0	275	0
Vehicles Exited	158	320	314	43	187	128	91	212	71	57	157	61
Hourly Exit Rate	158	320	314	43	187	128	91	212	71	57	157	61

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	26.2
Vehicles Entered	1801
Vehicles Exited	1799
Hourly Exit Rate	1799

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	64.5
Vehicles Entered	8673
Vehicles Exited	8670
Hourly Exit Rate	8670
Input Volume	34011
% of Volume	25

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	462	425	90	150	188	197	165	314	335	71	125
Average Queue (ft)	109	233	187	63	62	81	95	124	165	194	50	67
95th Queue (ft)	128	450	387	116	124	154	167	188	301	333	96	130
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	51	9	32	1	1	1		9	14	40	6	2
Queuing Penalty (veh)	114	20	42	2	2	1		32	23	75	21	5

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	230	272	120
Average Queue (ft)	132	128	87
95th Queue (ft)	211	226	145
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	19	14	5
Queuing Penalty (veh)	14	30	12

Intersection: 2: Heacock St & New Project Access

Movement	WB
Directions Served	LR
Maximum Queue (ft)	59
Average Queue (ft)	22
95th Queue (ft)	51
Link Distance (ft)	461
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	114	244	306	274	33	124	371	388	75	120	289	326
Average Queue (ft)	38	119	188	109	8	95	272	292	60	49	159	171
95th Queue (ft)	83	203	337	328	25	149	416	416	99	116	276	288
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)			1	6			4	5				
Queuing Penalty (veh)			0	38			24	34				
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)			1			9	29	46	3	1	22	
Queuing Penalty (veh)			1			42	39	107	14	4	10	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	48
Average Queue (ft)	13
95th Queue (ft)	33
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	329	61	225	321	280	371	377
Average Queue (ft)	181	52	198	219	178	261	280
95th Queue (ft)	288	64	262	372	314	390	405
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				11	3	2	4
Queuing Penalty (veh)				80	20	12	24
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	49	36	18	5			
Queuing Penalty (veh)	102	72	104	17			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	401	361	210	505	478	319	214	294	264
Average Queue (ft)	227	175	85	294	219	140	143	110	104
95th Queue (ft)	423	369	152	461	403	268	225	244	228
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								1	0
Queuing Penalty (veh)								5	2
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							4	1	
Queuing Penalty (veh)							15	4	

Intersection: 6: Hemlock Ave & New Project Access

Movement	WB	WB	NB
Directions Served	LT	TR	LTR
Maximum Queue (ft)	74	67	35
Average Queue (ft)	25	25	15
95th Queue (ft)	137	138	39
Link Distance (ft)	222	222	255
Upstream Blk Time (%)	3	3	
Queuing Penalty (veh)	10	8	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	98	11	38	42	191	67	135
Average Queue (ft)	38	0	9	7	107	24	55
95th Queue (ft)	77	5	30	46	196	52	103
Link Distance (ft)		222	284	284	157	573	573
Upstream Blk Time (%)					21		
Queuing Penalty (veh)					0		
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	44	32
Average Queue (ft)	4	14
95th Queue (ft)	22	37
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	98	18	218
Average Queue (ft)	37	1	85
95th Queue (ft)	78	9	164
Link Distance (ft)	542	620	236
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Hemlock Ave & West Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	36	99	85	76
Average Queue (ft)	3	29	40	34
95th Queue (ft)	17	77	69	62
Link Distance (ft)	620	105	225	328
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	40
Average Queue (ft)	9
95th Queue (ft)	33
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	163	271	237	217	218	90	62	82
Average Queue (ft)	78	109	122	110	112	33	23	21
95th Queue (ft)	146	205	199	180	187	71	55	56
Link Distance (ft)		1213	1213	1261	1261	182		1507
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	1	2					3	1
Queuing Penalty (veh)	4	2					1	1

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	119	211	225	117	169	185	128	220	75	98	124	74
Average Queue (ft)	61	105	126	38	75	85	44	76	52	45	46	29
95th Queue (ft)	116	197	216	88	133	151	98	164	91	83	94	71
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	4	13		0	3		0	17	4	3	8	1
Queuing Penalty (veh)	10	11		0	2		1	33	8	4	10	1

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	92	100	139	97	154	169	278	66	180
Average Queue (ft)	37	51	59	32	68	51	109	18	71
95th Queue (ft)	74	86	106	80	127	111	214	50	137
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				0	8	0	4		3
Queuing Penalty (veh)				0	3	0	2		1

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	314	288	119	189	144	150	234	130	106	174	83
Average Queue (ft)	93	173	131	35	90	58	67	91	34	47	65	36
95th Queue (ft)	138	276	232	83	152	115	127	168	91	92	130	89
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	21	23		0	6		0	5	0	2	10	1
Queuing Penalty (veh)	53	35		0	3		1	8	0	4	12	2

Network Summary

Network wide Queuing Penalty: 1397

Near Term Year (2022)

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	39.7	32.6	31.6	6.8	49.1	35.4	35.0	43.4	24.4	27.7	5.8	44.7
Vehicles Entered	0	426	183	0	0	467	384	0	322	408	0	0
Vehicles Exited	145	161	147	154	185	308	355	125	239	266	100	60
Hourly Exit Rate	145	161	147	154	185	308	355	125	239	266	100	60

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	30.1	37.7	10.3	30.2
Vehicles Entered	596	407	0	3193
Vehicles Exited	357	299	291	3191
Hourly Exit Rate	357	299	291	3191

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	All
Movements Served	T	TR	LT	T	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	2.4	2.2	6.4	6.1	4.5
Vehicles Entered	347	413	466	530	1756
Vehicles Exited	333	427	415	574	1750
Hourly Exit Rate	333	427	415	574	1750

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	33.8	37.6	76.6	25.3	4.8	34.7	18.6	17.2	1.4	40.0	66.8	74.5
Vehicles Entered	163	99	1	168	0	0	402	490	0	0	431	534
Vehicles Exited	42	220	53	91	25	122	315	380	69	17	463	471
Hourly Exit Rate	42	220	53	91	25	122	315	380	69	17	463	471

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		2.5
Total Del/Veh (s)	5.1	43.3
Vehicles Entered	51	2339
Vehicles Exited	50	2318
Hourly Exit Rate	50	2318

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.6
Total Del/Veh (s)	47.5	3.3	45.9	19.8	13.8	48.1	52.3	37.7
Vehicles Entered	522	0	2	707	342	520	644	2738
Vehicles Exited	353	172	333	365	352	580	573	2727
Hourly Exit Rate	353	172	333	365	352	580	573	2727

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	48.5	25.8	21.7	34.0	18.7	8.2	45.5	9.7	8.6	21.6
Vehicles Entered	200	58	483	610	177	202	0	779	397	2907
Vehicles Exited	172	67	502	531	239	218	176	532	472	2909
Hourly Exit Rate	172	67	502	531	239	218	176	532	472	2909

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	2.1	0.7	0.1	0.2	2.7	0.7
Vehicles Entered	71	82	135	34	2	324
Vehicles Exited	67	87	138	31	2	325
Hourly Exit Rate	67	87	138	31	2	325

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	All
Movements Served	L	T	TR	L	TR	LTR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	2.3	0.1	0.1	0.0	0.2	5.1	2.1	0.3
Vehicles Entered	0	67	86	1	156	3	9	321
Vehicles Exited	12	56	86	1	156	3	9	322
Hourly Exit Rate	12	56	86	1	156	3	9	322

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.6	0.4	2.7	0.5
Vehicles Entered	140	159	6	305
Vehicles Exited	140	159	6	305
Hourly Exit Rate	140	159	6	305

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.4	0.6	4.8	0.6
Vehicles Entered	124	174	9	308
Vehicles Exited	124	174	9	308
Hourly Exit Rate	124	174	9	308

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.3	0.2	1.7	0.2
Vehicles Entered	115	179	1	296
Vehicles Exited	115	179	1	295
Hourly Exit Rate	115	179	1	295

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.1	1.4	2.7	1.0
Vehicles Entered	113	177	7	297
Vehicles Exited	113	176	7	296
Hourly Exit Rate	113	176	7	296

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Denied Del/Veh (s)								0.3
Total Del/Veh (s)	53.5	18.3	16.8	28.0	31.0	12.9	13.4	24.9
Vehicles Entered	0	219	263	463	465	0	226	1636
Vehicles Exited	53	177	253	452	474	140	89	1637
Hourly Exit Rate	53	177	253	452	474	140	89	1637

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	44.3	24.8	26.6	43.7	29.0	30.2	41.3	28.4	3.4	41.9	32.7	4.7
Vehicles Entered	0	271	309	0	660	226	0	337	0	0	381	0
Vehicles Exited	36	237	307	107	370	412	126	143	67	103	189	89
Hourly Exit Rate	36	237	307	107	370	412	126	143	67	103	189	89

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	29.3
Vehicles Entered	2185
Vehicles Exited	2186
Hourly Exit Rate	2186

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	29.5	33.7	14.8	23.8	24.9	33.0	14.6	36.9	15.7	19.3
Vehicles Entered	0	86	33	0	223	0	377	0	436	1157
Vehicles Exited	8	49	63	77	145	42	335	47	386	1153
Hourly Exit Rate	8	49	63	77	145	42	335	47	386	1153

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	32.9	23.2	12.3	39.6	29.8	18.6	33.7	16.3	8.8	38.4	27.5	6.3
Vehicles Entered	0	266	129	0	241	66	0	380	0	0	497	0
Vehicles Exited	115	142	139	22	177	108	97	218	64	61	265	171
Hourly Exit Rate	115	142	139	22	177	108	97	218	64	61	265	171

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	22.2
Vehicles Entered	1579
Vehicles Exited	1578
Hourly Exit Rate	1578

Total Network Performance

Denied Del/Veh (s)	1.7
Total Del/Veh (s)	74.2
Vehicles Entered	7198
Vehicles Exited	7168
Hourly Exit Rate	7168
Input Volume	28411
% of Volume	25

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	196	198	90	160	352	340	164	261	275	70	125
Average Queue (ft)	84	94	85	57	126	164	173	93	104	117	37	63
95th Queue (ft)	128	172	165	105	187	308	304	161	212	224	88	131
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	16	6	15	2	14	13		4	5	32	4	2
Queuing Penalty (veh)	25	9	25	3	41	23		9	7	33	9	6

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	294	351	120
Average Queue (ft)	160	182	105
95th Queue (ft)	251	298	148
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	25	22	9
Queuing Penalty (veh)	15	65	27

Intersection: 2: Heacock St & New Project Access

Movement	SB	SB
Directions Served	LT	T
Maximum Queue (ft)	152	161
Average Queue (ft)	25	29
95th Queue (ft)	133	153
Link Distance (ft)	694	694
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	73	256	127	106	32	124	277	284	76	119	519	545
Average Queue (ft)	30	114	50	44	9	79	122	130	36	19	335	357
95th Queue (ft)	65	233	120	87	26	134	249	248	87	71	644	656
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)							0	0			5	7
Queuing Penalty (veh)							1	0			17	23
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						5	9	25	1	0	45	
Queuing Penalty (veh)						18	11	16	2	1	9	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	62
Average Queue (ft)	16
95th Queue (ft)	47
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	488	61	225	324	275	380	376
Average Queue (ft)	263	48	201	220	144	322	340
95th Queue (ft)	415	64	254	370	268	416	418
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				11	1	11	20
Queuing Penalty (veh)				59	3	65	116
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	55	14	22	2			
Queuing Penalty (veh)	93	47	76	6			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	211	180	315	393	365	163	208	251	223
Average Queue (ft)	115	59	176	242	158	55	117	100	93
95th Queue (ft)	215	157	285	368	308	118	191	208	201
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								1	0
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							1	1	
Queuing Penalty (veh)							4	2	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	24
Average Queue (ft)	2
95th Queue (ft)	14
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	NB	SB
Directions Served	L	LTR	R
Maximum Queue (ft)	21	22	26
Average Queue (ft)	2	2	6
95th Queue (ft)	11	12	24
Link Distance (ft)		157	573
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	180		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	35	28
Average Queue (ft)	2	5
95th Queue (ft)	16	22
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	12	31
Average Queue (ft)	1	9
95th Queue (ft)	8	32
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Hemlock Ave & West Access

Movement	SB
Directions Served	R
Maximum Queue (ft)	9
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	328
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	105	174	181	357	366	64	164
Average Queue (ft)	46	69	89	210	228	46	47
95th Queue (ft)	92	141	156	330	345	76	117
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	0	1				17	4
Queuing Penalty (veh)	0	0				15	5

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	119	206	245	124	318	329	133	229	75	104	361	75
Average Queue (ft)	34	95	122	85	167	182	85	81	33	74	122	42
95th Queue (ft)	87	178	212	147	271	284	137	173	77	118	260	86
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	0	10		5	20		6	19	1	16	26	2
Queuing Penalty (veh)	0	4		20	24		13	39	3	44	51	6

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	43	56	94	104	178	168	273	124	303
Average Queue (ft)	6	32	33	51	78	39	104	42	123
95th Queue (ft)	27	55	72	97	141	101	216	95	233
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				2	10		4	1	11
Queuing Penalty (veh)				2	8		2	2	6

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	112	168	117	93	155	141	162	199	112	114	308	85
Average Queue (ft)	63	64	43	20	85	50	68	85	29	57	129	63
95th Queue (ft)	111	128	88	56	139	103	123	158	78	111	246	109
Link Distance (ft)		715	715		1059	1059		913			1227	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	7	2			5		0	3	0	1	19	4
Queuing Penalty (veh)	6	3			1		1	6	0	5	44	13

Network Summary

Network wide Queuing Penalty: 1190

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	49.9	106.0	105.8	11.7	90.1	92.1	33.6	51.0	30.5	39.9	4.2	46.4
Vehicles Entered	0	632	293	0	0	252	264	0	437	490	0	0
Vehicles Exited	238	227	264	173	102	168	234	186	298	282	168	70
Hourly Exit Rate	238	227	264	173	102	168	234	186	298	282	168	70

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				12.8
Total Del/Veh (s)	161.6	168.1	9.0	73.2
Vehicles Entered	531	330	0	3228
Vehicles Exited	278	268	197	3154
Hourly Exit Rate	278	268	197	3154

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	SB	All
Movements Served	T	TR	LT	T	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	3.3	3.5	106.7	123.2	119.9	54.9
Vehicles Entered	487	482	334	269	218	1790
Vehicles Exited	460	513	335	316	137	1762
Hourly Exit Rate	460	513	335	316	137	1762

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	231.7	239.7	1085.0	308.0	7.3	56.3	47.1	49.9	0.9	57.2	228.1	247.6
Vehicles Entered	238	139	0	82	0	0	520	651	0	0	344	322
Vehicles Exited	59	264	28	32	11	163	453	459	96	25	351	338
Hourly Exit Rate	59	264	28	32	11	163	453	459	96	25	351	338

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		12.8
Total Del/Veh (s)	143.6	156.4
Vehicles Entered	140	2437
Vehicles Exited	48	2328
Hourly Exit Rate	48	2328

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								26.8
Total Del/Veh (s)	137.0	10.7	71.1	38.2	31.9	72.4	74.5	63.1
Vehicles Entered	477	0	0	665	660	449	578	2829
Vehicles Exited	301	163	314	486	526	518	511	2819
Hourly Exit Rate	301	163	314	486	526	518	511	2819

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										246.6
Total Del/Veh (s)	310.3	209.9	39.5	183.8	153.0	143.2	75.8	24.0	24.0	117.4
Vehicles Entered	270	188	391	454	395	402	0	693	316	3108
Vehicles Exited	215	186	420	450	349	438	135	463	405	3061
Hourly Exit Rate	215	186	420	450	349	438	135	463	405	3061

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	EB	WB	NB	All
Movements Served	T	T	TR	T	LTR	
Denied Del/Veh (s)						14.7
Total Del/Veh (s)	1.7	1.5	0.6	363.1	2.8	98.6
Vehicles Entered	115	27	94	95	23	354
Vehicles Exited	109	33	95	83	23	343
Hourly Exit Rate	109	33	95	83	23	343

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									7.0
Total Del/Veh (s)	2.0	0.2	0.2	2.3	307.3	467.3	46.1	790.8	149.8
Vehicles Entered	1	119	129	3	94	4	10	34	393
Vehicles Exited	41	79	128	3	82	2	8	12	355
Hourly Exit Rate	41	79	128	3	82	2	8	12	355

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.4	367.0	487.5	156.1
Vehicles Entered	215	121	23	359
Vehicles Exited	215	97	13	326
Hourly Exit Rate	215	97	13	326

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				5.3
Total Del/Veh (s)	0.5	198.4	218.8	95.0
Vehicles Entered	209	135	44	388
Vehicles Exited	209	112	38	358
Hourly Exit Rate	209	112	38	358

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	18.3	60.2	8.7
Vehicles Entered	221	153	7	380
Vehicles Exited	221	150	7	379
Hourly Exit Rate	221	150	7	379

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				2.2
Total Del/Veh (s)	0.1	34.3	62.0	15.8
Vehicles Entered	221	156	12	389
Vehicles Exited	221	149	10	381
Hourly Exit Rate	221	149	10	381

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Denied Del/Veh (s)								0.2
Total Del/Veh (s)	162.4	33.5	17.8	22.2	21.9	17.8	8.1	31.5
Vehicles Entered	0	307	446	237	258	0	128	1375
Vehicles Exited	88	274	392	232	264	70	58	1378
Hourly Exit Rate	88	274	392	232	264	70	58	1378

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	41.2	28.1	29.7	39.1	26.3	23.2	39.4	30.0	4.9	38.7	27.7	3.2
Vehicles Entered	0	317	397	0	430	96	0	390	0	0	255	0
Vehicles Exited	100	281	334	104	189	232	57	162	172	60	123	68
Hourly Exit Rate	100	281	334	104	189	232	57	162	172	60	123	68

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	26.7
Vehicles Entered	1887
Vehicles Exited	1881
Hourly Exit Rate	1881

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.3
Total Del/Veh (s)	26.4	32.2	17.9	26.1	68.0	59.9	18.6	39.1	38.8	30.5
Vehicles Entered	0	171	51	0	214	0	574	0	328	1336
Vehicles Exited	31	80	109	108	93	43	520	16	306	1306
Hourly Exit Rate	31	80	109	108	93	43	520	16	306	1306

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	55.0	636.1	73.0	40.0	32.5	22.4	39.8	22.3	10.5	41.4	43.4	8.3
Vehicles Entered	0	353	486	0	293	105	0	449	0	0	457	0
Vehicles Exited	278	117	440	42	205	151	129	240	86	57	146	256
Hourly Exit Rate	278	117	440	42	205	151	129	240	86	57	146	256

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	212.9
Total Del/Veh (s)	79.4
Vehicles Entered	2144
Vehicles Exited	2147
Hourly Exit Rate	2147

Total Network Performance

Denied Del/Veh (s)	176.1
Total Del/Veh (s)	212.5
Vehicles Entered	8021
Vehicles Exited	7623
Hourly Exit Rate	7623
Input Volume	35589
% of Volume	21

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	842	840	90	160	476	414	165	350	330	71	125
Average Queue (ft)	111	395	368	71	102	201	177	124	154	161	48	75
95th Queue (ft)	132	854	857	118	174	545	441	208	323	323	95	149
Link Distance (ft)		2012	2012			1213	1213		586	586		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	63	11	41	12	21	12		14	11	35	5	4
Queuing Penalty (veh)	153	27	81	28	36	13		55	28	72	21	13

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	855	897	120
Average Queue (ft)	421	434	93
95th Queue (ft)	1174	1186	163
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)	7	7	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			95
Storage Blk Time (%)	45	42	5
Queuing Penalty (veh)	37	95	15

Intersection: 2: Heacock St & New Project Access

Movement	SB	SB	SB
Directions Served	LT	T	T
Maximum Queue (ft)	536	541	519
Average Queue (ft)	305	310	271
95th Queue (ft)	722	723	690
Link Distance (ft)	586	586	586
Upstream Blk Time (%)	16	15	12
Queuing Penalty (veh)	48	46	38
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	943	1201	305	356	122	125	363	378	75	120	740	747
Average Queue (ft)	245	563	264	286	7	102	296	300	35	34	661	666
95th Queue (ft)	1090	1481	354	453	43	170	476	484	92	100	843	843
Link Distance (ft)	2106	2106		306			337	337			702	702
Upstream Blk Time (%)	3	4	28	80			16	17			44	51
Queuing Penalty (veh)	0	0	0	170			120	132			135	156
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)			28	0		28	27	44	0	1	78	
Queuing Penalty (veh)			32	0		166	61	53	2	3	20	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	733
Average Queue (ft)	433
95th Queue (ft)	954
Link Distance (ft)	702
Upstream Blk Time (%)	8
Queuing Penalty (veh)	23
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	731	59	225	321	311	376	376
Average Queue (ft)	421	45	219	283	220	360	365
95th Queue (ft)	854	74	246	354	377	388	380
Link Distance (ft)	1034			257	257	337	337
Upstream Blk Time (%)	11			39	17	44	48
Queuing Penalty (veh)	0			356	158	265	290
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	61	35	45	18			
Queuing Penalty (veh)	106	123	304	81			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	671	664	684	736	721	720	201	254	236
Average Queue (ft)	530	423	368	659	626	587	119	149	140
95th Queue (ft)	974	945	854	825	825	856	210	294	278
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)	50	25	13	59	22	27		12	12
Queuing Penalty (veh)	0	0	0	0	0	0		80	75
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							13	14	
Queuing Penalty (veh)							64	26	

Intersection: 6: Hemlock Ave & New Project Access

Movement	WB	NB
Directions Served	T	LTR
Maximum Queue (ft)	296	34
Average Queue (ft)	220	16
95th Queue (ft)	397	38
Link Distance (ft)	272	238
Upstream Blk Time (%)	67	
Queuing Penalty (veh)	137	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	WB	WB	NB	SB	SB
Directions Served	L	L	TR	LTR	LT	R
Maximum Queue (ft)	23	5	295	46	249	509
Average Queue (ft)	2	0	190	11	22	191
95th Queue (ft)	13	3	406	44	177	497
Link Distance (ft)		285	285	155	572	572
Upstream Blk Time (%)			57		1	6
Queuing Penalty (veh)			49		0	0
Storage Bay Dist (ft)	180					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	19	553	253
Average Queue (ft)	1	291	84
95th Queue (ft)	11	712	242
Link Distance (ft)	285	542	380
Upstream Blk Time (%)		39	
Queuing Penalty (veh)		65	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	29	544	232
Average Queue (ft)	1	187	87
95th Queue (ft)	13	603	229
Link Distance (ft)	542	622	236
Upstream Blk Time (%)		16	16
Queuing Penalty (veh)		26	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Hemlock Ave & West Access

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	71	45
Average Queue (ft)	21	6
95th Queue (ft)	90	25
Link Distance (ft)	106	328
Upstream Blk Time (%)	14	
Queuing Penalty (veh)	25	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Hemlock Ave & Nita Dr

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	199	62
Average Queue (ft)	39	13
95th Queue (ft)	199	46
Link Distance (ft)	318	253
Upstream Blk Time (%)	6	
Queuing Penalty (veh)	9	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	174	335	302	190	215	60	81
Average Queue (ft)	123	170	160	98	110	30	26
95th Queue (ft)	209	368	329	179	202	63	66
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	32	3				9	2
Queuing Penalty (veh)	111	3				5	1

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	120	259	274	124	189	205	123	229	75	95	227	74
Average Queue (ft)	74	131	144	68	84	94	50	91	58	46	67	33
95th Queue (ft)	136	237	243	118	152	163	107	188	92	90	163	75
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	6	16		4	4		1	17	8	3	18	1
Queuing Penalty (veh)	16	16		7	4		2	47	20	7	25	2

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	62	108	130	104	340	168	488	98	466
Average Queue (ft)	22	47	50	61	92	54	160	17	153
95th Queue (ft)	54	86	96	107	333	129	386	60	524
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)							0		2
Queuing Penalty (veh)							2		6
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)		0		6	9	3	8	0	14
Queuing Penalty (veh)		0		6	9	18	4	0	2

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	767	734	118	185	173	163	232	130	114	323	85
Average Queue (ft)	114	732	681	37	100	71	91	107	47	49	124	71
95th Queue (ft)	115	778	876	90	163	141	157	202	118	103	257	110
Link Distance (ft)		715	715		1059	1059		913			1227	
Upstream Blk Time (%)		95	11									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	86	2		0	10		1	7	0	2	12	13
Queuing Penalty (veh)	248	8		0	5		4	16	1	10	40	29

Network Summary

Network wide Queuing Penalty: 4793

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	39.0	32.3	31.4	6.7	46.3	35.2	33.4	45.1	21.9	24.1	5.9	45.6
Vehicles Entered	0	437	183	0	0	466	390	0	321	393	0	0
Vehicles Exited	145	159	150	161	182	307	361	134	213	262	98	56
Hourly Exit Rate	145	159	150	161	182	307	361	134	213	262	98	56

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	31.2	37.7	10.9	29.5
Vehicles Entered	581	402	0	3174
Vehicles Exited	346	291	294	3160
Hourly Exit Rate	346	291	294	3160

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	All
Movements Served	LR	T	TR	LT	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	5.3	2.3	2.2	3.5	2.7	2.7
Vehicles Entered	10	352	382	456	524	1724
Vehicles Exited	9	331	402	383	591	1715
Hourly Exit Rate	9	331	402	383	591	1715

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	33.0	29.9	76.1	8.4	3.8	35.2	19.4	18.9	1.2	38.2	43.8	51.0
Vehicles Entered	157	85	0	273	0	0	403	487	0	0	397	547
Vehicles Exited	42	201	52	215	7	125	319	368	83	18	454	476
Hourly Exit Rate	42	201	52	215	7	125	319	368	83	18	454	476

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.2
Total Del/Veh (s)	3.6	31.4
Vehicles Entered	55	2406
Vehicles Exited	54	2415
Hourly Exit Rate	54	2415

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.6
Total Del/Veh (s)	53.2	3.2	46.7	21.1	15.7	45.7	49.7	37.9
Vehicles Entered	534	0	3	708	340	520	640	2743
Vehicles Exited	360	178	337	367	342	581	578	2743
Hourly Exit Rate	360	178	337	367	342	581	578	2743

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	45.2	25.5	24.9	35.7	18.4	7.6	42.1	8.6	7.7	21.6
Vehicles Entered	210	65	494	597	175	199	0	784	405	2929
Vehicles Exited	187	66	520	515	238	216	176	541	472	2929
Hourly Exit Rate	187	66	520	515	238	216	176	541	472	2929

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.5	0.6	0.2	0.2	1.9	0.5
Vehicles Entered	73	80	177	103	1	434
Vehicles Exited	72	81	183	97	1	434
Hourly Exit Rate	72	81	183	97	1	434

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									0.1
Total Del/Veh (s)	2.1	0.5	0.2	1.7	0.3	7.1	6.7	2.6	1.1
Vehicles Entered	55	185	107	4	201	30	4	54	641
Vehicles Exited	95	143	108	4	201	30	4	54	640
Hourly Exit Rate	95	143	108	4	201	30	4	54	640

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.6	0.4	2.7	0.5
Vehicles Entered	217	202	5	424
Vehicles Exited	217	203	5	425
Hourly Exit Rate	217	203	5	425

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.8	0.8	4.3	1.8
Vehicles Entered	199	186	73	459
Vehicles Exited	198	186	74	458
Hourly Exit Rate	198	186	74	458

10: West Access/West Access & Hemlock Ave Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.5	0.7	3.3	5.1	1.0
Vehicles Entered	129	230	17	21	397
Vehicles Exited	129	230	17	21	397
Hourly Exit Rate	129	230	17	21	397

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.2	1.6	2.7	0.9
Vehicles Entered	155	153	7	315
Vehicles Exited	155	154	7	316
Hourly Exit Rate	155	154	7	316

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	58.4	18.7	17.8	28.6	30.2	8.3	14.4	17.7	25.3
Vehicles Entered	0	222	268	471	474	15	0	252	1702
Vehicles Exited	50	182	259	460	491	15	155	94	1705
Hourly Exit Rate	50	182	259	460	491	15	155	94	1705

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	48.4	26.1	27.0	44.2	29.0	29.9	40.4	32.2	3.4	40.4	31.0	5.2
Vehicles Entered	0	283	321	0	656	243	0	350	0	0	359	0
Vehicles Exited	40	242	327	116	369	419	134	149	67	100	166	94
Hourly Exit Rate	40	242	327	116	369	419	134	149	67	100	166	94

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	29.5
Vehicles Entered	2211
Vehicles Exited	2223
Hourly Exit Rate	2223

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)		14.7	14.0	25.9	23.7	33.2	13.2	35.4	13.5	17.1
Vehicles Entered	0	121	33	0	212	0	387	0	438	1189
Vehicles Exited	0	101	54	73	138	41	347	45	395	1193
Hourly Exit Rate	0	101	54	73	138	41	347	45	395	1193

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	32.4	23.3	12.5	38.3	29.9	17.4	35.7	18.4	10.6	39.0	31.2	6.6
Vehicles Entered	0	272	142	0	242	68	0	384	0	0	500	0
Vehicles Exited	119	146	148	24	180	107	102	221	63	63	268	167
Hourly Exit Rate	119	146	148	24	180	107	102	221	63	63	268	167

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	23.5
Vehicles Entered	1607
Vehicles Exited	1607
Hourly Exit Rate	1607

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	66.5
Vehicles Entered	7702
Vehicles Exited	7715
Hourly Exit Rate	7715
Input Volume	29889
% of Volume	26

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	210	178	90	160	291	297	164	258	231	70	125
Average Queue (ft)	84	93	79	59	123	158	165	94	94	108	39	58
95th Queue (ft)	129	173	151	106	187	277	273	163	197	197	90	124
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	15	6	16	2	14	12		5	2	30	4	3
Queuing Penalty (veh)	24	9	25	4	43	22		12	3	31	11	8

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	292	358	120
Average Queue (ft)	161	178	108
95th Queue (ft)	249	291	144
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	25	20	10
Queuing Penalty (veh)	15	58	33

Intersection: 2: Heacock St & New Project Access

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	31	24	57
Average Queue (ft)	8	1	3
95th Queue (ft)	30	22	42
Link Distance (ft)	461	694	694
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	85	228	158	101	20	124	320	321	75	119	501	524
Average Queue (ft)	29	92	46	38	3	80	131	141	35	22	246	276
95th Queue (ft)	66	188	119	79	14	142	268	266	88	76	486	510
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)							0	0			0	1
Queuing Penalty (veh)							1	0			1	2
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						7	10	25	0	0	36	
Queuing Penalty (veh)						24	12	21	2	1	7	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	155
Average Queue (ft)	19
95th Queue (ft)	80
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	542	58	225	321	268	390	378
Average Queue (ft)	280	48	205	227	146	317	336
95th Queue (ft)	460	65	260	373	266	422	415
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				12	0	11	16
Queuing Penalty (veh)				62	2	64	94
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	58	13	23	3			
Queuing Penalty (veh)	103	46	82	9			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	253	207	437	460	362	172	199	242	215
Average Queue (ft)	124	53	193	241	154	54	106	87	77
95th Queue (ft)	212	148	349	408	309	129	175	188	173
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							0	1	
Queuing Penalty (veh)							2	1	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	17
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	WB	WB	NB	SB	SB
Directions Served	L	L	TR	LTR	LT	R
Maximum Queue (ft)	45	10	3	46	28	54
Average Queue (ft)	12	0	0	14	3	24
95th Queue (ft)	34	5	2	36	17	42
Link Distance (ft)		284	284	157	573	573
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	180					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	44	28
Average Queue (ft)	3	4
95th Queue (ft)	21	21
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	69	57
Average Queue (ft)	14	30
95th Queue (ft)	47	52
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: West Access/West Access & Hemlock Ave

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	41	34	28
Average Queue (ft)	3	12	12
95th Queue (ft)	22	37	31
Link Distance (ft)	105	235	328
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	144	174	198	352	373	35	64	211
Average Queue (ft)	48	77	94	213	233	7	50	62
95th Queue (ft)	102	150	168	341	361	29	75	153
Link Distance (ft)		1213	1213	1261	1261	182		1507
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	0	1					22	5
Queuing Penalty (veh)	0	0					19	7

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	120	201	239	124	292	313	134	233	75	105	294	75
Average Queue (ft)	40	102	128	88	172	185	89	95	41	72	106	47
95th Queue (ft)	102	182	213	145	268	280	147	196	91	118	223	91
Link Distance (ft)		1261	1261		2384	2384		1353				1508
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	1	11		7	20		8	24	1	14	24	3
Queuing Penalty (veh)	1	4		23	24		18	49	3	38	47	10

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	6	67	71	105	187	144	244	124	226
Average Queue (ft)	0	31	27	49	67	38	99	43	117
95th Queue (ft)	4	59	59	96	130	90	201	100	209
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				3	8		3	1	10
Queuing Penalty (veh)				4	6		1	2	5

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	110	178	126	124	168	136	132	187	130	114	334	85
Average Queue (ft)	66	66	47	23	86	46	68	91	35	61	156	62
95th Queue (ft)	111	139	96	70	145	102	116	162	91	117	293	114
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	7	2			6		0	5	0	2	24	5
Queuing Penalty (veh)	7	3			1		0	8	0	9	58	15

Network Summary

Network wide Queuing Penalty: 1197

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	51.9	176.8	73.5	3.7	48.5	36.2	33.3	60.4	38.7	34.1	4.0	47.5
Vehicles Entered	0	649	294	0	0	244	288	0	475	537	0	0
Vehicles Exited	253	186	304	194	107	185	237	225	298	332	163	77
Hourly Exit Rate	253	186	304	194	107	185	237	225	298	332	163	77

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.6
Total Del/Veh (s)	88.6	95.4	9.8	56.3
Vehicles Entered	576	363	0	3427
Vehicles Exited	315	291	224	3389
Hourly Exit Rate	315	291	224	3389

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	SB	All
Movements Served	LR	T	TR	LT	T	T	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	11.5	3.4	3.3	70.4	74.0	72.9	35.3
Vehicles Entered	40	528	494	389	283	236	1969
Vehicles Exited	40	489	528	373	378	131	1938
Hourly Exit Rate	40	489	528	373	378	131	1938

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	527.5	509.2	643.4	122.0	3.9	54.2	45.7	50.2	1.5	58.2	172.8	188.1
Vehicles Entered	357	64	0	163	0	0	599	747	0	0	388	381
Vehicles Exited	50	255	59	91	7	178	501	479	190	42	402	388
Hourly Exit Rate	50	255	59	91	7	178	501	479	190	42	402	388

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		5.3
Total Del/Veh (s)	91.0	171.6
Vehicles Entered	136	2833
Vehicles Exited	53	2696
Hourly Exit Rate	53	2696

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								3.0
Total Del/Veh (s)	166.5	11.2	51.9	29.8	31.4	62.6	66.0	59.2
Vehicles Entered	580	0	0	721	738	526	631	3196
Vehicles Exited	345	227	335	553	566	587	573	3187
Hourly Exit Rate	345	227	335	553	566	587	573	3187

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										303.3
Total Del/Veh (s)	72.5	47.1	23.6	209.9	191.7	170.3	41.2	8.2	6.4	85.1
Vehicles Entered	617	407	109	364	409	391	0	785	362	3444
Vehicles Exited	288	284	546	432	326	408	222	483	439	3429
Hourly Exit Rate	288	284	546	432	326	408	222	483	439	3429

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	EB	WB	NB	All
Movements Served	LT	T	TR	TR	LTR	
Denied Del/Veh (s)						34.5
Total Del/Veh (s)	1.2	1.6	0.6	236.8	3.3	76.9
Vehicles Entered	162	45	139	169	27	541
Vehicles Exited	164	44	137	165	27	537
Hourly Exit Rate	164	44	137	165	27	537

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									541.1
Total Del/Veh (s)	4.7	0.6	0.6	13.7	253.3	1211.9	993.7	2054.8	178.8
Vehicles Entered	106	310	251	16	155	15	14	29	897
Vehicles Exited	238	182	247	15	151	14	8	15	869
Hourly Exit Rate	238	182	247	15	151	14	8	15	869

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	4.1	5.3	355.2	849.6	165.7
Vehicles Entered	190	114	187	20	512
Vehicles Exited	186	117	172	11	487
Hourly Exit Rate	186	117	172	11	487

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				352.1
Total Del/Veh (s)	4.7	274.1	207.9	128.4
Vehicles Entered	298	178	140	615
Vehicles Exited	296	163	133	592
Hourly Exit Rate	296	163	133	592

10: West Access/West Access & Hemlock Ave Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					73.5
Total Del/Veh (s)	1.3	19.4	102.2	150.2	47.5
Vehicles Entered	181	317	119	105	720
Vehicles Exited	181	315	115	102	712
Hourly Exit Rate	181	315	115	102	712

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				7.8
Total Del/Veh (s)	0.6	68.0	155.1	28.1
Vehicles Entered	332	201	8	540
Vehicles Exited	332	197	9	538
Hourly Exit Rate	332	197	9	538

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	163.8	29.5	19.2	31.2	23.8	13.0	17.4	7.9	31.5
Vehicles Entered	0	269	492	241	271	99	0	122	1494
Vehicles Exited	87	277	394	229	282	100	67	55	1492
Hourly Exit Rate	87	277	394	229	282	100	67	55	1492

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	44.2	28.8	33.4	47.3	40.0	25.1	40.7	33.4	4.2	39.7	31.7	3.0
Vehicles Entered	0	328	410	0	448	114	0	392	0	0	278	0
Vehicles Exited	96	302	340	129	191	238	56	162	174	66	134	79
Hourly Exit Rate	96	302	340	129	191	238	56	162	174	66	134	79

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	30.3
Vehicles Entered	1969
Vehicles Exited	1967
Hourly Exit Rate	1967

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	30.6	16.6	18.6	28.3	161.9	136.4	58.7	39.6	104.7	69.3
Vehicles Entered	0	232	98	0	215	0	544	0	362	1452
Vehicles Exited	52	153	125	101	109	52	481	19	330	1423
Hourly Exit Rate	52	153	125	101	109	52	481	19	330	1423

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	57.2	1037.4	311.9	43.4	29.4	30.4	40.9	52.8	9.0	43.5	62.8	7.9
Vehicles Entered	0	619	369	0	328	70	0	453	0	0	467	0
Vehicles Exited	260	147	486	49	161	187	132	230	87	68	153	245
Hourly Exit Rate	260	147	486	49	161	187	132	230	87	68	153	245

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	37.8
Total Del/Veh (s)	203.5
Vehicles Entered	2307
Vehicles Exited	2205
Hourly Exit Rate	2205

Total Network Performance

Denied Del/Veh (s)	221.1
Total Del/Veh (s)	235.4
Vehicles Entered	9570
Vehicles Exited	9115
Hourly Exit Rate	9115
Input Volume	41743
% of Volume	22

Queuing and Blocking Report
 Future (2022) With-Project Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	689	672	90	159	251	229	165	378	384	71	125
Average Queue (ft)	114	415	385	68	84	103	113	145	195	180	45	79
95th Queue (ft)	117	713	685	119	153	197	190	194	388	356	94	146
Link Distance (ft)		2012	2012			1213	1213		586	586		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	72	5	45	4	5	5		31	7	36	5	5
Queuing Penalty (veh)	181	12	94	9	8	5		123	18	75	18	16

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	652	663	120
Average Queue (ft)	302	311	101
95th Queue (ft)	908	904	155
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)	2	2	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			95
Storage Blk Time (%)	35	32	5
Queuing Penalty (veh)	29	71	15

Intersection: 2: Heacock St & New Project Access

Movement	WB	SB	SB	SB
Directions Served	LR	LT	T	T
Maximum Queue (ft)	57	408	408	389
Average Queue (ft)	25	231	233	209
95th Queue (ft)	53	664	663	623
Link Distance (ft)	602	586	586	586
Upstream Blk Time (%)		3	3	1
Queuing Penalty (veh)		9	8	2
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
 Future (2022) With-Project Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	1804	2131	306	377	28	125	367	383	75	120	708	713
Average Queue (ft)	756	1199	288	332	2	109	333	337	58	58	604	615
95th Queue (ft)	2333	2651	327	406	13	151	402	408	99	131	861	867
Link Distance (ft)	2940	2940		306			336	336			702	702
Upstream Blk Time (%)	3	3	52	89			16	18			29	35
Queuing Penalty (veh)	0	0	0	617			131	149			91	108
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)			52	2		28	30	48	2	2	71	
Queuing Penalty (veh)			68	5		163	68	118	12	9	35	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	603
Average Queue (ft)	319
95th Queue (ft)	853
Link Distance (ft)	702
Upstream Blk Time (%)	8
Queuing Penalty (veh)	25
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	1186	70	225	323	298	376	382
Average Queue (ft)	601	53	217	281	259	359	368
95th Queue (ft)	1192	64	264	330	325	379	379
Link Distance (ft)	2390			259	259	336	336
Upstream Blk Time (%)				22	15	37	46
Queuing Penalty (veh)				212	144	255	314
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	57	48	25	16			
Queuing Penalty (veh)	131	170	182	71			

Queuing and Blocking Report
 Future (2022) With-Project Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	481	456	410	743	725	722	210	240	242
Average Queue (ft)	232	200	190	703	687	632	128	84	69
95th Queue (ft)	530	460	346	724	754	807	210	206	177
Link Distance (ft)	2919	2919	2919	684	684	684		259	259
Upstream Blk Time (%)				87	36	24		1	0
Queuing Penalty (veh)				0	0	0		6	0
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							4	0	
Queuing Penalty (veh)							18	1	

Intersection: 6: Hemlock Ave & New Project Access

Movement	WB	NB
Directions Served	TR	LTR
Maximum Queue (ft)	302	38
Average Queue (ft)	274	16
95th Queue (ft)	343	38
Link Distance (ft)	272	238
Upstream Blk Time (%)	84	
Queuing Penalty (veh)	579	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	121	5	8	67	313	172	476	592
Average Queue (ft)	32	0	0	8	277	154	410	547
95th Queue (ft)	91	4	5	40	390	183	824	722
Link Distance (ft)		272	272	295	295	157	572	572
Upstream Blk Time (%)					77	96	70	89
Queuing Penalty (veh)					133	0	0	0
Storage Bay Dist (ft)	180							
Storage Blk Time (%)	0							
Queuing Penalty (veh)	0							

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	102	79	558	226
Average Queue (ft)	9	7	453	111
95th Queue (ft)	73	64	758	288
Link Distance (ft)	295	295	542	380
Upstream Blk Time (%)	0	0	62	3
Queuing Penalty (veh)	0	0	215	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	244	568	268
Average Queue (ft)	31	350	209
95th Queue (ft)	148	799	322
Link Distance (ft)	542	620	236
Upstream Blk Time (%)	0	32	74
Queuing Penalty (veh)	0	64	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: West Access/West Access & Hemlock Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	57	126	210	258
Average Queue (ft)	3	59	109	124
95th Queue (ft)	24	142	252	343
Link Distance (ft)	620	105	214	328
Upstream Blk Time (%)		30	29	20
Queuing Penalty (veh)		68	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
 Future (2022) With-Project Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Intersection: 11: Hemlock Ave & Nita Dr

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	263	65
Average Queue (ft)	106	15
95th Queue (ft)	341	56
Link Distance (ft)	318	253
Upstream Blk Time (%)	19	
Queuing Penalty (veh)	37	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	174	374	374	225	243	102	61	96
Average Queue (ft)	125	175	164	118	121	42	31	26
95th Queue (ft)	210	350	313	205	216	88	63	64
Link Distance (ft)		1213	1213	1260	1260	1123		1507
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	34	4					8	2
Queuing Penalty (veh)	113	4					4	1

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	120	303	329	124	332	305	132	231	75	102	280	75
Average Queue (ft)	77	147	165	84	116	114	49	97	56	53	82	40
95th Queue (ft)	137	263	276	135	308	289	110	209	95	97	209	80
Link Distance (ft)		1260	1260		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	7	16		13	3		0	21	7	3	19	1
Queuing Penalty (veh)	19	16		23	4		2	59	18	7	27	2

Queuing and Blocking Report
 Future (2022) With-Project Weekday PM Peak Hour

Festival at Moreno Valley Mixed Use
 Future (2022) With-Project Weekday PM Peak Hour

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	103	112	173	105	598	170	894	110	971
Average Queue (ft)	36	48	54	61	183	84	328	25	342
95th Queue (ft)	80	92	119	118	565	185	955	84	1024
Link Distance (ft)		318	318		2337		1228		1353
Upstream Blk Time (%)							6		3
Queuing Penalty (veh)							40		11
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)	0	0		9	27	17	11		32
Queuing Penalty (veh)	0	0		10	28	91	8		6

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	2470	2474	117	152	159	163	550	130	114	513	85
Average Queue (ft)	113	1844	1811	40	79	93	97	165	47	56	162	68
95th Queue (ft)	124	2842	2834	87	130	146	167	490	121	116	449	113
Link Distance (ft)		2433	2433		2328	2328		913			1228	
Upstream Blk Time (%)		32	23					1				
Queuing Penalty (veh)		0	0					0				
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	85	6		0	3		2	13	0	5	14	12
Queuing Penalty (veh)	246	21		0	1		5	29	0	23	48	29

Network Summary

Network wide Queuing Penalty: 5786

General Plan (2035)

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	41.8	35.0	34.2	6.7	51.6	42.6	42.4	41.1	23.8	29.4	7.3	44.5
Vehicles Entered	0	481	200	0	0	552	440	0	320	401	0	0
Vehicles Exited	165	184	169	162	211	373	409	130	227	248	112	60
Hourly Exit Rate	165	184	169	162	211	373	409	130	227	248	112	60

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	33.1	42.2	10.1	33.2
Vehicles Entered	602	426	0	3421
Vehicles Exited	359	297	314	3419
Hourly Exit Rate	359	297	314	3419

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	All
Movements Served	T	TR	LT	T	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	2.2	2.2	3.6	2.8	2.7
Vehicles Entered	353	396	482	546	1778
Vehicles Exited	334	415	410	620	1778
Hourly Exit Rate	334	415	410	620	1778

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	29.5	27.7	50.7	24.6	5.1	33.4	17.6	17.3	1.2	40.4	39.4	47.4
Vehicles Entered	155	88	1	187	1	0	396	462	0	0	429	588
Vehicles Exited	44	201	66	99	22	110	322	363	72	17	490	514
Hourly Exit Rate	44	201	66	99	22	110	322	363	72	17	490	514

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.1
Total Del/Veh (s)	4.1	31.0
Vehicles Entered	45	2352
Vehicles Exited	44	2362
Hourly Exit Rate	44	2362

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.4
Total Del/Veh (s)	45.3	2.7	40.3	15.5	12.1	43.4	46.1	33.8
Vehicles Entered	483	0	3	698	280	549	663	2676
Vehicles Exited	306	176	301	365	314	599	610	2672
Hourly Exit Rate	306	176	301	365	314	599	610	2672

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	30.9	22.1	26.1	25.4	15.6	6.1	42.0	10.8	9.8	19.8
Vehicles Entered	227	69	514	542	149	164	1	778	387	2831
Vehicles Exited	208	64	536	487	194	172	175	523	470	2828
Hourly Exit Rate	208	64	536	487	194	172	175	523	470	2828

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	2.0	0.6	0.1	0.2	2.3	0.6
Vehicles Entered	70	83	154	36	1	345
Vehicles Exited	64	90	155	35	1	345
Hourly Exit Rate	64	90	155	35	1	345

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	All
Movements Served	L	T	TR	L	TR	LTR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	2.3	0.1	0.1	0.1	0.3	5.0	2.2	0.3
Vehicles Entered	0	67	85	1	183	1	5	342
Vehicles Exited	9	58	86	1	184	1	5	344
Hourly Exit Rate	9	58	86	1	184	1	5	344

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	0.5	2.6	0.5
Vehicles Entered	142	189	5	336
Vehicles Exited	142	188	5	335
Hourly Exit Rate	142	188	5	335

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5	0.6	4.1	0.6
Vehicles Entered	126	209	9	344
Vehicles Exited	126	209	9	344
Hourly Exit Rate	126	209	9	344

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.3	0.1	2.0	0.2
Vehicles Entered	120	211	2	333
Vehicles Exited	120	211	2	333
Hourly Exit Rate	120	211	2	333

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.1	1.5	3.0	1.0
Vehicles Entered	119	207	7	333
Vehicles Exited	119	208	7	334
Hourly Exit Rate	119	208	7	334

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Denied Del/Veh (s)								0.3
Total Del/Veh (s)	88.6	18.2	16.6	29.9	34.5	14.7	21.3	28.4
Vehicles Entered	0	243	295	518	575	0	284	1915
Vehicles Exited	72	190	278	541	551	172	111	1916
Hourly Exit Rate	72	190	278	541	551	172	111	1916

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	44.4	28.9	30.8	61.1	229.1	170.9	46.6	55.5	2.1	43.2	43.7	5.6
Vehicles Entered	0	296	350	0	853	380	0	554	0	0	447	0
Vehicles Exited	40	262	344	242	404	522	171	263	123	134	199	109
Hourly Exit Rate	40	262	344	242	404	522	171	263	123	134	199	109

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	93.5
Vehicles Entered	2879
Vehicles Exited	2813
Hourly Exit Rate	2813

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.4
Total Del/Veh (s)	32.3	33.4	18.3	23.6	26.1	37.1	41.9	37.0	22.0	30.5
Vehicles Entered	0	90	34	0	311	0	552	0	615	1602
Vehicles Exited	7	54	62	93	217	45	507	84	531	1601
Hourly Exit Rate	7	54	62	93	217	45	507	84	531	1601

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	40.0	28.2	18.5	40.5	31.3	22.2	45.3	35.2	11.5	44.8	56.2	5.8
Vehicles Entered	0	404	272	0	401	147	0	652	0	0	640	0
Vehicles Exited	98	277	301	35	283	227	166	368	118	90	402	150
Hourly Exit Rate	98	277	301	35	283	227	166	368	118	90	402	150

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	32.7
Vehicles Entered	2515
Vehicles Exited	2515
Hourly Exit Rate	2515

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	92.7
Vehicles Entered	8518
Vehicles Exited	8462
Hourly Exit Rate	8462
Input Volume	32688
% of Volume	26

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	243	233	90	160	429	441	164	232	245	70	125
Average Queue (ft)	92	117	101	63	142	237	237	95	109	134	42	63
95th Queue (ft)	133	209	192	111	188	421	408	168	200	226	91	132
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	23	10	20	2	22	19		3	4	33	6	2
Queuing Penalty (veh)	42	17	33	4	81	43		8	5	36	14	5

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	311	366	120
Average Queue (ft)	173	196	103
95th Queue (ft)	270	315	149
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	29	24	9
Queuing Penalty (veh)	18	74	31

Intersection: 2: Heacock St & New Project Access

Movement	SB	SB
Directions Served	LT	T
Maximum Queue (ft)	26	31
Average Queue (ft)	2	3
95th Queue (ft)	25	33
Link Distance (ft)	694	694
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	77	233	127	114	29	124	284	285	75	119	472	478
Average Queue (ft)	28	94	50	47	9	72	121	133	30	20	263	288
95th Queue (ft)	65	182	104	98	26	132	242	251	79	71	472	488
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)								0			1	1
Queuing Penalty (veh)								0			2	3
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						3	9	23	0	0	39	
Queuing Penalty (veh)						11	10	18	1	0	7	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	107
Average Queue (ft)	17
95th Queue (ft)	81
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	390	60	225	314	250	379	382
Average Queue (ft)	229	49	179	170	108	320	339
95th Queue (ft)	354	65	258	318	209	424	420
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				3	0	8	13
Queuing Penalty (veh)				15	0	51	80
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	56	13	11	2			
Queuing Penalty (veh)	101	39	36	6			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	209	174	422	320	252	142	214	264	252
Average Queue (ft)	113	45	201	182	102	35	117	117	107
95th Queue (ft)	183	116	358	283	216	83	194	237	233
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								2	1
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							1	2	
Queuing Penalty (veh)							3	4	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	NB	SB
Directions Served	L	LTR	R
Maximum Queue (ft)	20	13	26
Average Queue (ft)	1	1	4
95th Queue (ft)	8	8	19
Link Distance (ft)		157	573
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	180		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	30	28
Average Queue (ft)	3	4
95th Queue (ft)	18	21
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	25	31
Average Queue (ft)	1	8
95th Queue (ft)	10	29
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Hemlock Ave & West Access

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	328
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	147	200	207	382	428	64	246
Average Queue (ft)	72	77	95	257	281	52	77
95th Queue (ft)	138	173	175	386	414	73	184
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	4	1				23	7
Queuing Penalty (veh)	10	0				25	11

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	119	258	294	124	1574	1558	134	539	75	105	378	75
Average Queue (ft)	34	114	142	123	908	893	114	234	47	87	162	51
95th Queue (ft)	85	204	246	137	1801	1761	162	437	95	125	318	97
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	0	13		66	23		21	36	1	24	33	4
Queuing Penalty (veh)	1	5		273	62		78	105	5	79	83	15

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	39	78	93	105	244	169	762	125	388
Average Queue (ft)	7	35	34	60	106	62	268	71	200
95th Queue (ft)	28	62	71	114	202	164	624	134	335
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				4	16	0	25	2	25
Queuing Penalty (veh)				9	16	0	12	12	21

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	258	210	124	234	213	170	496	130	114	560	85
Average Queue (ft)	70	129	109	40	138	111	125	207	76	82	298	56
95th Queue (ft)	123	222	191	106	210	190	195	411	157	133	509	115
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	7	20		0	19		7	22	0	7	46	3
Queuing Penalty (veh)	15	20		0	8		36	67	2	41	118	12

Network Summary

Network wide Queuing Penalty: 1943

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	53.1	452.0	358.1	1.8	44.2	37.4	37.3	48.9	31.6	43.5	4.9	46.0
Vehicles Entered	0	770	456	0	0	354	343	0	478	579	0	0
Vehicles Exited	231	323	407	151	124	265	305	165	371	331	196	83
Hourly Exit Rate	231	323	407	151	124	265	305	165	371	331	196	83

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				6.8
Total Del/Veh (s)	32.2	33.0	11.4	116.6
Vehicles Entered	535	317	0	3835
Vehicles Exited	296	260	215	3723
Hourly Exit Rate	296	260	215	3723

2: Heacock St & New Project Access Performance by lane

Lane	NB	NB	SB	SB	SB	All
Movements Served	T	TR	LT	T	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	3.0	3.0	2.8	1.9	2.7	2.7
Vehicles Entered	535	565	363	277	191	1931
Vehicles Exited	502	602	319	465	47	1935
Hourly Exit Rate	502	602	319	465	47	1935

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	37.2	69.6	62.3	27.8	7.1	47.4	27.7	29.7	1.5	47.7	39.1	44.5
Vehicles Entered	296	187	1	220	0	0	554	726	0	0	339	476
Vehicles Exited	93	390	94	95	32	158	483	504	133	25	376	406
Hourly Exit Rate	93	390	94	95	32	158	483	504	133	25	376	406

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		0.1
Total Del/Veh (s)	5.3	38.8
Vehicles Entered	47	2846
Vehicles Exited	43	2830
Hourly Exit Rate	43	2830

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.3
Total Del/Veh (s)	53.2	6.9	48.3	17.5	13.6	40.2	44.3	32.0
Vehicles Entered	436	0	0	818	645	474	656	3028
Vehicles Exited	234	193	373	518	571	561	569	3019
Hourly Exit Rate	234	193	373	518	571	561	569	3019

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	68.8	33.4	14.0	53.9	31.3	19.1	46.3	13.8	12.3	31.0
Vehicles Entered	378	133	354	655	274	350	1	697	374	3216
Vehicles Exited	289	206	367	529	356	405	182	460	428	3221
Hourly Exit Rate	289	206	367	529	356	405	182	460	428	3221

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	EB	WB	NB	All
Movements Served	T	T	TR	T	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.9	1.9	0.6	0.3	2.9	1.0
Vehicles Entered	142	48	136	221	24	571
Vehicles Exited	130	54	141	221	24	571
Hourly Exit Rate	130	54	141	221	24	571

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									0.0
Total Del/Veh (s)	2.2	0.2	0.2	2.0	0.4	7.7	7.4	2.9	0.8
Vehicles Entered	1	140	196	5	178	5	5	38	568
Vehicles Exited	53	88	196	5	178	5	5	38	568
Hourly Exit Rate	53	88	196	5	178	5	5	38	568

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.4	0.5	5.0	0.6
Vehicles Entered	285	180	18	483
Vehicles Exited	285	181	18	483
Hourly Exit Rate	285	181	18	483

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.7	0.5	5.3	1.0
Vehicles Entered	282	175	39	496
Vehicles Exited	282	174	39	495
Hourly Exit Rate	282	174	39	495

10: Hemlock Ave & West Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.6	0.3	2.5	0.5
Vehicles Entered	283	191	10	484
Vehicles Exited	283	191	10	484
Hourly Exit Rate	283	191	10	484

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.1	1.4	2.8	0.7
Vehicles Entered	283	190	7	480
Vehicles Exited	283	190	7	480
Hourly Exit Rate	283	190	7	480

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	SB	SB	All
Movements Served	L	T	TR	T	TR	L	TR	
Denied Del/Veh (s)								1.5
Total Del/Veh (s)	216.0	122.8	49.6	24.3	25.8	18.7	11.5	61.7
Vehicles Entered	0	413	625	337	351	0	150	1875
Vehicles Exited	98	354	559	328	354	89	60	1843
Hourly Exit Rate	98	354	559	328	354	89	60	1843

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	49.2	39.4	43.3	41.7	28.1	27.5	44.1	40.0	5.1	43.4	30.7	3.8
Vehicles Entered	0	407	560	0	506	138	0	589	0	0	355	0
Vehicles Exited	111	423	439	86	257	304	108	259	222	73	187	95
Hourly Exit Rate	111	423	439	86	257	304	108	259	222	73	187	95

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	33.5
Vehicles Entered	2554
Vehicles Exited	2564
Hourly Exit Rate	2564

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	30.3	32.7	19.6	27.9	27.7	40.5	27.1	42.3	19.1	26.0
Vehicles Entered	0	209	75	0	286	0	654	0	381	1603
Vehicles Exited	45	97	143	93	193	60	588	32	351	1602
Hourly Exit Rate	45	97	143	93	193	60	588	32	351	1602

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	56.9	185.7	177.6	44.3	35.9	27.8	62.3	105.1	8.9	45.7	38.3	10.5
Vehicles Entered	0	614	521	0	521	223	0	790	0	0	491	0
Vehicles Exited	188	452	503	104	332	312	223	386	172	99	265	122
Hourly Exit Rate	188	452	503	104	332	312	223	386	172	99	265	122

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	166.0
Total Del/Veh (s)	90.2
Vehicles Entered	3162
Vehicles Exited	3157
Hourly Exit Rate	3157

Total Network Performance

Denied Del/Veh (s)	61.0
Total Del/Veh (s)	132.4
Vehicles Entered	9609
Vehicles Exited	9456
Hourly Exit Rate	9456
Input Volume	37764
% of Volume	25

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	2058	2053	90	160	299	287	165	356	372	70	125
Average Queue (ft)	112	1479	1455	61	101	144	160	125	184	208	50	74
95th Queue (ft)	129	2370	2333	121	174	263	268	194	333	360	96	135
Link Distance (ft)		2012	2012			1213	1213		586	586		
Upstream Blk Time (%)		20	16									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	66	18	67	1	5	14		7	16	44	7	5
Queuing Penalty (veh)	279	48	113	4	13	20		23	27	85	25	13

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	240	254	120
Average Queue (ft)	146	144	90
95th Queue (ft)	227	238	147
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	23	18	5
Queuing Penalty (veh)	18	38	13

Intersection: 2: Heacock St & New Project Access

Movement	SB
Directions Served	T
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	586
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	194	619	204	155	46	125	361	365	75	119	367	387
Average Queue (ft)	61	286	76	50	12	99	227	238	56	31	201	223
95th Queue (ft)	137	595	166	117	34	156	382	383	98	91	385	403
Link Distance (ft)	2106	2106		306			337	337			702	702
Upstream Blk Time (%)							2	3			0	0
Queuing Penalty (veh)							13	18			0	0
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						17	20	42	1	0	33	
Queuing Penalty (veh)						86	32	57	6	0	8	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	146
Average Queue (ft)	19
95th Queue (ft)	111
Link Distance (ft)	702
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	474	59	225	320	278	368	379
Average Queue (ft)	203	50	210	249	169	286	309
95th Queue (ft)	391	67	256	378	306	419	432
Link Distance (ft)	1034			257	257	337	337
Upstream Blk Time (%)	0			17	1	6	13
Queuing Penalty (veh)	0			125	10	34	75
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	55	28	29	3			
Queuing Penalty (veh)	103	70	160	11			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	434	385	223	606	544	312	214	285	271
Average Queue (ft)	235	178	106	318	248	137	135	134	123
95th Queue (ft)	424	362	187	539	464	283	222	274	250
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)				1	0			3	0
Queuing Penalty (veh)				0	0			16	2
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							5	3	
Queuing Penalty (veh)							25	6	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	15
95th Queue (ft)	36
Link Distance (ft)	238
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	WB	WB	NB	SB	SB
Directions Served	L	L	TR	LTR	LT	R
Maximum Queue (ft)	32	21	3	23	30	41
Average Queue (ft)	6	1	0	3	4	16
95th Queue (ft)	24	11	2	15	21	35
Link Distance (ft)		285	285	155	572	572
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	180					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	32	32
Average Queue (ft)	2	14
95th Queue (ft)	21	37
Link Distance (ft)	285	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	48	49
Average Queue (ft)	4	23
95th Queue (ft)	23	46
Link Distance (ft)	542	236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Hemlock Ave & West Access

Movement	SB
Directions Served	R
Maximum Queue (ft)	24
Average Queue (ft)	6
95th Queue (ft)	23
Link Distance (ft)	328
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	TR	T	TR	L	TR
Maximum Queue (ft)	174	883	880	269	279	63	120
Average Queue (ft)	158	487	481	143	159	40	33
95th Queue (ft)	212	1043	1039	244	262	71	85
Link Distance (ft)		1213	1213	1261	1261		1507
Upstream Blk Time (%)		1	1				
Queuing Penalty (veh)		6	7				
Storage Bay Dist (ft)	150					40	
Storage Blk Time (%)	69	5				14	2
Queuing Penalty (veh)	342	6				9	2

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	120	440	444	124	219	228	134	375	75	104	272	75
Average Queue (ft)	86	230	240	70	116	131	88	176	64	59	115	45
95th Queue (ft)	145	401	412	129	187	201	148	317	94	111	220	88
Link Distance (ft)		1261	1261		2384	2384		1353			1508	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	12	31		2	11		5	32	11	9	29	2
Queuing Penalty (veh)	49	38		4	9		23	117	39	23	49	5

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	84	109	108	105	202	170	467	125	262
Average Queue (ft)	31	53	62	62	101	73	238	36	129
95th Queue (ft)	67	89	106	114	183	164	416	96	220
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)				7	15	0	23	0	14
Queuing Penalty (veh)				13	13	0	15	2	5

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	762	762	124	308	267	170	820	130	114	330	85
Average Queue (ft)	111	733	734	94	185	158	159	516	85	86	170	65
95th Queue (ft)	124	747	748	151	273	243	197	975	171	138	291	112
Link Distance (ft)		715	715		1059	1059		913			1227	
Upstream Blk Time (%)		76	77					10				
Queuing Penalty (veh)		0	0					0				
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	53	47		5	29		34	32	1	11	31	4
Queuing Penalty (veh)	254	110		14	29		194	131	6	40	70	15

Network Summary

Network wide Queuing Penalty: 3215

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	42.5	37.2	32.8	7.2	52.1	44.7	43.9	43.2	24.5	28.0	6.0	47.4
Vehicles Entered	0	478	193	0	0	540	428	0	316	375	0	0
Vehicles Exited	166	177	176	154	205	362	401	126	209	241	112	59
Hourly Exit Rate	166	177	176	154	205	362	401	126	209	241	112	59

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	33.1	40.0	10.3	33.8
Vehicles Entered	613	411	0	3352
Vehicles Exited	360	307	297	3353
Hourly Exit Rate	360	307	297	3353

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	All
Movements Served	LR	T	TR	LT	T	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	4.5	2.4	2.3	11.8	10.4	7.5
Vehicles Entered	10	341	361	478	548	1737
Vehicles Exited	10	322	379	438	588	1738
Hourly Exit Rate	10	322	379	438	588	1738

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	34.7	33.8	65.7	9.0	5.6	33.5	17.9	18.1	1.4	36.1	65.0	71.9
Vehicles Entered	148	90	0	288	0	0	383	467	0	0	454	557
Vehicles Exited	45	190	61	214	11	106	307	340	96	14	490	500
Hourly Exit Rate	45	190	61	214	11	106	307	340	96	14	490	500

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		2.1
Total Del/Veh (s)	4.3	40.6
Vehicles Entered	44	2430
Vehicles Exited	43	2419
Hourly Exit Rate	43	2419

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								0.4
Total Del/Veh (s)	50.0	2.9	41.4	14.9	11.4	45.2	50.0	35.4
Vehicles Entered	485	0	2	669	291	539	648	2635
Vehicles Exited	295	190	305	345	311	596	588	2630
Hourly Exit Rate	295	190	305	345	311	596	588	2630

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	31.8	24.5	22.9	26.6	17.4	6.9	42.6	10.6	9.5	19.6
Vehicles Entered	230	73	502	508	154	171	1	768	368	2774
Vehicles Exited	209	73	527	458	194	179	170	511	452	2772
Hourly Exit Rate	209	73	527	458	194	179	170	511	452	2772

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	LT	TR	LT	TR	LTR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	1.5	0.6	0.2	0.3	3.5	0.5
Vehicles Entered	80	90	183	113	1	466
Vehicles Exited	81	89	192	103	1	466
Hourly Exit Rate	81	89	192	103	1	466

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									0.1
Total Del/Veh (s)	2.1	0.5	0.3	0.9	0.2	7.7	8.1	2.8	1.2
Vehicles Entered	63	195	115	4	210	32	4	59	682
Vehicles Exited	111	146	116	4	211	32	4	59	683
Hourly Exit Rate	111	146	116	4	211	32	4	59	683

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.6	0.4	3.0	0.5
Vehicles Entered	228	214	6	448
Vehicles Exited	227	214	6	447
Hourly Exit Rate	227	214	6	447

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.7	0.9	4.6	1.8
Vehicles Entered	210	204	68	482
Vehicles Exited	211	204	68	483
Hourly Exit Rate	211	204	68	483

10: West Access/West Access & Hemlock Ave Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.5	0.7	2.9	5.1	0.9
Vehicles Entered	139	253	16	16	425
Vehicles Exited	139	254	16	16	425
Hourly Exit Rate	139	254	16	16	425

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.2	1.5	3.0	0.9
Vehicles Entered	158	180	6	344
Vehicles Exited	157	179	6	342
Hourly Exit Rate	157	179	6	342

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	89.2	19.2	17.6	29.2	34.0	8.2	15.8	19.1	28.4
Vehicles Entered	0	245	306	506	577	14	0	264	1913
Vehicles Exited	74	201	273	533	539	13	161	103	1897
Hourly Exit Rate	74	201	273	533	539	13	161	103	1897

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	49.0	28.9	31.0	63.0	322.3	224.7	48.7	56.5	2.7	43.4	46.5	6.2
Vehicles Entered	0	302	339	0	846	398	0	544	0	0	434	0
Vehicles Exited	34	270	342	251	385	525	165	253	124	126	190	116
Hourly Exit Rate	34	270	342	251	385	525	165	253	124	126	190	116

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	119.2
Vehicles Entered	2863
Vehicles Exited	2780
Hourly Exit Rate	2780

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)									0.1
Total Del/Veh (s)	16.8	18.2	22.7	24.5	33.6	28.7	35.3	22.3	25.1
Vehicles Entered	122	35	0	289	0	562	0	615	1623
Vehicles Exited	100	58	94	195	46	514	84	532	1623
Hourly Exit Rate	100	58	94	195	46	514	84	532	1623

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	44.5	29.8	19.4	43.3	31.6	22.9	44.3	33.0	10.7	47.7	68.3	6.4
Vehicles Entered	0	416	256	0	413	145	0	672	0	0	643	0
Vehicles Exited	102	279	290	40	289	231	174	375	125	92	420	133
Hourly Exit Rate	102	279	290	40	289	231	174	375	125	92	420	133

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	35.4
Vehicles Entered	2544
Vehicles Exited	2551
Hourly Exit Rate	2551

Total Network Performance

Denied Del/Veh (s)	1.4
Total Del/Veh (s)	100.4
Vehicles Entered	8947
Vehicles Exited	8847
Hourly Exit Rate	8847
Input Volume	33934
% of Volume	26

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	254	235	90	160	428	446	159	189	221	70	125
Average Queue (ft)	92	121	104	63	137	229	230	86	93	118	46	62
95th Queue (ft)	135	224	194	113	189	402	402	153	175	211	94	125
Link Distance (ft)		2012	2012			1213	1213		694	694		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	24	8	21	3	24	22		3	3	32	5	1
Queuing Penalty (veh)	44	14	34	6	88	48		8	4	36	12	5

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	314	354	120
Average Queue (ft)	175	194	106
95th Queue (ft)	272	313	150
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	28	24	9
Queuing Penalty (veh)	18	77	30

Intersection: 2: Heacock St & New Project Access

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	35	179	191
Average Queue (ft)	9	50	53
95th Queue (ft)	31	226	239
Link Distance (ft)	461	694	694
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	72	237	154	96	20	124	289	292	75	103	519	534
Average Queue (ft)	31	90	51	39	5	70	117	125	38	20	337	362
95th Queue (ft)	63	185	123	80	18	130	238	238	87	74	639	646
Link Distance (ft)	2106	2106		357			350	350			592	592
Upstream Blk Time (%)							0	0			8	11
Queuing Penalty (veh)							0	0			29	37
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)						3	9	24	1	0	44	
Queuing Penalty (veh)						10	10	24	2	0	7	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	103
Average Queue (ft)	14
95th Queue (ft)	59
Link Distance (ft)	592
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	476	66	225	305	256	375	374
Average Queue (ft)	234	50	178	153	109	319	334
95th Queue (ft)	413	64	257	316	222	428	423
Link Distance (ft)	1034			257	257	350	350
Upstream Blk Time (%)				5	0	11	18
Queuing Penalty (veh)				23	1	64	106
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	55	14	12	1			
Queuing Penalty (veh)	104	43	42	4			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	210	170	343	335	264	142	213	261	254
Average Queue (ft)	114	52	186	182	103	41	123	116	103
95th Queue (ft)	183	121	313	304	218	94	209	241	229
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)								1	0
Queuing Penalty (veh)								4	2
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							1	2	
Queuing Penalty (veh)							4	4	

Intersection: 6: Hemlock Ave & New Project Access

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	23
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	255
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	WB	WB	NB	SB	SB
Directions Served	L	L	TR	LTR	LT	R
Maximum Queue (ft)	53	5	3	54	33	51
Average Queue (ft)	13	0	0	17	4	24
95th Queue (ft)	37	4	2	41	19	41
Link Distance (ft)		284	284	157	573	573
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	180					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	49	28
Average Queue (ft)	6	5
95th Queue (ft)	29	22
Link Distance (ft)	284	380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	58	4	55
Average Queue (ft)	17	0	30
95th Queue (ft)	47	3	51
Link Distance (ft)	542	620	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: West Access/West Access & Hemlock Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	48	34	29
Average Queue (ft)	0	5	13	9
95th Queue (ft)	4	27	37	28
Link Distance (ft)	620	105	235	328
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Hemlock Ave & Nita Dr

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	253
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	172	198	203	428	434	44	64	203
Average Queue (ft)	79	86	98	252	275	7	51	70
95th Queue (ft)	155	172	181	390	422	31	76	158
Link Distance (ft)		1213	1213	1261	1261	182		1507
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	2	1					24	6
Queuing Penalty (veh)	6	1					26	10

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	119	263	284	124	1899	1866	134	477	75	105	409	75
Average Queue (ft)	36	129	155	124	1205	1183	114	228	48	84	165	48
95th Queue (ft)	94	225	258	128	2238	2196	160	444	95	122	346	90
Link Distance (ft)		1261	1261		2384	2384		1353				1508
Upstream Blk Time (%)					2	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	0	15		74	20		22	36	2	24	31	5
Queuing Penalty (veh)	1	6		303	54		83	102	9	78	78	16

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	
Directions Served	T	TR	L	TR	L	TR	L	TR	
Maximum Queue (ft)	76	84	105	276	169	490	125	441	
Average Queue (ft)	34	32	57	94	55	222	73	192	
95th Queue (ft)	62	65	107	190	142	421	137	350	
Link Distance (ft)	318	318		2337		1227		1353	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			80			145			100
Storage Blk Time (%)			3	12	0	20	2	23	
Queuing Penalty (veh)			7	12	0	10	9	20	

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R	
Maximum Queue (ft)	115	238	204	124	225	198	170	462	130	114	749	85	
Average Queue (ft)	75	137	112	42	139	112	128	214	78	81	351	56	
95th Queue (ft)	132	213	190	107	204	187	194	389	159	131	664	115	
Link Distance (ft)			715	715			1059	1059			913	1227	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)	90			100				145	105	90			60
Storage Blk Time (%)	9	23			0	21	6	22	1	8	50	3	
Queuing Penalty (veh)	20	23			0	8	31	67	4	42	127	14	

Network Summary

Network wide Queuing Penalty: 2111

1: Heacock St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Movements Served	L	T	T	R	L	T	TR	L	T	T	R	L
Denied Del/Veh (s)												
Total Del/Veh (s)	53.9	500.1	395.6	2.8	46.7	36.1	34.7	56.8	25.1	32.9	3.5	44.7
Vehicles Entered	0	709	502	0	0	318	426	0	464	540	0	0
Vehicles Exited	230	317	405	150	141	269	326	164	334	331	176	75
Hourly Exit Rate	230	317	405	150	141	269	326	164	334	331	176	75

1: Heacock St & Ironwood Ave Performance by lane

Lane	SB	SB	SB	All
Movements Served	T	T	R	
Denied Del/Veh (s)				13.4
Total Del/Veh (s)	39.4	40.6	11.0	126.7
Vehicles Entered	519	310	0	3787
Vehicles Exited	287	249	210	3666
Hourly Exit Rate	287	249	210	3666

2: Heacock St & New Project Access Performance by lane

Lane	WB	NB	NB	SB	SB	SB	All
Movements Served	LR	T	TR	LT	T	T	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	9.9	3.3	3.2	15.7	13.0	23.7	8.5
Vehicles Entered	36	539	479	369	268	189	1881
Vehicles Exited	36	484	534	333	425	58	1870
Hourly Exit Rate	36	484	534	333	425	58	1870

3: Heacock St & Hemlock Ave Performance by lane

Lane	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Movements Served	L	TR	L	T	R	L	T	T	R	L	T	T
Denied Del/Veh (s)												
Total Del/Veh (s)	362.9	496.7	197.6	33.7	7.0	55.5	45.7	55.7	1.9	48.9	65.1	68.6
Vehicles Entered	303	184	0	521	0	0	560	765	0	0	348	436
Vehicles Exited	81	330	184	317	16	140	495	439	256	46	355	381
Hourly Exit Rate	81	330	184	317	16	140	495	439	256	46	355	381

3: Heacock St & Hemlock Ave Performance by lane

Lane	SB	All
Movements Served	R	
Denied Del/Veh (s)		4.2
Total Del/Veh (s)	13.9	123.2
Vehicles Entered	59	3175
Vehicles Exited	48	3087
Hourly Exit Rate	48	3087

4: Heacock St & SR 60 WB Ramp Performance by lane

Lane	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LT	R	L	T	T	T	TR	
Denied Del/Veh (s)								1.5
Total Del/Veh (s)	125.1	10.8	55.1	27.1	25.7	56.9	57.0	47.8
Vehicles Entered	486	0	0	723	707	502	635	3052
Vehicles Exited	234	242	343	521	564	550	578	3033
Hourly Exit Rate	234	242	343	521	564	550	578	3033

5: Heacock St & SR 60 EB Ramp Performance by lane

Lane	EB	EB	EB	NB	NB	NB	SB	SB	SB	All
Movements Served	L	LT	R	T	T	TR	L	T	T	
Denied Del/Veh (s)										24.7
Total Del/Veh (s)	111.4	72.5	17.8	149.5	131.8	113.9	42.9	13.2	10.7	75.2
Vehicles Entered	375	188	349	517	336	355	2	693	352	3168
Vehicles Exited	303	248	365	421	341	412	224	419	402	3135
Hourly Exit Rate	303	248	365	421	341	412	224	419	402	3135

6: Hemlock Ave & New Project Access Performance by lane

Lane	EB	EB	EB	WB	NB	All
Movements Served	T	T	TR	T	LTR	
Denied Del/Veh (s)						1.1
Total Del/Veh (s)	1.3	1.7	0.6	41.9	3.4	22.8
Vehicles Entered	203	60	190	538	22	1013
Vehicles Exited	201	63	190	530	22	1007
Hourly Exit Rate	201	63	190	530	22	1007

7: Davis St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	LTR	LT	R	
Denied Del/Veh (s)									165.2
Total Del/Veh (s)	6.0	0.9	0.7	5.0	35.1	252.0	151.4	280.2	67.3
Vehicles Entered	110	336	315	28	317	94	52	165	1415
Vehicles Exited	273	191	296	28	309	91	27	163	1378
Hourly Exit Rate	273	191	296	28	309	91	27	163	1378

8: Hemlock Ave & IHOP Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.8	28.9	82.9	16.1
Vehicles Entered	386	353	21	759
Vehicles Exited	387	343	20	750
Hourly Exit Rate	387	343	20	750

9: Hemlock Ave & Middle Access Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				11.8
Total Del/Veh (s)	2.9	11.6	22.5	11.8
Vehicles Entered	382	219	319	918
Vehicles Exited	382	217	318	917
Hourly Exit Rate	382	217	318	917

10: West Access/West Access & Hemlock Ave Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	1.4	1.8	6.0	9.7	3.1
Vehicles Entered	298	372	117	98	884
Vehicles Exited	299	371	117	98	884
Hourly Exit Rate	299	371	117	98	884

11: Hemlock Ave & Nita Dr Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.4	1.8	4.0	0.9
Vehicles Entered	444	249	8	701
Vehicles Exited	444	248	8	700
Hourly Exit Rate	444	248	8	700

12: Driveway/Davis St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	SB	SB	All
Movements Served	L	T	TR	LT	TR	LTR	L	TR	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	190.0	102.2	42.9	44.1	26.0	15.5	17.4	11.1	54.9
Vehicles Entered	0	411	606	357	356	93	0	142	1965
Vehicles Exited	94	371	540	296	416	94	83	60	1955
Hourly Exit Rate	94	371	540	296	416	94	83	60	1955

13: Indian St & Ironwood Ave Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	50.0	38.7	43.3	42.9	27.2	26.7	45.0	44.0	4.8	43.4	31.8	4.0
Vehicles Entered	0	430	553	0	523	148	0	601	0	0	361	0
Vehicles Exited	99	432	453	94	272	306	114	256	233	77	194	88
Hourly Exit Rate	99	432	453	94	272	306	114	256	233	77	194	88

13: Indian St & Ironwood Ave Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	33.8
Vehicles Entered	2613
Vehicles Exited	2618
Hourly Exit Rate	2618

14: Indian St & Hemlock Ave Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	L	TR	L	TR	L	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	30.4	16.6	19.6	27.3	32.3	46.7	30.7	42.8	20.7	26.8
Vehicles Entered	0	311	130	0	297	0	664	0	403	1804
Vehicles Exited	66	200	176	86	211	68	588	31	370	1796
Hourly Exit Rate	66	200	176	86	211	68	588	31	370	1796

15: Indian St & Sunnymead Blvd Performance by lane

Lane	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Movements Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Denied Del/Veh (s)												
Total Del/Veh (s)	56.7	184.6	179.3	48.6	36.2	28.3	64.0	139.1	8.6	46.9	42.8	8.8
Vehicles Entered	0	607	524	0	528	223	0	833	0	0	492	0
Vehicles Exited	184	453	494	98	338	319	230	395	192	105	276	111
Hourly Exit Rate	184	453	494	98	338	319	230	395	192	105	276	111

15: Indian St & Sunnymead Blvd Performance by lane

Lane	All
Movements Served	
Denied Del/Veh (s)	151.2
Total Del/Veh (s)	94.6
Vehicles Entered	3208
Vehicles Exited	3195
Hourly Exit Rate	3195

Total Network Performance

Denied Del/Veh (s)	82.0
Total Del/Veh (s)	175.3
Vehicles Entered	11003
Vehicles Exited	10640
Hourly Exit Rate	10640
Input Volume	43914
% of Volume	24

Intersection: 1: Heacock St & Ironwood Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	T	R	L
Maximum Queue (ft)	115	2062	2050	90	160	334	308	164	269	281	71	125
Average Queue (ft)	113	1595	1574	59	106	149	161	117	113	125	39	72
95th Queue (ft)	120	2408	2394	117	180	278	273	182	239	243	92	135
Link Distance (ft)		2012	2012			1213	1213		586	586		
Upstream Blk Time (%)		39	34									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	90			65	135			140			45	100
Storage Blk Time (%)	68	16	67	2	6	13		12	6	45	4	2
Queuing Penalty (veh)	288	44	121	11	16	17		42	11	88	15	6

Intersection: 1: Heacock St & Ironwood Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	361	383	120
Average Queue (ft)	159	161	95
95th Queue (ft)	295	313	150
Link Distance (ft)	1480	1480	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			95
Storage Blk Time (%)	27	20	6
Queuing Penalty (veh)	21	44	16

Intersection: 2: Heacock St & New Project Access

Movement	WB	SB	SB	SB
Directions Served	LR	LT	T	T
Maximum Queue (ft)	68	128	133	127
Average Queue (ft)	26	36	36	31
95th Queue (ft)	56	258	258	238
Link Distance (ft)	602	586	586	586
Upstream Blk Time (%)		2	1	1
Queuing Penalty (veh)		5	3	2
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Heacock St & Hemlock Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	1896	1973	306	371	111	125	375	377	75	120	543	546
Average Queue (ft)	885	1402	276	297	8	98	321	333	65	55	284	299
95th Queue (ft)	2080	2357	350	464	54	157	416	403	97	125	544	551
Link Distance (ft)	2106	2106		306			337	337			702	702
Upstream Blk Time (%)	12	18	21	50			13	16			5	6
Queuing Penalty (veh)	0	0	0	355			89	116			14	16
Storage Bay Dist (ft)			360		200	100			50	95		
Storage Blk Time (%)			21	1		18	33	50	4	1	45	
Queuing Penalty (veh)			29	2		88	54	131	19	5	21	

Intersection: 3: Heacock St & Hemlock Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	181
Average Queue (ft)	55
95th Queue (ft)	313
Link Distance (ft)	702
Upstream Blk Time (%)	1
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Heacock St & SR 60 WB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	686	63	225	319	291	374	386
Average Queue (ft)	353	52	218	279	224	349	363
95th Queue (ft)	766	68	251	355	345	386	394
Link Distance (ft)	1034			257	257	337	337
Upstream Blk Time (%)	4			26	10	20	28
Queuing Penalty (veh)	0			202	77	132	187
Storage Bay Dist (ft)		30	200				
Storage Blk Time (%)	50	49	33	11			
Queuing Penalty (veh)	124	120	194	40			

Intersection: 5: Heacock St & SR 60 EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T
Maximum Queue (ft)	575	530	338	724	710	659	212	277	255
Average Queue (ft)	330	268	132	549	507	437	133	110	96
95th Queue (ft)	680	624	361	851	856	848	218	264	227
Link Distance (ft)	742	742	742	685	685	685		257	257
Upstream Blk Time (%)	9	4	1	32	18	18		6	1
Queuing Penalty (veh)	0	0	0	0	0	0		34	5
Storage Bay Dist (ft)							190		
Storage Blk Time (%)							8	2	
Queuing Penalty (veh)							36	6	

Intersection: 6: Hemlock Ave & New Project Access

Movement	WB	NB
Directions Served	T	LTR
Maximum Queue (ft)	299	36
Average Queue (ft)	205	14
95th Queue (ft)	396	36
Link Distance (ft)	272	238
Upstream Blk Time (%)	33	
Queuing Penalty (veh)	236	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Davis St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	151	9	20	34	285	188	590	595
Average Queue (ft)	48	0	1	9	109	161	269	370
95th Queue (ft)	105	6	9	30	307	196	724	756
Link Distance (ft)		272	272	285	285	155	572	572
Upstream Blk Time (%)					15	85	39	45
Queuing Penalty (veh)					27	0	0	0
Storage Bay Dist (ft)	180							
Storage Blk Time (%)	0							
Queuing Penalty (veh)	0							

Intersection: 8: Hemlock Ave & IHOP Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	69	364	67
Average Queue (ft)	6	83	24
95th Queue (ft)	40	379	75
Link Distance (ft)	285	542	380
Upstream Blk Time (%)		6	
Queuing Penalty (veh)		22	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Hemlock Ave & Middle Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	87	177	226
Average Queue (ft)	34	24	105
95th Queue (ft)	76	172	217
Link Distance (ft)	542	620	236
Upstream Blk Time (%)			11
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: West Access/West Access & Hemlock Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	59	107	100	70
Average Queue (ft)	4	31	41	32
95th Queue (ft)	25	85	74	59
Link Distance (ft)	620	105	214	328
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		1		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Hemlock Ave & Nita Dr

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	15	31
Average Queue (ft)	1	7
95th Queue (ft)	15	28
Link Distance (ft)	318	253
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Driveway/Davis St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	LT	TR	LTR	L	TR
Maximum Queue (ft)	174	688	705	299	316	92	63	116
Average Queue (ft)	149	425	425	177	182	42	39	31
95th Queue (ft)	219	913	903	289	294	87	69	80
Link Distance (ft)		1213	1213	1261	1261	182		1507
Upstream Blk Time (%)		0	0					
Queuing Penalty (veh)		1	2					
Storage Bay Dist (ft)	150						40	
Storage Blk Time (%)	54	8					11	3
Queuing Penalty (veh)	267	9					7	2

Intersection: 13: Indian St & Ironwood Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	120	438	444	122	223	225	134	391	75	105	300	75
Average Queue (ft)	81	234	254	73	119	132	96	186	63	64	119	49
95th Queue (ft)	144	412	434	137	193	202	158	350	94	114	222	92
Link Distance (ft)		1261	1261		2384	2384		1353				1508
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			110		50	80		50
Storage Blk Time (%)	8	31		5	10		7	32	11	9	31	2
Queuing Penalty (veh)	33	38		11	10		34	120	41	26	53	6

Intersection: 14: Indian St & Hemlock Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	103	121	148	105	271	170	462	124	297
Average Queue (ft)	41	57	71	63	118	82	258	33	145
95th Queue (ft)	83	95	121	119	219	177	438	85	253
Link Distance (ft)		318	318		2337		1227		1353
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			80		145		100	
Storage Blk Time (%)		0		4	22	0	26	0	19
Queuing Penalty (veh)		0		9	19	1	20	0	7

Intersection: 15: Indian St & Sunnymead Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	772	770	124	279	266	170	951	130	114	385	85
Average Queue (ft)	109	735	736	87	184	160	161	651	82	81	193	60
95th Queue (ft)	130	752	754	152	261	230	195	1114	174	132	343	112
Link Distance (ft)		715	715		1059	1059		913				1227
Upstream Blk Time (%)		76	76					19				
Queuing Penalty (veh)		0	0					0				
Storage Bay Dist (ft)	90			100			145		105	90		60
Storage Blk Time (%)	50	47		5	31		37	32	2	13	34	2
Queuing Penalty (veh)	240	110		14	31		215	132	11	50	78	8

Network Summary

Network wide Queuing Penalty: 4736

Intersection Warrant Analysis

Warrants Summary												
Information												
Analyst	Transpo		Intersection	Heacock St/Project Access								
Agency/Co	City of Moreno Valley		Jurisdiction	Moreno Valley								
Date Performed	12/4/2017		Units	U.S. Customary								
Project ID	Festival at Moreno Valley		Time Period Analyzed	PM Peak Hour								
East/West Street	Project Access		North/South Street	Heacock St								
File Name	Heacock St & Project Access.xhy		Major Street	North-South								
Project Description <i>Festival at Moreno Valley</i>												
General									Roadway Network			
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000			Two Major Routes					<input type="checkbox"/>	
Nearest Signal (ft)	775	<input type="checkbox"/>	Coordinated Signal System			Weekend Count					<input type="checkbox"/>	
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives			5-yr Growth Factor					2	
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	0	0	0	0	1	0	1	0	0	1	0
Lane usage						R		TR			LT	
Vehicle Volume Averages (vph)	196	239	112	26	201	26	119	850	0	0	668	174
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 3: Peak Hour												<input type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input checked="" type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

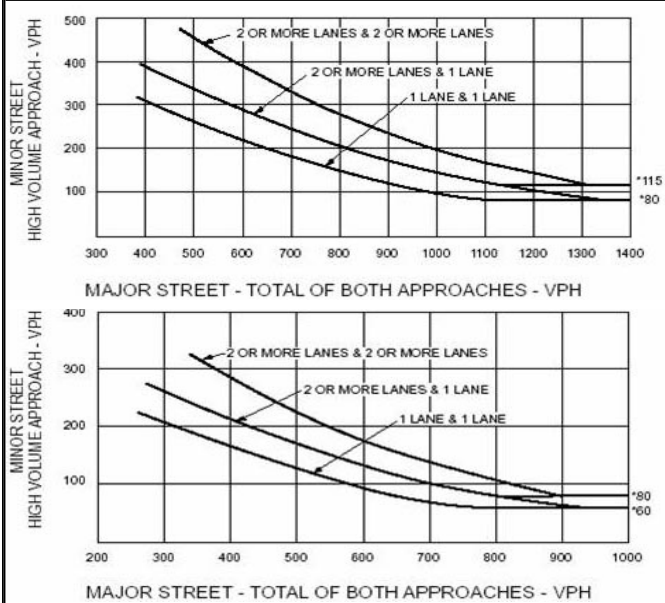
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Project Access Heacock St & Project Access.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Heacock St/Project Access Moreno Valley U.S. Customary PM Peak Hour Heacock St North-South

Project Description *Festival at Moreno Valley*

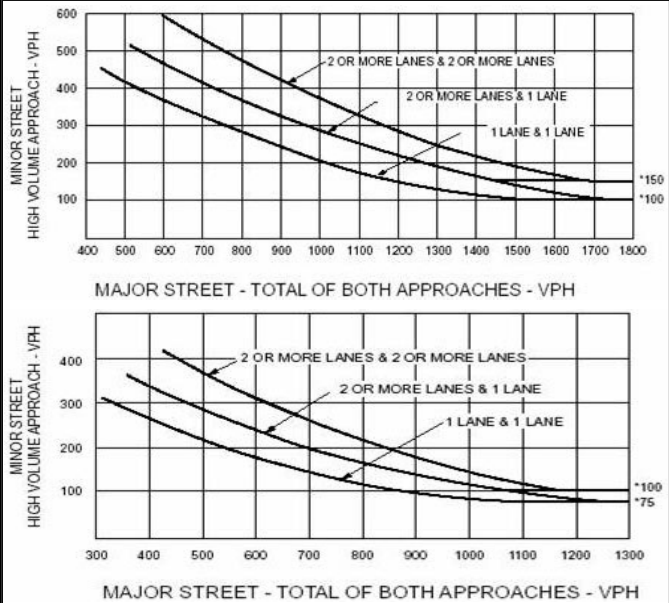
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Major Street Lanes 1			Minor Street Lanes 1			Speed		Population		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	1695	30	1725	No	No	No	No	No	No	No
08-09	1261	22	1283	No	No	No	No	No	No	No
09-10	1064	16	1080	No	No	No	No	No	No	No
10-11	1123	20	1143	No	No	No	No	No	No	No
11-12	1306	23	1329	No	No	No	No	No	No	No
12-13	1712	30	1742	No	No	No	No	No	No	No
13-14	1469	26	1495	No	No	No	No	No	No	No
14-15	1611	28	1639	No	No	No	No	No	No	No
15-16	2089	37	2126	No	No	No	No	No	No	No
16-17	2125	38	2163	No	No	No	No	No	No	No
17-18	1573	28	1601	No	No	No	No	No	No	No
18-19	1203	21	1224	No	No	No	No	No	No	No
Totals	18231	319	18550	0	0	0	0	0	0	0

Warrants Summary												
Information												
Analyst	Transpo					Intersection	Project Access/Hemlock Ave					
Agency/Co	City of Moreno Valley					Jurisdiction	Moreno Valley					
Date Performed	12/4/2017					Units	U.S. Customary					
Project ID	Festival at Moreno Valley					Time Period Analyzed	PM Peak Hour					
East/West Street	Hemlock Ave					North/South Street	Project Access (Int 6)					
File Name	Project Access & Hemlock Ave.xhy					Major Street	East-West					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	400	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	3	0	0	1	0	0	1	0	0	1	0
Lane usage	LTR			LTR			LTR			LTR		
Vehicle Volume Averages (vph)	0	310	14	0	522	0	0	0	18	0	0	0
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume											<input type="checkbox"/>	
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--											<input type="checkbox"/>	
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--											<input type="checkbox"/>	
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)											<input type="checkbox"/>	
Warrant 2: Four-Hour Vehicular Volume											<input type="checkbox"/>	
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)											<input type="checkbox"/>	
Warrant 3: Peak Hour											<input type="checkbox"/>	
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--											<input type="checkbox"/>	
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)											<input type="checkbox"/>	
Warrant 4: Pedestrian Volume											<input type="checkbox"/>	
4 A. Four Hour Volumes --or--											<input type="checkbox"/>	
4 B. One-Hour Volumes											<input type="checkbox"/>	
Warrant 5: School Crossing											<input type="checkbox"/>	
5. Student Volumes --and--											<input type="checkbox"/>	
5. Gaps Same Period											<input type="checkbox"/>	
Warrant 6: Coordinated Signal System											<input type="checkbox"/>	
6. Degree of Platooning (Predominant direction or both directions)											<input type="checkbox"/>	
Warrant 7: Crash Experience											<input type="checkbox"/>	
7 A. Adequate trials of alternatives, observance and enforcement failed --and--											<input type="checkbox"/>	
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--											<input type="checkbox"/>	

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

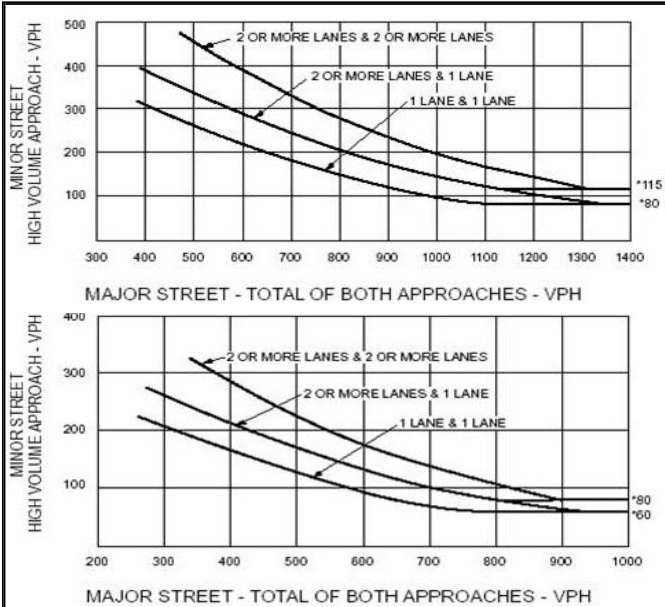
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Hemlock Ave Project Access & Hemlock Ave.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Project Access/Hemlock Ave Moreno Valley U.S. Customary PM Peak Hour Project Access (Int 6) East-West

Project Description *Festival at Moreno Valley*

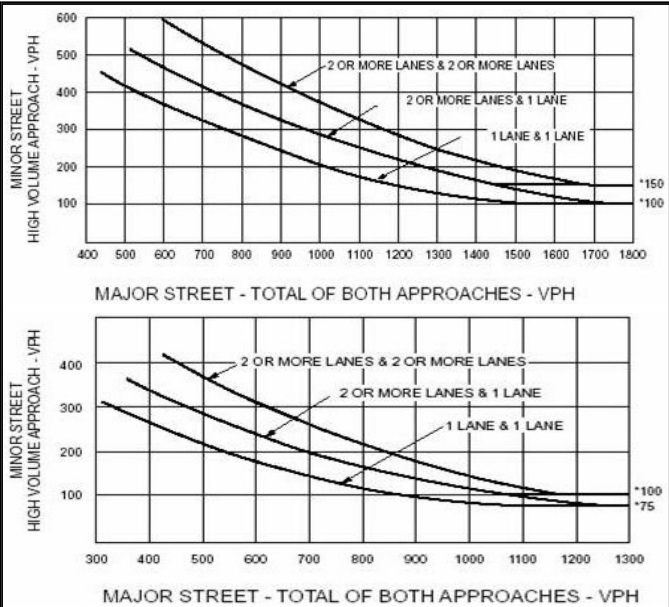
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Hours	Major Street Lanes 2+			Minor Street Lanes 1		Speed		Population		
	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	895	19	914	No	No	No	No	No	No	No
08-09	666	14	680	No	No	No	No	No	No	No
09-10	595	14	609	No	No	No	No	No	No	No
10-11	593	13	606	No	No	No	No	No	No	No
11-12	690	15	705	No	No	No	No	No	No	No
12-13	904	19	923	No	No	No	No	No	No	No
13-14	776	16	792	No	No	No	No	No	No	No
14-15	851	18	869	No	No	No	No	No	No	No
15-16	1103	23	1126	No	No	No	No	No	No	No
16-17	1135	24	1159	No	No	No	No	No	No	No
17-18	1122	24	1146	No	No	No	No	No	No	No
18-19	831	18	849	No	No	No	No	No	No	No
Totals	10161	217	10378	0	0	0	0	0	0	0

Warrants Summary												
Information												
Analyst	Transpo					Intersection	Davis Street/Hemlock Avenue					
Agency/Co	City of Moreno Valley					Jurisdiction	Moreno Valley					
Date Performed	11/20/2017					Units	U.S. Customary					
Project ID	Festival at Moreno Valley					Time Period Analyzed	PM Peak Hour					
East/West Street	Hemlock Avenue					North/South Street	Davis Street					
File Name	Hemlock Ave & Davis St.xhy					Major Street	East-West					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	600	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	1	2	0	1	1	0	0	1	0	0	1	0
Lane usage	L	TR		L	TR			LTR			LTR	
Vehicle Volume Averages (vph)	196	239	112	20	201	26	119	1	17	27	0	174
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input checked="" type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input checked="" type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input checked="" type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input checked="" type="checkbox"/>
Warrant 3: Peak Hour												<input checked="" type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input checked="" type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input checked="" type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Summary												
Information												
Analyst	Transpo					Intersection	Davis Street/Hemlock Avenue					
Agency/Co	City of Moreno Valley					Jurisdiction	Moreno Valley					
Date Performed	11/20/2017					Units	U.S. Customary					
Project ID	Festival at Moreno Valley					Time Period Analyzed	PM Peak Hour					
East/West Street	Hemlock Avenue					North/South Street	Davis Street					
File Name	Hemlock Ave & Davis St.xhy					Major Street	East-West					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	600	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	1	2	0	1	1	0	0	1	0	0	1	0
Lane usage	L	TR		L	TR			LTR			LTR	
Vehicle Volume Averages (vph)	196	239	112	20	201	26	119	1	17	27	0	174
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input checked="" type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input checked="" type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input checked="" type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input checked="" type="checkbox"/>
Warrant 3: Peak Hour												<input checked="" type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input checked="" type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input checked="" type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

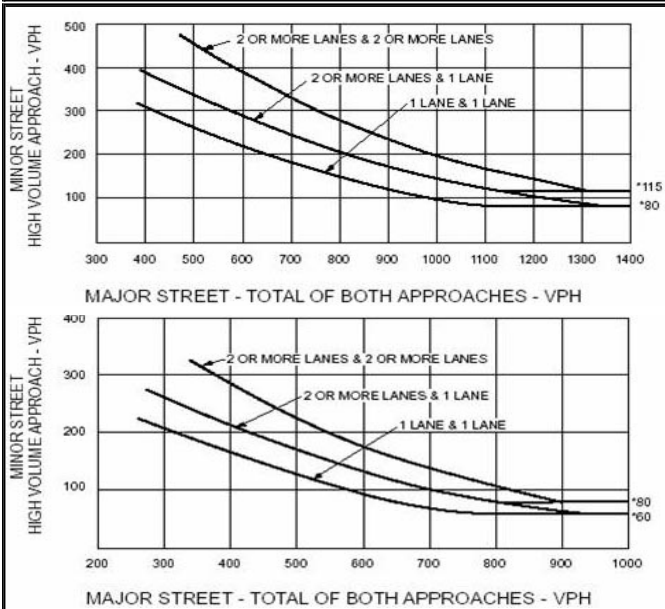
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Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 11/20/2017 Festival at Moreno Valley Hemlock Avenue Hemlock Ave & Davis St.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Davis Street/Hemlock Avenue Moreno Valley U.S. Customary PM Peak Hour Davis Street East-West

Project Description *Festival at Moreno Valley*

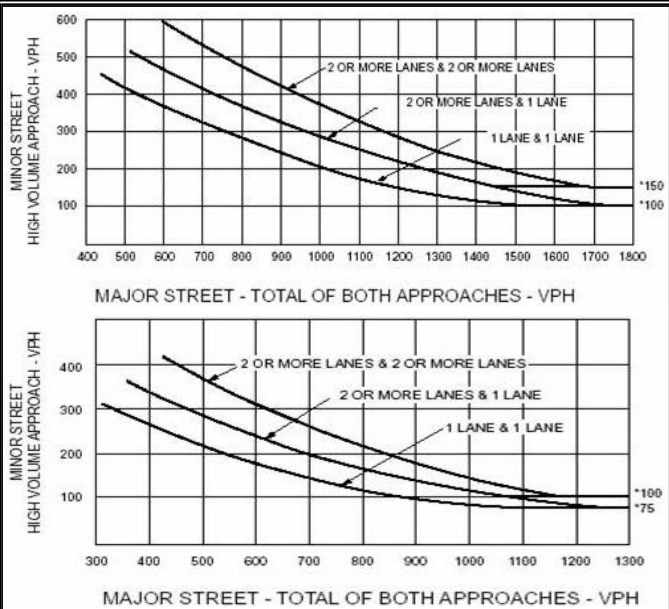
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Hours	Major Street Lanes 2+			Minor Street Lanes 1		Speed		Population		
	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	868	221	1240	Yes	Yes	No	Yes	Yes	No	No
08-09	646	164	922	Yes	Yes	No	No	No	No	No
09-10	467	119	667	No	No	No	No	No	No	No
10-11	577	147	824	No	Yes	No	No	No	No	No
11-12	670	170	956	Yes	Yes	No	No	No	No	No
12-13	877	223	1252	Yes	Yes	No	Yes	Yes	No	No
13-14	753	191	1074	Yes	Yes	No	Yes	No	No	No
14-15	825	209	1177	Yes	Yes	No	Yes	Yes	No	No
15-16	1070	272	1527	Yes	Yes	Yes	Yes	Yes	No	Yes
16-17	1101	277	1569	Yes	Yes	Yes	Yes	Yes	No	Yes
17-18	1089	277	1555	Yes	Yes	Yes	Yes	Yes	No	Yes
18-19	616	156	878	Yes	Yes	No	No	No	No	No
Totals	9559	2426	13641	10	11	3	7	6	0	3

Warrants Volume

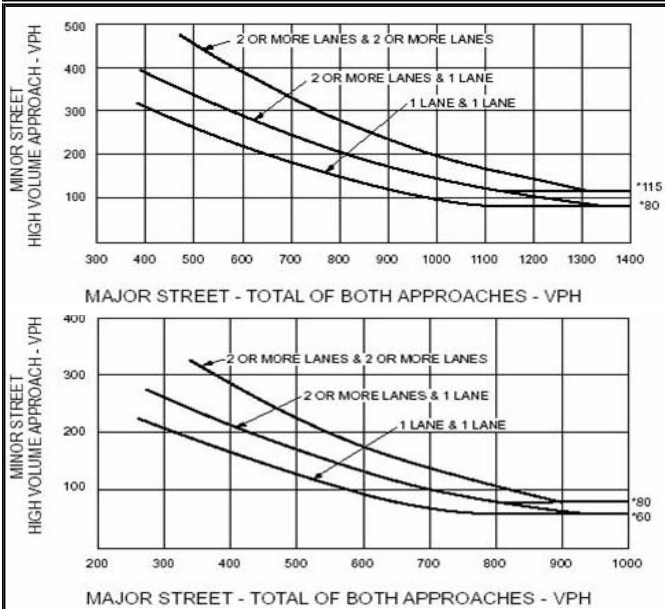
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 11/20/2017 Festival at Moreno Valley Hemlock Avenue Hemlock Ave & Davis St.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Davis Street/Hemlock Avenue Moreno Valley U.S. Customary PM Peak Hour Davis Street East-West

Project Description *Festival at Moreno Valley*

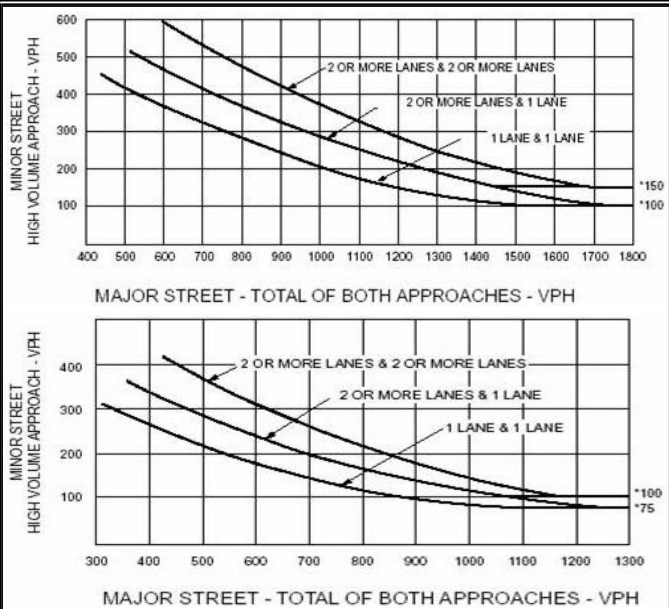
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Hours	Major Street Lanes 2+			Minor Street Lanes 1		Speed		Population		
	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	868	221	1240	Yes	Yes	No	Yes	Yes	No	No
08-09	646	164	922	Yes	Yes	No	No	No	No	No
09-10	467	119	667	No	No	No	No	No	No	No
10-11	577	147	824	No	Yes	No	No	No	No	No
11-12	670	170	956	Yes	Yes	No	No	No	No	No
12-13	877	223	1252	Yes	Yes	No	Yes	Yes	No	No
13-14	753	191	1074	Yes	Yes	No	Yes	No	No	No
14-15	825	209	1177	Yes	Yes	No	Yes	Yes	No	No
15-16	1070	272	1527	Yes	Yes	Yes	Yes	Yes	No	Yes
16-17	1101	277	1569	Yes	Yes	Yes	Yes	Yes	No	Yes
17-18	1089	277	1555	Yes	Yes	Yes	Yes	Yes	No	Yes
18-19	616	156	878	Yes	Yes	No	No	No	No	No
Totals	9559	2426	13641	10	11	3	7	6	0	3

Warrants Summary												
Information												
Analyst	Transpo		Intersection	Project Access/Hemlock Ave								
Agency/Co	City of Moreno Valley		Jurisdiction	Moreno Valley								
Date Performed	12/4/2017		Units	U.S. Customary								
Project ID	Festival at Moreno Valley		Time Period Analyzed	PM Peak Hour								
East/West Street	Hemlock Ave		North/South Street	Project Access (IHOP - Int 8)								
File Name	8_Project Access & Hemlock.xhy		Major Street	East-West								
Project Description <i>Festival at Moreno Valley</i>												
General									Roadway Network			
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000			Two Major Routes					<input type="checkbox"/>	
Nearest Signal (ft)	400	<input type="checkbox"/>	Coordinated Signal System			Weekend Count					<input type="checkbox"/>	
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives			5-yr Growth Factor					2	
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	1	0	0	1	0	0	0	0	0	0	0
Lane usage	LT			TR						LR		
Vehicle Volume Averages (vph)	8	281	0	0	245	5	0	0	0	8	0	8
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 3: Peak Hour												<input type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

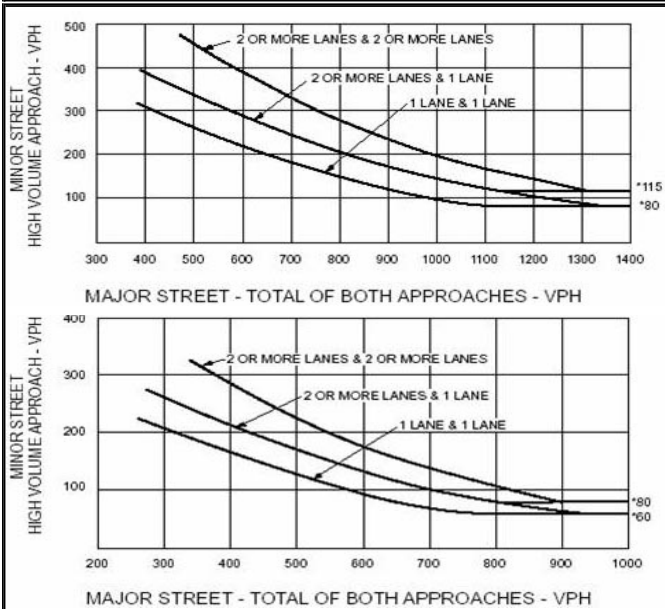
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Hemlock Ave 8_Project Access & Hemlock.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Project Access/Hemlock Ave Moreno Valley U.S. Customary PM Peak Hour Project Access (IHOP - Int 8) East-West

Project Description *Festival at Moreno Valley*

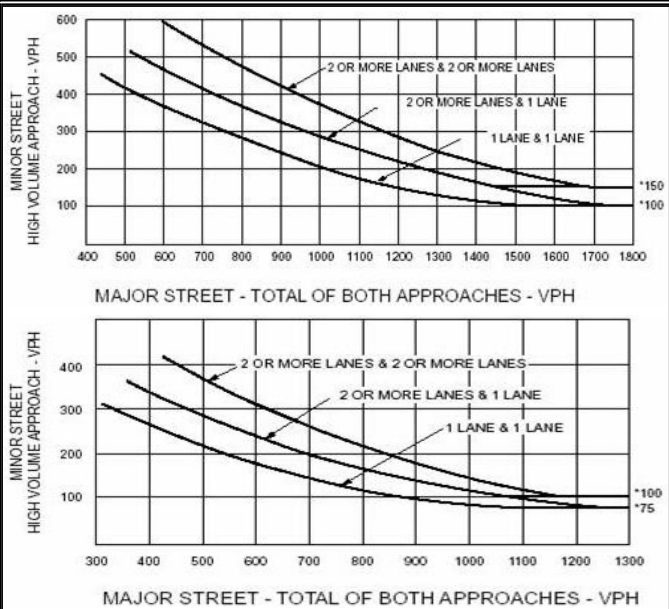
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Major Street Lanes 1			Minor Street Lanes 1			Speed		Population		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	578	18	596	No	No	No	No	No	No	No
08-09	431	12	443	No	No	No	No	No	No	No
09-10	311	10	321	No	No	No	No	No	No	No
10-11	384	12	396	No	No	No	No	No	No	No
11-12	446	14	460	No	No	No	No	No	No	No
12-13	584	18	602	No	No	No	No	No	No	No
13-14	501	16	517	No	No	No	No	No	No	No
14-15	550	16	566	No	No	No	No	No	No	No
15-16	714	22	736	No	No	No	No	No	No	No
16-17	734	22	756	No	No	No	No	No	No	No
17-18	726	16	742	No	No	No	No	No	No	No
18-19	538	16	554	No	No	No	No	No	No	No
Totals	6497	192	6689	0	0	0	0	0	0	0

Warrants Summary												
Information												
Analyst	Transpo					Intersection	MidProject					
Agency/Co	City of Moreno Valley					Jurisdiction	Access/Hemlock Ave					
Date Performed	12/4/2017					Units	Moreno Valley					
Project ID	Festival at Moreno Valley					Time Period Analyzed	U.S. Customary					
East/West Street	Hemlock Ave					North/South Street	PM Peak Hour					
File Name	9_Middle Project Access & Hemlock.xhy					Major Street	Middle Project Access (Int 9)					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	1700	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	1	0	0	1	0	0	0	0	0	0	0
Lane usage	LT			TR						LR		
Vehicle Volume Averages (vph)	151	136	0	0	88	75	0	0	0	75	0	164
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 3: Peak Hour												<input type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input checked="" type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

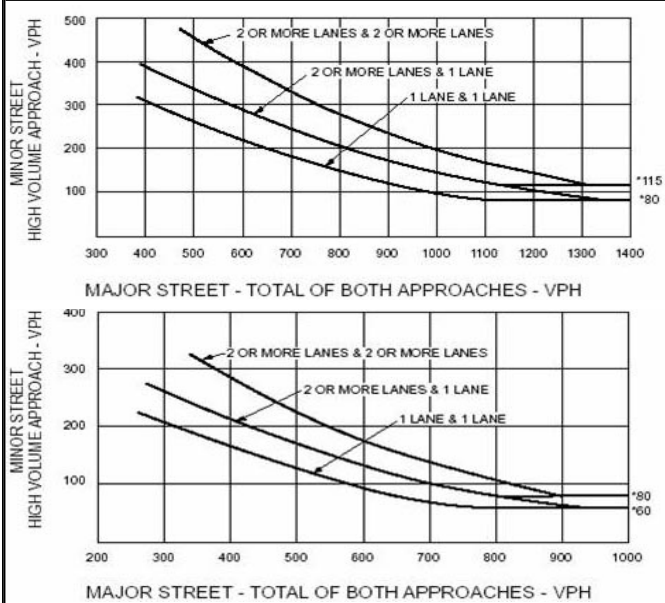
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Hemlock Ave 9_Middle Project Access & Hemlock.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	MiddleProject Access/Hemlock Ave Moreno Valley U.S. Customary PM Peak Hour Middle Project Access (Int 9) East-West

Project Description *Festival at Moreno Valley*

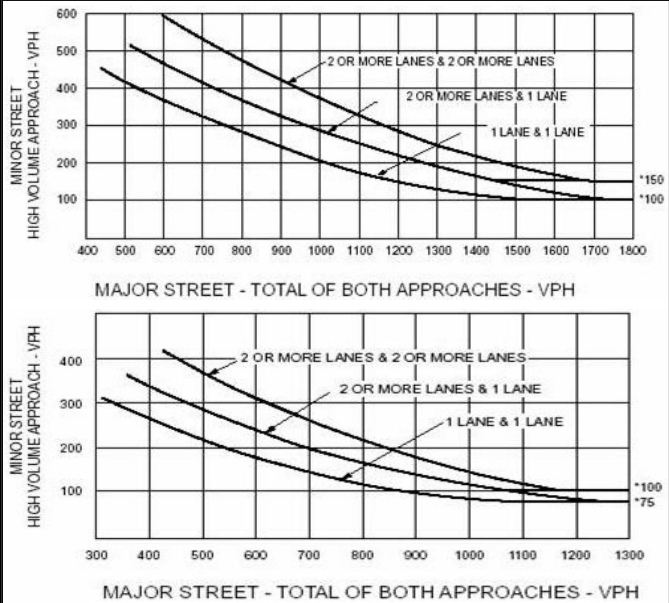
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Major Street Lanes 1			Minor Street Lanes 1			Speed		Population		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	466	256	722	No	Yes	No	No	No	No	No
08-09	346	191	537	No	No	No	No	No	No	No
09-10	251	138	389	No	No	No	No	No	No	No
10-11	309	170	479	No	No	No	No	No	No	No
11-12	432	198	630	No	Yes	No	No	No	No	No
12-13	470	259	729	No	Yes	No	No	No	No	No
13-14	404	222	626	No	Yes	No	No	No	No	No
14-15	443	243	686	No	Yes	No	No	No	No	No
15-16	574	316	890	Yes	Yes	No	No	Yes	No	No
16-17	590	325	915	Yes	Yes	No	No	Yes	No	No
17-18	703	322	1025	Yes	Yes	No	Yes	Yes	No	No
18-19	432	238	670	No	Yes	No	No	No	No	No
Totals	5420	2878	8298	3	9	0	1	3	0	0

Warrants Summary												
Information												
Analyst	Transpo					Intersection	West Access/Hemlock Avenue					
Agency/Co	City of Moreno Valley					Jurisdiction	Moreno Valley					
Date Performed	12/4/2017					Units	U.S. Customary					
Project ID	Festival at Moreno Valley					Time Period Analyzed	PM Peak Hour					
East/West Street	Hemlock Avenue					North/South Street	West Project Access					
File Name	10_West Project Access & Hemlock.xhy					Major Street	East-West					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	500	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane usage	LTR			LTR			LTR			LTR		
Vehicle Volume Averages (vph)	35	158	46	64	115	75	17	0	68	61	0	14
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 3: Peak Hour												<input type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>

7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied	<input type="checkbox"/>
Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

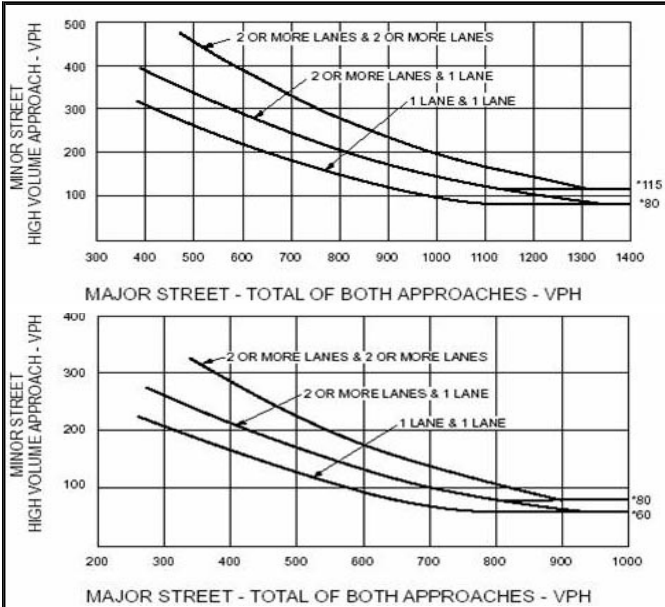
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Hemlock Avenue 10_West Project Access & Hemlock.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	West Access/Hemlock Avenue Moreno Valley U.S. Customary PM Peak Hour West Project Access East-West

Project Description *Festival at Moreno Valley*

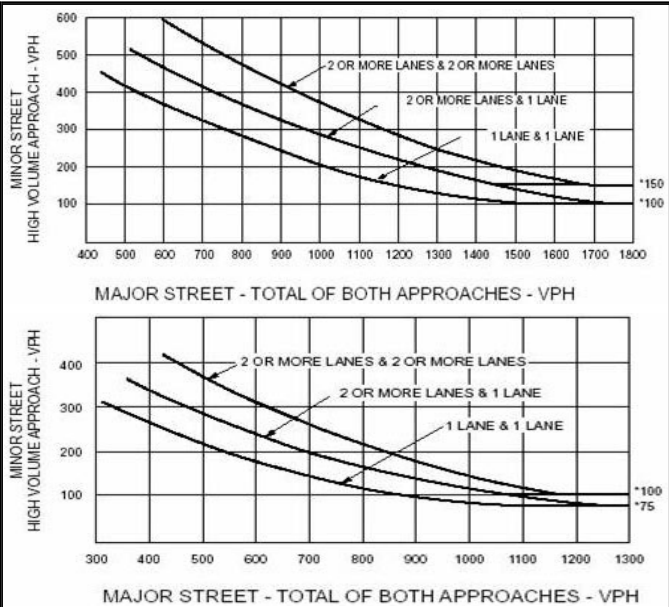
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Major Street Lanes 1			Minor Street Lanes 1			Speed		Population		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	498	92	672	No	No	No	No	No	No	No
08-09	534	69	664	No	No	No	No	No	No	No
09-10	268	49	361	No	No	No	No	No	No	No
10-11	332	62	448	No	No	No	No	No	No	No
11-12	503	93	679	No	No	No	No	No	No	No
12-13	433	80	584	No	No	No	No	No	No	No
13-14	474	88	640	No	No	No	No	No	No	No
14-15	623	117	844	No	No	No	Yes	No	No	No
15-16	633	117	853	No	No	No	Yes	No	No	No
16-17	630	116	849	No	No	No	Yes	No	No	No
17-18	665	86	827	No	No	No	Yes	No	No	No
18-19	353	65	476	No	No	No	No	No	No	No
Totals	5946	1034	7897	0	0	0	4	0	0	0

Warrants Summary												
Information												
Analyst	Transpo					Intersection	Nita Drive/Hemlock Ave					
Agency/Co	City of Moreno Valley					Jurisdiction	Moreno Valley					
Date Performed	12/4/2017					Units	U.S. Customary					
Project ID	Festival at Moreno Valley					Time Period Analyzed	PM Peak Hour					
East/West Street	Hemlock Ave					North/South Street	Nita Drive (Int 11)					
File Name	11_Nita & Hemlock.xhy					Major Street	East-West					
Project Description <i>Festival at Moreno Valley</i>												
General						Roadway Network						
Major Street Speed (mph)	30	<input type="checkbox"/>	Population < 10,000				Two Major Routes			<input type="checkbox"/>		
Nearest Signal (ft)	400	<input type="checkbox"/>	Coordinated Signal System				Weekend Count			<input type="checkbox"/>		
Crashes (per year)	0	<input type="checkbox"/>	Adequate Trials of Alternatives				5-yr Growth Factor			2		
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	1	0	0	1	0	0	0	0	0	0	1
Lane usage	T			TR						R		
Vehicle Volume Averages (vph)	0	314	0	0	159	6	0	0	0	0	0	7
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												<input type="checkbox"/>
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												<input type="checkbox"/>
1 (80%) Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 2: Four-Hour Vehicular Volume												<input type="checkbox"/>
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 3: Peak Hour												<input type="checkbox"/>
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												<input type="checkbox"/>
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												<input type="checkbox"/>
Warrant 4: Pedestrian Volume												<input type="checkbox"/>
4 A. Four Hour Volumes --or--												<input type="checkbox"/>
4 B. One-Hour Volumes												<input type="checkbox"/>
Warrant 5: School Crossing												<input type="checkbox"/>
5. Student Volumes --and--												<input type="checkbox"/>
5. Gaps Same Period												<input type="checkbox"/>
Warrant 6: Coordinated Signal System												<input type="checkbox"/>
6. Degree of Platooning (Predominant direction or both directions)												<input type="checkbox"/>
Warrant 7: Crash Experience												<input type="checkbox"/>
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												<input type="checkbox"/>
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												<input type="checkbox"/>
7 C. (80%) Volumes for Warrants 1A, 1B --or-- 4 are satisfied												<input type="checkbox"/>

Warrant 8: Roadway Network	<input type="checkbox"/>
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	<input type="checkbox"/>
8 B. Weekend Volume (Five hours total)	<input type="checkbox"/>
Warrant 9: Grade Crossing	<input type="checkbox"/>
9 A. Grade Crossing within 140 ft --and--	<input type="checkbox"/>
9 B. Peak-Hour Vehicular Volumes	<input type="checkbox"/>

Warrants Volume

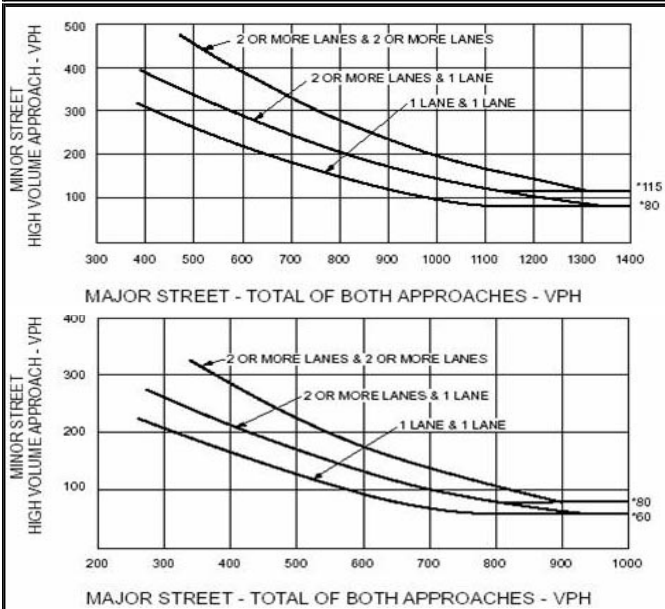
Information			
Analyst Agency/Co Date Performed Project ID East/West Street File Name	Transpo City of Moreno Valley 12/4/2017 Festival at Moreno Valley Hemlock Ave 11_Nita & Hemlock.xhy	Intersection Jurisdiction Units Time Period Analyzed North/South Street Major Street	Nita Drive/Hemlock Ave Moreno Valley U.S. Customary PM Peak Hour Nita Drive (Int 11) East-West

Project Description *Festival at Moreno Valley*

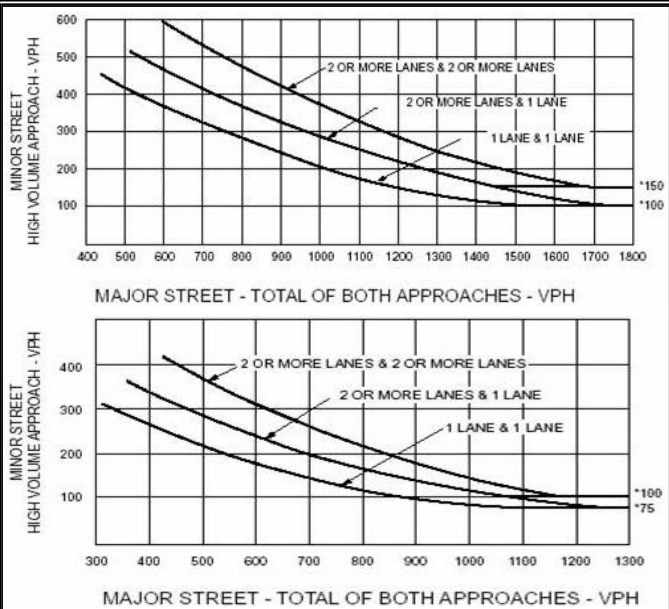
Warrant 1

Condition A—Minimum Vehicular Volume										Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)				Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%	Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84	1	1	750	600	525	420	75	60	53	42
2 or more	1	600	480	420	336	150	120	105	84	2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	600	480	420	336	200	160	140	112	2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	500	400	350	280	200	160	140	112	1	2 or more	750	600	525	420	100	80	70	56

Warrant 2



Warrant 3



Volume Summary

Major Street Lanes 1			Minor Street Lanes 1			Speed		Population		
Hours	Major Volume	Minor Volume	Total Volume	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)
07-08	514	8	522	No	No	No	No	No	No	No
08-09	382	6	388	No	No	No	No	No	No	No
09-10	277	4	281	No	No	No	No	No	No	No
10-11	341	5	346	No	No	No	No	No	No	No
11-12	396	6	402	No	No	No	No	No	No	No
12-13	519	8	527	No	No	No	No	No	No	No
13-14	446	7	453	No	No	No	No	No	No	No
14-15	489	7	496	No	No	No	No	No	No	No
15-16	634	10	644	No	No	No	No	No	No	No
16-17	652	10	662	No	No	No	No	No	No	No
17-18	645	7	652	No	No	No	No	No	No	No
18-19	475	7	482	No	No	No	No	No	No	No
Totals	5770	85	5855	0	0	0	0	0	0	0

Mitigation Measures SIDRA Output

MOVEMENT SUMMARY

 **Site: Davis Street/Hemlock Avenue**

Future (2022) With-Project PM
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed mph
		Total veh/h	HV %				Vehicles veh	Distance ft			
South: Driveway											
3	L2	178	2.0	0.309	14.4	LOS B	1.7	44.1	0.73	0.88	32.0
8	T1	2	2.0	0.309	9.9	LOS A	1.7	44.1	0.73	0.88	32.1
18	R2	26	2.0	0.309	9.7	LOS A	1.7	44.1	0.73	0.88	31.5
Approach		207	2.0	0.309	13.7	LOS B	1.7	44.1	0.73	0.88	31.9
East: Hemlock Ave											
1	L2	30	2.0	0.462	13.1	LOS B	3.0	76.3	0.69	0.80	34.2
6	T1	303	2.0	0.462	8.6	LOS A	3.0	76.3	0.69	0.80	34.4
16	R2	39	2.0	0.462	8.5	LOS A	3.0	76.3	0.69	0.80	33.6
Approach		373	2.0	0.462	9.0	LOS A	3.0	76.3	0.69	0.80	34.3
North: Davis St											
7	L2	41	2.0	0.404	12.7	LOS B	2.4	61.8	0.70	0.81	34.3
4	T1	1	2.0	0.404	8.2	LOS A	2.4	61.8	0.70	0.81	34.4
14	R2	264	2.0	0.404	8.1	LOS A	2.4	61.8	0.70	0.81	33.6
Approach		307	2.0	0.404	8.7	LOS A	2.4	61.8	0.70	0.81	33.7
West: Hemlock Ave											
5	L2	310	2.0	0.334	9.5	LOS A	2.2	56.5	0.29	0.59	34.3
2	T1	377	2.0	0.334	5.0	LOS A	2.2	56.8	0.28	0.51	35.5
12	R2	177	2.0	0.334	5.1	LOS A	2.2	56.8	0.28	0.48	35.0
Approach		865	2.0	0.334	6.7	LOS A	2.2	56.8	0.28	0.54	35.0
All Vehicles		1751	2.0	0.462	8.3	LOS A	3.0	76.3	0.50	0.68	34.2

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.