APPENDIX C

EXISTING LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: State Street at Quandt Ranch Road

Control Type:	Two-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.281

Intersection Setup

Name	State Street		State Street		Quandt Ranch Road	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	State Street		State Street		Quandt Ranch Road	
Base Volume Input [veh/h]	884	43	5	247	69	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	884	43	5	247	69	19
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	251	12	1	70	20	5
Total Analysis Volume [veh/h]	1005	49	6	281	78	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.00	0.28	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	10.50	0.00	24.98	24.72
Movement LOS	A	A	B	A	C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	1.57	1.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.69	0.00	39.13	39.13
d_A, Approach Delay [s/veh]	0.00		0.22		24.93	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.77					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: State Street at Community College Drive

Control Type:	Two-way stop	Delay (sec / veh):	75.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.287

Intersection Setup

Name	State Street			State Street			Community College Drive			Community College Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	State Street			State Street			Community College Drive			Community College Drive		
Base Volume Input [veh/h]	8	1009	63	65	363	2	2	1	11	17	2	66
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1009	63	65	363	2	2	1	11	17	2	66
Peak Hour Factor	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920	0.8920
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	283	18	18	102	1	1	0	3	5	1	18
Total Analysis Volume [veh/h]	9	1131	71	73	407	2	2	1	12	19	2	74
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.13	0.00	0.00	0.02	0.01	0.01	0.29	0.03	0.17
d_M, Delay for Movement [s/veh]	8.17	0.00	0.00	12.15	0.00	0.00	38.19	56.16	10.04	75.12	69.01	28.89
Movement LOS	A	A	A	B	A	A	E	F	B	F	F	D
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.43	0.00	0.00	0.15	0.15	0.15	2.35	2.35	2.35
95th-Percentile Queue Length [ft/ln]	0.59	0.00	0.00	10.80	0.00	0.00	3.69	3.69	3.69	58.65	58.65	58.65
d_A, Approach Delay [s/veh]	0.06			1.84			16.87			38.98		
Approach LOS	A			A			C			E		
d_I, Intersection Delay [s/veh]	2.73											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: State Street at Ramona Expressway

Control Type:	Signalized	Delay (sec / veh):	35.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.701

Intersection Setup

Name	State Street			State Street			Ramona Expressway			Ramona Expressway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	State Street			State Street			Ramona Expressway			Ramona Expressway		
Base Volume Input [veh/h]	222	650	62	93	262	81	137	351	448	114	442	337
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	222	650	62	93	262	81	137	351	448	114	442	337
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	178	17	26	72	22	38	96	123	31	121	92
Total Analysis Volume [veh/h]	244	714	68	102	288	89	150	385	492	125	485	370
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	56	0	16	42	0	12	32	0	11	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	31	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	26	26	8	17	17	7	58	58	7	57	57
g / C, Green / Cycle	0.15	0.23	0.23	0.07	0.15	0.15	0.06	0.50	0.50	0.06	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.14	0.20	0.04	0.06	0.10	0.11	0.04	0.08	0.31	0.04	0.10	0.23
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1722	3459	5094	1589	3459	5094	1589
c, Capacity [veh/h]	276	815	364	128	273	251	211	2544	794	209	2541	793
d1, Uniform Delay [s]	47.59	42.79	35.74	52.55	46.85	46.96	53.02	15.60	20.88	52.69	15.97	18.84
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.04	3.19	0.25	10.50	3.44	4.00	4.35	0.13	3.62	2.72	0.17	1.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.88	0.19	0.79	0.71	0.73	0.71	0.15	0.62	0.60	0.19	0.47
d, Delay for Lane Group [s/veh]	56.63	45.98	35.99	63.05	50.29	50.97	57.37	15.72	24.50	55.41	16.14	20.81
Lane Group LOS	E	D	D	E	D	D	E	B	C	E	B	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.51	10.08	1.57	3.27	5.56	5.27	2.25	1.85	10.12	1.84	2.38	6.75
50th-Percentile Queue Length [ft/ln]	187.85	251.98	39.27	81.79	138.93	131.74	56.37	46.15	253.03	45.99	59.51	168.83
95th-Percentile Queue Length [veh/ln]	12.01	15.29	2.83	5.89	9.42	9.03	4.06	3.32	15.34	3.31	4.29	11.01
95th-Percentile Queue Length [ft/ln]	300.24	382.15	70.69	147.23	235.58	225.86	101.47	83.07	383.46	82.77	107.13	275.37

Movement, Approach, & Intersection Results

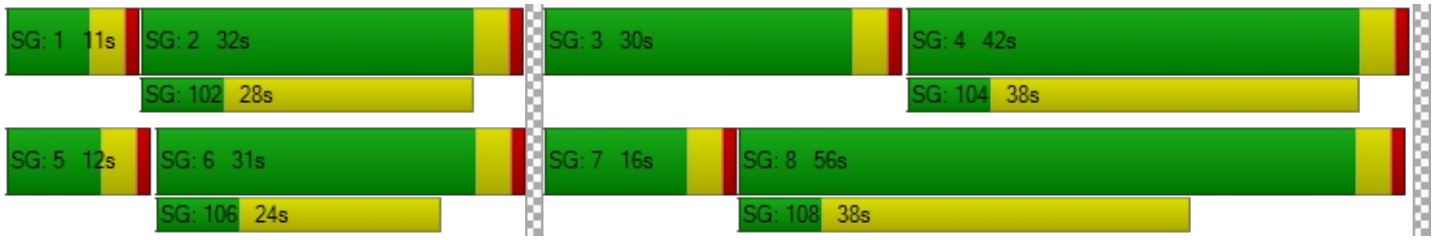
d_M, Delay for Movement [s/veh]	56.63	45.98	35.99	63.05	50.51	50.97	57.37	15.72	24.50	55.41	16.14	20.81
Movement LOS	E	D	D	E	D	D	E	B	C	E	B	C
d_A, Approach Delay [s/veh]	47.85			53.27			26.01			22.91		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	35.24											
Intersection LOS	D											
Intersection V/C	0.701											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.05	47.05	47.05	47.05
I_p,int, Pedestrian LOS Score for Intersection	2.778	2.646	3.061	3.027
Crosswalk LOS	C	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	904	661	487	469
d_b, Bicycle Delay [s]	17.27	25.80	32.93	33.69
I_b,int, Bicycle LOS Score for Intersection	2.406	1.955	2.124	2.099
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: State Street at Idyllwild Drive

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name	State Street			State Street			Idyllwild Drive			Idyllwild Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	State Street			State Street			Idyllwild Drive			Idyllwild Drive		
Base Volume Input [veh/h]	42	667	203	132	609	33	70	218	12	189	154	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	667	203	132	609	33	70	218	12	189	154	102
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	185	56	37	169	9	19	61	3	53	43	28
Total Analysis Volume [veh/h]	47	742	226	147	677	37	78	242	13	210	171	113
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	22	0	15	26	0	34	32	0	21	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	0	0
Pedestrian Clearance [s]	0	11	0	0	14	0	0	18	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	38	38	9	42	42	6	15	13	21
g / C, Green / Cycle	0.05	0.42	0.42	0.10	0.47	0.47	0.07	0.16	0.14	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.14	0.08	0.19	0.19	0.04	0.14	0.12	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1836	1781	1853	1781	1747
c, Capacity [veh/h]	97	1493	666	181	872	856	120	300	248	409
d1, Uniform Delay [s]	41.36	19.20	17.71	39.62	15.88	15.89	40.98	36.67	37.82	31.55
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.71	1.19	1.38	8.42	1.44	1.47	5.82	6.63	7.72	2.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.50	0.34	0.81	0.41	0.41	0.65	0.85	0.85	0.69
d, Delay for Lane Group [s/veh]	45.07	20.38	19.09	48.04	17.33	17.36	46.80	43.31	45.54	33.67
Lane Group LOS	D	C	B	D	B	B	D	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.10	5.69	3.32	3.56	5.01	4.92	1.86	5.90	4.97	5.76
50th-Percentile Queue Length [ft/ln]	27.57	142.31	82.93	89.07	125.20	123.12	46.55	147.50	124.30	144.05
95th-Percentile Queue Length [veh/ln]	1.99	9.61	5.97	6.41	8.68	8.56	3.35	9.88	8.63	9.70
95th-Percentile Queue Length [ft/ln]	49.63	240.14	149.28	160.32	216.95	214.11	83.80	247.09	215.72	242.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.07	20.38	19.09	48.04	17.34	17.36	46.80	43.31	43.31	45.54	33.67	33.67
Movement LOS	D	C	B	D	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	21.24			22.58			44.13			38.71		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.68											
Intersection LOS	C											
Intersection V/C	0.665											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.69	0.00	34.69	34.69
I_p,int, Pedestrian LOS Score for Intersection	2.764	0.000	2.131	2.300
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	489	622	333
d_b, Bicycle Delay [s]	28.82	25.71	21.38	31.27
I_b,int, Bicycle LOS Score for Intersection	2.397	2.270	2.109	2.375
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Village at San Jacinto at Project Driveway No.3

Control Type:	Signalized	Delay (sec / veh):	6.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.305

Intersection Setup

Name	Village at San Jancinto		Ramona Expressway		Ramona Expressway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		No		

Volumes

Name	Village at San Jancinto		Ramona Expressway		Ramona Expressway		
Base Volume Input [veh/h]	92	30	15	491	0	882	79
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00						
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	30	15	491	0	882	79
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9500	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	8	4	135	0	243	22
Total Analysis Volume [veh/h]	101	33	17	540	0	970	87
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	0	6	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	54	0	11	36	0	25	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	10	0	0	10	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	2	75	68	68	68
g / C, Green / Cycle	0.08	0.08	0.03	0.83	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.06	0.02	0.01	0.11	0.00	0.20	0.20
s, saturation flow rate [veh/h]	1781	1589	1781	5094	865	3560	1792
c, Capacity [veh/h]	141	126	50	4239	694	2704	1361
d1, Uniform Delay [s]	40.48	39.00	42.93	1.42	0.00	3.24	3.25
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.67	1.10	3.91	0.06	0.00	0.23	0.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.26	0.34	0.13	0.00	0.26	0.26
d, Delay for Lane Group [s/veh]	47.15	40.10	46.85	1.48	0.00	3.48	3.71
Lane Group LOS	D	D	D	A	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.42	0.72	0.42	0.29	0.00	1.45	1.55
50th-Percentile Queue Length [ft/ln]	60.47	17.94	10.56	7.17	0.00	36.14	38.72
95th-Percentile Queue Length [veh/ln]	4.35	1.29	0.76	0.52	0.00	2.60	2.79
95th-Percentile Queue Length [ft/ln]	108.85	32.29	19.01	12.91	0.00	65.06	69.69

Movement, Approach, & Intersection Results

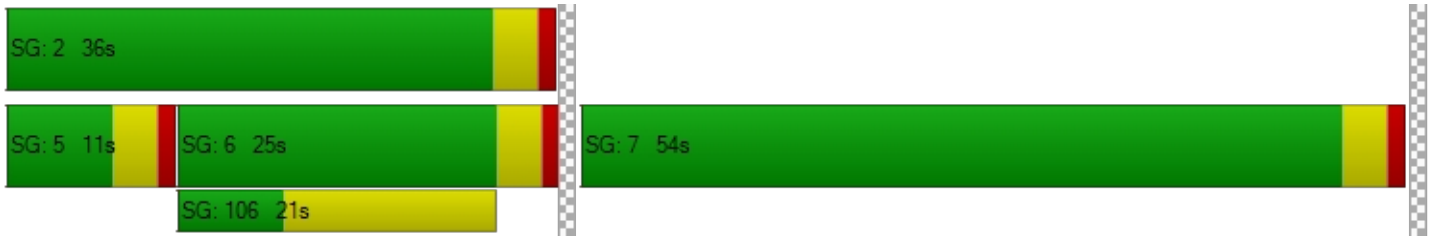
d_M, Delay for Movement [s/veh]	47.15	40.10	46.85	1.48	0.00	3.54	3.71
Movement LOS	D	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	45.41		2.87		3.56		
Approach LOS	D		A		A		
d_I, Intersection Delay [s/veh]	6.54						
Intersection LOS	A						
Intersection V/C	0.305						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.189	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1111	711	467
d_b, Bicycle Delay [s]	8.90	18.70	26.46
I_b,int, Bicycle LOS Score for Intersection	1.560	1.866	2.141
Bicycle LOS	A	A	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Eagle Road at Ramona Expressway

Control Type:	Signalized	Delay (sec / veh):	30.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.329

Intersection Setup

Name	Eagle Road			Eagle Road			Ramona Expressway			Ramona Expressway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Eagle Road			Eagle Road			Ramona Expressway			Ramona Expressway		
Base Volume Input [veh/h]	55	38	32	62	30	54	65	464	63	54	861	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	38	32	62	30	54	65	464	63	54	861	80
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	10	9	17	8	15	18	126	17	15	233	22
Total Analysis Volume [veh/h]	60	41	35	67	33	59	70	503	68	59	934	87
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	25	40	0	15	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	51	51	51	51	6	21	21	5	21	21
g / C, Green / Cycle	0.57	0.57	0.57	0.57	0.06	0.24	0.24	0.06	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.05	0.04	0.05	0.05	0.04	0.11	0.11	0.03	0.19	0.19
s, saturation flow rate [veh/h]	1304	1729	1323	1680	1781	3560	1760	1781	3560	1790
c, Capacity [veh/h]	755	984	772	955	116	843	417	109	828	416
d1, Uniform Delay [s]	10.98	8.76	10.80	8.86	40.94	29.35	29.42	41.05	32.76	32.78
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.15	0.22	0.20	4.91	0.38	0.79	4.15	2.08	4.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.08	0.09	0.10	0.60	0.45	0.46	0.54	0.82	0.82
d, Delay for Lane Group [s/veh]	11.19	8.91	11.02	9.06	45.84	29.73	30.21	45.19	34.84	36.89
Lane Group LOS	B	A	B	A	D	C	C	D	C	D
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.62	0.67	0.68	0.82	1.65	3.49	3.57	1.38	7.08	7.38
50th-Percentile Queue Length [ft/ln]	15.49	16.71	17.12	20.51	41.31	87.21	89.19	34.57	176.97	184.39
95th-Percentile Queue Length [veh/ln]	1.12	1.20	1.23	1.48	2.97	6.28	6.42	2.49	11.44	11.83
95th-Percentile Queue Length [ft/ln]	27.88	30.08	30.82	36.92	74.36	156.97	160.55	62.23	286.06	295.73

Movement, Approach, & Intersection Results

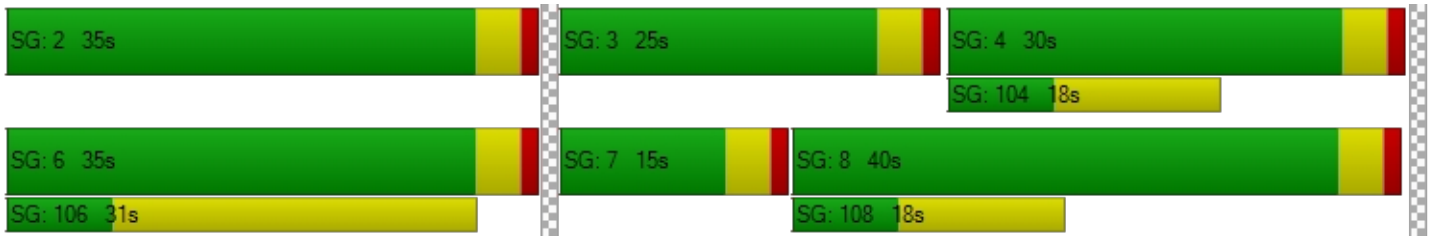
d_M, Delay for Movement [s/veh]	11.19	8.91	8.91	11.02	9.06	9.06	45.84	29.85	30.21	45.19	35.40	36.89
Movement LOS	B	A	A	B	A	A	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	9.92			9.88			31.63			36.06		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	30.82											
Intersection LOS	C											
Intersection V/C	0.329											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.68	34.68	0.00	34.68
I_p,int, Pedestrian LOS Score for Intersection	2.036	2.056	0.000	2.923
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	689	689	800	578
d_b, Bicycle Delay [s]	19.35	19.35	16.21	22.77
I_b,int, Bicycle LOS Score for Intersection	1.784	1.822	1.912	2.154
Bicycle LOS	A	A	A	B

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Eagle Road at Idyllwild Drive

Control Type:	Two-way stop	Delay (sec / veh):	43.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name	Eagle Road		Idyllwild Drive		Idyllwild Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Eagle Road		Idyllwild Drive		Idyllwild Drive	
Base Volume Input [veh/h]	99	37	29	532	409	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	37	29	532	409	70
Peak Hour Factor	0.6820	0.6820	0.6820	0.6820	0.6820	0.6820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	14	11	195	150	26
Total Analysis Volume [veh/h]	145	54	43	780	600	103
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.58	0.12	0.05	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	43.07	36.48	9.07	0.00	0.00	0.00
Movement LOS	E	E	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.71	4.71	0.07	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	117.64	117.64	1.83	1.83	0.00	0.00
d_A, Approach Delay [s/veh]	41.29		0.47		0.00	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	4.99					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 1: State Street at Quandt Ranch Road

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.140

Intersection Setup

Name	State Street		State Street		Quandt Ranch Road	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	State Street		State Street		Quandt Ranch Road	
Base Volume Input [veh/h]	482	50	21	647	34	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	482	50	21	647	34	5
Peak Hour Factor	0.8490	0.8490	0.8490	0.8490	0.8490	0.8490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	142	15	6	191	10	1
Total Analysis Volume [veh/h]	568	59	25	762	40	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.01	0.14	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.87	0.00	19.76	14.29
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.53	0.53
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.02	0.00	13.25	13.25
d_A, Approach Delay [s/veh]	0.00		0.28		19.05	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.75					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: State Street at Community College Drive

Control Type:	Two-way stop	Delay (sec / veh):	56.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	State Street			State Street			Community College Drive			Community College Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	State Street			State Street			Community College Drive			Community College Drive		
Base Volume Input [veh/h]	32	542	41	78	658	2	1	2	20	17	1	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	542	41	78	658	2	1	2	20	17	1	24
Peak Hour Factor	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	158	12	23	192	1	0	1	6	5	0	7
Total Analysis Volume [veh/h]	37	633	48	91	769	2	1	2	23	20	1	28
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.10	0.01	0.00	0.01	0.03	0.04	0.21	0.01	0.04
d_M, Delay for Movement [s/veh]	9.49	0.00	0.00	9.41	0.00	0.00	45.84	52.16	11.69	50.12	56.90	17.49
Movement LOS	A	A	A	A	A	A	E	F	B	F	F	C
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.33	0.00	0.00	0.24	0.24	0.24	1.03	1.03	1.03
95th-Percentile Queue Length [ft/ln]	3.45	0.00	0.00	8.33	0.00	0.00	5.99	5.99	5.99	25.74	25.74	25.74
d_A, Approach Delay [s/veh]	0.49			0.99			16.12			31.61		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	1.92											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: State Street at Ramona Expressway

Control Type:	Signalized	Delay (sec / veh):	40.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	State Street			State Street			Ramona Expressway			Ramona Expressway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	State Street			State Street			Ramona Expressway			Ramona Expressway		
Base Volume Input [veh/h]	315	484	78	216	429	81	145	680	434	107	392	145
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	315	484	78	216	429	81	145	680	434	107	392	145
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	131	21	58	116	22	39	183	117	29	106	39
Total Analysis Volume [veh/h]	340	522	84	233	463	87	156	734	468	115	423	156
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	35	42	0	35	42	0	15	32	0	11	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	31	0	0	21	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	28	28	18	21	21	7	51	51	7	51	51
g / C, Green / Cycle	0.21	0.23	0.23	0.15	0.17	0.17	0.06	0.43	0.43	0.06	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.19	0.15	0.05	0.13	0.15	0.15	0.05	0.14	0.29	0.03	0.08	0.10
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1769	3459	5094	1589	3459	5094	1589
c, Capacity [veh/h]	370	833	372	265	327	309	216	2171	677	200	2148	670
d1, Uniform Delay [s]	46.54	41.28	37.19	50.04	48.15	48.17	55.27	23.10	28.02	55.12	21.90	22.27
k, delay calibration	0.26	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.76	0.78	0.30	9.15	6.81	7.25	4.56	0.42	5.71	2.60	0.21	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.63	0.23	0.88	0.86	0.87	0.72	0.34	0.69	0.58	0.20	0.23
d, Delay for Lane Group [s/veh]	65.29	42.06	37.49	59.19	54.96	55.42	59.83	23.52	33.73	57.72	22.11	23.08
Lane Group LOS	E	D	D	E	D	E	E	C	C	E	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	11.82	7.02	2.04	7.51	8.81	8.39	2.46	4.72	11.84	1.77	2.56	2.98
50th-Percentile Queue Length [ft/ln]	295.42	175.52	51.03	187.76	220.30	209.78	61.39	118.09	295.93	44.24	63.99	74.61
95th-Percentile Queue Length [veh/ln]	17.45	11.37	3.67	12.00	13.68	13.14	4.42	8.29	17.48	3.19	4.61	5.37
95th-Percentile Queue Length [ft/ln]	436.37	284.15	91.85	300.11	342.01	328.54	110.50	207.20	436.99	79.64	115.18	134.31

Movement, Approach, & Intersection Results

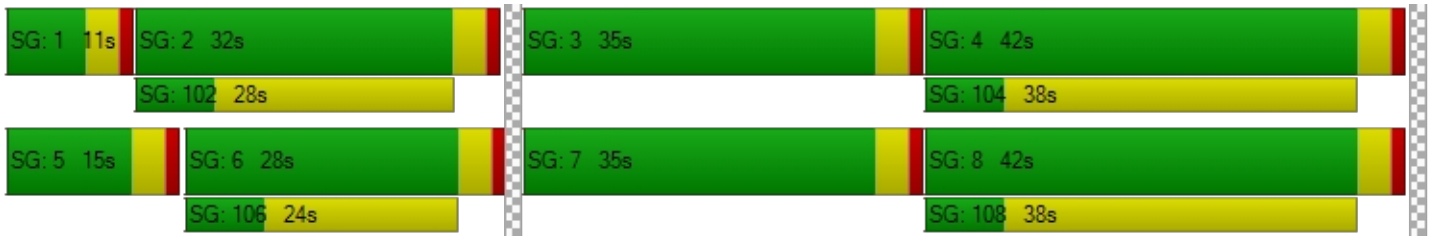
d_M, Delay for Movement [s/veh]	65.29	42.06	37.49	59.19	55.14	55.42	59.83	23.52	33.73	57.72	22.11	23.08
Movement LOS	E	D	D	E	E	E	E	C	C	E	C	C
d_A, Approach Delay [s/veh]	50.00			56.38			31.21			28.23		
Approach LOS	D			E			C			C		
d_I, Intersection Delay [s/veh]	40.58											
Intersection LOS	D											
Intersection V/C	0.773											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.52	49.52	49.52	49.52
I_p,int, Pedestrian LOS Score for Intersection	2.790	2.629	3.102	3.052
Crosswalk LOS	C	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	633	467	400
d_b, Bicycle Delay [s]	28.03	28.03	35.28	38.42
I_b,int, Bicycle LOS Score for Intersection	2.340	2.206	2.307	1.941
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: State Street at Idyllwild Drive

Control Type:	Signalized	Delay (sec / veh):	17.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.508

Intersection Setup

Name	State Street			State Street			Idyllwild Drive			Idyllwild Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	State Street			State Street			Idyllwild Drive			Idyllwild Drive		
Base Volume Input [veh/h]	29	739	91	70	838	60	71	35	29	53	47	66
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	739	91	70	838	60	71	35	29	53	47	66
Peak Hour Factor	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760	0.8760
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	211	26	20	239	17	20	10	8	15	13	19
Total Analysis Volume [veh/h]	33	844	104	80	957	68	81	40	33	61	54	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	16	39	0	26	29	0	11	14	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	0	0
Pedestrian Clearance [s]	0	11	0	0	14	0	0	18	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	53	53	6	55	55	6	9	6	9
g / C, Green / Cycle	0.04	0.59	0.59	0.07	0.61	0.61	0.07	0.10	0.06	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.07	0.04	0.28	0.28	0.05	0.04	0.03	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1827	1781	1732	1781	1696
c, Capacity [veh/h]	80	2097	936	122	1145	1118	122	179	111	164
d1, Uniform Delay [s]	41.89	9.99	8.15	40.97	9.38	9.38	40.97	37.87	41.07	39.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.33	0.58	0.24	5.87	1.29	1.33	6.00	1.50	4.23	8.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.40	0.11	0.66	0.45	0.45	0.66	0.41	0.55	0.79
d, Delay for Lane Group [s/veh]	45.22	10.56	8.39	46.84	10.67	10.71	46.97	39.37	45.30	47.96
Lane Group LOS	D	B	A	D	B	B	D	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.78	4.24	0.88	1.91	5.27	5.16	1.94	1.57	1.43	3.13
50th-Percentile Queue Length [ft/ln]	19.54	106.06	22.05	47.78	131.85	129.11	48.45	39.15	35.78	78.14
95th-Percentile Queue Length [veh/ln]	1.41	7.62	1.59	3.44	9.04	8.89	3.49	2.82	2.58	5.63
95th-Percentile Queue Length [ft/ln]	35.16	190.50	39.70	86.00	226.01	222.29	87.21	70.47	64.41	140.65

Movement, Approach, & Intersection Results

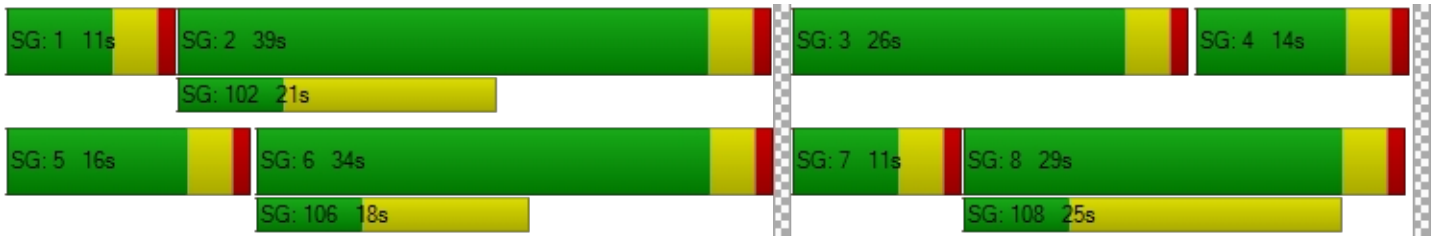
d_M, Delay for Movement [s/veh]	45.22	10.56	8.39	46.84	10.69	10.71	46.97	39.37	39.37	45.30	47.96	47.96
Movement LOS	D	B	A	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.50			13.31			43.36			47.11		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	17.13											
Intersection LOS	B											
Intersection V/C	0.508											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
I_p,int, Pedestrian LOS Score for Intersection	2.783	0.000	2.040	2.074
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	666	777	555	222
d_b, Bicycle Delay [s]	20.04	16.84	23.51	35.60
I_b,int, Bicycle LOS Score for Intersection	2.369	2.471	1.814	1.873
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Village at San Jacinto at Project Driveway No.3

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.344

Intersection Setup

Name	Village at San Jancinto		Ramona Expressway		Ramona Expressway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		No		

Volumes

Name	Village at San Jancinto		Ramona Expressway		Ramona Expressway		
Base Volume Input [veh/h]	155	93	30	955	0	551	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00						
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	93	30	955	0	551	94
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9500	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	25	8	259	0	149	25
Total Analysis Volume [veh/h]	168	101	33	1036	0	598	102
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Protected	Permissive	Permissive
Signal Group	7	0	5	2	1	6	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	7	0	7	7	7	7	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	54	0	11	25	11	25	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	10	0	0	10	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	4	67	0	63	63
g / C, Green / Cycle	0.12	0.12	0.04	0.74	0.00	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.09	0.06	0.02	0.20	0.00	0.13	0.13
s, saturation flow rate [veh/h]	1781	1589	1781	5094	1781	3560	1736
c, Capacity [veh/h]	216	193	80	3790	2	2494	1216
d1, Uniform Delay [s]	38.37	37.11	41.85	3.70	0.00	4.65	4.67
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.91	2.19	3.37	0.18	0.00	0.17	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.52	0.41	0.27	0.00	0.19	0.19
d, Delay for Lane Group [s/veh]	44.28	39.30	45.22	3.88	0.00	4.82	5.02
Lane Group LOS	D	D	D	A	A	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.90	2.18	0.78	1.58	0.00	1.29	1.35
50th-Percentile Queue Length [ft/ln]	97.41	54.41	19.54	39.45	0.00	32.31	33.73
95th-Percentile Queue Length [veh/ln]	7.01	3.92	1.41	2.84	0.00	2.33	2.43
95th-Percentile Queue Length [ft/ln]	175.33	97.94	35.17	71.02	0.00	58.15	60.72

Movement, Approach, & Intersection Results

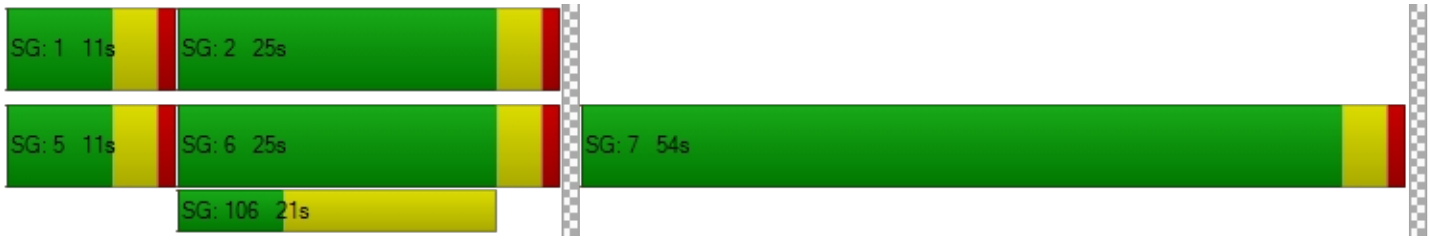
d_M, Delay for Movement [s/veh]	44.28	39.30	45.22	3.88	0.00	4.86	5.02
Movement LOS	D	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	42.41		5.16		4.89		
Approach LOS	D		A		A		
d_I, Intersection Delay [s/veh]	9.98						
Intersection LOS	A						
Intersection V/C	0.344						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.229	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1111	467	467
d_b, Bicycle Delay [s]	8.90	26.46	26.46
I_b,int, Bicycle LOS Score for Intersection	1.560	2.148	1.945
Bicycle LOS	A	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Eagle Road at Ramona Expressway

Control Type:	Signalized	Delay (sec / veh):	30.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.328

Intersection Setup

Name	Eagle Road			Eagle Road			Ramona Expressway			Ramona Expressway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Eagle Road			Eagle Road			Ramona Expressway			Ramona Expressway		
Base Volume Input [veh/h]	42	26	33	61	27	41	44	998	57	22	559	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	26	33	61	27	41	44	998	57	22	559	30
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	7	9	17	8	11	12	278	16	6	156	8
Total Analysis Volume [veh/h]	47	29	37	68	30	46	49	1114	64	25	624	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	30	40	0	15	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	51	51	51	51	5	24	24	3	22	22
g / C, Green / Cycle	0.57	0.57	0.57	0.57	0.06	0.26	0.26	0.04	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.05	0.04	0.03	0.22	0.22	0.01	0.12	0.12
s, saturation flow rate [veh/h]	1323	1702	1335	1690	1781	3560	1818	1781	3560	1822
c, Capacity [veh/h]	767	962	777	955	100	940	480	67	873	447
d1, Uniform Delay [s]	10.80	8.85	10.84	8.90	41.25	31.23	31.24	42.31	29.20	29.23
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.14	0.22	0.16	3.69	1.96	3.77	3.47	0.44	0.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.07	0.09	0.08	0.49	0.83	0.83	0.38	0.50	0.50
d, Delay for Lane Group [s/veh]	10.96	8.98	11.07	9.07	44.94	33.19	35.01	45.78	29.64	30.10
Lane Group LOS	B	A	B	A	D	C	D	D	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.48	0.58	0.70	0.68	1.15	8.00	8.42	0.60	4.00	4.18
50th-Percentile Queue Length [ft/ln]	11.94	14.59	17.42	16.93	28.68	200.10	210.61	15.04	100.01	104.55
95th-Percentile Queue Length [veh/ln]	0.86	1.05	1.25	1.22	2.06	12.64	13.18	1.08	7.20	7.53
95th-Percentile Queue Length [ft/ln]	21.49	26.27	31.35	30.47	51.62	316.10	329.61	27.08	180.02	188.19

Movement, Approach, & Intersection Results

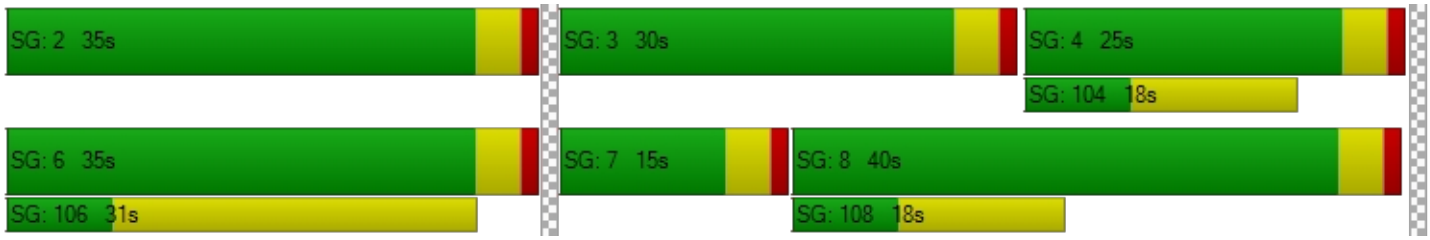
d_M, Delay for Movement [s/veh]	10.96	8.98	8.98	11.07	9.07	9.07	44.94	33.74	35.01	45.78	29.78	30.10
Movement LOS	B	A	A	B	A	A	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	9.81			10.01			34.25			30.38		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	30.15											
Intersection LOS	C											
Intersection V/C	0.328											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.68	34.68	0.00	34.68
I_p,int, Pedestrian LOS Score for Intersection	2.015	2.023	0.000	2.955
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	689	689	800	467
d_b, Bicycle Delay [s]	19.35	19.35	16.21	26.46
I_b,int, Bicycle LOS Score for Intersection	1.746	1.797	2.234	1.935
Bicycle LOS	A	A	B	A

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Eagle Road at Idyllwild Drive

Control Type:	Two-way stop	Delay (sec / veh):	12.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.142

Intersection Setup

Name	Eagle Road		Idyllwild Drive		Idyllwild Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Eagle Road		Idyllwild Drive		Idyllwild Drive	
Base Volume Input [veh/h]	58	26	49	151	134	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	26	49	151	134	55
Peak Hour Factor	0.7390	0.7390	0.7390	0.7390	0.7390	0.7390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	9	17	51	45	19
Total Analysis Volume [veh/h]	78	35	66	204	181	74
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.14	0.04	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.91	10.71	7.82	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.67	0.67	0.11	0.11	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.85	16.85	2.85	2.85	0.00	0.00
d_A, Approach Delay [s/veh]	12.23		1.91		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.98					
Intersection LOS	B					