

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	50	195	85	16	57	38	101	876	57	28	1438	110
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	22	0	0	10	0	0	15	0	0	28
Total Hourly Volume [veh/h]	52	201	66	16	59	29	104	902	44	29	1481	85
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
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]	14	55	18	4	16	8	28	245	12	8	403	23
Total Analysis Volume [veh/h]	57	219	72	17	64	32	113	982	48	32	1612	92
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	35	0	5	32	0	10	58	0	6	54	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	12	36	0	15	48	0	11	44	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	5	44	44	2	42	42	9	45	45	3	39	39
g / C, Green / Cycle	0.04	0.40	0.40	0.02	0.38	0.38	0.08	0.40	0.40	0.03	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.03	0.08	0.08	0.01	0.02	0.02	0.06	0.19	0.03	0.02	0.31	0.06
s, saturation flow rate [veh/h]	1810	1900	1744	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	77	762	699	36	1369	611	141	2091	653	53	1840	574
d1, Uniform Delay [s]	52.06	21.42	21.49	53.31	21.63	21.68	49.87	24.11	20.13	52.74	33.17	24.22
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.13	0.11	0.11	0.11	0.11	0.11
l, 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]	12.95	0.57	0.65	9.03	0.06	0.16	11.82	0.16	0.05	10.36	1.45	0.13
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	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	0.74	0.20	0.20	0.47	0.05	0.05	0.80	0.47	0.07	0.60	0.88	0.16
d, Delay for Lane Group [s/veh]	65.01	22.00	22.14	62.34	21.69	21.84	61.70	24.27	20.18	63.10	34.63	24.35
Lane Group LOS	E	C	C	E	C	C	E	C	C	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.79	2.51	2.40	0.54	0.51	0.53	3.38	5.76	0.71	0.99	12.47	1.55
50th-Percentile Queue Length [ft/ln]	44.76	62.63	59.95	13.61	12.85	13.26	84.38	143.89	17.74	24.73	311.70	38.71
95th-Percentile Queue Length [veh/ln]	3.22	4.51	4.32	0.98	0.93	0.95	6.08	9.69	1.28	1.78	18.26	2.79
95th-Percentile Queue Length [ft/ln]	80.57	112.73	107.92	24.50	23.13	23.87	151.89	242.25	31.93	44.51	456.47	69.67

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.01	22.04	22.14	62.34	21.69	21.84	61.70	24.27	20.18	63.10	34.63	24.35
Movement LOS	E	C	C	E	C	C	E	C	C	E	C	C
d_A, Approach Delay [s/veh]	29.10			27.85			27.80			34.61		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	31.48											
Intersection LOS	C											
Intersection V/C	0.465											

**Emissions**

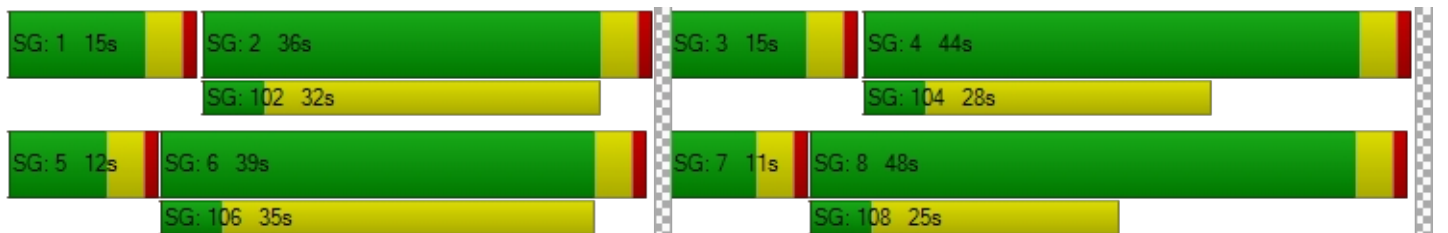
Vehicle Miles Traveled [mph]	33.10	86.66	82.33	2.98	11.21	5.60	12.82	111.37	5.44	8.00	402.87	22.99
Stops [stops/h]	58.60	81.99	78.48	17.81	33.65	17.36	110.47	565.10	23.22	32.37	1224.13	50.67
Fuel consumption [US gal/h]	2.62	4.66	4.44	0.54	1.09	0.55	3.90	19.07	0.81	1.28	47.57	2.17
CO [g/h]	182.94	325.59	310.12	37.69	75.84	38.45	272.55	1333.14	56.65	89.44	3325.39	151.42
NOx [g/h]	35.59	63.35	60.34	7.33	14.76	7.48	53.03	259.38	11.02	17.40	647.00	29.46
VOC [g/h]	42.40	75.46	71.87	8.73	17.58	8.91	63.17	308.97	13.13	20.73	770.69	35.09

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.497			2.618			3.452			3.415		
Crosswalk LOS	B			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]	636			582			800			727		
d_b, Bicycle Delay [s]	25.57			27.65			19.80			22.27		
I_b,int, Bicycle LOS Score for Intersection	1.865			1.661			2.197			2.530		
Bicycle LOS	A			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 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.213

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	55	354	10	9	104	21	15	115	50	12	154	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	3	0	0	6	0	0	13	0	0	1
Total Hourly Volume [veh/h]	57	365	7	9	107	16	15	118	39	12	159	2
Peak Hour Factor	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240
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]	20	126	2	3	37	6	5	41	13	4	55	1
Total Analysis Volume [veh/h]	79	504	10	12	148	22	21	163	54	17	220	3
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	28	0	6	22	0	5	25	0	5	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	12	26	0	9	29	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	51	51	1	48	48	2	10	10	2	10	10
g / C, Green / Cycle	0.06	0.64	0.64	0.01	0.59	0.59	0.02	0.13	0.13	0.02	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.04	0.14	0.14	0.01	0.05	0.05	0.01	0.06	0.06	0.01	0.06	0.06
s, saturation flow rate [veh/h]	1810	1900	1887	1810	1900	1816	1810	1900	1744	1810	1900	1891
c, Capacity [veh/h]	104	1207	1199	28	1127	1078	43	245	225	36	239	237
d1, Uniform Delay [s]	37.16	6.15	6.15	39.04	6.93	6.94	38.58	32.21	32.30	38.78	32.49	32.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.78	0.40	0.41	10.33	0.13	0.14	8.48	1.29	1.54	9.17	1.42	1.44
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	0.76	0.21	0.21	0.43	0.08	0.08	0.49	0.45	0.47	0.47	0.47	0.47
d, Delay for Lane Group [s/veh]	47.93	6.55	6.56	49.38	7.06	7.08	47.06	33.50	33.84	47.95	33.92	33.94
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.75	1.48	1.47	0.30	0.53	0.52	0.50	2.00	1.94	0.41	2.03	2.03
50th-Percentile Queue Length [ft/ln]	43.68	36.99	36.81	7.52	13.24	13.10	12.39	49.90	48.48	10.31	50.79	50.71
95th-Percentile Queue Length [veh/ln]	3.15	2.66	2.65	0.54	0.95	0.94	0.89	3.59	3.49	0.74	3.66	3.65
95th-Percentile Queue Length [ft/ln]	78.63	66.59	66.26	13.54	23.83	23.58	22.30	89.83	87.26	18.57	91.42	91.28

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.93	6.55	6.56	49.38	7.07	7.08	47.06	33.61	33.84	47.95	33.93	33.94
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	12.07			9.86			34.85			34.92		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	20.45											
Intersection LOS	C											
Intersection V/C	0.213											

**Emissions**

Vehicle Miles Traveled [mph]	39.26	128.09	127.35	6.97	49.74	48.98	0.93	4.87	4.69	8.53	55.98	55.86
Stops [stops/h]	78.63	66.59	66.26	13.54	23.83	23.58	22.30	89.83	87.26	18.57	91.42	91.28
Fuel consumption [US gal/h]	3.09	5.56	5.53	0.53	2.12	2.09	0.40	1.61	1.57	0.63	3.59	3.58
CO [g/h]	216.27	388.82	386.62	36.89	148.50	146.34	28.25	112.87	109.61	44.07	251.05	250.59
NOx [g/h]	42.08	75.65	75.22	7.18	28.89	28.47	5.50	21.96	21.33	8.57	48.85	48.76
VOC [g/h]	50.12	90.11	89.60	8.55	34.42	33.92	6.55	26.16	25.40	10.21	58.18	58.08

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.542			2.514			2.446			2.395		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			550			625			625		
d_b, Bicycle Delay [s]	18.23			21.03			18.91			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.051			1.715			1.767			1.758		
Bicycle LOS	B			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.198

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	17	328	49	21	55	14	6	61	18	104	109	54
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	13	0	0	4	0	0	5	0	0	14
Total Hourly Volume [veh/h]	18	338	37	22	57	10	6	63	14	107	112	42
Peak Hour Factor	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598
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]	5	88	10	6	15	3	2	16	4	28	29	11
Total Analysis Volume [veh/h]	19	352	39	23	59	10	6	66	15	111	117	44
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	7	22	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	11	26	0	15	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	2	47	47	2	48	48	1	8	8	6	14	14
g / C, Green / Cycle	0.02	0.59	0.59	0.03	0.59	0.59	0.01	0.11	0.11	0.08	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.11	0.01	0.02	0.01	0.00	0.02	0.01	0.06	0.03	0.03
s, saturation flow rate [veh/h]	1810	1900	1835	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	40	1121	1082	46	2147	958	15	382	171	143	638	285
d1, Uniform Delay [s]	38.68	7.51	7.52	38.49	6.72	6.65	39.46	32.59	32.29	36.14	28.05	27.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	8.78	0.34	0.36	8.27	0.02	0.02	15.66	0.21	0.22	8.68	0.14	0.25
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	0.48	0.18	0.18	0.50	0.03	0.01	0.39	0.17	0.09	0.78	0.18	0.15
d, Delay for Lane Group [s/veh]	47.45	7.85	7.88	46.76	6.74	6.67	55.12	32.80	32.51	44.82	28.18	28.15
Lane Group LOS	D	A	A	D	A	A	E	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.46	1.48	1.45	0.53	0.17	0.06	0.18	0.56	0.26	2.34	0.90	0.69
50th-Percentile Queue Length [ft/ln]	11.46	36.93	36.22	13.17	4.26	1.50	4.44	14.00	6.44	58.59	22.60	17.17
95th-Percentile Queue Length [veh/ln]	0.83	2.66	2.61	0.95	0.31	0.11	0.32	1.01	0.46	4.22	1.63	1.24
95th-Percentile Queue Length [ft/ln]	20.63	66.47	65.19	23.70	7.67	2.70	7.99	25.20	11.59	105.47	40.68	30.91

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.45	7.86	7.88	46.76	6.74	6.67	55.12	32.80	32.51	44.82	28.18	28.15
Movement LOS	D	A	A	D	A	A	E	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.70			16.74			34.29			34.97		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	20.92											
Intersection LOS	C											
Intersection V/C	0.198											

**Emissions**

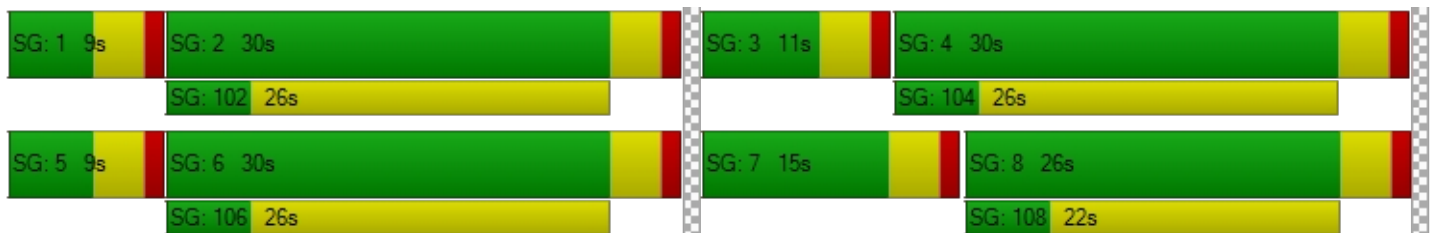
Vehicle Miles Traveled [mph]	9.50	98.87	96.58	11.43	29.32	4.97	1.00	11.02	2.50	47.78	50.36	18.94
Stops [stops/h]	20.63	66.47	65.19	23.70	15.34	2.70	7.99	50.40	11.59	105.47	81.35	30.91
Fuel consumption [US gal/h]	0.69	4.75	4.65	0.91	1.28	0.22	0.20	1.44	0.33	3.96	3.41	1.29
CO [g/h]	48.12	332.25	324.74	63.29	89.25	15.21	14.05	100.99	23.01	276.92	238.28	89.87
NOx [g/h]	9.36	64.64	63.18	12.31	17.36	2.96	2.73	19.65	4.48	53.88	46.36	17.48
VOC [g/h]	11.15	77.00	75.26	14.67	20.68	3.52	3.26	23.40	5.33	64.18	55.22	20.83

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.434			2.579			2.515			2.573		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			650		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			18.23		
I_b,int, Bicycle LOS Score for Intersection	1.909			1.639			1.636			1.796		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	32.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.594

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	475	45	62	296	209	306	645	42	45	552	43
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	12	0	0	54	0	0	11	0	0	11
Total Hourly Volume [veh/h]	54	489	34	64	305	161	315	664	32	46	569	33
Peak Hour Factor	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819
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	139	10	18	86	46	89	188	9	13	161	9
Total Analysis Volume [veh/h]	61	554	39	73	346	183	357	753	36	52	645	37
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	22	0	6	22	0	53	65	0	11	23	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	26	0	14	26	0	24	36	0	14	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	4	31	31	5	32	32	19	34	34	4	19	19
g / C, Green / Cycle	0.04	0.35	0.35	0.05	0.35	0.35	0.22	0.38	0.38	0.04	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.16	0.04	0.18	0.11	0.20	0.21	0.21	0.03	0.18	0.18
s, saturation flow rate [veh/h]	1810	1900	1856	1810	1900	1615	1810	1900	1870	1810	1900	1864
c, Capacity [veh/h]	81	657	642	96	673	572	390	725	714	75	394	387
d1, Uniform Delay [s]	42.50	22.86	22.87	42.04	22.94	21.16	34.48	21.75	21.76	42.56	34.51	34.52
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.23	0.23
l, 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]	13.19	2.27	2.34	11.53	2.79	1.47	8.67	0.65	0.66	10.80	11.80	12.10
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	0.75	0.46	0.46	0.76	0.51	0.32	0.91	0.55	0.55	0.69	0.87	0.87
d, Delay for Lane Group [s/veh]	55.69	25.14	25.21	53.57	25.73	22.63	43.15	22.40	22.41	53.36	46.31	46.62
Lane Group LOS	E	C	C	D	C	C	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.58	4.96	4.87	1.84	5.84	2.83	8.28	6.33	6.24	1.34	8.31	8.19
50th-Percentile Queue Length [ft/ln]	39.49	123.98	121.75	45.95	145.93	70.67	206.92	158.30	155.93	33.56	207.76	204.87
95th-Percentile Queue Length [veh/ln]	2.84	8.61	8.49	3.31	9.80	5.09	13.00	10.46	10.33	2.42	13.04	12.89
95th-Percentile Queue Length [ft/ln]	71.09	215.29	212.23	82.72	244.99	127.21	324.88	261.47	258.32	60.41	325.95	322.23

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	55.69	25.17	25.21	53.57	25.73	22.63	43.15	22.41	22.41	53.36	46.46	46.62
Movement LOS	E	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	28.02			28.17			28.87			46.95		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	32.79											
Intersection LOS	C											
Intersection V/C	0.594											

**Emissions**

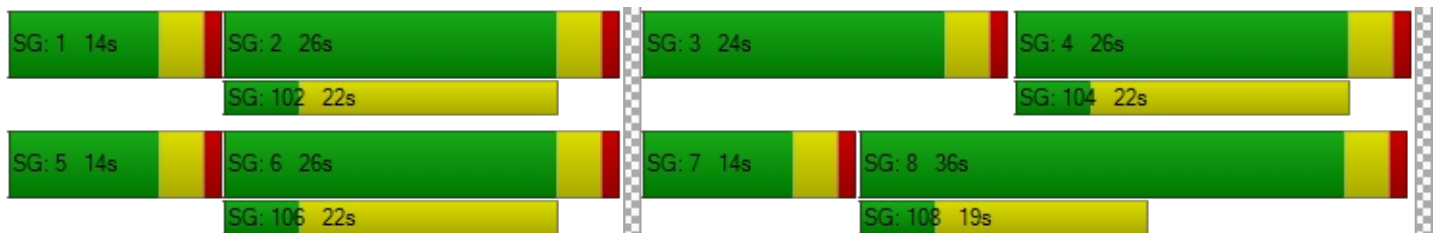
Vehicle Miles Traveled [mph]	4.37	21.46	21.02	21.11	100.06	52.92	33.09	36.85	36.28	6.17	40.81	40.08
Stops [stops/h]	63.19	198.37	194.80	73.53	233.49	113.08	331.08	253.28	249.48	53.70	332.42	327.78
Fuel consumption [US gal/h]	1.63	4.73	4.65	2.43	8.14	4.06	6.89	5.12	5.04	1.20	7.30	7.20
CO [g/h]	113.71	330.94	324.89	170.11	569.33	284.00	481.33	358.03	352.63	84.13	510.13	503.19
NOx [g/h]	22.12	64.39	63.21	33.10	110.77	55.26	93.65	69.66	68.61	16.37	99.25	97.90
VOC [g/h]	26.35	76.70	75.30	39.43	131.95	65.82	111.55	82.98	81.73	19.50	118.23	116.62

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.556			2.851			2.795			2.686		
Crosswalk LOS	B			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	489			489			711			489		
d_b, Bicycle Delay [s]	25.69			25.69			18.69			25.69		
I_b,int, Bicycle LOS Score for Intersection	2.109			2.642			2.514			2.174		
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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Curb Present	No	No
Crosswalk	Yes	Yes

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Proportion of CAVs [%]	0.00	
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Right Turn on Red Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Presence of On-Street Parking	No	No
On-Street Parking Maneuver Rate [/h]	0	0
Local Bus Stopping Rate [/h]	0	0
v_do, Outbound Pedestrian Volume crossing	0	0
v_di, Inbound Pedestrian Volume crossing m	0	0
v_co, Outbound Pedestrian Volume crossing	0	0
v_ci, Inbound Pedestrian Volume crossing mi	0	0
v_ab, Corner Pedestrian Volume [ped/h]	0	0
Bicycle Volume [bicycles/h]	0	0

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive
Signal Group	6	2
Auxiliary Signal Groups		
Maximum Green [s]	86	77
Amber [s]	3.0	3.0
All red [s]	1.0	1.0
Walk [s]	5	5
Pedestrian Clearance [s]	10	21
Delayed Vehicle Green [s]	0.0	0.0
Rest In Walk	No	No
I1, Start-Up Lost Time [s]	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0
Detector Location [ft]	0.0	0.0
Detector Length [ft]	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	37	14
Lead / Lag	-	-
Minimum Green [s]	10	10
Vehicle Extension [s]	3.0	3.0
Minimum Recall	No	No
Maximum Recall	No	No
Pedestrian Recall	No	No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C
C, Calculated Cycle Length [s]	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00
g_i, Effective Green Time [s]	52	48
g / C, Green / Cycle	0.87	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00
s, saturation flow rate [veh/h]	3618	3618
c, Capacity [veh/h]	3131	2885
d1, Uniform Delay [s]	0.00	0.00
k, delay calibration	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00
Rp, platoon ratio	1.00	1.00
PF, progression factor	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00
Lane Group LOS	A	A
Critical Lane Group	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS	A	
Intersection V/C	0.000	

**Emissions**

Vehicle Miles Traveled [mph]	0.00	0.00
Stops [stops/h]	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00
CO [g/h]	0.00	0.00
NOx [g/h]	0.00	0.00
VOC [g/h]	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
d_p, Pedestrian Delay [s]	30.00	30.00
I_p,int, Pedestrian LOS Score for Intersectio	2.125	2.125
Crosswalk LOS	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	333
d_b, Bicycle Delay [s]	6.08	20.83
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560
Bicycle LOS	A	A

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↩		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	923	923	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00	0.00	
Approach LOS	A	A	A	
Intersection Delay [s/veh]	0.00			
Intersection LOS	A			

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.141

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	1	0	1	0
Entry Pocket Length [ft]	100.00	670.00	100.00	100.00	185.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	260.00	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	101	6	64	123	60	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	101	6	64	123	60	37
Peak Hour Factor	0.7230	0.7230	0.8330	0.8330	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	2	19	37	19	12
Total Analysis Volume [veh/h]	140	8	77	148	77	48
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.14	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	7.63	0.00	12.67	9.16
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.17	0.00	0.49	0.17
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.21	0.00	12.21	4.15
d_A, Approach Delay [s/veh]	0.00		2.61		11.32	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.02					
Intersection LOS	B					

**Intersection Level Of Service Report**

**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	20.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Westbound	
Approach	Northbound		Southbound			
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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Westbound	
Base Volume Input [veh/h]	689	13	1	609	1	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	689	13	1	609	1	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	172	3	0	152	0	2
Total Analysis Volume [veh/h]	689	13	1	609	1	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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.98	0.00	19.96	10.62
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.02	1.01	1.01
d_A, Approach Delay [s/veh]	0.00		0.01		11.96	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.044

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	14	6	8	323	443	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	14	6	8	323	443	19
Peak Hour Factor	1.0000	1.0000	0.7802	0.7802	0.7802	0.7802
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	103	142	6
Total Analysis Volume [veh/h]	14	6	10	414	568	24
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.01	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.77	10.61	8.66	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.03	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.12	4.12	0.76	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.92		0.20		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	70.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	16	10	21	296	449	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	16	10	21	296	449	39
Peak Hour Factor	1.0000	1.0000	0.7802	0.7802	0.7802	0.7802
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	7	95	144	12
Total Analysis Volume [veh/h]	16	10	27	379	575	50
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.01	0.03	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.78	10.91	8.83	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.47	5.47	2.15	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.14		0.59		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.60					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Frontage Rd	Southbound
Approach	Northbound		Southbound
Lane Configuration	↑		↑
Turning Movement	Thru		Thru
Lane Width [ft]	12.00		12.00
No. of Lanes in Entry Pocket	0		0
Entry Pocket Length [ft]	100.00		100.00
No. of Lanes in Exit Pocket	0		0
Exit Pocket Length [ft]	0.00		0.00
Speed [mph]	45.00		30.00
Grade [%]	0.00		0.00
Curb Present	No		No
Crosswalk	Yes		Yes

**Volumes**

Name		Frontage Rd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Proportion of CAVs [%]	0.00	
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Right Turn on Red Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Presence of On-Street Parking	No	No
On-Street Parking Maneuver Rate [/h]	0	0
Local Bus Stopping Rate [/h]	0	0
v_do, Outbound Pedestrian Volume crossing	0	0
v_di, Inbound Pedestrian Volume crossing m	0	0
v_co, Outbound Pedestrian Volume crossing	0	0
v_ci, Inbound Pedestrian Volume crossing mi	0	0
v_ab, Corner Pedestrian Volume [ped/h]	0	0
Bicycle Volume [bicycles/h]	0	0

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive
Signal Group	6	2
Auxiliary Signal Groups		
Maximum Green [s]	27	27
Amber [s]	3.0	3.0
All red [s]	1.0	1.0
Walk [s]	5	5
Pedestrian Clearance [s]	14	10
Delayed Vehicle Green [s]	0.0	0.0
Rest In Walk	No	No
I1, Start-Up Lost Time [s]	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0
Detector Location [ft]	0.0	0.0
Detector Length [ft]	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	24	24
Lead / Lag	-	-
Minimum Green [s]	10	10
Vehicle Extension [s]	3.0	3.0
Minimum Recall	No	No
Maximum Recall	No	No
Pedestrian Recall	No	No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C
C, Calculated Cycle Length [s]	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00
g_i, Effective Green Time [s]	52	52
g / C, Green / Cycle	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900
c, Capacity [veh/h]	1643	1643
d1, Uniform Delay [s]	0.00	0.00
k, delay calibration	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00
Rp, platoon ratio	1.00	1.00
PF, progression factor	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00
Lane Group LOS	A	A
Critical Lane Group	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS	A	
Intersection V/C	0.000	

**Emissions**

Vehicle Miles Traveled [mph]	0.00	0.00
Stops [stops/h]	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00
CO [g/h]	0.00	0.00
NOx [g/h]	0.00	0.00
VOC [g/h]	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
d_p, Pedestrian Delay [s]	30.00	30.00
I_p,int, Pedestrian LOS Score for Intersectio	1.709	1.709
Crosswalk LOS	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667
d_b, Bicycle Delay [s]	13.33	13.33
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560
Bicycle LOS	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	35.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	35.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd	Frontage Rd
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Frontage Rd	Frontage Rd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name		
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**



V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

**Intersection Setup**

Name	Barrett Ave	
Approach	Northbound	Westbound
Lane Configuration		
Turning Movement	Right	Left
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	Yes

**Volumes**

Name	Barrett Ave	
Base Volume Input [veh/h]	40	50
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	40	50
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	13
Total Analysis Volume [veh/h]	40	50
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**



V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**

**Intersection 60: Building 6 Auto Driveway 2 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave	
Approach	Southbound	Eastbound
Lane Configuration		
Turning Movement	Right	Left
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	Yes	Yes

**Volumes**

Name	Barrett Ave	
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Eastbound	Westbound
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Eastbound	Westbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

Harvest Landing

Vistro File: C:\...\Harvest Landing\_EX.vistro

Scenario 2 Existing Traffic Condition PM

Report File: C:\...\EX PM.pdf

10/9/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	WB Left	0.622	37.3	D
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	NB Left	0.566	27.7	C
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.492	27.9	C
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.324	12.7	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	NB Left	0.511	36.7	D
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	SB Left	0.318	10.4	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	EB Left	0.447	26.1	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.445	24.6	C
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	SB Left	0.366	22.6	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.546	12.8	B
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	WB Left	0.398	17.5	B
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	NB Left	0.197	8.9	A
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	WB Left	0.359	26.5	C
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.281	20.4	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.259	19.7	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	WB Left	0.274	17.6	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	WB Left	0.302	28.1	C
			HCM 7th				

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	EB Left	0.577	29.0	C
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.087	15.3	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.427	11.4	B
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.013	15.0	C
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	EB Thru	0.460	12.5	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.461	17.4	B
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	EB Left	0.467	29.1	C
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.471	21.4	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.504	37.9	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.603	26.1	D
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.356	16.9	B
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	EB Right	0.441	18.5	B
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	NB Thru	0.445	12.5	B
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.338	7.2	A
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.355	20.0	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	SB Left	0.499	37.0	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.197	17.1	B
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	NB Left	0.175	21.8	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	NB Left	0.579	34.0	C
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition		0.000	0.0	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	WB Left	0.000	0.0	A
	Barrett Ave/I-215 Frontage		HCM 7th				

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.146	14.9	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition		0.000	0.0	
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition		0.000	0.0	
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Left	0.016	34.7	D
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.310	22.1	C
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.261	22.3	C
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	NB Right	0.001	0.0	A
	Building 6 Auto Driveway 2		HCM 7th				

60	Building 5 Auto Driveway 2 and Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	37.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	166	769	364	186	708	15	29	358	116	266	310	105
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	94	0	0	4	0	0	30	0	0	27
Total Hourly Volume [veh/h]	171	792	281	192	729	11	30	369	89	274	319	81
Peak Hour Factor	0.8396	0.8396	0.8396	0.9214	0.9214	0.9214	0.9410	0.9410	0.9410	0.9098	0.9098	0.9098
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]	51	236	84	52	198	3	8	98	24	75	88	22
Total Analysis Volume [veh/h]	204	943	335	208	791	12	32	392	95	301	351	89
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	19	22	0	22	25	0	10	35	0	25	50	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	18	29	0	18	29	0	13	39	0	24	50	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	14	43	43	14	43	43	3	17	17	20	34	34
g / C, Green / Cycle	0.13	0.39	0.39	0.13	0.39	0.39	0.03	0.16	0.16	0.18	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.21	0.11	0.15	0.15	0.02	0.13	0.13	0.17	0.12	0.12
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1885	1810	1900	1774	1810	1900	1769
c, Capacity [veh/h]	230	2005	626	230	1401	730	53	301	281	328	590	550
d1, Uniform Delay [s]	47.21	25.24	26.04	47.33	24.17	24.17	52.77	44.86	44.96	44.20	29.69	29.70
k, delay calibration	0.18	0.50	0.50	0.13	0.50	0.50	0.11	0.11	0.11	0.25	0.11	0.11
l, 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]	16.44	0.79	3.27	14.19	0.77	1.48	10.67	5.90	6.79	19.56	0.41	0.45
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	0.89	0.47	0.54	0.90	0.38	0.38	0.61	0.83	0.84	0.92	0.39	0.39
d, Delay for Lane Group [s/veh]	63.65	26.03	29.31	61.53	24.94	25.65	63.44	50.76	51.75	63.76	30.10	30.15
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.36	5.97	6.97	6.34	4.83	5.18	1.01	6.88	6.59	9.53	4.59	4.30
50th-Percentile Queue Length [ft/ln]	159.08	149.14	174.14	158.43	120.68	129.49	25.18	171.91	164.79	238.18	114.71	107.42
95th-Percentile Queue Length [veh/ln]	10.50	9.97	11.29	10.47	8.43	8.91	1.81	11.18	10.80	14.59	8.10	7.70
95th-Percentile Queue Length [ft/ln]	262.51	249.28	282.35	261.64	210.75	222.80	45.32	279.42	270.06	364.73	202.54	192.40

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	63.65	26.03	29.31	61.53	25.18	25.65	63.44	51.12	51.75	63.76	30.12	30.15
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	31.95			32.66			51.99			43.78		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.25											
Intersection LOS	D											
Intersection V/C	0.622											

**Emissions**

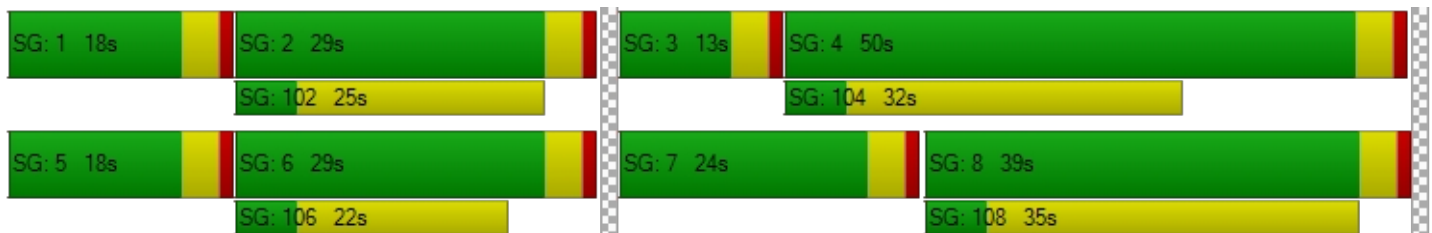
Vehicle Miles Traveled [mph]	102.21	472.49	167.85	12.96	32.88	17.15	2.23	17.46	16.54	19.80	14.96	13.98
Stops [stops/h]	208.25	585.72	227.96	207.40	315.95	169.51	32.96	225.04	215.73	311.79	150.17	140.62
Fuel consumption [US gal/h]	8.74	28.47	10.59	5.63	7.73	4.13	0.90	5.98	5.74	8.46	3.77	3.53
CO [g/h]	610.59	1990.34	739.95	393.31	540.59	288.85	62.88	417.97	401.53	591.36	263.70	246.88
NOx [g/h]	118.80	387.25	143.97	76.52	105.18	56.20	12.23	81.32	78.12	115.06	51.31	48.03
VOC [g/h]	141.51	461.28	171.49	91.15	125.29	66.94	14.57	96.87	93.06	137.05	61.12	57.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.381			3.051			2.681			2.875		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	455			455			636			836		
d_b, Bicycle Delay [s]	32.84			32.84			25.57			18.62		
I_b,int, Bicycle LOS Score for Intersection	2.426			2.118			2.013			2.193		
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 2: Perris Blvd/Krameria Ave**

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):	0.566

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	69	1132	169	114	879	20	26	128	92	195	97	115
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	44	0	0	5	0	0	24	0	0	30
Total Hourly Volume [veh/h]	71	1166	130	117	905	16	27	132	71	201	100	88
Peak Hour Factor	0.8779	0.8779	0.8779	0.8866	0.8866	0.8866	0.8183	0.8183	0.8183	0.8130	0.8130	0.8130
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]	20	332	37	33	255	5	8	40	22	62	31	27
Total Analysis Volume [veh/h]	81	1328	148	132	1021	18	33	161	87	247	123	108
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	13	22	0	10	19	0	0	29	0	0	33	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	21	26	0	18	23	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	6	55	55	10	58	58	12	12	12	18	18	18
g / C, Green / Cycle	0.06	0.50	0.50	0.09	0.53	0.53	0.11	0.11	0.11	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.04	0.27	0.27	0.07	0.19	0.19	0.02	0.08	0.05	0.14	0.06	0.07
s, saturation flow rate [veh/h]	1810	3618	1804	1810	3618	1883	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	106	1803	899	161	1914	997	194	204	173	289	304	258
d1, Uniform Delay [s]	51.06	19.02	19.02	49.21	15.03	15.03	44.66	47.91	46.34	44.96	41.51	41.60
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.99	1.20	2.38	9.76	0.52	1.00	0.41	6.74	2.25	7.08	0.87	1.08
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	0.77	0.55	0.55	0.82	0.36	0.36	0.17	0.79	0.50	0.85	0.40	0.42
d, Delay for Lane Group [s/veh]	62.05	20.22	21.41	58.98	15.55	16.03	45.07	54.65	48.59	52.04	42.37	42.68
Lane Group LOS	E	C	C	E	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.46	8.25	8.52	3.89	4.69	5.01	0.83	4.60	2.31	6.96	3.01	2.66
50th-Percentile Queue Length [ft/ln]	61.52	206.16	213.11	97.33	117.14	125.32	20.68	114.88	57.77	173.97	75.27	66.57
95th-Percentile Queue Length [veh/ln]	4.43	12.96	13.31	7.01	8.24	8.68	1.49	8.11	4.16	11.28	5.42	4.79
95th-Percentile Queue Length [ft/ln]	110.73	323.90	332.81	175.19	205.89	217.12	37.23	202.77	103.99	282.12	135.49	119.82

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	62.05	20.52	21.41	58.98	15.71	16.03	45.07	54.65	48.59	52.04	42.37	42.68
Movement LOS	E	C	C	E	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	22.77			20.59			51.65			47.44		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.75											
Intersection LOS	C											
Intersection V/C	0.566											

**Emissions**

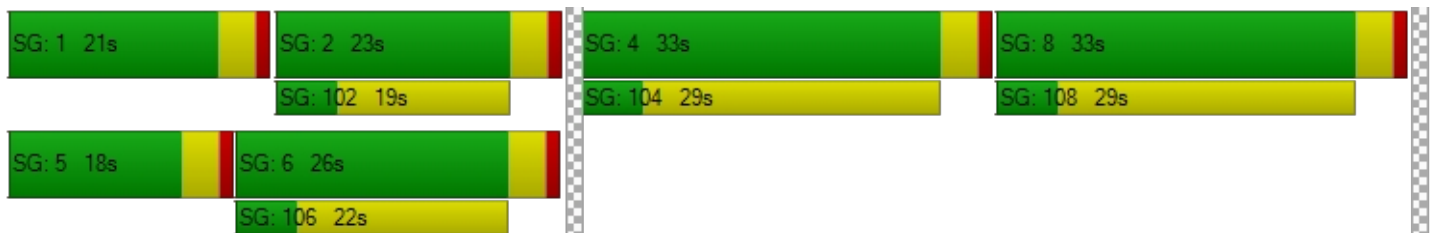
Vehicle Miles Traveled [mph]	133.26	1620.11	808.12	66.14	342.32	178.26	2.76	13.45	7.27	29.37	14.63	12.84
Stops [stops/h]	80.53	539.77	278.98	127.41	306.70	164.06	27.08	150.39	75.63	227.74	98.54	87.14
Fuel consumption [US gal/h]	6.59	66.30	33.31	5.44	17.71	9.31	0.67	3.75	1.86	5.90	2.55	2.25
CO [g/h]	460.76	4634.11	2328.30	379.93	1237.90	650.83	46.65	262.09	130.26	412.75	178.42	157.55
NOx [g/h]	89.65	901.63	453.00	73.92	240.85	126.63	9.08	50.99	25.34	80.31	34.71	30.65
VOC [g/h]	106.79	1074.00	539.61	88.05	286.89	150.84	10.81	60.74	30.19	95.66	41.35	36.51

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	46.37		46.37		46.37		46.37	
I_p,int, Pedestrian LOS Score for Intersectio	3.290		3.171		2.349		2.612	
Crosswalk LOS	C		C		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		345		527		527	
d_b, Bicycle Delay [s]	35.20		37.64		29.82		29.82	
I_b,int, Bicycle LOS Score for Intersection	2.440		2.206		2.063		2.398	
Bicycle LOS	B		B		B		B	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	27.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.492

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	36	806	5	154	1048	280	250	155	62	9	133	135
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	1	0	0	72	0	0	16	0	0	35
Total Hourly Volume [veh/h]	37	830	4	159	1079	216	258	160	48	9	137	104
Peak Hour Factor	0.8615	0.8615	0.8615	0.8521	0.8521	0.8521	0.8694	0.8694	0.8694	0.9095	0.9095	0.9095
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]	11	241	1	47	317	63	74	46	14	2	38	29
Total Analysis Volume [veh/h]	43	963	5	187	1266	253	297	184	55	10	151	114
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	36	0	5	36	0	7	38	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	12	42	0	28	59	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	4	63	63	8	68	68	22	31	31	1	11	11
g / C, Green / Cycle	0.03	0.53	0.53	0.07	0.56	0.56	0.18	0.26	0.26	0.01	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.01	0.19	0.00	0.05	0.24	0.16	0.16	0.05	0.03	0.00	0.03	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	112	2735	853	234	2915	910	325	939	419	42	477	149
d1, Uniform Delay [s]	56.93	16.39	13.38	55.20	15.15	13.57	48.33	34.66	34.06	58.73	50.94	53.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.31	0.11	0.11	0.11	0.11	0.11
l, 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]	2.15	0.36	0.01	6.15	0.47	0.76	23.00	0.10	0.14	2.82	0.38	7.97
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	0.38	0.35	0.01	0.80	0.43	0.28	0.91	0.20	0.13	0.24	0.32	0.77
d, Delay for Lane Group [s/veh]	59.08	16.75	13.40	61.35	15.63	14.33	71.32	34.76	34.20	61.55	51.32	61.19
Lane Group LOS	E	B	B	E	B	B	E	C	C	E	D	E
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.66	4.88	0.06	2.92	6.26	3.48	10.53	2.06	1.22	0.16	1.40	3.61
50th-Percentile Queue Length [ft/ln]	16.46	121.92	1.60	73.01	156.46	87.11	263.16	51.54	30.49	4.10	35.04	90.16
95th-Percentile Queue Length [veh/ln]	1.18	8.50	0.11	5.26	10.36	6.27	15.85	3.71	2.20	0.29	2.52	6.49
95th-Percentile Queue Length [ft/ln]	29.62	212.46	2.87	131.42	259.02	156.79	396.18	92.76	54.88	7.37	63.08	162.29

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	59.08	16.75	13.40	61.35	15.63	14.33	71.32	34.76	34.20	61.55	51.32	61.19
Movement LOS	E	B	B	E	B	B	E	C	C	E	D	E
d_A, Approach Delay [s/veh]	18.53			20.45			54.96			55.78		
Approach LOS	B			C			D			E		
d_I, Intersection Delay [s/veh]	27.90											
Intersection LOS	C											
Intersection V/C	0.492											

**Emissions**

Vehicle Miles Traveled [mph]	16.04	359.24	1.87	307.64	2082.76	416.22	44.43	27.53	8.23	1.21	18.34	13.85
Stops [stops/h]	39.50	438.90	1.91	175.23	563.24	104.53	315.79	123.69	36.59	9.83	126.16	108.19
Fuel consumption [US gal/h]	1.56	21.05	0.10	15.06	82.42	16.30	9.76	3.78	1.12	0.29	3.77	3.24
CO [g/h]	108.89	1471.65	7.09	1052.59	5761.24	1139.71	682.19	264.42	78.26	20.21	263.82	226.42
NOx [g/h]	21.19	286.33	1.38	204.80	1120.93	221.75	132.73	51.45	15.23	3.93	51.33	44.05
VOC [g/h]	25.24	341.07	1.64	243.95	1335.22	264.14	158.10	61.28	18.14	4.68	61.14	52.47

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.249			3.485			2.856			3.026		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			633			917			600		
d_b, Bicycle Delay [s]	29.40			28.02			17.60			29.40		
I_b,int, Bicycle LOS Score for Intersection	2.116			2.538			2.015			1.730		
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: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	12.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.324

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	16	766	15	8	1075	32	43	42	67	13	44	26
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	4	0	0	8	0	0	17	0	0	7
Total Hourly Volume [veh/h]	16	789	11	8	1107	25	44	43	52	13	45	20
Peak Hour Factor	0.9246	0.9246	0.9246	0.8460	0.8460	0.8460	0.5611	0.5611	0.5611	0.6762	0.6762	0.6762
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]	4	213	3	2	327	7	20	19	23	5	17	7
Total Analysis Volume [veh/h]	17	853	12	9	1309	30	78	77	93	19	67	30
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	24	0	5	24	0	46	47	0	28	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	26	0	12	29	0	9	33	0	9	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	2	50	50	1	49	49	4	12	12	2	9	9
g / C, Green / Cycle	0.02	0.62	0.62	0.01	0.61	0.61	0.06	0.15	0.15	0.02	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.01	0.24	0.01	0.00	0.24	0.24	0.04	0.04	0.06	0.01	0.03	0.03
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1878	1810	1900	1615	1810	1900	1711
c, Capacity [veh/h]	36	2247	1003	21	2218	1151	101	276	235	39	212	191
d1, Uniform Delay [s]	38.79	7.51	5.78	39.27	7.92	7.92	37.28	30.44	31.00	38.69	32.41	32.49
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.38	0.49	0.02	13.01	0.53	1.03	11.90	0.54	1.08	8.96	0.55	0.68
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	0.47	0.38	0.01	0.43	0.40	0.40	0.77	0.28	0.40	0.48	0.23	0.25
d, Delay for Lane Group [s/veh]	48.18	8.00	5.80	52.27	8.45	8.95	49.18	30.99	32.08	47.65	32.97	33.17
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.41	2.85	0.06	0.24	3.09	3.37	1.79	1.32	1.64	0.46	0.87	0.86
50th-Percentile Queue Length [ft/ln]	10.15	71.32	1.61	6.07	77.25	84.16	44.75	32.92	40.96	11.38	21.78	21.41
95th-Percentile Queue Length [veh/ln]	0.73	5.13	0.12	0.44	5.56	6.06	3.22	2.37	2.95	0.82	1.57	1.54
95th-Percentile Queue Length [ft/ln]	18.28	128.37	2.90	10.92	139.05	151.50	80.54	59.25	73.73	20.49	39.21	38.54

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.18	8.00	5.80	52.27	8.61	8.95	49.18	30.99	32.08	47.65	33.02	33.17
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	8.74			8.91			37.12			35.46		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	12.74											
Intersection LOS	B											
Intersection V/C	0.324											

**Emissions**

Vehicle Miles Traveled [mph]	8.56	429.43	6.04	3.36	328.79	170.72	4.30	4.24	5.12	1.26	3.26	3.18
Stops [stops/h]	18.28	256.74	2.90	10.92	278.10	151.50	80.54	59.25	73.73	20.49	39.21	38.54
Fuel consumption [US gal/h]	0.69	19.30	0.26	0.35	16.24	8.57	1.55	1.09	1.36	0.39	0.75	0.73
CO [g/h]	48.04	1349.12	17.99	24.23	1135.46	598.95	108.35	76.39	94.84	27.01	52.33	51.35
NOx [g/h]	9.35	262.49	3.50	4.71	220.92	116.53	21.08	14.86	18.45	5.26	10.18	9.99
VOC [g/h]	11.13	312.67	4.17	5.62	263.15	138.81	25.11	17.70	21.98	6.26	12.13	11.90

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	3.081			3.086			2.408			2.357		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			625			725			725		
d_b, Bicycle Delay [s]	21.03			18.91			16.26			16.26		
I_b,int, Bicycle LOS Score for Intersection	2.291			2.305			1.778			1.661		
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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	36.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	123	413	109	284	632	251	297	1030	135	144	732	99
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	28	0	0	65	0	0	35	0	0	26
Total Hourly Volume [veh/h]	127	425	84	293	651	194	306	1061	104	148	754	76
Peak Hour Factor	0.8200	0.8200	0.8200	0.9321	0.9321	0.9321	0.8971	0.8971	0.8971	0.9286	0.9286	0.9286
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]	39	130	26	79	175	52	85	296	29	40	203	20
Total Analysis Volume [veh/h]	155	518	102	314	698	208	341	1183	116	159	812	82
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	7	35	0	13	41	0	14	39	0	7	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	39	0	17	43	0	18	41	0	13	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	7	46	46	12	50	50	13	30	30	7	24	24
g / C, Green / Cycle	0.06	0.41	0.41	0.11	0.46	0.46	0.11	0.27	0.27	0.06	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.14	0.06	0.09	0.19	0.13	0.10	0.23	0.07	0.05	0.16	0.17
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1812
c, Capacity [veh/h]	218	1495	667	377	1658	740	404	1402	437	222	792	397
d1, Uniform Delay [s]	50.61	22.10	20.21	48.13	20.00	18.52	47.70	37.91	31.51	50.55	40.15	40.18
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.12
l, 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]	4.22	0.64	0.49	4.84	0.79	0.95	4.84	1.47	0.32	4.25	1.46	3.21
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	0.71	0.35	0.15	0.83	0.42	0.28	0.84	0.84	0.27	0.72	0.75	0.75
d, Delay for Lane Group [s/veh]	54.83	22.74	20.70	52.97	20.78	19.47	52.54	39.38	31.83	54.80	41.61	43.39
Lane Group LOS	D	C	C	D	C	B	D	D	C	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.16	4.47	1.65	4.34	5.79	3.29	4.62	9.53	2.32	2.18	7.23	7.47
50th-Percentile Queue Length [ft/ln]	54.07	111.73	41.31	108.55	144.69	82.25	115.47	238.20	58.04	54.51	180.71	186.64
95th-Percentile Queue Length [veh/ln]	3.89	7.94	2.97	7.76	9.73	5.92	8.14	14.59	4.18	3.92	11.64	11.95
95th-Percentile Queue Length [ft/ln]	97.33	198.41	74.35	193.98	243.32	148.06	203.59	364.75	104.48	98.12	290.94	298.67

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.83	22.74	20.70	52.97	20.78	19.47	52.54	39.38	31.83	54.80	42.09	43.39
Movement LOS	D	C	C	D	C	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	28.89			28.84			41.58			44.11		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	36.74											
Intersection LOS	D											
Intersection V/C	0.511											

**Emissions**

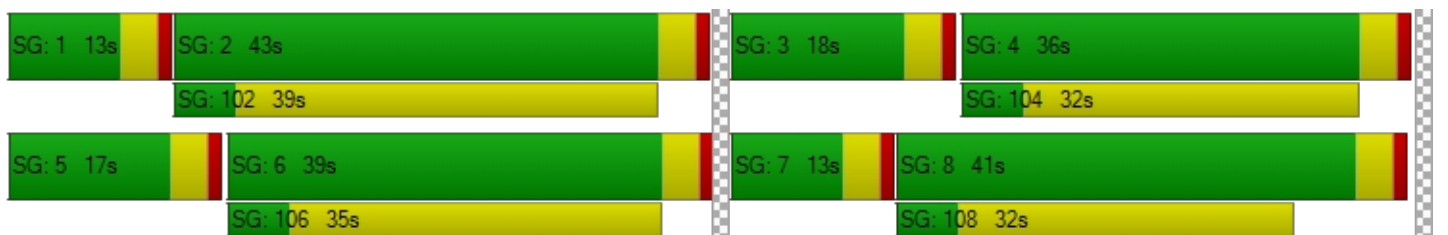
Vehicle Miles Traveled [mph]	77.01	257.35	50.67	158.08	351.39	104.71	85.22	295.65	28.99	17.27	64.61	32.48
Stops [stops/h]	141.58	292.54	54.07	284.21	378.82	107.68	302.33	935.46	75.98	142.72	473.12	244.34
Fuel consumption [US gal/h]	6.13	14.86	2.84	12.34	19.71	5.75	12.11	36.75	3.13	5.00	15.99	8.27
CO [g/h]	428.43	1038.41	198.45	862.33	1377.52	402.09	846.61	2568.50	218.96	349.61	1117.46	577.79
NOx [g/h]	83.36	202.04	38.61	167.78	268.02	78.23	164.72	499.74	42.60	68.02	217.42	112.42
VOC [g/h]	99.29	240.66	45.99	199.85	319.25	93.19	196.21	595.28	50.75	81.03	258.98	133.91

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
l_p,int, Pedestrian LOS Score for Intersectio	3.108			3.241			3.489			3.378		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	636			709			673			582		
d_b, Bicycle Delay [s]	25.57			22.91			24.22			27.65		
l_b,int, Bicycle LOS Score for Intersection	2.222			2.620			2.481			2.153		
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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.318

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	29	602	15	18	857	15	19	15	12	24	17	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	4	0	0	4	0	0	3	0	0	4
Total Hourly Volume [veh/h]	30	620	11	19	883	11	20	15	9	25	18	11
Peak Hour Factor	0.8770	0.8770	0.8770	0.9127	0.9127	0.9127	0.6389	0.6389	0.6389	0.6453	0.6453	0.6453
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	177	3	5	242	3	8	6	4	10	7	4
Total Analysis Volume [veh/h]	34	707	13	21	967	12	31	23	14	39	28	17
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	21	32	0	21	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	15	36	0	15	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	3	62	62	2	62	62	3	6	6	3	7	7
g / C, Green / Cycle	0.03	0.69	0.69	0.02	0.68	0.68	0.03	0.07	0.07	0.03	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.02	0.13	0.13	0.01	0.27	0.01	0.02	0.01	0.01	0.02	0.01	0.01
s, saturation flow rate [veh/h]	1810	3618	1882	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	58	2507	1304	41	2474	1104	55	259	115	63	145	123
d1, Uniform Delay [s]	42.98	4.88	4.88	43.47	6.14	4.53	43.05	39.04	39.13	42.83	38.98	38.82
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.20	0.17	0.32	9.35	0.47	0.02	8.81	0.15	0.46	9.39	0.64	0.51
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	0.59	0.19	0.19	0.51	0.39	0.01	0.57	0.09	0.12	0.62	0.19	0.14
d, Delay for Lane Group [s/veh]	52.18	5.05	5.20	52.83	6.60	4.55	51.86	39.19	39.60	52.22	39.63	39.32
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.86	1.17	1.28	0.57	3.46	0.07	0.80	0.24	0.30	1.00	0.59	0.36
50th-Percentile Queue Length [ft/ln]	21.57	29.30	31.96	14.13	86.49	1.65	20.02	5.95	7.47	25.07	14.86	9.02
95th-Percentile Queue Length [veh/ln]	1.55	2.11	2.30	1.02	6.23	0.12	1.44	0.43	0.54	1.80	1.07	0.65
95th-Percentile Queue Length [ft/ln]	38.82	52.74	57.54	25.43	155.68	2.97	36.04	10.71	13.45	45.12	26.74	16.24

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.18	5.10	5.20	52.83	6.60	4.55	51.86	39.19	39.60	52.22	39.63	39.32
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	7.22			7.55			45.05			45.41		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	10.43											
Intersection LOS	B											
Intersection V/C	0.318											

**Emissions**

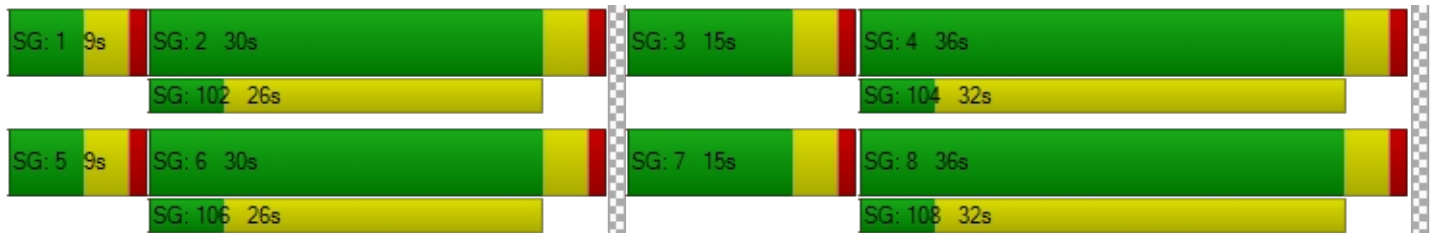
Vehicle Miles Traveled [mph]	6.68	92.92	48.46	10.43	480.42	5.96	15.55	11.54	7.02	10.46	7.51	4.56
Stops [stops/h]	34.50	93.75	51.14	22.60	276.76	2.64	32.04	19.05	11.96	40.11	23.77	14.44
Fuel consumption [US gal/h]	1.02	4.84	2.56	0.78	22.61	0.27	1.16	0.77	0.47	1.11	0.69	0.42
CO [g/h]	71.22	338.10	178.82	54.53	1580.15	18.95	81.13	53.57	32.88	77.92	48.28	29.24
NOx [g/h]	13.86	65.78	34.79	10.61	307.44	3.69	15.79	10.42	6.40	15.16	9.39	5.69
VOC [g/h]	16.51	78.36	41.44	12.64	366.21	4.39	18.80	12.41	7.62	18.06	11.19	6.78

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.973			2.847			2.487			2.488		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			578			711			711		
d_b, Bicycle Delay [s]	22.76			22.76			18.69			18.69		
I_b,int, Bicycle LOS Score for Intersection	1.977			2.388			1.618			1.705		
Bicycle LOS	A			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.447

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	72	372	14	65	454	156	172	278	82	14	228	57
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	4	0	0	40	0	0	21	0	0	15
Total Hourly Volume [veh/h]	74	383	10	67	468	121	177	286	63	14	235	44
Peak Hour Factor	0.6662	0.6662	0.6662	0.9500	0.9500	0.9500	0.9283	0.9283	0.9283	0.6898	0.6898	0.6898
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]	28	144	4	18	123	32	48	77	17	5	85	16
Total Analysis Volume [veh/h]	111	575	15	71	493	127	191	308	68	20	341	64
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	22	0	6	22	0	11	30	0	6	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	26	0	11	26	0	14	34	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	6	39	39	4	36	36	10	20	20	2	11	11
g / C, Green / Cycle	0.08	0.48	0.48	0.05	0.45	0.45	0.13	0.24	0.24	0.02	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.16	0.16	0.04	0.17	0.17	0.11	0.10	0.10	0.01	0.11	0.11
s, saturation flow rate [veh/h]	1810	1900	1883	1810	1900	1768	1810	1900	1783	1810	1900	1798
c, Capacity [veh/h]	141	914	906	93	863	803	226	465	436	42	271	257
d1, Uniform Delay [s]	36.21	12.76	12.76	37.48	14.33	14.35	34.24	25.40	25.43	38.60	32.98	33.05
k, delay calibration	0.14	0.50	0.50	0.11	0.50	0.50	0.23	0.11	0.11	0.11	0.11	0.11
l, 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]	11.87	0.94	0.95	12.29	1.23	1.33	15.86	0.59	0.64	8.29	4.39	4.96
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	0.78	0.32	0.32	0.77	0.37	0.37	0.84	0.42	0.42	0.48	0.76	0.77
d, Delay for Lane Group [s/veh]	48.09	13.70	13.71	49.76	15.56	15.68	50.10	26.00	26.08	46.90	37.38	38.01
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.49	3.11	3.08	1.63	3.67	3.46	4.39	2.92	2.78	0.46	3.92	3.82
50th-Percentile Queue Length [ft/ln]	62.36	77.68	77.10	40.71	91.85	86.59	109.69	72.95	69.41	11.58	97.99	95.39
95th-Percentile Queue Length [veh/ln]	4.49	5.59	5.55	2.93	6.61	6.23	7.82	5.25	5.00	0.83	7.06	6.87
95th-Percentile Queue Length [ft/ln]	112.24	139.82	138.78	73.27	165.33	155.86	195.57	131.30	124.95	20.84	176.38	171.70

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.09	13.71	13.71	49.76	15.60	15.68	50.10	26.03	26.08	46.90	37.63	38.01
Movement LOS	D	B	B	D	B	B	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	19.15			19.13			34.14			38.12		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	26.09											
Intersection LOS	C											
Intersection V/C	0.447											

**Emissions**

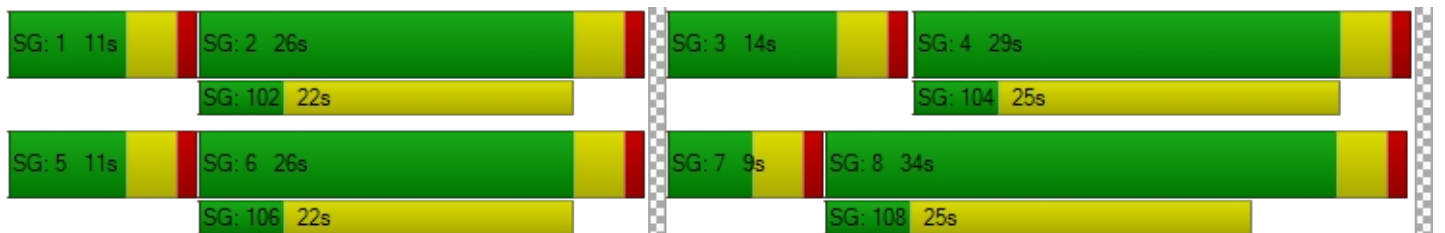
Vehicle Miles Traveled [mph]	16.80	44.82	44.45	8.16	36.83	34.47	115.40	116.58	110.59	3.72	38.34	36.91
Stops [stops/h]	112.24	139.82	138.78	73.27	165.33	155.86	197.45	131.30	124.95	20.84	176.38	171.70
Fuel consumption [US gal/h]	2.79	3.81	3.78	1.73	3.96	3.72	8.36	6.65	6.32	0.58	5.08	4.94
CO [g/h]	195.05	265.97	263.91	121.01	276.63	260.19	584.21	464.78	441.46	40.36	354.86	345.06
NOx [g/h]	37.95	51.75	51.35	23.54	53.82	50.62	113.67	90.43	85.89	7.85	69.04	67.14
VOC [g/h]	45.20	61.64	61.16	28.05	64.11	60.30	135.40	107.72	102.31	9.35	82.24	79.97

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.641			2.762			2.678			2.562		
Crosswalk LOS	B			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			550			750			625		
d_b, Bicycle Delay [s]	21.03			21.03			15.63			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.141			2.163			2.045			1.923		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	25	140	91	58	168	14	10	341	38	124	316	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	24	0	0	4	0	0	10	0	0	8
Total Hourly Volume [veh/h]	26	144	70	60	173	10	10	351	29	128	325	22
Peak Hour Factor	0.8574	0.8574	0.8574	0.8571	0.8571	0.8571	0.7729	0.7729	0.7729	0.9044	0.9044	0.9044
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	42	20	18	50	3	3	114	9	35	90	6
Total Analysis Volume [veh/h]	30	168	82	70	202	12	13	454	38	142	359	24
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	22	0	8	22	0	11	57	0	17	63	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	26	0	9	26	0	9	24	0	11	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
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]	2	25	25	4	26	26	1	18	18	7	24	24
g / C, Green / Cycle	0.03	0.36	0.36	0.05	0.38	0.38	0.02	0.26	0.26	0.10	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.02	0.09	0.05	0.04	0.11	0.01	0.01	0.24	0.02	0.08	0.10	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1859
c, Capacity [veh/h]	59	675	573	97	714	607	32	502	426	179	655	641
d1, Uniform Delay [s]	33.29	15.97	15.34	32.60	15.25	13.73	34.02	24.91	19.42	30.85	16.72	16.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	6.50	0.88	0.52	9.59	0.99	0.06	8.07	6.44	0.09	7.79	0.25	0.25
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	0.51	0.25	0.14	0.72	0.28	0.02	0.41	0.91	0.09	0.80	0.29	0.30
d, Delay for Lane Group [s/veh]	39.79	16.85	15.86	42.19	16.24	13.79	42.08	31.35	19.51	38.65	16.96	16.98
Lane Group LOS	D	B	B	D	B	B	D	C	B	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.59	1.90	0.90	1.37	2.23	0.12	0.28	7.31	0.43	2.54	2.01	1.98
50th-Percentile Queue Length [ft/ln]	14.66	47.54	22.43	34.31	55.82	2.98	6.88	182.71	10.72	63.44	50.35	49.53
95th-Percentile Queue Length [veh/ln]	1.06	3.42	1.62	2.47	4.02	0.21	0.50	11.74	0.77	4.57	3.63	3.57
95th-Percentile Queue Length [ft/ln]	26.39	85.58	40.38	61.76	100.48	5.36	12.39	293.55	19.30	114.20	90.63	89.16

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	39.79	16.85	15.86	42.19	16.24	13.79	42.08	31.35	19.51	38.65	16.97	16.98
Movement LOS	D	B	B	D	B	B	D	C	B	D	B	B
d_A, Approach Delay [s/veh]	19.02			22.54			30.74			22.83		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	24.61											
Intersection LOS	C											
Intersection V/C	0.445											

**Emissions**

Vehicle Miles Traveled [mph]	13.19	73.84	36.04	5.51	15.90	0.94	0.86	30.03	2.51	20.69	28.15	27.66
Stops [stops/h]	30.16	97.81	46.14	70.59	114.84	6.12	14.16	375.86	22.06	130.52	103.58	101.90
Fuel consumption [US gal/h]	0.97	4.13	1.99	1.34	2.14	0.12	0.32	8.60	0.51	3.45	2.92	2.87
CO [g/h]	67.97	288.43	138.78	93.80	149.42	8.09	22.15	601.08	35.74	241.07	204.08	200.69
NOx [g/h]	13.22	56.12	27.00	18.25	29.07	1.57	4.31	116.95	6.95	46.90	39.71	39.05
VOC [g/h]	15.75	66.85	32.16	21.74	34.63	1.87	5.13	139.31	8.28	55.87	47.30	46.51

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	26.58			26.58			26.58			26.58		
I_p,int, Pedestrian LOS Score for Intersectio	2.352			2.408			2.572			2.640		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	629			629			571			629		
d_b, Bicycle Delay [s]	16.46			16.46			17.86			16.46		
I_b,int, Bicycle LOS Score for Intersection	2.061			2.035			2.409			1.999		
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 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.366

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	2	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	17	536	182	66	798	26	27	158	45	182	113	56
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	47	0	0	7	0	0	12	0	0	15
Total Hourly Volume [veh/h]	18	552	140	68	822	20	28	163	34	187	116	43
Peak Hour Factor	0.9023	0.9023	0.9023	0.9304	0.9304	0.9304	0.8297	0.8297	0.8297	0.7930	0.7930	0.7930
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]	5	153	39	18	221	5	8	49	10	59	37	14
Total Analysis Volume [veh/h]	20	612	155	73	883	21	34	196	41	236	146	54
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	7	28	0	36	32	0	39	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	30	0	12	32	0	19	36	0	22	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	2	54	54	5	57	57	3	10	10	15	22	22
g / C, Green / Cycle	0.02	0.54	0.54	0.05	0.57	0.57	0.03	0.10	0.10	0.15	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.10	0.04	0.17	0.01	0.02	0.05	0.03	0.13	0.04	0.03
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	39	2784	869	94	2943	918	56	364	163	270	792	353
d1, Uniform Delay [s]	48.41	12.11	11.81	46.80	11.21	9.42	47.84	42.75	41.49	41.63	31.80	31.57
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.16	0.18	0.45	12.48	0.26	0.05	10.07	1.24	0.80	8.71	0.11	0.20
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	0.51	0.22	0.18	0.77	0.30	0.02	0.61	0.54	0.25	0.87	0.18	0.15
d, Delay for Lane Group [s/veh]	58.57	12.29	12.26	59.28	11.48	9.47	57.92	43.99	42.29	50.34	31.91	31.77
Lane Group LOS	E	B	B	E	B	A	E	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.59	2.19	1.70	2.06	3.05	0.19	0.97	2.28	0.94	6.10	1.39	1.03
50th-Percentile Queue Length [ft/ln]	14.68	54.71	42.39	51.48	76.32	4.76	24.16	57.07	23.44	152.50	34.80	25.82
95th-Percentile Queue Length [veh/ln]	1.06	3.94	3.05	3.71	5.49	0.34	1.74	4.11	1.69	10.15	2.51	1.86
95th-Percentile Queue Length [ft/ln]	26.43	98.48	76.29	92.66	137.37	8.57	43.49	102.72	42.20	253.76	62.65	46.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.57	12.29	12.26	59.28	11.48	9.47	57.92	43.99	42.29	50.34	31.91	31.77
Movement LOS	E	B	B	E	B	A	E	D	D	D	C	C
d_A, Approach Delay [s/veh]	13.46			15.01			45.48			41.87		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	22.59											
Intersection LOS	C											
Intersection V/C	0.366											

**Emissions**

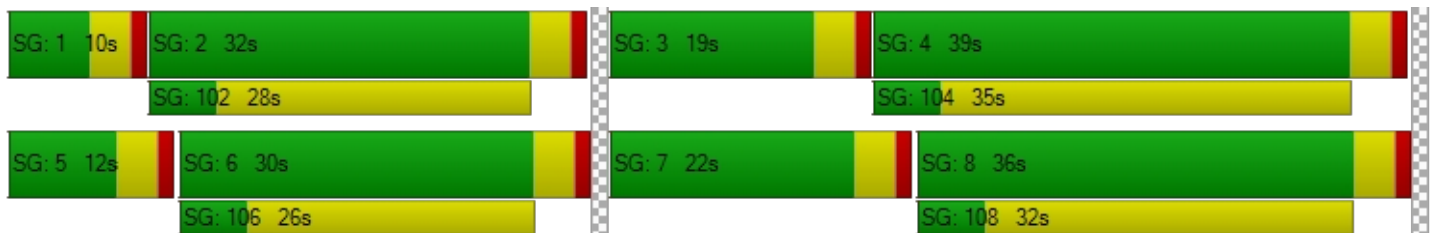
Vehicle Miles Traveled [mph]	8.30	254.02	64.33	21.80	263.73	6.27	2.40	13.86	2.90	43.43	26.87	9.94
Stops [stops/h]	21.14	236.34	61.03	74.13	329.69	6.86	34.79	164.35	33.76	219.60	100.23	37.19
Fuel consumption [US gal/h]	0.79	13.18	3.35	2.55	15.20	0.34	0.92	4.27	0.87	6.64	3.12	1.15
CO [g/h]	54.92	921.01	234.22	178.22	1062.59	23.82	64.00	298.67	60.95	463.89	217.76	80.53
NOx [g/h]	10.69	179.19	45.57	34.67	206.74	4.63	12.45	58.11	11.86	90.26	42.37	15.67
VOC [g/h]	12.73	213.45	54.28	41.30	246.27	5.52	14.83	69.22	14.13	107.51	50.47	18.66

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.166			3.053			2.593			2.706		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	520			560			640			700		
d_b, Bicycle Delay [s]	27.38			25.92			23.12			21.13		
I_b,int, Bicycle LOS Score for Intersection	2.018			2.101			1.793			1.932		
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 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	60	150	7	67	251	31	48	126	116	1	84	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	62	155	7	69	259	32	49	130	119	1	87	30
Peak Hour Factor	0.9435	0.9435	0.9435	0.8756	0.8756	0.8756	0.8401	0.8401	0.8401	0.7370	0.7370	0.7370
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]	16	41	2	20	74	9	15	39	35	0	30	10
Total Analysis Volume [veh/h]	66	164	7	79	296	37	58	155	142	1	118	41
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	478	511	516	504	542	605	495	531	590	505	554
Degree of Utilization, x	0.14	0.17	0.17	0.16	0.55	0.06	0.12	0.29	0.24	0.00	0.29

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.48	0.60	0.59	0.55	3.26	0.19	0.39	1.21	0.93	0.01	1.18
95th-Percentile Queue Length [ft]	11.91	14.89	14.75	13.78	81.58	4.87	9.87	30.15	23.36	0.15	29.49
Approach Delay [s/veh]	11.20			15.20			11.42			11.78	
Approach LOS	B			C			B			B	
Intersection Delay [s/veh]	12.76										
Intersection LOS	B										

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	2
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	47	688	63	65	901	71	45	202	76	40	87	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	16	0	0	18	0	0	20	0	0	8
Total Hourly Volume [veh/h]	48	709	49	67	928	55	46	208	58	41	90	22
Peak Hour Factor	0.9427	0.9427	0.9427	0.9056	0.9056	0.9056	0.9714	0.9714	0.9714	0.8451	0.8451	0.8451
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]	13	188	13	18	256	15	12	54	15	12	27	7
Total Analysis Volume [veh/h]	51	752	52	74	1025	61	47	214	60	49	106	26
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	14	49	0	17	52	0	12	26	0	12	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	33	0	18	36	0	9	30	0	9	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	4	56	56	5	57	57	3	10	10	4	10	10
g / C, Green / Cycle	0.04	0.62	0.62	0.05	0.63	0.63	0.04	0.11	0.11	0.04	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.03	0.04	0.28	0.04	0.03	0.06	0.04	0.03	0.02	0.02
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	74	2230	996	98	2278	1017	70	407	181	71	586	183
d1, Uniform Delay [s]	42.61	8.35	6.84	41.99	8.61	6.41	42.71	37.68	36.82	42.68	36.13	35.97
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.04	0.41	0.10	11.30	0.64	0.11	10.75	1.06	1.05	11.15	0.15	0.35
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	0.69	0.34	0.05	0.76	0.45	0.06	0.67	0.53	0.33	0.69	0.18	0.14
d, Delay for Lane Group [s/veh]	53.66	8.76	6.94	53.30	9.25	6.52	53.46	38.74	37.88	53.83	36.27	36.32
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.30	2.97	0.35	1.86	4.25	0.39	1.21	2.21	1.23	1.26	0.69	0.52
50th-Percentile Queue Length [ft/ln]	32.44	74.31	8.74	46.42	106.34	9.77	30.18	55.14	30.73	31.55	17.20	12.90
95th-Percentile Queue Length [veh/ln]	2.34	5.35	0.63	3.34	7.64	0.70	2.17	3.97	2.21	2.27	1.24	0.93
95th-Percentile Queue Length [ft/ln]	58.40	133.77	15.73	83.56	190.90	17.59	54.32	99.26	55.31	56.80	30.95	23.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.66	8.76	6.94	53.30	9.25	6.52	53.46	38.74	37.88	53.83	36.27	36.32
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.33			11.92			40.73			41.03		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	17.49											
Intersection LOS	B											
Intersection V/C	0.398											

**Emissions**

Vehicle Miles Traveled [mph]	3.32	48.99	3.39	5.86	81.19	4.83	5.12	23.32	6.54	24.69	53.41	13.10
Stops [stops/h]	51.91	237.81	13.99	74.28	340.28	15.64	48.28	176.46	49.16	50.49	82.55	20.64
Fuel consumption [US gal/h]	1.32	5.98	0.36	1.93	8.94	0.44	1.17	4.26	1.18	1.92	3.51	0.86
CO [g/h]	92.00	417.82	25.40	134.69	625.14	30.83	81.71	297.48	82.45	134.00	245.10	60.40
NOx [g/h]	17.90	81.29	4.94	26.21	121.63	6.00	15.90	57.88	16.04	26.07	47.69	11.75
VOC [g/h]	21.32	96.83	5.89	31.22	144.88	7.14	18.94	68.94	19.11	31.06	56.80	14.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
l_p,int, Pedestrian LOS Score for Intersectio	2.971			2.970			2.731			2.708		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	644			711			578			578		
d_b, Bicycle Delay [s]	20.67			18.69			22.76			22.76		
l_b,int, Bicycle LOS Score for Intersection	2.278			2.531			1.841			1.664		
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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.197

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	37	16	8	3	10	12	10	330	47	9	213	10
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	38	16	8	3	10	12	10	340	48	9	219	10
Peak Hour Factor	0.7625	0.7625	0.7625	0.6125	0.6125	0.6125	0.9369	0.9369	0.9369	0.7804	0.7804	0.7804
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	5	3	1	4	5	3	91	13	3	70	3
Total Analysis Volume [veh/h]	50	21	10	5	16	20	11	363	51	12	281	13
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	629	657	638	701	701	738	628	688	688	701
Degree of Utilization, x	0.13	0.06	0.02	0.20	0.20	0.19	0.02	0.14	0.14	0.14

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.44	0.20	0.05	0.73	0.73	0.68	0.06	0.50	0.50	0.48
95th-Percentile Queue Length [ft]	11.02	4.99	1.31	18.22	18.22	17.11	1.46	12.38	12.38	12.12
Approach Delay [s/veh]	9.57	8.85	8.95				8.75			
Approach LOS	A	A	A				A			
Intersection Delay [s/veh]	8.93									
Intersection LOS	A									

**Intersection Level Of Service Report  
Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	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			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	32	60	12	30	149	180	80	331	53	8	238	12
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	3	0	0	46	0	0	14	0	0	3
Total Hourly Volume [veh/h]	33	62	9	31	153	139	82	341	41	8	245	9
Peak Hour Factor	0.8771	0.8771	0.8771	0.8074	0.8074	0.8074	0.8657	0.8657	0.8657	0.8526	0.8526	0.8526
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	18	3	10	47	43	24	98	12	2	72	3
Total Analysis Volume [veh/h]	38	71	10	38	189	172	95	394	47	9	287	11
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	6	61	0	6	61	0	14	32	32	5	23	23
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	14	14	0	10	10
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	36	0	9	36	0	16	23	23	12	19	19
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
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
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	3	46	46	3	46	5	15	21	1	10	17
g / C, Green / Cycle	0.04	0.57	0.57	0.04	0.57	0.07	0.18	0.27	0.01	0.13	0.21
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.02	0.21	0.05	0.11	0.03	0.00	0.08	0.01
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1753	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	65	1081	919	65	997	125	659	433	23	455	342
d1, Uniform Delay [s]	37.96	7.72	7.47	37.96	9.36	36.59	30.02	22.06	39.18	33.20	25.02
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	7.97	0.12	0.02	7.97	1.02	9.09	0.87	0.11	10.46	1.45	0.04
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
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
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

**Lane Group Results**

X, volume / capacity	0.58	0.07	0.01	0.58	0.36	0.76	0.60	0.11	0.39	0.63	0.03
d, Delay for Lane Group [s/veh]	45.94	7.83	7.50	45.94	10.38	45.68	30.90	22.17	49.65	34.65	25.05
Lane Group LOS	D	A	A	D	B	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.86	0.53	0.07	0.84	3.00	2.03	3.31	0.63	0.23	2.57	0.16
50th-Percentile Queue Length [ft/ln]	21.61	13.17	1.81	20.94	75.09	50.84	82.78	15.71	5.83	64.13	3.96
95th-Percentile Queue Length [veh/ln]	1.56	0.95	0.13	1.51	5.41	3.66	5.96	1.13	0.42	4.62	0.28
95th-Percentile Queue Length [ft/ln]	38.89	23.70	3.27	37.70	135.16	91.51	149.00	28.27	10.49	115.44	7.12

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	45.94	7.83	7.50	45.94	10.38	10.38	45.68	30.90	22.17	49.65	34.65	25.05
Movement LOS	D	A	A	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	19.97			13.76			32.75			34.74		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	26.52											
Intersection LOS	C											
Intersection V/C	0.359											

**Emissions**

Vehicle Miles Traveled [mph]	11.90	22.23	3.13	18.99	180.45	8.64	35.81	4.27	2.24	71.47	2.74
Stops [stops/h]	38.89	23.70	3.27	37.70	135.16	91.51	298.00	28.27	10.49	230.88	7.12
Fuel consumption [US gal/h]	1.06	1.16	0.16	1.48	8.63	2.32	7.41	0.71	0.30	7.34	0.24
CO [g/h]	74.09	81.05	11.34	103.11	603.11	161.95	517.96	49.63	20.85	513.34	16.67
NOx [g/h]	14.42	15.77	2.21	20.06	117.34	31.51	100.78	9.66	4.06	99.88	3.24
VOC [g/h]	17.17	18.78	2.63	23.90	139.78	37.53	120.04	11.50	4.83	118.97	3.86

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.224			2.306			2.735			2.752		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			800			475			375		
d_b, Bicycle Delay [s]	14.40			14.40			23.26			26.41		
I_b,int, Bicycle LOS Score for Intersection	1.761			2.294			2.013			1.815		
Bicycle LOS	A			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 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.281

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	127	31	8	16	68	129	32	445	215	8	436	5
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	2	0	0	33	0	0	55	0	0	1
Total Hourly Volume [veh/h]	131	32	6	16	70	100	33	458	166	8	449	4
Peak Hour Factor	0.9167	0.9167	0.9167	0.7870	0.7870	0.7870	0.8687	0.8687	0.8687	0.9239	0.9239	0.9239
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]	36	9	2	5	22	32	9	132	48	2	121	1
Total Analysis Volume [veh/h]	143	35	7	20	89	127	38	527	191	9	486	4
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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	38	0	0	38	0	16	45	0	5	34	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	10	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	9	19	0	11	21	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	35	35	35	35	2	12	12	1	11	11
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.04	0.20	0.20	0.01	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.12	0.02	0.01	0.13	0.02	0.15	0.12	0.00	0.13	0.00
s, saturation flow rate [veh/h]	1184	1846	1386	1721	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	684	1076	853	1003	73	732	327	27	639	285
d1, Uniform Delay [s]	9.36	5.34	6.77	5.97	28.21	22.35	21.65	29.26	23.49	20.39
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	0.69	0.07	0.05	0.49	5.58	1.35	1.66	7.07	1.90	0.02
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	0.21	0.04	0.02	0.22	0.52	0.72	0.58	0.33	0.76	0.01
d, Delay for Lane Group [s/veh]	10.05	5.41	6.82	6.46	33.79	23.70	23.32	36.33	25.39	20.41
Lane Group LOS	B	A	A	A	C	C	C	D	C	C
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.00	0.17	0.10	1.02	0.60	3.14	2.26	0.17	3.02	0.04
50th-Percentile Queue Length [ft/ln]	25.12	4.36	2.58	25.58	14.91	78.46	56.46	4.24	75.60	1.06
95th-Percentile Queue Length [veh/ln]	1.81	0.31	0.19	1.84	1.07	5.65	4.07	0.30	5.44	0.08
95th-Percentile Queue Length [ft/ln]	45.21	7.85	4.65	46.05	26.83	141.23	101.63	7.62	136.07	1.90

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	10.05	5.41	5.41	6.82	6.46	6.46	33.79	23.70	23.32	36.33	25.39	20.41
Movement LOS	B	A	A	A	A	A	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.00			6.49			24.11			25.55		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	20.39											
Intersection LOS	C											
Intersection V/C	0.281											

**Emissions**

Vehicle Miles Traveled [mph]	49.11	14.42	4.83	52.20	4.45	61.72	22.37	0.74	39.83	0.33
Stops [stops/h]	60.28	10.47	6.19	61.40	35.78	376.62	135.50	10.17	362.86	2.54
Fuel consumption [US gal/h]	2.64	0.67	0.26	2.76	0.86	9.34	3.36	0.22	8.39	0.06
CO [g/h]	184.82	46.54	18.30	192.73	60.02	652.88	234.71	15.25	586.33	4.15
NOx [g/h]	35.96	9.05	3.56	37.50	11.68	127.03	45.67	2.97	114.08	0.81
VOC [g/h]	42.83	10.79	4.24	44.67	13.91	151.31	54.40	3.54	135.89	0.96

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.154	2.118	3.105	2.721
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	500	567
d_b, Bicycle Delay [s]	9.63	9.63	16.88	15.41
I_b,int, Bicycle LOS Score for Intersection	1.868	2.003	2.229	1.972
Bicycle LOS	A	B	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	19.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.259

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	34	3	170	0	0	0	46	522	0	0	421	257
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0000	1.0000	1.0000	1.0300	1.0300	1.0000	1.0000	1.0300	1.0300
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	44	0	0	0	0	0	0	0	0	66
Total Hourly Volume [veh/h]	35	3	131	0	0	0	47	538	0	0	434	199
Peak Hour Factor	0.8655	0.8655	0.8655	1.0000	1.0000	1.0000	0.9008	0.9008	1.0000	1.0000	0.8591	0.8591
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]	10	1	38	0	0	0	13	149	0	0	126	58
Total Analysis Volume [veh/h]	40	3	151	0	0	0	52	597	0	0	505	232
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	13	0	0	0	0	5	99	0	0	90	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	15	0	0	0	0	19	45	0	0	26	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	60	60	60		60	60	60	60
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]	33	33	33		3	19	12	12
g / C, Green / Cycle	0.55	0.55	0.55		0.05	0.31	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.09		0.01	0.17	0.14	0.14
s, saturation flow rate [veh/h]	1810	1822	1615		3514	3618	3618	1615
c, Capacity [veh/h]	999	1006	892		175	1138	716	320
d1, Uniform Delay [s]	6.09	6.09	6.64		27.49	16.89	22.43	22.54
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.04	0.41		0.93	0.38	1.29	3.14
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	0.02	0.02	0.17		0.30	0.52	0.71	0.73
d, Delay for Lane Group [s/veh]	6.13	6.13	7.05		28.42	17.26	23.72	25.68
Lane Group LOS	A	A	A		C	B	C	C
Critical Lane Group	No	No	Yes		No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.11	0.11	0.86		0.35	2.88	3.21	3.12
50th-Percentile Queue Length [ft/ln]	2.75	2.76	21.55		8.67	71.89	80.14	78.00
95th-Percentile Queue Length [veh/ln]	0.20	0.20	1.55		0.62	5.18	5.77	5.62
95th-Percentile Queue Length [ft/ln]	4.95	4.97	38.78		15.61	129.40	144.26	140.40

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	6.13	6.13	7.05	0.00	0.00	0.00	28.42	17.26	0.00	0.00	23.72	25.68
Movement LOS	A	A	A				C	B			C	C
d_A, Approach Delay [s/veh]	6.84			0.00			18.16			24.34		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	19.65											
Intersection LOS	B											
Intersection V/C	0.259											

**Emissions**

Vehicle Miles Traveled [mph]	1.95	1.96	13.72		7.47	85.81	59.14	27.17
Stops [stops/h]	6.60	6.63	51.71		41.63	345.06	384.68	187.21
Fuel consumption [US gal/h]	0.14	0.14	1.07		1.07	9.33	7.00	3.37
CO [g/h]	10.03	10.07	74.58		75.11	652.10	489.13	235.23
NOx [g/h]	1.95	1.96	14.51		14.61	126.87	95.17	45.77
VOC [g/h]	2.32	2.33	17.28		17.41	151.13	113.36	54.52

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		0.0		0.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		21.68		0.00		0.00	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		2.036		0.000		0.000	
Crosswalk LOS	F		B		F		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	367		0		1367		733	
d_b, Bicycle Delay [s]	20.01		30.00		3.01		12.03	
I_b,int, Bicycle LOS Score for Intersection	1.952		4.132		2.095		2.222	
Bicycle LOS	A		D		B		B	

**Sequence**




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



**Intersection Level Of Service Report  
Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.274

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	343	1	34	0	228	87	292	160	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0300	1.0300	1.0300	1.0000	1.0300	1.0300	1.0300	1.0300	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	9	0	0	23	0	0	0
Total Hourly Volume [veh/h]	0	0	0	353	1	26	0	235	67	301	165	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9087	0.9087	0.9087	1.0000	0.9128	0.9128	0.8958	0.8958	1.0000
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]	0	0	0	97	0	7	0	64	18	84	46	0
Total Analysis Volume [veh/h]	0	0	0	388	1	29	0	257	73	336	184	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	14	0	0	10	0	34	48	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	14	0	32	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	R	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		30	30	30	10	10	8	22
g / C, Green / Cycle		0.49	0.49	0.49	0.17	0.17	0.14	0.37
(v / s)_i Volume / Saturation Flow Rate		0.11	0.11	0.02	0.07	0.05	0.10	0.05
s, saturation flow rate [veh/h]		1810	1810	1615	3618	1615	3514	3618
c, Capacity [veh/h]		890	890	794	601	268	500	1356
d1, Uniform Delay [s]		8.68	8.68	7.89	22.46	21.85	24.41	12.35
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.56	0.56	0.09	0.48	0.54	1.58	0.05
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		0.22	0.22	0.04	0.43	0.27	0.67	0.14
d, Delay for Lane Group [s/veh]		9.24	9.24	7.97	22.95	22.40	25.99	12.40
Lane Group LOS		A	A	A	C	C	C	B
Critical Lane Group		Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.25	1.25	0.17	1.47	0.83	2.11	0.68
50th-Percentile Queue Length [ft/ln]		31.31	31.32	4.24	36.75	20.76	52.70	16.88
95th-Percentile Queue Length [veh/ln]		2.25	2.25	0.31	2.65	1.49	3.79	1.22
95th-Percentile Queue Length [ft/ln]		56.36	56.37	7.64	66.15	37.37	94.86	30.39

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.24	9.24	7.97	0.00	22.95	22.40	25.99	12.40	0.00
Movement LOS				A	A	A		C	C	C	B	
d_A, Approach Delay [s/veh]	0.00			9.16			22.82			21.18		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	17.65											
Intersection LOS	B											
Intersection V/C	0.274											

**Emissions**

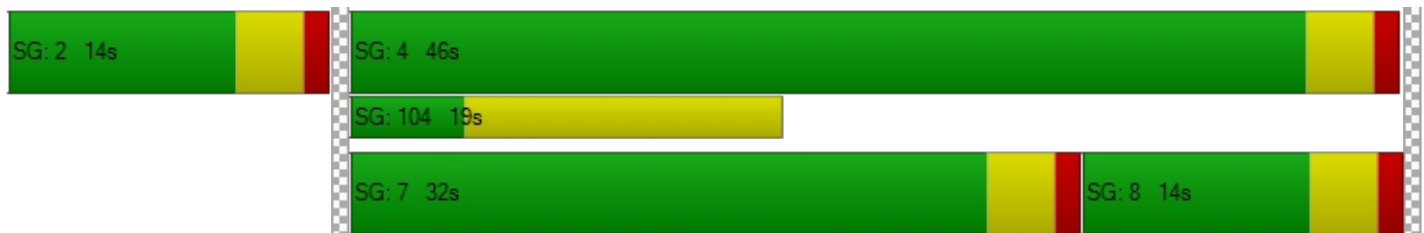
Vehicle Miles Traveled [mph]		13.04	13.04	1.94	29.26	8.31	48.29	26.45
Stops [stops/h]		75.15	75.16	10.19	176.39	49.83	252.95	81.03
Fuel consumption [US gal/h]		1.57	1.57	0.22	4.40	1.24	6.58	2.38
CO [g/h]		109.82	109.85	15.15	307.29	86.48	459.78	166.24
NOx [g/h]		21.37	21.37	2.95	59.79	16.83	89.46	32.34
VOC [g/h]		25.45	25.46	3.51	71.22	20.04	106.56	38.53

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.119	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	333	1400
d_b, Bicycle Delay [s]	30.00	20.83	20.83	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.264	1.851	1.989
Bicycle LOS	D	B	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.302

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	70	162	30	50	277	34	51	352	105	64	327	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	8	0	0	9	0	0	27	0	0	9
Total Hourly Volume [veh/h]	72	167	23	52	285	26	53	363	81	66	337	25
Peak Hour Factor	0.7846	0.7846	0.7846	0.8624	0.8624	0.8624	0.8872	0.8872	0.8872	0.8643	0.8643	0.8643
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]	23	53	7	15	83	8	15	102	23	19	97	7
Total Analysis Volume [veh/h]	92	213	29	60	330	30	60	409	91	76	390	29
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	26	0	8	26	0	36	53	0	7	24	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	30	0	12	30	0	12	26	0	12	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	44	44	4	43	43	4	12	12	4	12	12
g / C, Green / Cycle	0.07	0.55	0.55	0.05	0.53	0.53	0.05	0.15	0.15	0.05	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.05	0.06	0.07	0.03	0.10	0.10	0.03	0.11	0.06	0.04	0.11	0.02
s, saturation flow rate [veh/h]	1810	1900	1822	1810	1900	1845	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	119	1047	1004	85	1011	982	85	532	237	100	561	250
d1, Uniform Delay [s]	36.76	8.61	8.62	37.58	9.69	9.70	37.58	32.82	30.84	37.29	32.00	29.08
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.95	0.23	0.24	10.29	0.39	0.41	10.29	2.38	1.02	11.40	1.56	0.20
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	0.77	0.12	0.12	0.71	0.18	0.18	0.71	0.77	0.38	0.76	0.70	0.12
d, Delay for Lane Group [s/veh]	46.71	8.84	8.87	47.87	10.08	10.10	47.87	35.20	31.86	48.69	33.57	29.28
Lane Group LOS	D	A	A	D	B	B	D	D	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.00	0.90	0.88	1.34	1.48	1.45	1.34	3.73	1.55	1.70	3.45	0.46
50th-Percentile Queue Length [ft/ln]	49.92	22.54	22.10	33.40	36.98	36.37	33.40	93.18	38.80	42.47	86.20	11.59
95th-Percentile Queue Length [veh/ln]	3.59	1.62	1.59	2.40	2.66	2.62	2.40	6.71	2.79	3.06	6.21	0.83
95th-Percentile Queue Length [ft/ln]	89.86	40.57	39.78	60.12	66.56	65.46	60.12	167.73	69.85	76.45	155.16	20.86

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.71	8.85	8.87	47.87	10.09	10.10	47.87	35.20	31.86	48.69	33.57	29.28
Movement LOS	D	A	A	D	B	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	19.28			15.49			36.02			35.64		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	28.06											
Intersection LOS	C											
Intersection V/C	0.302											

**Emissions**

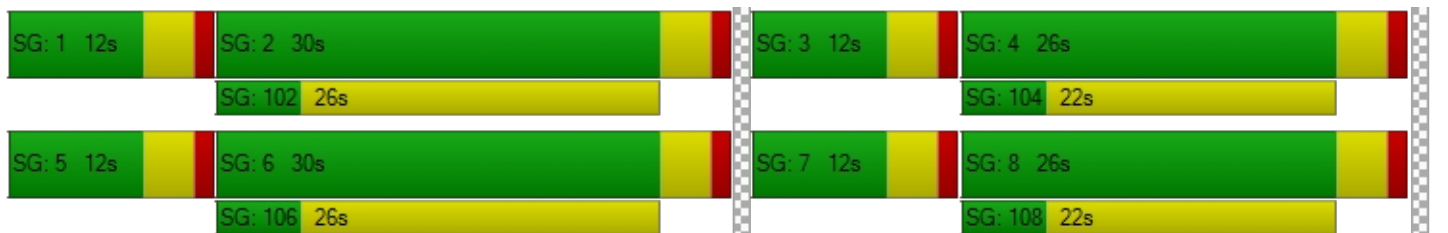
Vehicle Miles Traveled [mph]	46.10	61.36	59.90	30.03	91.00	89.20	30.22	205.97	45.83	12.64	64.84	4.82
Stops [stops/h]	89.86	40.57	39.78	60.12	66.56	65.46	60.12	335.45	69.85	76.45	310.31	20.86
Fuel consumption [US gal/h]	3.57	2.83	2.76	2.36	4.32	4.24	2.37	14.16	3.03	2.14	8.74	0.60
CO [g/h]	249.68	197.69	193.19	165.07	301.94	296.23	165.51	989.85	211.75	149.35	611.27	41.76
NOx [g/h]	48.58	38.46	37.59	32.12	58.75	57.64	32.20	192.59	41.20	29.06	118.93	8.12
VOC [g/h]	57.87	45.82	44.77	38.26	69.98	68.66	38.36	229.41	49.07	34.61	141.67	9.68

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
l_p,int, Pedestrian LOS Score for Intersectio	2.560			2.525			2.757			2.708		
Crosswalk LOS	B			B			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			550		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			21.03		
l_b,int, Bicycle LOS Score for Intersection	1.842			1.914			2.044			1.975		
Bicycle LOS	A			A			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 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	153	644	137	192	794	31	23	264	188	131	230	96
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0000	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	34	0	0	8	0	0	49	0	0	25
Total Hourly Volume [veh/h]	158	663	103	198	818	24	24	272	145	135	237	74
Peak Hour Factor	0.9266	0.9266	0.9266	0.9141	0.9141	0.9141	0.9141	0.9141	0.9141	0.9550	0.9550	0.9550
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]	43	179	28	54	224	7	7	74	40	35	62	19
Total Analysis Volume [veh/h]	171	716	111	217	895	26	26	298	159	141	248	77
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	34	26	0	40	32	0	5	42	0	5	33	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	20	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	18	32	0	12	26	0	16	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	10	36	36	13	39	39	2	17	17	9	23	23
g / C, Green / Cycle	0.11	0.40	0.40	0.14	0.43	0.43	0.03	0.18	0.18	0.10	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.09	0.20	0.07	0.12	0.25	0.02	0.01	0.16	0.10	0.08	0.07	0.05
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	3618	1615
c, Capacity [veh/h]	206	1452	648	253	1545	690	52	349	297	176	914	408
d1, Uniform Delay [s]	39.00	20.11	17.32	37.83	19.63	15.01	43.09	35.55	33.25	39.77	26.99	26.40
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	8.20	1.20	0.57	8.18	1.59	0.10	7.42	5.94	1.50	8.21	0.16	0.22
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	0.83	0.49	0.17	0.86	0.58	0.04	0.50	0.85	0.54	0.80	0.27	0.19
d, Delay for Lane Group [s/veh]	47.21	21.31	17.90	46.01	21.22	15.12	50.51	41.50	34.75	47.98	27.15	26.62
Lane Group LOS	D	C	B	D	C	B	D	D	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.98	5.32	1.46	5.00	6.72	0.30	0.65	6.53	3.10	3.41	2.12	1.30
50th-Percentile Queue Length [ft/ln]	99.52	133.05	36.49	124.97	168.11	7.58	16.34	163.28	77.38	85.32	53.08	32.56
95th-Percentile Queue Length [veh/ln]	7.17	9.11	2.63	8.67	10.98	0.55	1.18	10.72	5.57	6.14	3.82	2.34
95th-Percentile Queue Length [ft/ln]	179.13	227.63	65.69	216.64	274.43	13.65	29.41	268.06	139.28	153.58	95.54	58.61

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.21	21.31	17.90	46.01	21.22	15.12	50.51	41.50	34.75	47.98	27.15	26.62
Movement LOS	D	C	B	D	C	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	25.37			25.81			39.76			33.36		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	28.99											
Intersection LOS	C											
Intersection V/C	0.577											

**Emissions**

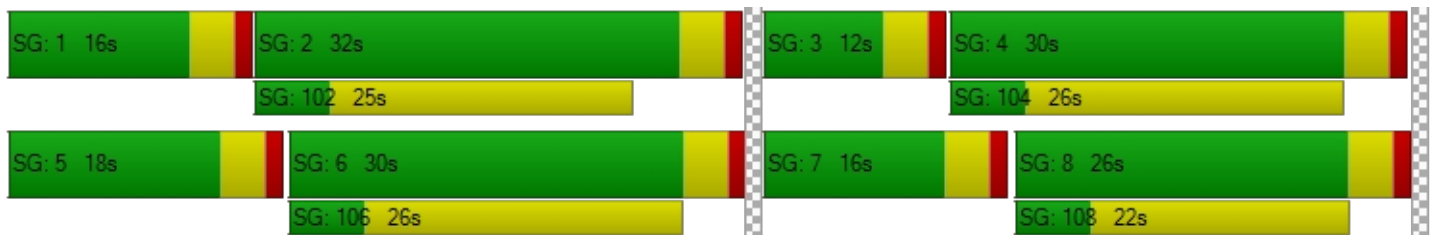
Vehicle Miles Traveled [mph]	8.66	36.26	5.62	95.49	393.86	11.44	2.55	29.21	15.59	71.01	124.89	38.78
Stops [stops/h]	159.23	425.75	58.39	199.96	537.96	12.13	26.14	261.25	123.81	136.52	169.84	52.09
Fuel consumption [US gal/h]	3.92	9.64	1.32	7.79	24.05	0.62	0.68	6.77	3.20	5.05	7.45	2.30
CO [g/h]	273.95	673.98	92.47	544.60	1681.40	43.55	47.51	472.94	223.54	353.27	520.74	160.86
NOx [g/h]	53.30	131.13	17.99	105.96	327.14	8.47	9.24	92.02	43.49	68.73	101.32	31.30
VOC [g/h]	63.49	156.20	21.43	126.22	389.68	10.09	11.01	109.61	51.81	81.87	120.69	37.28

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.058			2.951			2.659			2.677		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			622			489			578		
d_b, Bicycle Delay [s]	22.76			21.36			25.69			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.411			2.505			2.437			1.965		
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 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.087

**Intersection Setup**

Name	Barrett Ave		Orange Ave		Orange Ave	
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	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Barrett Ave		Orange Ave		Orange Ave	
Base Volume Input [veh/h]	26	17	20	339	231	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	27	18	21	349	238	14
Peak Hour Factor	0.8077	0.8077	0.8800	0.8800	0.8277	0.8277
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	6	6	99	72	4
Total Analysis Volume [veh/h]	33	22	24	397	288	17
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.09	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.34	9.91	7.87	0.00	0.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.09	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.06	2.25	1.01	1.01	0.00	0.00
d_A, Approach Delay [s/veh]	13.16		0.45		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.17					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

**Intersection Setup**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	170.00	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	41	59	138	82	0	1	172	1	101	79	65
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	0	42	61	142	84	0	1	177	1	104	81	67
Peak Hour Factor	0.9950	0.9950	0.9950	0.7801	0.7801	0.7801	0.8788	0.8788	0.8788	0.8652	0.8652	0.8652
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]	0	11	15	46	27	0	0	50	0	30	23	19
Total Analysis Volume [veh/h]	0	42	61	182	108	0	1	201	1	120	94	77
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	648	553	599	655	682
Degree of Utilization, x	0.16	0.33	0.18	0.31	0.43

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.56	1.43	0.65	1.32	2.14
95th-Percentile Queue Length [ft]	14.04	35.75	16.33	32.90	53.53
Approach Delay [s/veh]	9.60	11.51		10.94	12.16
Approach LOS	A	B		B	B
Intersection Delay [s/veh]	11.37				
Intersection LOS	B				

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	90	2	170	118	4	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	93	2	175	122	4	78
Peak Hour Factor	0.8214	0.8214	0.8944	0.8944	0.7950	0.7950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	1	49	34	1	25
Total Analysis Volume [veh/h]	113	2	196	136	5	98
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.01	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	7.67	0.00	15.05	9.35
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.37	0.37	0.40	0.40
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.15	9.15	9.90	9.90
d_A, Approach Delay [s/veh]	0.00		4.53		9.63	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.54					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.460

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	39	189	37	81	247	77	50	146	59	13	101	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0000	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	40	195	37	83	254	79	52	150	61	13	104	52
Peak Hour Factor	0.8588	0.8588	0.8588	0.8821	0.8821	0.8821	0.8231	0.8231	0.8231	0.8039	0.8039	0.8039
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	57	11	24	72	22	16	46	19	4	32	16
Total Analysis Volume [veh/h]	47	227	43	94	288	90	63	182	74	16	129	65
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	481	514	531	494	530	557	506	556	488	521	574
Degree of Utilization, x	0.10	0.26	0.25	0.19	0.36	0.34	0.12	0.46	0.03	0.25	0.11

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.32	1.05	1.00	0.70	1.60	1.50	0.42	2.40	0.10	0.97	0.38
95th-Percentile Queue Length [ft]	8.08	26.13	25.09	17.38	40.10	37.38	10.59	60.06	2.54	24.23	9.52
Approach Delay [s/veh]	11.83			12.61			13.83			11.11	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	12.48										
Intersection LOS	B										

**Intersection Level Of Service Report**  
**Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	2	0	0	0	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	55	804	189	48	941	29	45	25	54	207	15	41
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	49	0	0	8	0	0	14	0	0	11
Total Hourly Volume [veh/h]	57	828	146	49	969	22	46	26	42	213	15	31
Peak Hour Factor	0.9319	0.9319	0.9319	0.8802	0.8802	0.8802	0.8576	0.8576	0.8576	0.8506	0.8506	0.8506
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	222	39	14	275	6	13	8	12	63	4	9
Total Analysis Volume [veh/h]	61	888	157	56	1101	25	54	30	49	250	18	36
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	5	21	0	0	12	0	0	10	0	0	37	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	27	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	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	30	0	0	16	0	0	14	0	0	36	0
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall	No	No			No			No			No	
Maximum Recall	No	No			No			No			No	
Pedestrian Recall	No	No			No			No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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	2.00	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	45	45	37	37	37	9	13	13	13
g / C, Green / Cycle	0.05	0.56	0.56	0.47	0.47	0.47	0.12	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.19	0.10	0.21	0.02	0.08	0.14	0.01	0.02
s, saturation flow rate [veh/h]	1810	3618	1758	548	5176	1615	1751	1810	1900	1615
c, Capacity [veh/h]	85	2041	992	270	2418	754	208	303	318	270
d1, Uniform Delay [s]	37.60	9.43	9.44	20.15	14.43	11.54	33.63	32.18	28.00	28.37
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, 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]	10.70	0.46	0.96	1.74	0.62	0.08	3.28	5.67	0.07	0.22
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	0.72	0.34	0.35	0.21	0.46	0.03	0.64	0.83	0.06	0.13
d, Delay for Lane Group [s/veh]	48.29	9.89	10.40	21.89	15.05	11.62	36.91	37.85	28.07	28.59
Lane Group LOS	D	A	B	C	B	B	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.41	3.09	3.16	0.84	3.99	0.23	2.63	5.08	0.29	0.60
50th-Percentile Queue Length [ft/ln]	35.20	77.28	78.90	20.98	99.76	5.67	65.65	126.89	7.36	15.01
95th-Percentile Queue Length [veh/ln]	2.53	5.56	5.68	1.51	7.18	0.41	4.73	8.77	0.53	1.08
95th-Percentile Queue Length [ft/ln]	63.36	139.11	142.02	37.76	179.57	10.21	118.16	219.26	13.26	27.01

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.29	10.00	10.40	21.89	15.05	11.62	36.91	36.91	36.91	37.85	28.07	28.59
Movement LOS	D	A	B	C	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	12.17			15.30			36.91			36.18		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	17.41											
Intersection LOS	B											
Intersection V/C	0.461											

**Emissions**

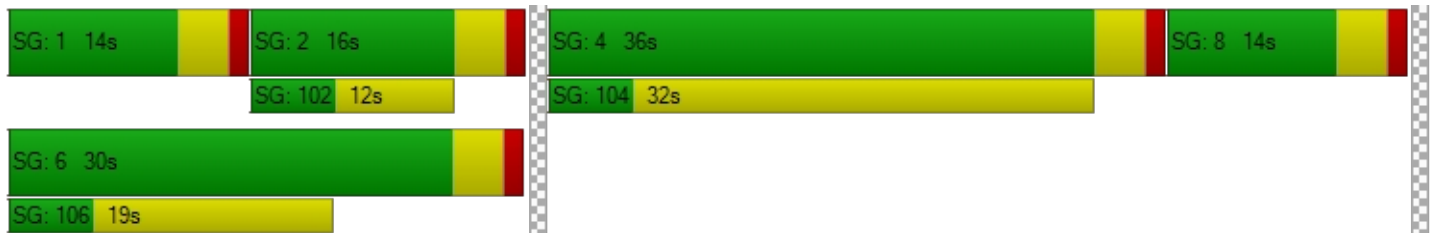
Vehicle Miles Traveled [mph]	30.20	347.66	169.68	5.28	103.87	2.36	10.61	126.41	9.10	18.20
Stops [stops/h]	63.36	278.21	142.02	37.76	538.72	10.21	118.16	228.41	13.26	27.01
Fuel consumption [US gal/h]	2.19	17.26	8.50	0.90	13.63	0.27	1.93	8.49	0.56	1.13
CO [g/h]	153.27	1206.67	593.80	62.91	952.75	18.66	134.85	593.19	39.35	79.10
NOx [g/h]	29.82	234.77	115.53	12.24	185.37	3.63	26.24	115.41	7.66	15.39
VOC [g/h]	35.52	279.66	137.62	14.58	220.81	4.32	31.25	137.48	9.12	18.33

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.131	1.836	2.345
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	300	250	800
d_b, Bicycle Delay [s]	18.23	28.90	30.63	14.40
I_b,int, Bicycle LOS Score for Intersection	2.195	2.214	1.802	2.079
Bicycle LOS	B	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	29.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	36	105	148	41	53	58	45	554	14	158	543	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	38	0	0	15	0	0	4	0	0	10
Total Hourly Volume [veh/h]	37	108	114	42	55	45	46	571	10	163	559	31
Peak Hour Factor	0.8780	0.8780	0.8780	0.8608	0.8608	0.8608	0.8955	0.8955	0.8955	0.7629	0.7629	0.7629
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]	11	31	32	12	16	13	13	159	3	53	183	10
Total Analysis Volume [veh/h]	42	123	130	49	64	52	51	638	11	214	733	41
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	28	0	5	28	0	18	32	0	19	33	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	21	0	20	32	0	16	20	0	19	23	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
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
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
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
g_i, Effective Green Time [s]	3	33	3	33	33	3	16	16	11	24	24
g / C, Green / Cycle	0.04	0.41	0.04	0.42	0.42	0.04	0.20	0.20	0.14	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.03	0.03	0.03	0.03	0.18	0.01	0.12	0.20	0.03
s, saturation flow rate [veh/h]	1810	1742	1810	1900	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	69	717	77	791	672	78	739	330	255	1093	488
d1, Uniform Delay [s]	37.89	16.19	37.68	14.10	14.08	37.68	30.75	25.50	33.46	24.42	19.98
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	8.38	1.36	8.30	0.20	0.22	8.83	3.16	0.04	7.16	0.72	0.07
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
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
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

**Lane Group Results**

X, volume / capacity	0.61	0.35	0.63	0.08	0.08	0.65	0.86	0.03	0.84	0.67	0.08
d, Delay for Lane Group [s/veh]	46.27	17.55	45.98	14.30	14.30	46.50	33.90	25.54	40.62	25.14	20.05
Lane Group LOS	D	B	D	B	B	D	C	C	D	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.97	3.35	1.12	0.73	0.60	1.10	5.61	0.16	4.16	5.38	0.49
50th-Percentile Queue Length [ft/ln]	24.14	83.72	27.91	18.17	14.89	27.42	140.36	3.88	104.12	134.59	12.32
95th-Percentile Queue Length [veh/ln]	1.74	6.03	2.01	1.31	1.07	1.97	9.50	0.28	7.50	9.19	0.89
95th-Percentile Queue Length [ft/ln]	43.45	150.70	50.24	32.70	26.81	49.36	237.51	6.98	187.42	229.73	22.17

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.27	17.55	17.55	45.98	14.30	14.30	46.50	33.90	25.54	40.62	25.14	20.05
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	21.64			23.71			34.69			28.28		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.11											
Intersection LOS	C											
Intersection V/C	0.467											

**Emissions**

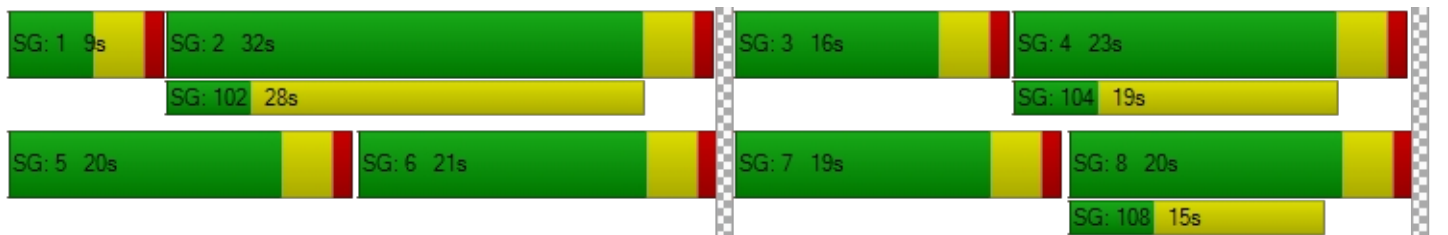
Vehicle Miles Traveled [mph]	5.89	35.49	6.82	8.91	7.24	25.52	319.28	5.50	55.90	191.48	10.71
Stops [stops/h]	43.45	150.70	50.24	32.70	26.81	49.36	505.30	6.98	187.42	484.54	22.17
Fuel consumption [US gal/h]	0.83	3.08	0.96	0.71	0.58	2.25	24.47	0.37	7.12	19.16	0.94
CO [g/h]	57.81	215.13	66.96	49.79	40.52	157.51	1710.30	25.92	497.71	1338.99	65.52
NOx [g/h]	11.25	41.86	13.03	9.69	7.88	30.65	332.76	5.04	96.84	260.52	12.75
VOC [g/h]	13.40	49.86	15.52	11.54	9.39	36.50	396.38	6.01	115.35	310.32	15.19

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	31.51	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.159	2.230	2.915	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	425	700	400	475
d_b, Bicycle Delay [s]	24.81	16.90	25.60	23.26
I_b,int, Bicycle LOS Score for Intersection	2.109	1.857	2.140	2.383
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 25: Neuvo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	21.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.471

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	104	233	129	20	246	55	56	632	107	129	565	27
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	33	0	0	14	0	0	28	0	0	7
Total Hourly Volume [veh/h]	107	240	100	21	253	43	58	651	82	133	582	21
Peak Hour Factor	0.8158	0.8158	0.8158	0.9249	0.9249	0.9249	0.9147	0.9147	0.9147	0.8738	0.8738	0.8738
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]	33	74	31	6	68	12	16	178	22	38	167	6
Total Analysis Volume [veh/h]	131	294	123	23	274	46	63	712	90	152	666	24
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	22	0	0	22	0	44	46	0	10	12	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	26	0	0	26	0	20	26	0	18	24	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	34	34	34	34	4	17	17	8	21	21
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.05	0.24	0.24	0.11	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.12	0.15	0.08	0.19	0.03	0.20	0.06	0.08	0.18	0.01
s, saturation flow rate [veh/h]	1076	1900	1615	1807	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	453	913	776	923	96	870	388	195	1066	476
d1, Uniform Delay [s]	13.70	11.17	10.22	11.59	32.50	25.14	21.39	30.43	21.33	17.67
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	1.60	0.93	0.44	1.15	7.29	1.97	0.30	6.66	0.60	0.04
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	0.29	0.32	0.16	0.37	0.65	0.82	0.23	0.78	0.62	0.05
d, Delay for Lane Group [s/veh]	15.31	12.11	10.66	12.73	39.80	27.11	21.69	37.09	21.94	17.71
Lane Group LOS	B	B	B	B	D	C	C	D	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.46	2.51	0.96	3.04	1.18	5.31	1.12	2.69	4.32	0.26
50th-Percentile Queue Length [ft/ln]	36.62	62.66	24.07	76.00	29.52	132.64	28.06	67.18	107.92	6.45
95th-Percentile Queue Length [veh/ln]	2.64	4.51	1.73	5.47	2.13	9.08	2.02	4.84	7.72	0.46
95th-Percentile Queue Length [ft/ln]	65.92	112.79	43.33	136.80	53.13	227.08	50.50	120.92	193.11	11.61

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	15.31	12.11	10.66	12.73	12.73	12.73	39.80	27.11	21.69	37.09	21.94	17.71
Movement LOS	B	B	B	B	B	B	D	C	C	D	C	B
d_A, Approach Delay [s/veh]	12.55			12.73			27.47			24.55		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.43											
Intersection LOS	C											
Intersection V/C	0.471											

**Emissions**

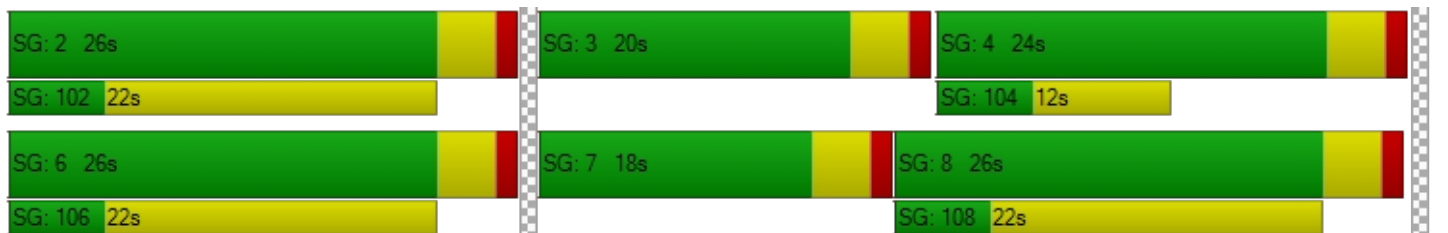
Vehicle Miles Traveled [mph]	49.50	111.08	46.47	172.33	31.87	360.21	45.53	76.07	333.29	12.01
Stops [stops/h]	75.34	128.90	49.52	156.34	60.72	545.72	57.72	138.20	444.02	13.27
Fuel consumption [US gal/h]	3.04	6.13	2.48	8.74	2.25	22.19	2.60	5.23	19.27	0.65
CO [g/h]	212.60	428.82	173.04	610.92	157.16	1551.23	181.40	365.54	1347.25	45.23
NOx [g/h]	41.36	83.43	33.67	118.86	30.58	301.81	35.29	71.12	262.13	8.80
VOC [g/h]	49.27	99.38	40.10	141.59	36.42	359.51	42.04	84.72	312.24	10.48

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersectio	2.665	2.268	3.047	2.861
Crosswalk LOS	B	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]	629	629	629	571
d_b, Bicycle Delay [s]	16.46	16.46	16.46	17.86
I_b,int, Bicycle LOS Score for Intersection	2.518	2.149	2.296	2.260
Bicycle LOS	B	B	B	B

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	37.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.504

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	134	475	120	226	549	220	288	554	165	207	451	181
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	31	0	0	57	0	0	43	0	0	47
Total Hourly Volume [veh/h]	138	489	93	233	565	170	297	571	127	213	465	139
Peak Hour Factor	0.9406	0.9406	0.9406	0.9342	0.9342	0.9342	0.8402	0.8402	0.8402	0.8991	0.8991	0.8991
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]	37	130	25	62	151	45	88	170	38	59	129	39
Total Analysis Volume [veh/h]	147	520	99	249	605	182	354	680	151	237	517	155
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	13	33	0	12	32	0	20	48	0	11	39	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	35	0	16	36	0	16	42	0	17	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	11	51	51	10	50	50	12	24	24	10	21	21
g / C, Green / Cycle	0.10	0.46	0.46	0.09	0.45	0.45	0.11	0.22	0.22	0.09	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.08	0.14	0.06	0.07	0.17	0.06	0.10	0.19	0.09	0.07	0.14	0.10
s, saturation flow rate [veh/h]	1810	3618	1615	3514	3618	2859	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	176	1667	744	314	1639	1295	383	788	352	304	707	316
d1, Uniform Delay [s]	48.81	18.68	17.04	49.10	19.76	17.57	48.54	41.43	37.11	49.21	41.55	39.39
k, delay calibration	0.18	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	15.89	0.49	0.37	4.54	0.64	0.23	9.57	2.96	0.83	4.32	1.48	1.18
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	0.84	0.31	0.13	0.79	0.37	0.14	0.92	0.86	0.43	0.78	0.73	0.49
d, Delay for Lane Group [s/veh]	64.70	19.16	17.41	53.64	20.40	17.80	58.12	44.39	37.94	53.53	43.03	40.57
Lane Group LOS	E	B	B	D	C	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.62	4.03	1.44	3.45	4.92	1.32	5.21	8.94	3.51	3.31	6.56	3.75
50th-Percentile Queue Length [ft/ln]	115.47	100.71	35.91	86.24	122.92	32.93	130.27	223.39	87.67	82.64	163.94	93.73
95th-Percentile Queue Length [veh/ln]	8.14	7.25	2.59	6.21	8.55	2.37	8.95	13.84	6.31	5.95	10.76	6.75
95th-Percentile Queue Length [ft/ln]	203.59	181.28	64.65	155.23	213.83	59.28	223.86	345.94	157.81	148.75	268.93	168.71

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	64.70	19.16	17.41	53.64	20.40	17.80	58.12	44.39	37.94	53.53	43.03	40.57
Movement LOS	E	B	B	D	C	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	27.67			27.93			47.67			45.35		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.95											
Intersection LOS	D											
Intersection V/C	0.504											

**Emissions**

Vehicle Miles Traveled [mph]	55.34	195.77	37.27	123.27	299.51	90.10	78.85	151.46	33.63	119.90	261.55	78.42
Stops [stops/h]	151.16	263.69	47.01	225.78	321.82	86.22	341.08	584.87	114.77	216.37	429.23	122.70
Fuel consumption [US gal/h]	5.71	12.02	2.21	9.75	16.78	4.82	10.36	17.31	3.50	9.00	18.11	5.29
CO [g/h]	399.24	839.98	154.67	681.56	1172.88	336.90	724.25	1210.15	244.51	629.22	1266.03	370.04
NOx [g/h]	77.68	163.43	30.09	132.61	228.20	65.55	140.91	235.45	47.57	122.42	246.32	72.00
VOC [g/h]	92.53	194.67	35.85	157.96	271.83	78.08	167.85	280.46	56.67	145.83	293.41	85.76

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.955			3.294			3.144			3.046		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	564			582			691			709		
d_b, Bicycle Delay [s]	28.37			27.65			23.56			22.91		
I_b,int, Bicycle LOS Score for Intersection	2.217			2.461			2.573			2.348		
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 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	196	0	1091	946	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0300	1.0000	1.0300	1.0300	1.0300
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]	0	202	0	1124	974	35
Peak Hour Factor	1.0000	0.8099	1.0000	0.9633	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	62	0	292	266	10
Total Analysis Volume [veh/h]	0	249	0	1167	1065	38
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.60	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	26.07	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	3.83	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	95.83	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	26.07		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.58					
Intersection LOS	D					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.356

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	63	4	409	0	0	0	54	686	0	0	750	383
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0000	1.0000	1.0000	1.0300	1.0300	1.0000	1.0000	1.0300	1.0300
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	105	0	0	0	0	0	0	0	0	99
Total Hourly Volume [veh/h]	65	4	316	0	0	0	56	707	0	0	773	295
Peak Hour Factor	0.9006	0.9006	0.9006	1.0000	1.0000	1.0000	0.8783	0.8783	1.0000	1.0000	0.9261	0.9261
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]	18	1	88	0	0	0	16	201	0	0	209	80
Total Analysis Volume [veh/h]	72	4	351	0	0	0	64	805	0	0	835	319
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	24	0	0	0	0	5	48	0	0	39	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	14	0	0	0	0	20	46	0	0	26	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28		3	24	16	16
g / C, Green / Cycle	0.47	0.47		0.06	0.39	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12		0.04	0.22	0.16	0.20
s, saturation flow rate [veh/h]	1814	2859		1810	3618	5176	1615
c, Capacity [veh/h]	857	1350		102	1427	1404	438
d1, Uniform Delay [s]	8.72	9.52		27.70	14.15	18.99	19.85
k, delay calibration	0.50	0.50		0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.47		6.22	0.35	0.41	2.33
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.09	0.26		0.63	0.56	0.59	0.73
d, Delay for Lane Group [s/veh]	8.92	9.99		33.91	14.51	19.40	22.18
Lane Group LOS	A	A		C	B	B	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.48	1.18		1.00	3.57	2.98	3.78
50th-Percentile Queue Length [ft/ln]	12.01	29.42		24.97	89.37	74.38	94.60
95th-Percentile Queue Length [veh/ln]	0.86	2.12		1.80	6.43	5.36	6.81
95th-Percentile Queue Length [ft/ln]	21.62	52.95		44.95	160.87	133.88	170.29

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	8.92	8.92	9.99	0.00	0.00	0.00	33.91	14.51	0.00	0.00	19.40	22.18
Movement LOS	A	A	A				C	B			B	C
d_A, Approach Delay [s/veh]	9.80			0.00			15.94			20.17		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	16.86											
Intersection LOS	B											
Intersection V/C	0.356											

**Emissions**

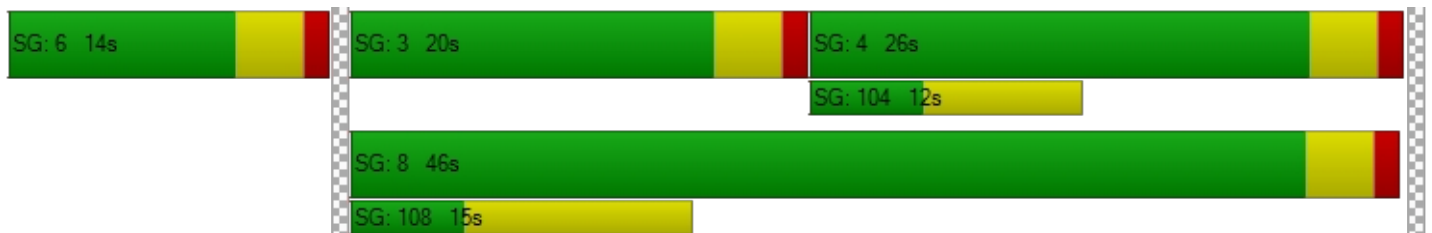
Vehicle Miles Traveled [mph]	13.21	61.01		5.30	66.69	45.89	17.53
Stops [stops/h]	28.82	141.20		59.93	428.98	535.54	227.05
Fuel consumption [US gal/h]	0.89	4.29		1.22	8.98	10.20	4.30
CO [g/h]	62.52	299.61		85.30	627.69	713.05	300.45
NOx [g/h]	12.16	58.29		16.60	122.13	138.73	58.46
VOC [g/h]	14.49	69.44		19.77	145.47	165.26	69.63

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.301	1.932	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	0	1400	733
d_b, Bicycle Delay [s]	20.83	30.00	2.70	12.03
I_b,int, Bicycle LOS Score for Intersection	2.437	4.132	2.277	2.249
Bicycle LOS	B	D	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	18.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.441

**Intersection Setup**

Name	I-215 SB			NuevoRd			NuevoRd					
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	487	1	83	0	272	77	486	335	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0300	1.0300	1.0300	1.0000	1.0300	1.0300	1.0300	1.0300	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	21	0	0	20	0	0	0
Total Hourly Volume [veh/h]	0	0	0	502	1	64	0	280	59	501	345	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8912	0.8912	0.8912	1.0000	0.7591	0.7591	0.8880	0.8880	1.0000
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]	0	0	0	141	0	18	0	92	19	141	97	0
Total Analysis Volume [veh/h]	0	0	0	563	1	72	0	369	78	564	389	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	13	0	0	15	0	30	49	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	28	0	18	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	C	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		25	25	25	10	10	13	27
g / C, Green / Cycle		0.42	0.42	0.42	0.17	0.17	0.21	0.45
(v / s)_i Volume / Saturation Flow Rate		0.16	0.16	0.04	0.12	0.12	0.16	0.11
s, saturation flow rate [veh/h]		1810	1810	1615	1900	1790	3514	3618
c, Capacity [veh/h]		758	758	677	324	306	739	1620
d1, Uniform Delay [s]		12.00	12.00	10.60	23.38	23.57	22.29	10.25
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.40	1.40	0.32	2.60	3.37	1.67	0.08
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		0.37	0.37	0.11	0.69	0.73	0.76	0.24
d, Delay for Lane Group [s/veh]		13.40	13.40	10.92	25.98	26.94	23.96	10.33
Lane Group LOS		B	B	B	C	C	C	B
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		2.41	2.41	0.54	2.90	2.97	3.47	1.30
50th-Percentile Queue Length [ft/ln]		60.17	60.18	13.40	72.39	74.22	86.80	32.52
95th-Percentile Queue Length [veh/ln]		4.33	4.33	0.96	5.21	5.34	6.25	2.34
95th-Percentile Queue Length [ft/ln]		108.31	108.32	24.12	130.30	133.59	156.24	58.53

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	13.40	13.40	10.92	0.00	26.36	26.94	23.96	10.33	0.00
Movement LOS				B	B	B		C	C	C	B	
d_A, Approach Delay [s/veh]	0.00			13.12			26.46			18.39		
Approach LOS	A			B			C			B		
d_I, Intersection Delay [s/veh]	18.52											
Intersection LOS	B											
Intersection V/C	0.441											

**Emissions**

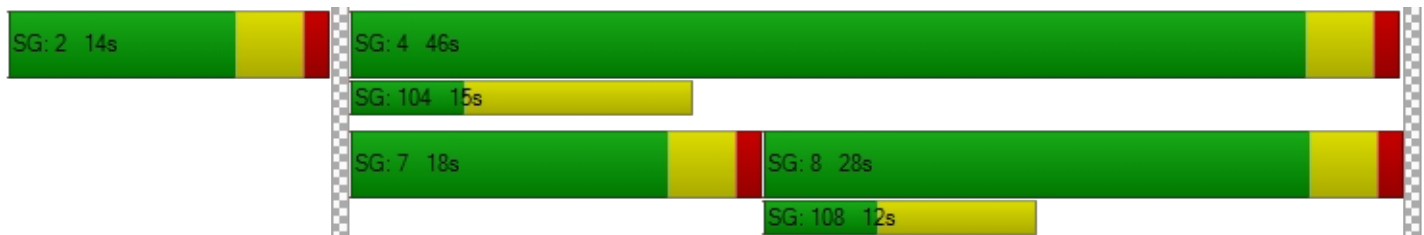
Vehicle Miles Traveled [mph]		24.38	24.39	6.23	59.23	59.23	46.73	32.23
Stops [stops/h]		144.41	144.43	32.16	173.73	178.13	416.63	156.09
Fuel consumption [US gal/h]		3.06	3.06	0.70	5.01	5.10	8.52	3.51
CO [g/h]		213.96	213.99	48.86	350.22	356.28	595.30	245.04
NOx [g/h]		41.63	41.63	9.51	68.14	69.32	115.82	47.67
VOC [g/h]		49.59	49.59	11.32	81.17	82.57	137.97	56.79

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.019	2.235	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	800	1400
d_b, Bicycle Delay [s]	30.00	20.83	10.80	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.644	1.945	2.346
Bicycle LOS	D	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	38	410	9	32	381	24	31	16	43	5	13	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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]	39	422	9	33	392	25	32	16	44	5	13	25
Peak Hour Factor	0.7862	0.7862	0.7862	0.7814	0.7814	0.7814	0.7336	0.7336	0.7336	0.7685	0.7685	0.7685
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	134	3	11	125	8	11	5	15	2	4	8
Total Analysis Volume [veh/h]	50	537	11	42	502	32	44	22	60	7	17	33
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	568	616	620	565	613	623	548	544
Degree of Utilization, x	0.09	0.44	0.44	0.07	0.44	0.43	0.23	0.10

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.29	2.28	2.26	0.24	2.20	2.15	0.88	0.35
95th-Percentile Queue Length [ft]	7.22	57.00	56.55	6.00	55.01	53.74	22.04	8.72
Approach Delay [s/veh]	12.80			12.65			11.53	10.38
Approach LOS	B			B			B	B
Intersection Delay [s/veh]	12.52							
Intersection LOS	B							

**Intersection Level Of Service Report  
Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	7.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.338

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	724	68	88	781	53	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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
Right Turn on Red Volume [veh/h]	0	18	0	0	0	17
Total Hourly Volume [veh/h]	746	52	91	804	55	49
Peak Hour Factor	0.8868	0.8868	0.9123	0.9123	0.7565	0.7565
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	210	15	25	220	18	16
Total Analysis Volume [veh/h]	841	59	100	881	73	65
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	52	0	34	90	22	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	19	0	15	34	26	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	39	39	4	47	5	5
g / C, Green / Cycle	0.65	0.65	0.07	0.79	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.24	0.24	0.06	0.24	0.04	0.04
s, saturation flow rate [veh/h]	1900	1857	1810	3618	1810	1615
c, Capacity [veh/h]	1235	1207	132	2856	140	125
d1, Uniform Delay [s]	4.81	4.85	27.31	1.76	26.62	26.61
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.83	0.88	8.68	0.28	3.00	3.34
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.36	0.37	0.76	0.31	0.52	0.52
d, Delay for Lane Group [s/veh]	5.65	5.73	35.98	2.04	29.62	29.95
Lane Group LOS	A	A	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.61	1.63	1.58	0.11	1.09	0.98
50th-Percentile Queue Length [ft/ln]	40.21	40.71	39.41	2.79	27.14	24.46
95th-Percentile Queue Length [veh/ln]	2.89	2.93	2.84	0.20	1.95	1.76
95th-Percentile Queue Length [ft/ln]	72.37	73.28	70.93	5.01	48.85	44.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	5.69	5.73	35.98	2.04	29.62	29.95
Movement LOS	A	A	D	A	C	C
d_A, Approach Delay [s/veh]	5.69		5.50		29.77	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	7.24					
Intersection LOS	A					
Intersection V/C	0.338					

**Emissions**

Vehicle Miles Traveled [mph]	195.38	195.38	37.65	331.67	36.64	32.63
Stops [stops/h]	96.50	97.70	94.57	13.37	65.13	58.71
Fuel consumption [US gal/h]	8.41	8.44	3.20	11.90	2.34	2.09
CO [g/h]	588.16	589.75	223.58	831.87	163.40	146.00
NOx [g/h]	114.43	114.74	43.50	161.85	31.79	28.41
VOC [g/h]	136.31	136.68	51.82	192.79	37.87	33.84

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		21.68		21.68	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		2.837		2.035	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	500		1000		733	
d_b, Bicycle Delay [s]	16.88		7.50		12.03	
I_b,int, Bicycle LOS Score for Intersection	2.317		2.369		1.560	
Bicycle LOS	B		B		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.355

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	66	519	5	69	513	196	110	58	79	3	82	101
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	1	0	0	51	0	0	20	0	0	26
Total Hourly Volume [veh/h]	68	535	4	71	528	151	113	60	61	3	84	78
Peak Hour Factor	0.8932	0.8932	0.8932	0.8568	0.8568	0.8568	0.8129	0.8129	0.8129	0.7283	0.7283	0.7283
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]	19	150	1	21	154	44	35	18	19	1	29	27
Total Analysis Volume [veh/h]	76	599	4	83	616	176	139	74	75	4	115	107
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	20	0	7	22	0	11	26	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	23	0	12	26	0	15	30	0	15	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	4	42	42	5	42	42	8	17	17	0	10	10
g / C, Green / Cycle	0.05	0.52	0.52	0.06	0.52	0.52	0.10	0.22	0.22	0.01	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.00	0.05	0.17	0.11	0.08	0.04	0.05	0.00	0.06	0.07
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	98	1874	837	108	1894	845	175	410	349	11	239	203
d1, Uniform Delay [s]	37.35	11.13	9.31	37.07	10.95	10.20	35.36	25.59	25.79	39.58	32.55	32.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	12.15	0.45	0.01	10.88	0.46	0.56	7.93	0.21	0.31	17.09	1.50	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	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	0.77	0.32	0.00	0.77	0.33	0.21	0.79	0.18	0.22	0.35	0.48	0.53
d, Delay for Lane Group [s/veh]	49.49	11.58	9.32	47.95	11.41	10.75	43.29	25.79	26.09	56.67	34.05	34.87
Lane Group LOS	D	B	A	D	B	B	D	C	C	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.72	2.67	0.03	1.83	2.72	1.51	2.87	1.09	1.12	0.13	2.04	1.94
50th-Percentile Queue Length [ft/ln]	42.89	66.84	0.77	45.85	68.01	37.87	71.79	27.29	28.00	3.22	51.03	48.54
95th-Percentile Queue Length [veh/ln]	3.09	4.81	0.06	3.30	4.90	2.73	5.17	1.96	2.02	0.23	3.67	3.50
95th-Percentile Queue Length [ft/ln]	77.21	120.31	1.39	82.53	122.43	68.17	129.22	49.11	50.41	5.80	91.86	87.38

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	49.49	11.58	9.32	47.95	11.41	10.75	43.29	25.79	26.09	56.67	34.05	34.87
Movement LOS	D	B	A	D	B	B	D	C	C	E	C	C
d_A, Approach Delay [s/veh]	15.81			14.74			34.32			34.84		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.02											
Intersection LOS	C											
Intersection V/C	0.355											

**Emissions**

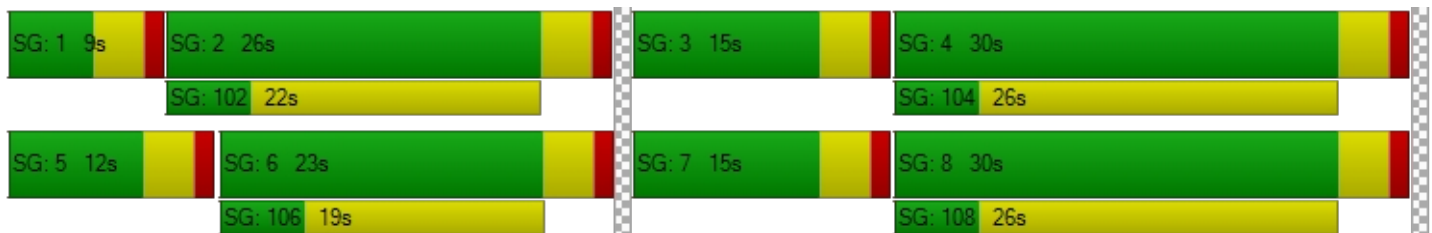
Vehicle Miles Traveled [mph]	21.98	173.23	1.16	15.94	118.29	33.80	15.67	8.34	8.45	0.51	14.50	13.52
Stops [stops/h]	77.21	240.63	1.39	82.53	244.85	68.17	129.22	49.11	50.41	5.80	91.86	87.38
Fuel consumption [US gal/h]	2.48	10.34	0.06	2.38	8.53	2.39	3.37	1.28	1.31	0.14	2.44	2.31
CO [g/h]	173.26	722.90	4.51	166.53	596.17	167.15	235.44	89.82	91.90	9.47	170.22	161.48
NOx [g/h]	33.71	140.65	0.88	32.40	115.99	32.52	45.81	17.48	17.88	1.84	33.12	31.42
VOC [g/h]	40.16	167.54	1.05	38.59	138.17	38.74	54.56	20.82	21.30	2.20	39.45	37.42

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
l_p,int, Pedestrian LOS Score for Intersectio	2.790			2.959			2.536			2.315		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	475			550			650			650		
d_b, Bicycle Delay [s]	23.26			21.03			18.23			18.23		
l_b,int, Bicycle LOS Score for Intersection	2.121			2.324			2.068			1.768		
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 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	37.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.499

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	78	120	63	70	212	142	98	1376	115	114	969	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	16	0	0	37	0	0	30	0	0	10
Total Hourly Volume [veh/h]	80	124	49	72	218	109	101	1417	88	117	998	31
Peak Hour Factor	0.7647	0.7647	0.7647	0.8573	0.8573	0.8573	0.9297	0.9297	0.9297	0.9590	0.9590	0.9590
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]	26	41	16	21	64	32	27	381	24	31	260	8
Total Analysis Volume [veh/h]	105	162	64	84	254	127	109	1524	95	122	1041	32
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	9	35	0	6	32	0	12	35	0	8	31	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	17	39	0	14	36	0	31	47	0	20	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	9	46	46	7	44	44	9	41	41	10	42	42
g / C, Green / Cycle	0.07	0.38	0.38	0.06	0.37	0.37	0.08	0.34	0.34	0.08	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.06	0.05	0.07	0.08	0.06	0.29	0.06	0.07	0.20	0.02
s, saturation flow rate [veh/h]	1810	1900	1723	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	131	724	656	107	1330	594	138	1781	556	150	1815	566
d1, Uniform Delay [s]	54.82	24.50	24.57	55.71	25.81	26.04	54.50	36.58	27.42	54.14	31.67	25.81
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.80	0.48	0.55	11.92	0.32	0.82	9.72	1.27	0.14	10.24	0.29	0.04
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	0.80	0.16	0.17	0.79	0.19	0.21	0.79	0.86	0.17	0.82	0.57	0.06
d, Delay for Lane Group [s/veh]	65.62	24.97	25.12	67.63	26.12	26.86	64.22	37.85	27.57	64.38	31.95	25.85
Lane Group LOS	E	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.44	2.21	2.10	2.80	2.45	2.55	3.48	13.05	1.82	3.90	7.70	0.58
50th-Percentile Queue Length [ft/ln]	86.06	55.20	52.56	70.07	61.27	63.73	86.98	326.34	45.57	97.51	192.45	14.54
95th-Percentile Queue Length [veh/ln]	6.20	3.97	3.78	5.05	4.41	4.59	6.26	18.98	3.28	7.02	12.25	1.05
95th-Percentile Queue Length [ft/ln]	154.90	99.36	94.61	126.13	110.28	114.72	156.56	474.47	82.03	175.51	306.20	26.16

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.62	25.01	25.12	67.63	26.12	26.86	64.22	37.85	27.57	64.38	31.95	25.85
Movement LOS	E	C	C	E	C	C	E	D	C	E	C	C
d_A, Approach Delay [s/veh]	37.91			33.83			38.95			35.10		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	36.98											
Intersection LOS	D											
Intersection V/C	0.499											

**Emissions**

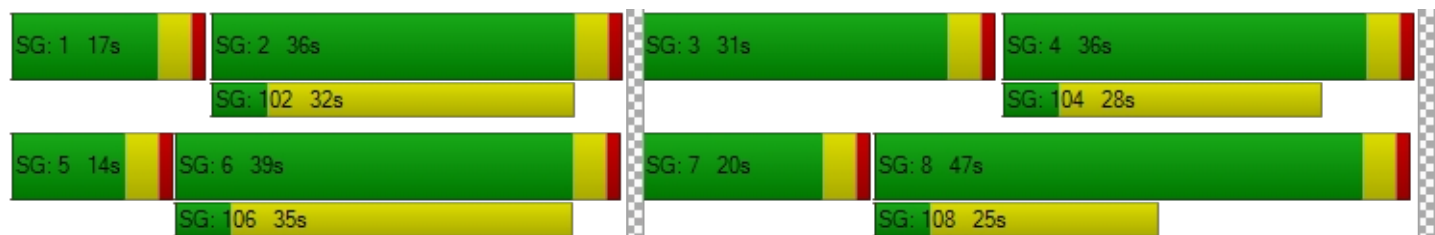
Vehicle Miles Traveled [mph]	60.98	67.47	63.77	14.71	44.47	22.24	12.36	172.83	10.77	30.49	260.16	8.00
Stops [stops/h]	103.27	66.24	63.07	84.09	147.04	76.48	104.37	1174.82	54.69	117.01	692.81	17.44
Fuel consumption [US gal/h]	4.78	3.73	3.53	2.71	4.70	2.41	3.78	39.34	1.91	4.79	28.34	0.76
CO [g/h]	333.85	260.51	246.84	189.13	328.74	168.28	263.99	2750.04	133.45	334.93	1981.00	53.11
NOx [g/h]	64.95	50.69	48.03	36.80	63.96	32.74	51.36	535.06	25.96	65.16	385.43	10.33
VOC [g/h]	77.37	60.38	57.21	43.83	76.19	39.00	61.18	637.35	30.93	77.62	459.11	12.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.586			2.719			3.516			3.401		
Crosswalk LOS	B			B			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			717			533		
d_b, Bicycle Delay [s]	30.10			32.27			24.70			32.27		
I_b,int, Bicycle LOS Score for Intersection	1.846			1.974			2.527			2.222		
Bicycle LOS	A			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 34: Indian Ave/Morgan St**

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):	0.197

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	57	149	13	10	307	26	13	24	54	18	23	18
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	3	0	0	7	0	0	14	0	0	5
Total Hourly Volume [veh/h]	59	153	10	10	316	20	13	25	42	19	24	14
Peak Hour Factor	0.7432	0.7432	0.7432	0.8693	0.8693	0.8693	0.7109	0.7109	0.7109	0.7770	0.7770	0.7770
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]	20	51	3	3	91	6	5	9	15	6	8	5
Total Analysis Volume [veh/h]	79	206	13	12	364	23	18	35	59	24	31	18
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	15	36	0	8	29	0	5	22	0	8	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	12	26	0	9	26	0	12	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	52	52	1	49	49	2	9	9	2	9	9
g / C, Green / Cycle	0.06	0.65	0.65	0.01	0.61	0.61	0.02	0.11	0.11	0.03	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.06	0.01	0.10	0.10	0.01	0.02	0.04	0.01	0.01	0.01
s, saturation flow rate [veh/h]	1810	1900	1861	1810	1900	1861	1810	1900	1615	1810	1900	1680
c, Capacity [veh/h]	103	1233	1207	27	1152	1129	38	209	178	47	219	194
d1, Uniform Delay [s]	37.18	5.24	5.24	39.07	6.90	6.91	38.74	32.27	32.87	38.45	31.70	31.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.02	0.14	0.15	10.95	0.32	0.33	9.16	0.37	1.08	8.18	0.22	0.29
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	0.76	0.09	0.09	0.44	0.17	0.17	0.48	0.17	0.33	0.51	0.11	0.13
d, Delay for Lane Group [s/veh]	48.20	5.38	5.39	50.03	7.22	7.23	47.90	32.64	33.95	46.63	31.93	32.04
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.75	0.54	0.54	0.30	1.22	1.21	0.43	0.62	1.07	0.56	0.43	0.42
50th-Percentile Queue Length [ft/ln]	43.83	13.57	13.46	7.59	30.57	30.23	10.87	15.40	26.86	13.96	10.71	10.58
95th-Percentile Queue Length [veh/ln]	3.16	0.98	0.97	0.55	2.20	2.18	0.78	1.11	1.93	1.00	0.77	0.76
95th-Percentile Queue Length [ft/ln]	78.89	24.43	24.23	13.67	55.03	54.42	19.56	27.72	48.34	25.12	19.28	19.04

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.20	5.39	5.39	50.03	7.22	7.23	47.90	32.64	33.95	46.63	31.95	32.04
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	16.74			8.51			35.78			36.80		
Approach LOS	B			A			D			D		
d_I, Intersection Delay [s/veh]	17.09											
Intersection LOS	B											
Intersection V/C	0.197											

**Emissions**

Vehicle Miles Traveled [mph]	39.26	54.71	54.12	6.97	113.14	111.60	0.79	1.54	2.60	12.04	12.40	12.17
Stops [stops/h]	78.89	24.43	24.23	13.67	55.03	54.42	19.56	27.72	48.34	25.12	19.28	19.04
Fuel consumption [US gal/h]	3.10	2.30	2.28	0.53	4.85	4.78	0.35	0.50	0.87	0.88	0.78	0.77
CO [g/h]	216.80	160.76	159.09	37.12	338.91	334.47	24.66	34.93	60.83	61.19	54.41	53.50
NOx [g/h]	42.18	31.28	30.95	7.22	65.94	65.08	4.80	6.80	11.84	11.91	10.59	10.41
VOC [g/h]	50.25	37.26	36.87	8.60	78.55	77.52	5.71	8.10	14.10	14.18	12.61	12.40

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.523			2.496			2.376			2.335		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			550			550			625		
d_b, Bicycle Delay [s]	18.23			21.03			21.03			18.91		
I_b,int, Bicycle LOS Score for Intersection	1.808			1.895			1.664			1.624		
Bicycle LOS	A			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	21.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.175

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	8	80	63	52	242	19	12	111	25	79	48	28
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	16	0	0	5	0	0	7	0	0	7
Total Hourly Volume [veh/h]	8	82	49	54	249	15	12	114	19	81	49	22
Peak Hour Factor	0.9406	0.9406	0.9406	0.8054	0.8054	0.8054	0.9545	0.9545	0.9545	0.8708	0.8708	0.8708
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	22	13	17	77	5	3	30	5	23	14	6
Total Analysis Volume [veh/h]	9	87	52	67	309	19	13	119	20	93	56	25
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	9	26	0	14	31	0	12	22	0	22	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	30	0	11	30	0	9	26	0	13	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	1	45	45	4	48	48	1	10	10	5	14	14
g / C, Green / Cycle	0.01	0.56	0.56	0.05	0.60	0.60	0.02	0.12	0.12	0.07	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.00	0.04	0.04	0.04	0.09	0.01	0.01	0.03	0.01	0.05	0.02	0.02
s, saturation flow rate [veh/h]	1810	1900	1675	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	22	1072	945	88	2174	970	29	436	195	121	619	276
d1, Uniform Delay [s]	39.25	7.89	7.92	37.59	6.97	6.45	39.01	31.99	31.33	36.73	27.91	27.91
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	12.32	0.12	0.15	12.54	0.14	0.04	10.42	0.33	0.23	9.89	0.06	0.14
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	0.42	0.07	0.07	0.76	0.14	0.02	0.45	0.27	0.10	0.77	0.09	0.09
d, Delay for Lane Group [s/veh]	51.57	8.01	8.07	50.13	7.10	6.48	49.43	32.33	31.56	46.62	27.97	28.05
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.25	0.53	0.52	1.53	0.93	0.11	0.32	1.00	0.34	2.02	0.43	0.39
50th-Percentile Queue Length [ft/ln]	6.16	13.35	13.03	38.25	23.34	2.79	8.09	25.10	8.41	50.39	10.70	9.71
95th-Percentile Queue Length [veh/ln]	0.44	0.96	0.94	2.75	1.68	0.20	0.58	1.81	0.61	3.63	0.77	0.70
95th-Percentile Queue Length [ft/ln]	11.09	24.03	23.45	68.85	42.01	5.02	14.57	45.19	15.13	90.71	19.27	17.47

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	51.57	8.02	8.07	50.13	7.10	6.48	49.43	32.33	31.56	46.62	27.97	28.05
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	10.69			14.37			33.69			37.95		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.84											
Intersection LOS	C											
Intersection V/C	0.175											

**Emissions**

Vehicle Miles Traveled [mph]	4.50	35.39	34.10	33.30	153.57	9.44	2.17	19.86	3.34	40.03	24.11	10.76
Stops [stops/h]	11.09	24.03	23.45	68.85	84.02	5.02	14.57	90.38	15.13	90.71	38.54	17.47
Fuel consumption [US gal/h]	0.34	1.70	1.65	2.68	6.76	0.41	0.39	2.59	0.43	3.38	1.62	0.73
CO [g/h]	23.83	119.17	115.00	187.38	472.20	28.74	27.00	180.85	30.12	236.43	113.53	50.94
NOx [g/h]	4.64	23.19	22.38	36.46	91.87	5.59	5.25	35.19	5.86	46.00	22.09	9.91
VOC [g/h]	5.52	27.62	26.65	43.43	109.44	6.66	6.26	41.91	6.98	54.79	26.31	11.81

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.434			2.585			2.519			2.565		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			650		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			18.23		
I_b,int, Bicycle LOS Score for Intersection	1.695			1.890			1.691			1.709		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	34.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.579

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	266	49	92	354	167	236	690	36	73	460	49
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
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	13	0	0	43	0	0	9	0	0	13
Total Hourly Volume [veh/h]	54	274	37	95	365	129	243	711	28	75	474	37
Peak Hour Factor	0.8368	0.8368	0.8368	0.8264	0.8264	0.8264	0.8504	0.8504	0.8504	0.8966	0.8966	0.8966
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]	16	82	11	29	110	39	71	209	8	21	132	10
Total Analysis Volume [veh/h]	65	327	44	115	442	156	286	836	33	84	529	41
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	5	22	0	5	22	0	5	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	29	0	12	32	0	23	37	0	12	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	4	34	34	7	37	37	16	27	27	5	16	16
g / C, Green / Cycle	0.05	0.38	0.38	0.08	0.42	0.42	0.18	0.30	0.30	0.06	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.10	0.06	0.23	0.10	0.16	0.23	0.23	0.05	0.15	0.15
s, saturation flow rate [veh/h]	1810	1900	1823	1810	1900	1615	1810	1900	1875	1810	1900	1852
c, Capacity [veh/h]	84	725	696	145	789	671	324	569	562	110	344	336
d1, Uniform Delay [s]	42.43	19.09	19.12	40.66	20.05	17.03	36.02	28.67	28.67	41.64	35.56	35.58
k, delay calibration	0.11	0.50	0.50	0.16	0.50	0.50	0.25	0.15	0.15	0.11	0.11	0.12
l, 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]	13.66	0.87	0.92	13.62	2.86	0.81	15.87	3.04	3.09	10.55	5.72	6.00
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	0.77	0.26	0.26	0.79	0.56	0.23	0.88	0.77	0.77	0.77	0.84	0.84
d, Delay for Lane Group [s/veh]	56.08	19.96	20.04	54.28	22.91	17.84	51.89	31.70	31.76	52.20	41.28	41.57
Lane Group LOS	E	B	C	D	C	B	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.69	2.65	2.59	2.94	6.98	2.06	7.35	8.66	8.56	2.12	6.45	6.33
50th-Percentile Queue Length [ft/ln]	42.17	66.37	64.75	73.39	174.58	51.41	183.63	216.54	213.98	52.93	161.21	158.27
95th-Percentile Queue Length [veh/ln]	3.04	4.78	4.66	5.28	11.32	3.70	11.79	13.49	13.36	3.81	10.61	10.46
95th-Percentile Queue Length [ft/ln]	75.91	119.47	116.55	132.10	282.93	92.55	294.75	337.21	333.93	95.27	265.33	261.44

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.08	19.99	20.04	54.28	22.91	17.84	51.89	31.73	31.76	52.20	41.42	41.57
Movement LOS	E	B	C	D	C	B	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	25.38			26.86			36.72			42.81		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.02											
Intersection LOS	C											
Intersection V/C	0.579											

**Emissions**

Vehicle Miles Traveled [mph]	4.66	13.48	13.10	33.26	127.82	45.11	26.51	40.54	40.02	9.96	34.18	33.42
Stops [stops/h]	67.48	106.20	103.60	117.42	279.34	82.26	293.81	346.47	342.37	84.68	257.94	253.24
Fuel consumption [US gal/h]	1.74	2.55	2.48	3.87	9.92	3.14	6.24	6.97	6.89	1.91	5.66	5.56
CO [g/h]	121.65	178.04	173.53	270.52	693.11	219.18	436.18	487.35	481.60	133.42	395.93	388.79
NOx [g/h]	23.67	34.64	33.76	52.63	134.85	42.65	84.86	94.82	93.70	25.96	77.03	75.64
VOC [g/h]	28.19	41.26	40.22	62.70	160.63	50.80	101.09	112.95	111.61	30.92	91.76	90.11

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.523			2.779			2.759			2.701		
Crosswalk LOS	B			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	556			622			733			489		
d_b, Bicycle Delay [s]	23.47			21.36			18.05			25.69		
I_b,int, Bicycle LOS Score for Intersection	1.930			2.807			2.520			2.110		
Bicycle LOS	A			C			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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Curb Present	No	No
Crosswalk	Yes	Yes

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Proportion of CAVs [%]	0.00	
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Right Turn on Red Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Presence of On-Street Parking	No	No
On-Street Parking Maneuver Rate [/h]	0	0
Local Bus Stopping Rate [/h]	0	0
v_do, Outbound Pedestrian Volume crossing	0	0
v_di, Inbound Pedestrian Volume crossing m	0	0
v_co, Outbound Pedestrian Volume crossing	0	0
v_ci, Inbound Pedestrian Volume crossing mi	0	0
v_ab, Corner Pedestrian Volume [ped/h]	0	0
Bicycle Volume [bicycles/h]	0	0

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive
Signal Group	6	2
Auxiliary Signal Groups		
Maximum Green [s]	86	77
Amber [s]	3.0	3.0
All red [s]	1.0	1.0
Walk [s]	5	5
Pedestrian Clearance [s]	10	21
Delayed Vehicle Green [s]	0.0	0.0
Rest In Walk	No	No
I1, Start-Up Lost Time [s]	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0
Detector Location [ft]	0.0	0.0
Detector Length [ft]	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	37	14
Lead / Lag	-	-
Minimum Green [s]	10	10
Vehicle Extension [s]	3.0	3.0
Minimum Recall	No	No
Maximum Recall	No	No
Pedestrian Recall	No	No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C
C, Calculated Cycle Length [s]	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00
g_i, Effective Green Time [s]	52	48
g / C, Green / Cycle	0.87	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00
s, saturation flow rate [veh/h]	3618	3618
c, Capacity [veh/h]	3131	2885
d1, Uniform Delay [s]	0.00	0.00
k, delay calibration	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00
Rp, platoon ratio	1.00	1.00
PF, progression factor	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00
Lane Group LOS	A	A
Critical Lane Group	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS	A	
Intersection V/C	0.000	

**Emissions**

Vehicle Miles Traveled [mph]	0.00	0.00
Stops [stops/h]	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00
CO [g/h]	0.00	0.00
NOx [g/h]	0.00	0.00
VOC [g/h]	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
d_p, Pedestrian Delay [s]	30.00	30.00
I_p,int, Pedestrian LOS Score for Intersectio	2.125	2.125
Crosswalk LOS	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	333
d_b, Bicycle Delay [s]	6.08	20.83
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560
Bicycle LOS	A	A

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	923	923	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00	0.00	
Approach LOS	A	A	A	
Intersection Delay [s/veh]	0.00			
Intersection LOS	A			

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	1	0	1	0
Entry Pocket Length [ft]	100.00	670.00	100.00	100.00	185.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	260.00	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	108	3	83	201	54	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	108	3	83	201	54	62
Peak Hour Factor	0.7370	0.7370	0.7820	0.7820	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	1	27	64	15	18
Total Analysis Volume [veh/h]	147	4	106	257	62	71
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.15	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.69	0.00	14.95	9.31
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.24	0.00	0.51	0.25
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.94	0.00	12.71	6.37
d_A, Approach Delay [s/veh]	0.00		2.25		11.94	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.72					
Intersection LOS	B					

**Intersection Level Of Service Report**

**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Perris Blvd	Perris Blvd
Approach	Northbound	Southbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Perris Blvd	Perris Blvd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	34.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Westbound	
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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Westbound	
Base Volume Input [veh/h]	890	13	1	1112	2	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	890	13	1	1112	2	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	223	3	0	278	1	4
Total Analysis Volume [veh/h]	890	13	1	1112	2	14
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.02	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	9.73	0.00	34.68	11.82
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.13	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.02	3.22	3.22
d_A, Approach Delay [s/veh]	0.00		0.01		14.68	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.12					
Intersection LOS	D					

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	22.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.310

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	95	26	27	490	394	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	95	26	27	490	394	33
Peak Hour Factor	1.0000	1.0000	0.9141	0.9141	0.8277	0.8277
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	7	7	134	119	10
Total Analysis Volume [veh/h]	95	26	30	536	476	40
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.31	0.03	0.03	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	22.06	15.13	8.49	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.50	1.50	0.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	37.53	37.53	2.18	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	20.57		0.45		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	2.28					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	70.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	75	57	50	326	420	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	75	57	50	326	420	86
Peak Hour Factor	1.0000	1.0000	0.9141	0.9141	0.8277	0.8277
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	14	14	89	127	26
Total Analysis Volume [veh/h]	75	57	55	357	507	104
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.26	0.08	0.06	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	22.32	14.97	8.90	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.49	1.49	0.18	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	37.35	37.35	4.46	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.15		1.19		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	2.61					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Frontage Rd	Southbound
Approach	Northbound		Southbound
Lane Configuration	↑		↑
Turning Movement	Thru		Thru
Lane Width [ft]	12.00		12.00
No. of Lanes in Entry Pocket	0		0
Entry Pocket Length [ft]	100.00		100.00
No. of Lanes in Exit Pocket	0		0
Exit Pocket Length [ft]	0.00		0.00
Speed [mph]	45.00		30.00
Grade [%]	0.00		0.00
Curb Present	No		No
Crosswalk	Yes		Yes

**Volumes**

Name		Frontage Rd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Proportion of CAVs [%]	0.00	
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Right Turn on Red Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Presence of On-Street Parking	No	No
On-Street Parking Maneuver Rate [/h]	0	0
Local Bus Stopping Rate [/h]	0	0
v_do, Outbound Pedestrian Volume crossing	0	0
v_di, Inbound Pedestrian Volume crossing m	0	0
v_co, Outbound Pedestrian Volume crossing	0	0
v_ci, Inbound Pedestrian Volume crossing mi	0	0
v_ab, Corner Pedestrian Volume [ped/h]	0	0
Bicycle Volume [bicycles/h]	0	0

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive
Signal Group	6	2
Auxiliary Signal Groups		
Maximum Green [s]	27	27
Amber [s]	3.0	3.0
All red [s]	1.0	1.0
Walk [s]	5	5
Pedestrian Clearance [s]	14	10
Delayed Vehicle Green [s]	0.0	0.0
Rest In Walk	No	No
I1, Start-Up Lost Time [s]	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0
Detector Location [ft]	0.0	0.0
Detector Length [ft]	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	24	24
Lead / Lag	-	-
Minimum Green [s]	10	10
Vehicle Extension [s]	3.0	3.0
Minimum Recall	No	No
Maximum Recall	No	No
Pedestrian Recall	No	No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C
C, Calculated Cycle Length [s]	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00
g_i, Effective Green Time [s]	52	52
g / C, Green / Cycle	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900
c, Capacity [veh/h]	1643	1643
d1, Uniform Delay [s]	0.00	0.00
k, delay calibration	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00
Rp, platoon ratio	1.00	1.00
PF, progression factor	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00
Lane Group LOS	A	A
Critical Lane Group	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS	A	
Intersection V/C	0.000	

**Emissions**

Vehicle Miles Traveled [mph]	0.00	0.00
Stops [stops/h]	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00
CO [g/h]	0.00	0.00
NOx [g/h]	0.00	0.00
VOC [g/h]	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00
d_p, Pedestrian Delay [s]	30.00	30.00
I_p,int, Pedestrian LOS Score for Intersectio	1.709	1.709
Crosswalk LOS	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	667
d_b, Bicycle Delay [s]	13.33	13.33
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560
Bicycle LOS	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	35.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	35.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd	Frontage Rd
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Frontage Rd	Frontage Rd
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name		
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name		
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

**Intersection Setup**

Name	Barrett Ave	
Approach	Northbound	Westbound
Lane Configuration	↶	↷
Turning Movement	Right	Left
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	Yes

**Volumes**

Name	Barrett Ave	
Base Volume Input [veh/h]	94	91
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	94	91
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	23
Total Analysis Volume [veh/h]	94	91
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**

**Intersection 60: Building 6 Auto Driveway 2 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave	
Approach	Southbound	Eastbound
Lane Configuration	↶	↷
Turning Movement	Right	Left
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	Yes	Yes

**Volumes**

Name	Barrett Ave	
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	1
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name		
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound	Southbound
Approach	Northbound	Southbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Northbound	Southbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]	0.00	
Intersection LOS		

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Eastbound	Westbound
Approach	Eastbound	Westbound
Lane Configuration	↑	↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	0	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	30.00	30.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Eastbound	Westbound
Base Volume Input [veh/h]	0	0
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0000	1.0000
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	0	0
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	0	0
Peak Hour Factor	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0
Total Analysis Volume [veh/h]	0	0
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		

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Harvest Landing

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Scenario 1 Opening Year I AM

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10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	NB Left	0.914	63.1	E
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	NB Left	0.780	44.0	D
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.684	32.6	C
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.695	14.1	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.919	74.3	E
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	EB Left	0.506	11.7	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	SB Left	0.571	30.4	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	NB Left	0.578	30.2	C
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	WB Left	0.626	25.9	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.605	17.7	C
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	NB Left	0.721	37.8	D
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	EB Thru	0.832	25.0	D
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	NB Left	0.682	36.7	D
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.636	29.1	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.338	15.3	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	WB Left	0.350	16.8	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.304	25.9	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	SB Left	0.559	24.2	C
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.039	19.4	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.568	14.0	B
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.005	14.4	B
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	WB Thru	0.358	12.3	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.427	14.7	B
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	SB Left	0.688	39.3	D
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	WB Left	0.562	23.6	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	EB Left	0.751	43.4	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.600	21.1	C
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.550	18.4	B
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	SB Left	0.588	18.4	B
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	0.776	21.6	C
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.688	14.3	B
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.652	26.9	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	NB Left	0.577	32.5	C
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.232	20.1	C
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	EB Left	0.241	22.0	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	SB Thru	0.876	57.9	E
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.094	0.5	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.147	12.6	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Left	0.003	15.2	C
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.159	21.2	C
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.006	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.053	8.8	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	63.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.914

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	238	715	299	170	520	40	25	267	74	294	506	114
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	82	0	0	11	0	0	20	0	0	31
Total Hourly Volume [veh/h]	259	1554	244	185	1641	33	27	291	61	320	552	93
Peak Hour Factor	0.8987	0.8987	0.8987	0.7510	0.7510	0.7510	0.7777	0.7777	0.7777	0.7871	0.7871	0.7871
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]	72	432	68	62	546	11	9	94	20	102	175	30
Total Analysis Volume [veh/h]	288	1729	272	246	2185	44	35	374	78	407	701	118
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	13	25	0	16	28	0	5	35	0	18	48	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	19	26	0	30	37	0	9	39	0	25	55	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	15	47	47	18	51	51	3	17	17	21	35	35
g / C, Green / Cycle	0.13	0.39	0.39	0.15	0.42	0.42	0.03	0.15	0.15	0.18	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.17	0.14	0.40	0.41	0.02	0.12	0.12	0.22	0.22	0.22
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1881	1810	1900	1789	1810	1900	1806
c, Capacity [veh/h]	226	2032	634	277	1522	791	52	277	261	317	555	527
d1, Uniform Delay [s]	52.50	33.24	26.62	49.80	33.82	33.93	57.70	49.83	49.93	49.50	38.59	38.63
k, delay calibration	0.50	0.50	0.50	0.17	0.50	0.50	0.11	0.11	0.11	0.50	0.11	0.11
l, 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]	152.81	4.72	2.12	13.91	15.61	24.81	13.78	6.48	7.41	150.25	2.13	2.26
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	1.27	0.85	0.43	0.89	0.96	0.97	0.67	0.83	0.85	1.29	0.76	0.76
d, Delay for Lane Group [s/veh]	205.31	37.96	28.73	63.71	49.43	58.74	71.48	56.31	57.34	199.75	40.71	40.89
Lane Group LOS	F	D	C	E	D	E	E	E	E	F	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	16.22	15.30	5.82	8.09	22.64	25.73	1.23	7.06	6.82	22.40	11.11	10.63
50th-Percentile Queue Length [ft/ln]	405.48	382.60	145.52	202.37	565.96	643.23	30.71	176.45	170.40	560.09	277.79	265.65
95th-Percentile Queue Length [veh/ln]	25.15	21.72	9.78	12.76	30.44	34.05	2.21	11.42	11.10	33.87	16.58	15.97
95th-Percentile Queue Length [ft/ln]	628.67	542.99	244.43	319.02	761.03	851.20	55.28	285.38	277.44	846.71	414.46	399.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	205.31	37.96	28.73	63.71	52.50	58.74	71.48	56.70	57.34	199.75	40.78	40.89
Movement LOS	F	D	C	E	D	E	E	E	E	F	D	D
d_A, Approach Delay [s/veh]	57.92			53.73			57.87			93.57		
Approach LOS	E			D			E			F		
d_I, Intersection Delay [s/veh]	63.06											
Intersection LOS	E											
Intersection V/C	0.914											

**Emissions**

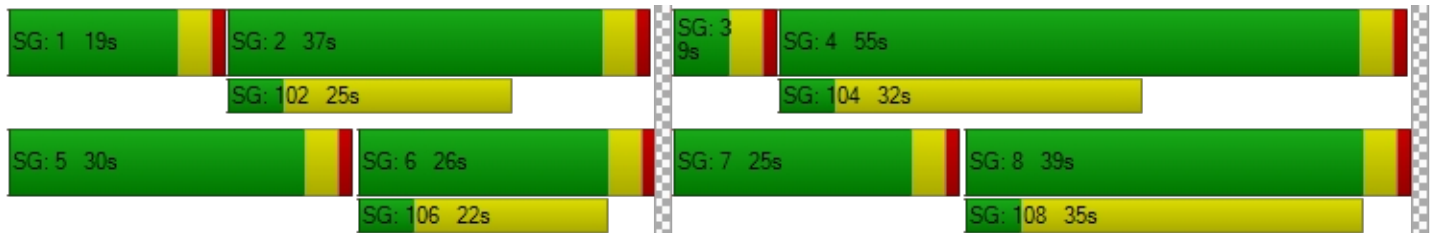
Vehicle Miles Traveled [mph]	144.30	866.31	136.28	15.33	91.21	47.65	2.44	16.14	15.42	26.77	27.57	26.29
Stops [stops/h]	486.57	1377.35	174.62	242.84	1358.30	771.87	36.85	211.74	204.48	672.11	333.34	318.78
Fuel consumption [US gal/h]	23.03	60.18	8.43	6.73	34.74	20.37	1.05	5.83	5.65	25.82	8.56	8.19
CO [g/h]	1609.55	4206.35	589.47	470.70	2428.40	1424.15	73.47	407.84	394.77	1804.47	598.53	572.56
NOx [g/h]	313.16	818.40	114.69	91.58	472.48	277.09	14.29	79.35	76.81	351.08	116.45	111.40
VOC [g/h]	373.03	974.86	136.62	109.09	562.81	330.06	17.03	94.52	91.49	418.20	138.72	132.70

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.783			3.544			2.797			3.012		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	367			550			583			850		
d_b, Bicycle Delay [s]	40.02			31.54			30.10			19.84		
l_b,int, Bicycle LOS Score for Intersection	2.864			2.927			1.978			2.597		
Bicycle LOS	C			C			A			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	44.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.780

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	84	980	159	100	746	7	19	148	81	213	137	187
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	43	0	0	2	0	0	22	0	0	51
Total Hourly Volume [veh/h]	92	1843	130	109	1887	6	21	161	66	232	149	153
Peak Hour Factor	0.8910	0.8910	0.8910	0.7568	0.7568	0.7568	0.7348	0.7348	0.7348	0.8323	0.8323	0.8323
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]	26	517	36	36	623	2	7	55	22	70	45	46
Total Analysis Volume [veh/h]	103	2068	146	144	2494	8	29	219	90	279	179	184
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	27	0	9	30	0	0	29	0	0	29	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	31	0	13	34	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	6	50	50	9	53	53	15	15	15	20	20	20
g / C, Green / Cycle	0.05	0.46	0.46	0.08	0.48	0.48	0.14	0.14	0.14	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.40	0.41	0.08	0.45	0.45	0.02	0.12	0.06	0.15	0.09	0.11
s, saturation flow rate [veh/h]	1810	3618	1837	1810	3618	1897	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	99	1646	836	148	1744	915	250	262	223	325	341	290
d1, Uniform Delay [s]	52.00	27.43	27.65	50.38	26.99	27.01	41.52	46.18	43.27	43.76	40.86	41.77
k, delay calibration	0.33	0.50	0.50	0.34	0.50	0.50	0.11	0.11	0.11	0.14	0.11	0.11
l, 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]	85.57	7.59	14.53	54.30	11.44	18.58	0.20	6.85	1.17	8.55	1.25	2.29
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	1.04	0.89	0.90	0.97	0.94	0.94	0.12	0.83	0.40	0.86	0.52	0.63
d, Delay for Lane Group [s/veh]	137.57	35.02	42.18	104.68	38.42	45.59	41.73	53.03	44.44	52.31	42.11	44.06
Lane Group LOS	F	D	D	F	D	D	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.99	17.78	19.99	6.06	21.14	24.02	0.69	6.20	2.27	7.94	4.41	4.70
50th-Percentile Queue Length [ft/ln]	124.75	444.45	499.66	151.62	528.46	600.54	17.31	154.89	56.65	198.55	110.34	117.45
95th-Percentile Queue Length [veh/ln]	8.76	24.69	27.32	10.10	28.68	32.06	1.25	10.28	4.08	12.56	7.86	8.25
95th-Percentile Queue Length [ft/ln]	219.03	617.32	682.96	252.59	716.97	801.49	31.16	256.94	101.98	314.10	196.47	206.32

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	137.57	37.12	42.18	104.68	40.88	45.59	41.73	53.03	44.44	52.31	42.11	44.06
Movement LOS	F	D	D	F	D	D	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	41.90			44.36			49.77			47.10		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	44.01											
Intersection LOS	D											
Intersection V/C	0.780											

**Emissions**

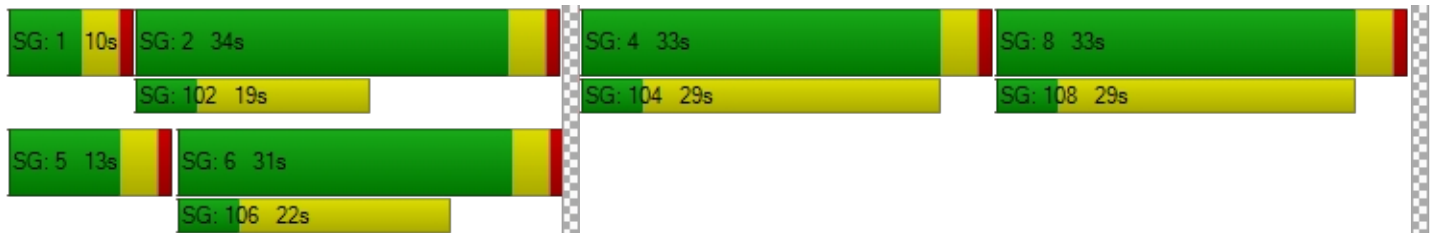
Vehicle Miles Traveled [mph]	169.45	2406.30	1236.06	72.15	822.09	431.53	2.42	18.29	7.52	33.18	21.28	21.88
Stops [stops/h]	163.31	1163.65	654.11	198.48	1383.61	786.16	22.66	202.76	74.16	259.92	144.44	153.75
Fuel consumption [US gal/h]	10.72	107.37	56.95	8.01	58.21	32.56	0.56	5.01	1.81	6.71	3.72	3.94
CO [g/h]	749.47	7505.42	3980.87	559.77	4068.96	2275.73	38.84	350.22	126.64	469.14	259.68	275.67
NOx [g/h]	145.82	1460.28	774.53	108.91	791.67	442.77	7.56	68.14	24.64	91.28	50.53	53.63
VOC [g/h]	173.70	1739.45	922.61	129.73	943.02	527.42	9.00	81.17	29.35	108.73	60.18	63.89

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.762			3.648			2.385			2.707		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	491			545			527			527		
d_b, Bicycle Delay [s]	31.31			29.09			29.82			29.82		
I_b,int, Bicycle LOS Score for Intersection	2.858			3.016			2.154			2.703		
Bicycle LOS	C			C			B			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	32.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.684

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	124	902	0	87	678	277	165	36	23	0	276	234
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	76	0	0	6	0	0	64
Total Hourly Volume [veh/h]	135	1758	0	95	1813	226	180	39	19	0	301	191
Peak Hour Factor	0.8289	0.8289	0.8289	0.9148	0.9148	0.9148	0.9538	0.9538	0.9538	0.8413	0.8413	0.8413
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]	41	530	0	26	495	62	47	10	5	0	89	57
Total Analysis Volume [veh/h]	163	2121	0	104	1982	247	189	41	20	0	358	227
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	5	35	0	7	38	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	9	39	0	11	42	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	6	55	55	5	54	54	7	24	24	0	17	17
g / C, Green / Cycle	0.06	0.55	0.55	0.05	0.54	0.54	0.07	0.24	0.24	0.00	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.05	0.41	0.00	0.03	0.38	0.15	0.10	0.01	0.01	0.00	0.07	0.14
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	211	2852	890	166	2786	869	127	871	389	3	888	277
d1, Uniform Delay [s]	46.33	17.07	0.00	46.77	17.27	12.58	46.50	29.15	29.18	0.00	36.86	39.92
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, 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]	5.94	1.80	0.00	3.84	1.57	0.82	258.38	0.02	0.05	0.00	0.30	5.92
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	0.77	0.74	0.00	0.63	0.71	0.28	1.49	0.05	0.05	0.00	0.40	0.82
d, Delay for Lane Group [s/veh]	52.27	18.87	0.00	50.61	18.84	13.40	304.88	29.17	29.23	0.00	37.15	45.84
Lane Group LOS	D	B	A	D	B	B	F	C	C	A	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.10	11.12	0.00	1.32	10.30	2.89	12.12	0.37	0.36	0.00	2.52	5.60
50th-Percentile Queue Length [ft/ln]	52.52	278.05	0.00	32.89	257.51	72.32	303.10	9.15	9.02	0.00	62.98	139.90
95th-Percentile Queue Length [veh/ln]	3.78	16.59	0.00	2.37	15.56	5.21	19.97	0.66	0.65	0.00	4.53	9.48
95th-Percentile Queue Length [ft/ln]	94.54	414.78	0.00	59.20	389.10	130.17	499.19	16.48	16.24	0.00	113.37	236.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.27	18.87	0.00	50.61	18.84	13.40	304.88	29.17	29.23	0.00	37.15	45.84
Movement LOS	D	B	A	D	B	B	F	C	C	A	D	D
d_A, Approach Delay [s/veh]	21.26			19.68			237.61			40.52		
Approach LOS	C			B			F			D		
d_I, Intersection Delay [s/veh]	32.57											
Intersection LOS	C											
Intersection V/C	0.684											

**Emissions**

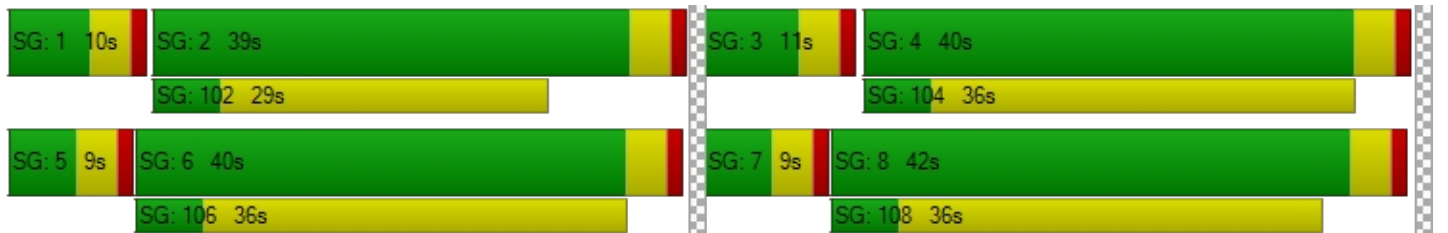
Vehicle Miles Traveled [mph]	60.81	791.22	0.00	171.10	3260.68	406.35	28.27	6.13	2.99	0.00	43.49	27.57
Stops [stops/h]	151.26	1201.16	0.00	94.72	1112.46	104.14	436.46	26.36	12.99	0.00	272.08	201.45
Fuel consumption [US gal/h]	5.70	50.20	0.00	8.11	133.20	15.90	18.12	0.78	0.38	0.00	7.58	5.57
CO [g/h]	398.33	3509.16	0.00	567.13	9310.66	1111.21	1266.56	54.62	26.77	0.00	529.86	389.15
NOx [g/h]	77.50	682.75	0.00	110.34	1811.52	216.20	246.43	10.63	5.21	0.00	103.09	75.71
VOC [g/h]	92.32	813.28	0.00	131.44	2157.84	257.53	293.54	12.66	6.21	0.00	122.80	90.19

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.553			3.778			2.839			3.076		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	720			700			760			720		
d_b, Bicycle Delay [s]	20.48			21.13			19.22			20.48		
I_b,int, Bicycle LOS Score for Intersection	2.816			2.885			1.771			1.917		
Bicycle LOS	C			C			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 4: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.695

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	26	1079	39	34	696	43	20	20	22	11	32	6
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	11	0	0	12	0	0	6	0	0	2
Total Hourly Volume [veh/h]	28	1951	32	37	1833	35	22	22	18	12	35	5
Peak Hour Factor	0.8408	0.8408	0.8408	0.9137	0.9137	0.9137	0.6630	0.6630	0.6630	0.8000	0.8000	0.8000
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	580	10	10	502	10	8	8	7	4	11	2
Total Analysis Volume [veh/h]	33	2320	38	40	2006	38	33	33	27	15	44	6
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	65	0	5	65	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	26	0	52	69	0	9	33	0	9	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	3	89	89	4	89	89	3	9	9	2	8	8
g / C, Green / Cycle	0.03	0.74	0.74	0.03	0.74	0.74	0.03	0.08	0.08	0.02	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.64	0.02	0.02	0.37	0.37	0.02	0.02	0.02	0.01	0.01	0.01
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1882	1810	1900	1636	1810	1900	1823
c, Capacity [veh/h]	50	2675	1194	57	2688	1398	50	151	130	30	129	124
d1, Uniform Delay [s]	57.76	11.35	4.17	57.56	6.30	6.31	57.76	51.69	51.80	58.53	52.82	52.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	13.52	4.11	0.05	14.66	0.67	1.28	13.52	0.65	0.88	12.58	0.72	0.79
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	0.66	0.87	0.03	0.70	0.50	0.50	0.66	0.20	0.23	0.50	0.19	0.20
d, Delay for Lane Group [s/veh]	71.28	15.46	4.22	72.22	6.97	7.59	71.28	52.34	52.68	71.11	53.55	53.64
Lane Group LOS	E	B	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.16	18.02	0.21	1.41	5.59	6.07	1.17	0.88	0.86	0.55	0.74	0.73
50th-Percentile Queue Length [ft/ln]	28.96	450.52	5.37	35.17	139.63	151.65	29.34	22.01	21.56	13.82	18.41	18.35
95th-Percentile Queue Length [veh/ln]	2.09	24.98	0.39	2.53	9.46	10.11	2.11	1.58	1.55	1.00	1.33	1.32
95th-Percentile Queue Length [ft/ln]	52.13	624.57	9.67	63.30	236.53	252.63	52.82	39.62	38.81	24.88	33.14	33.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.28	15.46	4.22	72.22	7.17	7.59	71.28	52.37	52.68	71.11	53.59	53.64
Movement LOS	E	B	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	16.05			8.43			59.17			57.63		
Approach LOS	B			A			E			E		
d_I, Intersection Delay [s/veh]	14.07											
Intersection LOS	B											
Intersection V/C	0.695											

**Emissions**

Vehicle Miles Traveled [mph]	16.61	1167.96	19.13	14.92	501.27	261.23	1.82	1.68	1.63	1.00	1.67	1.66
Stops [stops/h]	34.75	1081.25	6.45	42.20	335.12	181.98	35.21	26.41	25.87	16.58	22.09	22.02
Fuel consumption [US gal/h]	1.48	60.78	0.77	1.62	23.25	12.30	0.81	0.59	0.57	0.38	0.50	0.50
CO [g/h]	103.46	4248.45	53.72	113.51	1625.50	859.69	56.81	41.01	40.09	26.54	35.14	35.01
NOx [g/h]	20.13	826.59	10.45	22.09	316.26	167.26	11.05	7.98	7.80	5.16	6.84	6.81
VOC [g/h]	23.98	984.62	12.45	26.31	376.73	199.24	13.17	9.50	9.29	6.15	8.15	8.11

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.556			3.557			2.375			2.361		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	367			1083			483			483		
d_b, Bicycle Delay [s]	40.02			12.60			34.50			34.50		
l_b,int, Bicycle LOS Score for Intersection	3.541			2.712			1.641			1.615		
Bicycle LOS	D			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	74.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.919

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	207	671	83	118	352	244	328	618	63	87	1039	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	485	0	0	668	406	290	1	0	0	3	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	23	0	0	168	0	0	17	0	0	33
Total Hourly Volume [veh/h]	228	1216	67	129	1052	504	648	675	52	95	1136	99
Peak Hour Factor	0.7878	0.7878	0.7878	0.8529	0.8529	0.8529	0.9048	0.9048	0.9048	0.9230	0.9230	0.9230
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]	72	386	21	38	308	148	179	186	14	26	308	27
Total Analysis Volume [veh/h]	289	1544	85	151	1233	591	716	746	57	103	1231	107
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	48	0	5	45	0	19	41	0	10	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	52	0	9	49	0	23	45	0	14	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	8	49	49	5	46	46	19	45	45	5	31	31
g / C, Green / Cycle	0.07	0.40	0.40	0.04	0.38	0.38	0.16	0.38	0.38	0.05	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.08	0.43	0.05	0.04	0.34	0.37	0.20	0.14	0.04	0.03	0.25	0.25
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1823
c, Capacity [veh/h]	234	1464	653	146	1373	613	556	1940	605	161	948	478
d1, Uniform Delay [s]	56.00	35.73	22.45	57.50	35.04	36.43	50.50	27.41	24.32	56.29	43.32	43.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.17	0.11	0.11	0.11	0.11	0.40
l, 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]	113.26	39.52	0.41	42.84	9.55	28.52	133.91	0.13	0.07	4.22	5.24	24.24
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	1.23	1.05	0.13	1.03	0.90	0.96	1.29	0.38	0.09	0.64	0.94	0.94
d, Delay for Lane Group [s/veh]	169.26	75.24	22.87	100.34	44.59	64.95	184.41	27.53	24.38	60.51	48.56	67.56
Lane Group LOS	F	F	C	F	D	E	F	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.14	28.04	1.54	3.04	17.83	20.81	18.29	4.90	1.00	1.57	12.83	15.45
50th-Percentile Queue Length [ft/ln]	178.56	701.06	38.39	75.98	445.72	520.25	457.31	122.62	25.10	39.24	320.70	386.30
95th-Percentile Queue Length [veh/ln]	12.26	38.19	2.76	5.47	24.75	28.29	28.24	8.54	1.81	2.82	18.70	21.90
95th-Percentile Queue Length [ft/ln]	306.55	954.76	69.10	136.77	618.84	707.28	706.08	213.43	45.19	70.62	467.55	547.46

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	169.26	75.24	22.87	100.34	44.59	64.95	184.41	27.53	24.38	60.51	53.83	67.56
Movement LOS	F	F	C	F	D	E	F	C	C	E	D	E
d_A, Approach Delay [s/veh]	87.09			54.95			101.36			55.33		
Approach LOS	F			D			F			E		
d_I, Intersection Delay [s/veh]	74.31											
Intersection LOS	E											
Intersection V/C	0.919											

**Emissions**

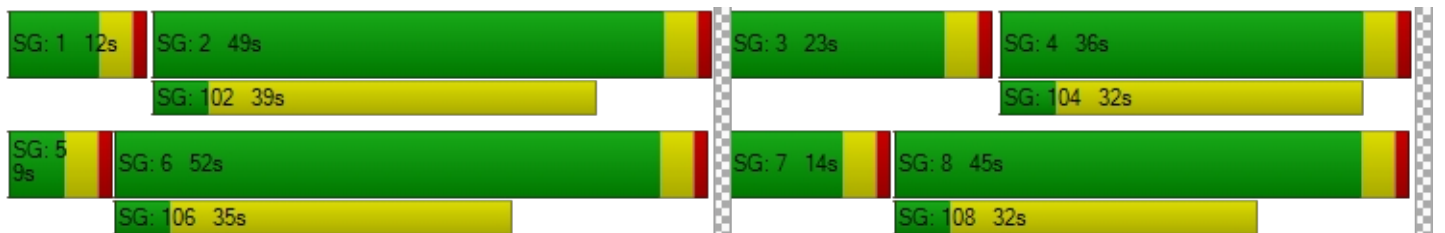
Vehicle Miles Traveled [mph]	143.58	767.07	42.23	76.02	620.73	297.53	178.94	186.44	14.25	11.19	96.61	48.69
Stops [stops/h]	428.54	1682.54	46.07	182.36	1069.73	624.30	1097.53	441.44	30.12	94.17	769.68	463.56
Fuel consumption [US gal/h]	20.20	70.85	2.42	7.96	45.77	25.77	53.24	18.62	1.32	3.39	26.32	16.40
CO [g/h]	1412.13	4952.59	168.86	556.12	3198.99	1801.43	3721.19	1301.25	92.19	237.06	1839.75	1146.56
NOx [g/h]	274.75	963.59	32.85	108.20	622.41	350.49	724.01	253.18	17.94	46.12	357.95	223.08
VOC [g/h]	327.28	1147.81	39.14	128.89	741.40	417.50	862.42	301.58	21.37	54.94	426.38	265.73

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.386			3.810			3.646			3.342		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			750			683			533		
d_b, Bicycle Delay [s]	21.60			23.44			26.00			32.27		
I_b,int, Bicycle LOS Score for Intersection	3.161			3.328			2.404			2.370		
Bicycle LOS	C			C			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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.506

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	24	999	6	9	414	35	8	105	5	12	103	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	487	0	0	668	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	2	0	0	10	0	0	1	0	0	4
Total Hourly Volume [veh/h]	26	1576	5	10	1119	28	9	114	4	13	112	12
Peak Hour Factor	0.8643	0.8643	0.8643	0.7467	0.7467	0.7467	0.8393	0.8393	0.8393	0.8520	0.8520	0.8520
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	456	1	3	375	9	3	34	1	4	33	4
Total Analysis Volume [veh/h]	30	1823	6	13	1499	37	11	136	5	15	131	14
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	5	32	0	21	48	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	12	33	0	22	36	0	22	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	3	71	71	2	70	70	1	10	10	2	10	10
g / C, Green / Cycle	0.03	0.71	0.71	0.02	0.70	0.70	0.01	0.10	0.10	0.02	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.33	0.33	0.01	0.41	0.02	0.01	0.04	0.00	0.01	0.07	0.01
s, saturation flow rate [veh/h]	1810	3618	1897	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	51	2561	1343	28	2515	1123	25	358	160	32	195	166
d1, Uniform Delay [s]	48.00	6.38	6.38	48.82	7.94	4.76	48.93	42.19	40.73	48.65	43.24	40.61
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.12	0.62	1.18	11.62	1.05	0.05	11.68	0.67	0.08	10.30	3.96	0.22
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	0.58	0.47	0.47	0.47	0.60	0.03	0.44	0.38	0.03	0.47	0.67	0.08
d, Delay for Lane Group [s/veh]	58.12	6.99	7.55	60.44	8.99	4.81	60.61	42.85	40.81	58.95	47.19	40.82
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.86	4.28	4.69	0.41	7.49	0.23	0.35	1.58	0.11	0.46	3.29	0.32
50th-Percentile Queue Length [ft/ln]	21.47	106.93	117.36	10.26	187.17	5.69	8.75	39.57	2.84	11.43	82.14	7.95
95th-Percentile Queue Length [veh/ln]	1.55	7.67	8.25	0.74	11.97	0.41	0.63	2.85	0.20	0.82	5.91	0.57
95th-Percentile Queue Length [ft/ln]	38.65	191.73	206.19	18.47	299.36	10.25	15.75	71.22	5.11	20.58	147.85	14.32

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.12	7.19	7.55	60.44	8.99	4.81	60.61	42.85	40.81	58.95	47.19	40.82
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	8.01			9.32			44.07			47.74		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	11.74											
Intersection LOS	B											
Intersection V/C	0.506											

**Emissions**

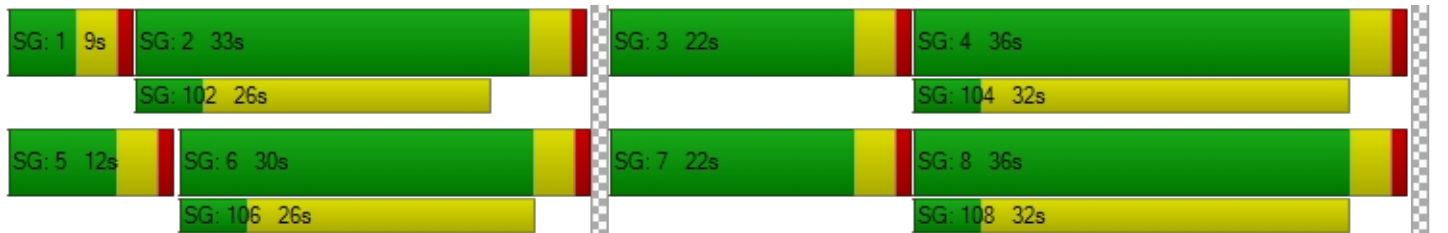
Vehicle Miles Traveled [mph]	5.89	235.59	123.54	6.46	744.72	18.38	5.52	68.21	2.51	4.02	35.13	3.75
Stops [stops/h]	30.92	307.97	169.00	14.77	539.06	8.20	12.60	113.96	4.09	16.46	118.28	11.45
Fuel consumption [US gal/h]	0.94	13.61	7.30	0.51	36.38	0.84	0.44	4.64	0.17	0.46	3.49	0.35
CO [g/h]	65.79	951.52	510.49	35.47	2542.80	58.59	30.80	324.53	11.73	31.95	243.72	24.15
NOx [g/h]	12.80	185.13	99.32	6.90	494.74	11.40	5.99	63.14	2.28	6.22	47.42	4.70
VOC [g/h]	15.25	220.52	118.31	8.22	589.32	13.58	7.14	75.21	2.72	7.40	56.48	5.60

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
l_p,int, Pedestrian LOS Score for Intersectio	3.310			3.090			2.529			2.526		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	520			580			640			640		
d_b, Bicycle Delay [s]	27.38			25.21			23.12			23.12		
l_b,int, Bicycle LOS Score for Intersection	2.583			2.846			1.686			1.830		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	30.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	84	431	14	98	395	189	120	268	45	23	398	140
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	200	0	0	176	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	4	0	0	52	0	0	12	0	0	38
Total Hourly Volume [veh/h]	92	470	11	107	431	154	131	492	37	25	610	115
Peak Hour Factor	0.9010	0.9010	0.9010	0.8191	0.8191	0.8191	0.8730	0.8730	0.8730	0.8333	0.8333	0.8333
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]	26	130	3	33	132	47	38	141	11	8	183	35
Total Analysis Volume [veh/h]	102	522	12	131	526	188	150	564	42	30	732	138
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	7	22	0	7	22	0	10	29	0	6	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	26	0	12	27	0	13	33	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	6	27	27	7	29	29	8	27	27	3	21	21
g / C, Green / Cycle	0.07	0.34	0.34	0.09	0.36	0.36	0.10	0.34	0.34	0.03	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.14	0.07	0.20	0.20	0.08	0.16	0.16	0.02	0.24	0.24
s, saturation flow rate [veh/h]	1810	1900	1885	1810	1900	1731	1810	1900	1854	1810	1900	1797
c, Capacity [veh/h]	132	643	638	165	677	617	186	642	627	59	508	481
d1, Uniform Delay [s]	36.43	20.39	20.40	35.61	20.61	20.62	35.10	20.89	20.90	38.08	28.06	28.06
k, delay calibration	0.11	0.50	0.50	0.17	0.50	0.50	0.15	0.11	0.11	0.11	0.25	0.25
l, 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]	9.25	1.99	2.01	12.54	3.21	3.53	10.63	0.55	0.57	6.73	10.71	11.27
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	0.77	0.42	0.42	0.79	0.55	0.55	0.81	0.48	0.48	0.51	0.88	0.88
d, Delay for Lane Group [s/veh]	45.68	22.38	22.41	48.15	23.83	24.15	45.73	21.45	21.46	44.81	38.77	39.33
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.21	3.89	3.87	2.96	5.69	5.25	3.23	4.17	4.08	0.66	8.95	8.54
50th-Percentile Queue Length [ft/ln]	55.15	97.37	96.78	73.92	142.15	131.13	80.71	104.21	101.90	16.44	223.77	213.50
95th-Percentile Queue Length [veh/ln]	3.97	7.01	6.97	5.32	9.60	9.00	5.81	7.50	7.34	1.18	13.86	13.33
95th-Percentile Queue Length [ft/ln]	99.28	175.27	174.21	133.05	239.92	225.03	145.28	187.57	183.42	29.59	346.43	333.31

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	45.68	22.39	22.41	48.15	23.92	24.15	45.73	21.45	21.46	44.81	38.99	39.33
Movement LOS	D	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	26.13			27.73			26.27			39.24		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	30.35											
Intersection LOS	C											
Intersection V/C	0.571											

**Emissions**

Vehicle Miles Traveled [mph]	15.31	40.23	39.95	15.06	42.93	39.18	90.64	185.23	180.97	5.57	83.07	78.57
Stops [stops/h]	99.28	175.27	174.21	133.05	255.87	236.03	145.28	187.57	183.42	29.59	402.78	384.30
Fuel consumption [US gal/h]	2.47	4.38	4.36	3.13	5.86	5.40	6.31	10.02	9.79	0.83	11.38	10.86
CO [g/h]	172.79	306.38	304.45	218.81	409.70	377.22	441.01	700.33	684.46	58.20	795.69	758.83
NOx [g/h]	33.62	59.61	59.23	42.57	79.71	73.39	85.80	136.26	133.17	11.32	154.81	147.64
VOC [g/h]	40.05	71.01	70.56	50.71	94.95	87.42	102.21	162.31	158.63	13.49	184.41	175.87

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.626			2.823			2.851			2.832		
Crosswalk LOS	B			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			575			725			625		
d_b, Bicycle Delay [s]	21.03			20.31			16.26			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.088			2.300			2.193			2.333		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.578

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	37	274	152	40	113	23	14	150	12	173	442	53
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	7	22	7	14	9	31	212	7	10	165	6
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	47	0	0	9	0	0	5	0	0	16
Total Hourly Volume [veh/h]	63	306	141	51	137	25	46	376	15	199	647	48
Peak Hour Factor	0.8238	0.8238	0.8238	0.8554	0.8554	0.8554	0.8688	0.8688	0.8688	0.9003	0.9003	0.9003
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]	19	93	43	15	40	7	13	108	4	55	180	13
Total Analysis Volume [veh/h]	76	371	171	60	160	29	53	433	17	221	719	53
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	5	22	0	5	25	0	12	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	26	0	12	26	0	9	25	0	17	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	4	29	29	4	28	28	3	20	20	12	28	28
g / C, Green / Cycle	0.06	0.36	0.36	0.05	0.35	0.35	0.04	0.25	0.25	0.14	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.04	0.20	0.11	0.03	0.08	0.02	0.03	0.23	0.01	0.12	0.21	0.21
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1855
c, Capacity [veh/h]	101	679	577	86	664	565	79	476	405	261	667	651
d1, Uniform Delay [s]	37.24	20.52	18.47	37.52	18.48	17.23	37.67	29.10	22.71	33.37	21.21	21.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.25	0.11	0.23	0.11	0.11
l, 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]	10.84	3.14	1.31	9.59	0.86	0.17	9.28	13.92	0.04	14.29	0.82	0.84
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	0.76	0.55	0.30	0.69	0.24	0.05	0.67	0.91	0.04	0.85	0.59	0.59
d, Delay for Lane Group [s/veh]	48.08	23.66	19.77	47.11	19.34	17.40	46.95	43.02	22.75	47.66	22.03	22.05
Lane Group LOS	D	C	B	D	B	B	D	D	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.72	5.73	2.34	1.35	2.14	0.36	1.17	9.18	0.23	4.93	5.49	5.36
50th-Percentile Queue Length [ft/ln]	43.06	143.27	58.53	33.79	53.43	9.04	29.26	229.52	5.74	123.18	137.27	134.07
95th-Percentile Queue Length [veh/ln]	3.10	9.66	4.21	2.43	3.85	0.65	2.11	14.15	0.41	8.57	9.33	9.16
95th-Percentile Queue Length [ft/ln]	77.51	241.42	105.35	60.81	96.17	16.27	52.67	353.75	10.33	214.19	233.34	229.02

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.08	23.66	19.77	47.11	19.34	17.40	46.95	43.02	22.75	47.66	22.04	22.05
Movement LOS	D	C	B	D	B	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	25.59			25.80			42.75			27.75		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	30.17											
Intersection LOS	C											
Intersection V/C	0.578											

**Emissions**

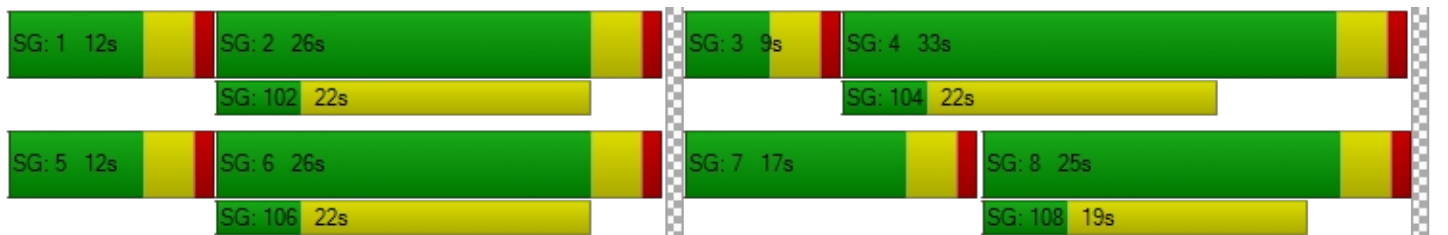
Vehicle Miles Traveled [mph]	33.40	163.07	75.16	4.72	12.60	2.28	3.51	28.64	1.12	32.20	56.93	55.56
Stops [stops/h]	77.51	257.89	105.35	60.81	96.17	16.27	52.67	413.14	10.33	221.72	247.08	241.33
Fuel consumption [US gal/h]	2.60	9.94	4.35	1.21	1.83	0.31	1.28	9.91	0.25	6.00	6.78	6.62
CO [g/h]	181.72	694.91	303.74	84.76	128.13	21.82	89.57	692.62	17.18	419.67	473.58	462.50
NOx [g/h]	35.36	135.20	59.10	16.49	24.93	4.24	17.43	134.76	3.34	81.65	92.14	89.99
VOC [g/h]	42.12	161.05	70.39	19.64	29.69	5.06	20.76	160.52	3.98	97.26	109.76	107.19

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.497			2.479			2.695			2.821		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			550			525			725		
d_b, Bicycle Delay [s]	21.03			21.03			21.76			16.26		
I_b,int, Bicycle LOS Score for Intersection	2.657			1.985			2.398			2.392		
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 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	25.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.626

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	2	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	19	888	51	28	328	30	25	84	14	125	222	122
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	473	85	193	467	31	0	0	0	1	16	153
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	35	0	0	16	0	0	4	0	0	72
Total Hourly Volume [veh/h]	21	1441	106	224	825	48	27	92	11	137	258	214
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
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]	6	410	30	64	235	14	8	26	3	39	73	61
Total Analysis Volume [veh/h]	24	1641	121	255	940	55	31	105	13	156	294	244
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	23	44	0	5	32	0	13	40	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	20	41	0	9	36	0	14	41	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	2	47	47	16	61	61	3	11	11	10	18	18
g / C, Green / Cycle	0.02	0.47	0.47	0.16	0.61	0.61	0.03	0.11	0.11	0.10	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.32	0.07	0.14	0.18	0.03	0.02	0.03	0.01	0.09	0.08	0.15
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	44	2454	766	286	3145	981	53	390	174	181	647	289
d1, Uniform Delay [s]	48.22	20.25	14.95	41.25	9.40	7.97	47.96	40.99	40.12	44.32	36.70	39.72
k, delay calibration	0.11	0.50	0.50	0.16	0.50	0.50	0.11	0.11	0.11	0.17	0.11	0.11
l, 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]	9.85	1.47	0.44	12.90	0.24	0.11	10.11	0.37	0.18	16.39	0.50	6.70
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	0.54	0.67	0.16	0.89	0.30	0.06	0.59	0.27	0.07	0.86	0.45	0.85
d, Delay for Lane Group [s/veh]	58.06	21.72	15.39	54.15	9.65	8.08	58.07	41.36	40.30	60.71	37.20	46.42
Lane Group LOS	E	C	B	D	A	A	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.69	9.17	1.54	6.91	2.87	0.45	0.89	1.17	0.29	4.48	3.13	6.07
50th-Percentile Queue Length [ft/ln]	17.35	229.27	38.42	172.71	71.85	11.16	22.14	29.19	7.17	112.08	78.14	151.79
95th-Percentile Queue Length [veh/ln]	1.25	14.14	2.77	11.22	5.17	0.80	1.59	2.10	0.52	7.96	5.63	10.11
95th-Percentile Queue Length [ft/ln]	31.22	353.43	69.16	280.47	129.32	20.09	39.86	52.54	12.91	198.90	140.66	252.82

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.06	21.72	15.39	54.15	9.65	8.08	58.07	41.36	40.30	60.71	37.20	46.42
Movement LOS	E	C	B	D	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	21.78			18.66			44.74			45.73		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	25.94											
Intersection LOS	C											
Intersection V/C	0.626											

**Emissions**

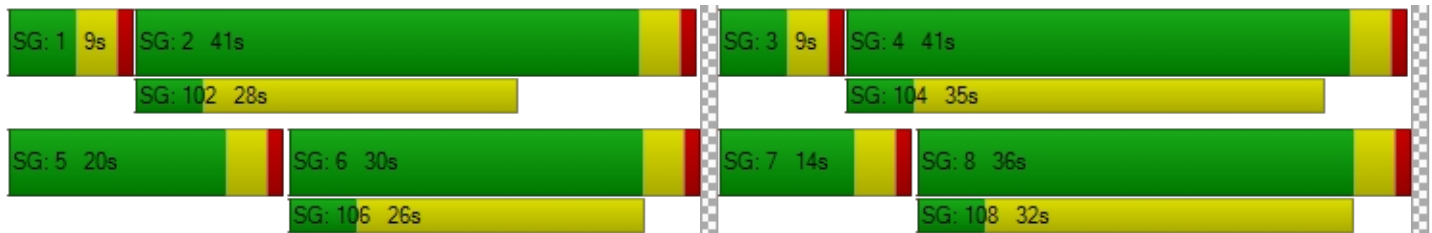
Vehicle Miles Traveled [mph]	9.96	681.11	50.22	76.16	280.75	16.43	2.19	7.43	0.92	28.71	54.11	44.91
Stops [stops/h]	24.98	990.44	55.33	248.70	310.37	16.07	31.89	84.07	10.33	161.40	225.05	218.58
Fuel consumption [US gal/h]	0.94	42.91	2.79	8.51	15.33	0.85	0.84	2.18	0.27	4.92	6.88	6.56
CO [g/h]	65.40	2999.68	194.91	595.03	1071.46	59.65	58.57	152.62	18.63	343.78	480.81	458.69
NOx [g/h]	12.72	583.63	37.92	115.77	208.47	11.61	11.40	29.69	3.63	66.89	93.55	89.24
VOC [g/h]	15.16	695.21	45.17	137.90	248.32	13.82	13.57	35.37	4.32	79.67	111.43	106.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
l_p,int, Pedestrian LOS Score for Intersectio	3.318			3.350			2.597			2.874		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	520			740			640			740		
d_b, Bicycle Delay [s]	27.38			19.85			23.12			19.85		
l_b,int, Bicycle LOS Score for Intersection	2.561			2.256			1.686			2.192		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	101	339	14	52	200	45	62	108	53	3	146	63
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	5	10	7	18	56	68	0	1	66	2
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]	110	391	20	67	225	67	124	186	58	4	225	71
Peak Hour Factor	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882
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]	31	110	6	19	63	19	35	52	16	1	63	20
Total Analysis Volume [veh/h]	124	440	23	75	253	75	140	209	65	5	253	80
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	425	451	454	413	437	476	417	441	480	510	551
Degree of Utilization, x	0.29	0.51	0.51	0.18	0.58	0.16	0.34	0.47	0.14	0.01	0.60

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.20	2.87	2.83	0.66	3.57	0.55	1.46	2.49	0.47	0.03	4.00
95th-Percentile Queue Length [ft]	30.00	71.77	70.73	16.40	89.28	13.87	36.41	62.24	11.64	0.74	100.04
Approach Delay [s/veh]	17.85			18.26			16.17			18.60	
Approach LOS	C			C			C			C	
Intersection Delay [s/veh]	17.69										
Intersection LOS	C										

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	37.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.721

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	2
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	61	772	16	19	398	37	94	118	36	19	226	76
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	61	353	0	8	448	75	264	116	43	2	74	8
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	4	0	0	29	0	0	21	0	0	23
Total Hourly Volume [veh/h]	127	1194	13	29	882	86	366	245	61	23	320	68
Peak Hour Factor	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463
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]	38	353	4	9	261	25	108	72	18	7	95	20
Total Analysis Volume [veh/h]	150	1411	15	34	1042	102	432	289	72	27	378	80
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	37	0	5	32	0	26	26	0	26	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	9	33	0	32	43	0	19	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	11	52	52	3	44	44	28	36	36	3	11	11
g / C, Green / Cycle	0.10	0.47	0.47	0.03	0.40	0.40	0.25	0.33	0.33	0.03	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.08	0.39	0.01	0.02	0.29	0.06	0.24	0.08	0.04	0.01	0.07	0.05
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	179	1706	762	54	1456	650	457	1180	527	49	520	162
d1, Uniform Delay [s]	48.72	25.18	15.50	52.78	27.57	20.95	40.33	27.15	26.15	52.83	48.01	46.82
k, delay calibration	0.27	0.50	0.50	0.11	0.50	0.50	0.40	0.11	0.11	0.11	0.11	0.11
l, 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]	21.67	4.75	0.05	11.75	3.04	0.51	26.23	0.11	0.12	9.12	1.96	2.31
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	0.84	0.83	0.02	0.63	0.72	0.16	0.94	0.25	0.14	0.55	0.73	0.49
d, Delay for Lane Group [s/veh]	70.39	29.93	15.55	64.53	30.61	21.47	66.56	27.26	26.26	61.95	49.96	49.13
Lane Group LOS	E	C	B	E	C	C	E	C	C	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.00	15.65	0.20	1.08	11.35	1.69	14.39	2.73	1.32	0.85	3.38	2.14
50th-Percentile Queue Length [ft/ln]	124.90	391.18	5.00	26.97	283.68	42.25	359.87	68.17	32.93	21.22	84.49	53.46
95th-Percentile Queue Length [veh/ln]	8.66	22.13	0.36	1.94	16.87	3.04	20.62	4.91	2.37	1.53	6.08	3.85
95th-Percentile Queue Length [ft/ln]	216.55	553.36	9.01	48.55	421.79	76.04	515.43	122.70	59.27	38.20	152.08	96.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	70.39	29.93	15.55	64.53	30.61	21.47	66.56	27.26	26.26	61.95	49.96	49.13
Movement LOS	E	C	B	E	C	C	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	33.64			30.80			48.58			50.49		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.78											
Intersection LOS	D											
Intersection V/C	0.721											

**Emissions**

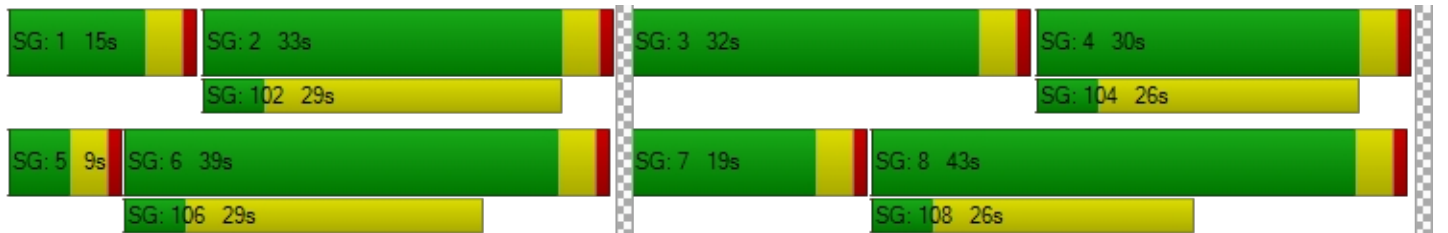
Vehicle Miles Traveled [mph]	9.77	91.92	0.98	2.69	82.53	8.08	47.07	31.49	7.85	13.60	190.45	40.31
Stops [stops/h]	163.51	1024.17	6.55	35.31	742.73	55.30	471.10	178.48	43.11	27.78	331.81	69.98
Fuel consumption [US gal/h]	4.52	24.48	0.16	0.98	18.55	1.41	12.17	4.48	1.09	1.10	13.92	2.93
CO [g/h]	315.70	1711.05	11.35	68.35	1296.92	98.57	850.34	313.45	76.14	76.93	973.34	204.88
NOx [g/h]	61.42	332.91	2.21	13.30	252.33	19.18	165.45	60.99	14.81	14.97	189.38	39.86
VOC [g/h]	73.17	396.55	2.63	15.84	300.57	22.84	197.08	72.65	17.65	17.83	225.58	47.48

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.138			3.274			2.908			2.796		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	636			527			709			473		
d_b, Bicycle Delay [s]	25.57			29.82			22.91			32.07		
I_b,int, Bicycle LOS Score for Intersection	2.863			2.555			2.231			1.839		
Bicycle LOS	C			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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.832

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	25	15	1	6	6	6	44	267	42	7	295	8
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	0	529	0	0	238	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]	36	16	1	7	7	7	48	820	46	8	560	9
Peak Hour Factor	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956
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	7	0	3	3	3	20	344	19	3	235	4
Total Analysis Volume [veh/h]	60	27	2	12	12	12	81	1377	77	13	940	15
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	473	479	539	583	583	593	507	545	545	548
Degree of Utilization, x	0.19	0.08	0.15	0.83	0.83	0.82	0.03	0.58	0.58	0.58

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.69	0.24	0.53	8.69	8.69	8.32	0.08	3.73	3.73	3.70
95th-Percentile Queue Length [ft]	17.13	6.06	13.14	217.3	217.3	207.9	1.97	93.28	93.28	92.40
Approach Delay [s/veh]	12.36	11.11	30.52				18.03			
Approach LOS	B	B	D				C			
Intersection Delay [s/veh]	25.04									
Intersection LOS	D									

**Intersection Level Of Service Report**  
**Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	36.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	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			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	45	102	55	12	91	87	260	292	72	63	243	21
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	75	15	529	21	0	246	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	15	0	0	43	0	0	25	0	0	6
Total Hourly Volume [veh/h]	49	111	45	13	99	127	298	847	74	69	511	17
Peak Hour Factor	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807
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]	18	41	17	5	36	47	109	311	27	25	188	6
Total Analysis Volume [veh/h]	72	163	66	19	145	187	438	1244	109	101	751	25
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	6	32	0	6	32	0	51	53	53	13	15	15
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	14	14	0	10	10
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	36	0	9	36	0	29	43	43	12	26	26
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
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
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	35	35	2	32	25	40	49	7	22	28
g / C, Green / Cycle	0.05	0.35	0.35	0.02	0.32	0.25	0.40	0.49	0.07	0.22	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.04	0.01	0.19	0.24	0.34	0.07	0.06	0.21	0.02
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1728	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	90	661	561	40	553	452	1444	790	128	796	456
d1, Uniform Delay [s]	46.99	23.27	22.18	48.30	28.62	37.11	27.52	14.00	45.71	38.39	26.16
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.38	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	14.47	0.89	0.43	8.24	4.76	13.48	1.64	0.28	10.10	6.51	0.05
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
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
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

**Lane Group Results**

X, volume / capacity	0.80	0.25	0.12	0.47	0.60	0.97	0.86	0.14	0.79	0.94	0.05
d, Delay for Lane Group [s/veh]	61.47	24.17	22.61	56.54	33.38	50.59	29.16	14.27	55.80	44.90	26.21
Lane Group LOS	E	C	C	E	C	D	C	B	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.13	2.88	1.11	0.55	7.03	11.67	12.77	1.30	2.74	9.30	0.42
50th-Percentile Queue Length [ft/ln]	53.15	71.89	27.83	13.65	175.72	291.82	319.18	32.55	68.50	232.43	10.56
95th-Percentile Queue Length [veh/ln]	3.83	5.18	2.00	0.98	11.38	17.28	18.63	2.34	4.93	14.30	0.76
95th-Percentile Queue Length [ft/ln]	95.68	129.39	50.10	24.57	284.42	431.90	465.67	58.59	123.30	357.45	19.02

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	61.47	24.17	22.61	56.54	33.38	33.38	50.59	29.16	14.27	55.80	44.90	26.21
Movement LOS	E	C	C	E	C	C	D	C	B	E	D	C
d_A, Approach Delay [s/veh]	32.75			34.63			33.49			45.62		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	36.75											
Intersection LOS	D											
Intersection V/C	0.682											

**Emissions**

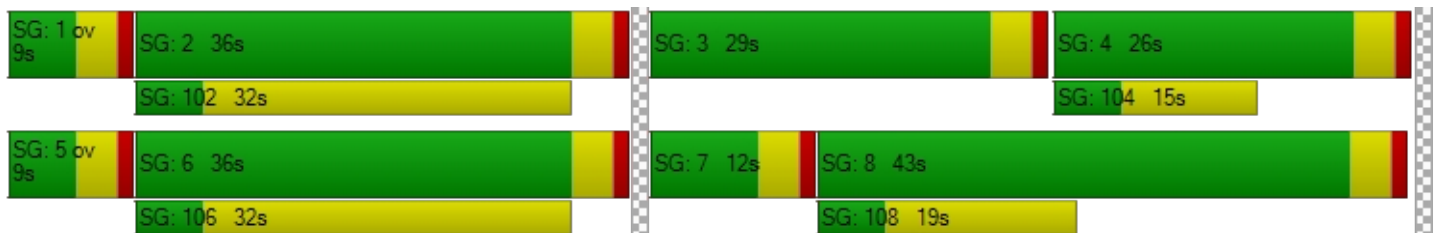
Vehicle Miles Traveled [mph]	18.14	41.07	16.63	9.54	166.72	40.21	114.21	10.01	25.06	186.31	6.20
Stops [stops/h]	76.54	103.52	40.08	19.66	253.04	420.22	919.23	46.87	98.64	669.41	15.21
Fuel consumption [US gal/h]	2.07	3.06	1.21	0.79	11.12	11.11	22.73	1.24	3.23	21.57	0.54
CO [g/h]	144.70	214.17	84.55	55.22	777.02	776.72	1588.52	86.84	225.93	1507.78	37.40
NOx [g/h]	28.15	41.67	16.45	10.74	151.18	151.12	309.07	16.90	43.96	293.36	7.28
VOC [g/h]	33.54	49.64	19.60	12.80	180.08	180.01	368.15	20.13	52.36	349.44	8.67

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
l_p,int, Pedestrian LOS Score for Intersectio	2.329			2.508			3.194			3.074		
Crosswalk LOS	B			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]	640			640			780			440		
d_b, Bicycle Delay [s]	23.12			23.12			18.61			30.42		
l_b,int, Bicycle LOS Score for Intersection	2.081			2.210			3.058			2.288		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	29.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.636

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	105	134	10	6	24	44	269	599	104	3	385	10
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	592	0	0	333	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	3	0	0	12	0	0	28	0	0	3
Total Hourly Volume [veh/h]	114	146	8	7	26	36	293	1245	85	3	753	8
Peak Hour Factor	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168
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]	40	51	3	2	9	13	102	434	30	1	263	3
Total Analysis Volume [veh/h]	159	204	11	10	36	50	409	1737	119	4	1051	11
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	27	57	0	5	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	32	60	0	10	38	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
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]	31	31	31	31	24	56	56	1	32	32
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.24	0.56	0.56	0.01	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.12	0.11	0.01	0.05	0.23	0.48	0.07	0.00	0.29	0.01
s, saturation flow rate [veh/h]	1332	1883	1185	1723	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	412	592	312	542	443	2021	902	13	1160	518
d1, Uniform Delay [s]	31.46	26.54	32.06	24.75	36.82	18.72	10.51	49.41	32.52	23.23
k, delay calibration	0.50	0.50	0.50	0.50	0.31	0.11	0.11	0.11	0.11	0.11
l, 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]	2.71	1.73	0.19	0.63	19.13	1.15	0.07	13.72	3.01	0.02
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	0.39	0.36	0.03	0.16	0.92	0.86	0.13	0.32	0.91	0.02
d, Delay for Lane Group [s/veh]	34.18	28.27	32.25	25.37	55.95	19.88	10.57	63.13	35.53	23.25
Lane Group LOS	C	C	C	C	E	B	B	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.44	4.10	0.21	1.52	11.56	14.81	1.13	0.14	11.82	0.17
50th-Percentile Queue Length [ft/ln]	86.03	102.41	5.16	37.90	288.91	370.17	28.25	3.61	295.47	4.30
95th-Percentile Queue Length [veh/ln]	6.19	7.37	0.37	2.73	17.13	21.12	2.03	0.26	17.46	0.31
95th-Percentile Queue Length [ft/ln]	154.85	184.34	9.28	68.23	428.29	527.94	50.85	6.50	436.42	7.73

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	34.18	28.27	28.27	32.25	25.37	25.37	55.95	19.88	10.57	63.13	35.53	23.25
Movement LOS	C	C	C	C	C	C	E	B	B	E	D	C
d_A, Approach Delay [s/veh]	30.78			26.09			25.90			35.51		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	29.08											
Intersection LOS	C											
Intersection V/C	0.636											

**Emissions**

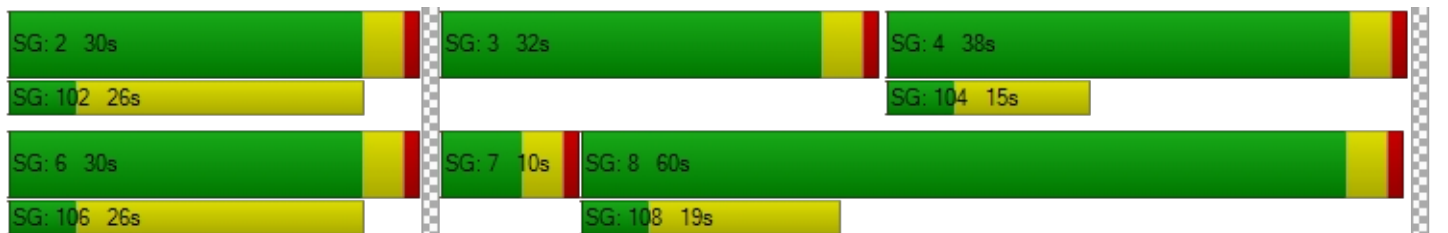
Vehicle Miles Traveled [mph]	54.01	73.03	2.42	20.79	47.90	203.42	13.94	0.33	86.13	0.90
Stops [stops/h]	123.88	147.47	7.43	54.58	416.03	1066.10	40.68	5.20	850.96	6.19
Fuel consumption [US gal/h]	4.26	5.30	0.23	1.72	11.47	27.25	1.24	0.13	21.13	0.16
CO [g/h]	297.59	370.58	15.74	120.56	801.82	1905.10	86.65	8.90	1477.08	11.17
NOx [g/h]	57.90	72.10	3.06	23.46	156.01	370.66	16.86	1.73	287.39	2.17
VOC [g/h]	68.97	85.89	3.65	27.94	185.83	441.53	20.08	2.06	342.33	2.59

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	41.41
I_p,int, Pedestrian LOS Score for Intersectio	2.325	2.282	3.594	3.168
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	520	1120	680
d_b, Bicycle Delay [s]	27.38	27.38	9.68	21.78
I_b,int, Bicycle LOS Score for Intersection	2.182	1.738	3.451	2.442
Bicycle LOS	B	A	C	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.338

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	2	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	635.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	118	28	613	0	0	0	43	361	0	0	307	224
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0000	1.0000	1.0000	1.0900	1.0900	1.0000	1.0000	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	100	0	280	0	0	0	50	313	0	0	200	134
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	237	0	0	0	0	0	0	0	0	95
Total Hourly Volume [veh/h]	229	31	711	0	0	0	97	706	0	0	535	283
Peak Hour Factor	0.8478	0.8478	0.8478	1.0000	1.0000	1.0000	0.8478	0.8478	1.0000	1.0000	0.8478	0.8478
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]	68	9	210	0	0	0	29	208	0	0	158	83
Total Analysis Volume [veh/h]	270	37	839	0	0	0	114	833	0	0	631	334
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	73	0	0	0	0	5	39	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	14	0	0	0	0	9	46	0	0	37	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	60	60	60		60	60	60	60
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]	28	28	28		4	24	16	16
g / C, Green / Cycle	0.46	0.46	0.46		0.07	0.40	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.10		0.03	0.23	0.17	0.21
s, saturation flow rate [veh/h]	1810	1831	8500		3514	3618	3618	1615
c, Capacity [veh/h]	834	843	3916		250	1468	970	433
d1, Uniform Delay [s]	9.53	9.52	9.68		26.74	13.76	19.47	20.27
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.49	0.47	0.13		1.29	0.35	0.74	2.95
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	0.18	0.18	0.21		0.46	0.57	0.65	0.77
d, Delay for Lane Group [s/veh]	10.02	10.00	9.80		28.04	14.10	20.22	23.22
Lane Group LOS	B	A	A		C	B	C	C
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.13	1.13	5.80		0.75	3.51	3.67	4.29
50th-Percentile Queue Length [ft/ln]	28.31	28.24	144.88		18.67	87.81	91.71	107.16
95th-Percentile Queue Length [veh/ln]	2.04	2.03	9.74		1.34	6.32	6.60	7.68
95th-Percentile Queue Length [ft/ln]	50.96	50.84	243.59		33.61	158.05	165.07	192.05

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	10.02	10.00	9.80	0.00	0.00	0.00	28.04	14.10	0.00	0.00	20.22	23.22
Movement LOS	B	A	A				C	B			C	C
d_A, Approach Delay [s/veh]	9.86			0.00			15.78			21.25		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	15.29											
Intersection LOS	B											
Intersection V/C	0.338											

**Emissions**

Vehicle Miles Traveled [mph]	22.98	22.98	125.61		16.39	119.73	73.89	39.11
Stops [stops/h]	67.94	67.78	347.72		89.64	421.47	440.20	257.19
Fuel consumption [US gal/h]	1.63	1.63	8.77		2.33	11.73	8.07	4.61
CO [g/h]	114.25	114.14	612.78		162.63	820.28	564.09	322.19
NOx [g/h]	22.23	22.21	119.22		31.64	159.60	109.75	62.69
VOC [g/h]	26.48	26.45	142.02		37.69	190.11	130.73	74.67

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.109	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	0	1400	1100
d_b, Bicycle Delay [s]	20.83	30.00	2.70	6.08
I_b,int, Bicycle LOS Score for Intersection	3.842	4.132	2.341	2.434
Bicycle LOS	D	D	B	B

**Sequence**




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



**Intersection Level Of Service Report  
Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.350

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	187	4	37	0	218	29	130	295	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	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	280	0	100	0	83	50	134	166	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	35	0	0	21	0	0	0
Total Hourly Volume [veh/h]	0	0	0	484	4	105	0	321	61	276	488	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8617	0.8617	0.8617	1.0000	0.8328	0.8328	0.8983	0.8983	1.0000
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]	0	0	0	140	1	30	0	96	18	77	136	0
Total Analysis Volume [veh/h]	0	0	0	562	5	122	0	385	73	307	543	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	10	0	28	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	14	0	32	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	R	L	C
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60
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]	30	30	30	10	10	8	22
g / C, Green / Cycle	0.50	0.50	0.50	0.17	0.17	0.13	0.36
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.08	0.11	0.05	0.09	0.15
s, saturation flow rate [veh/h]	1810	1811	1615	3618	1615	3514	3618
c, Capacity [veh/h]	905	906	808	603	269	467	1325
d1, Uniform Delay [s]	8.88	8.88	8.10	23.32	21.82	24.71	14.18
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.90	0.90	0.40	1.13	0.54	1.58	0.20
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	0.31	0.31	0.15	0.64	0.27	0.66	0.41
d, Delay for Lane Group [s/veh]	9.78	9.78	8.50	24.45	22.36	26.29	14.38
Lane Group LOS	A	A	A	C	C	C	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.89	1.90	0.74	2.32	0.83	1.94	2.28
50th-Percentile Queue Length [ft/ln]	47.37	47.39	18.59	57.98	20.74	48.44	57.03
95th-Percentile Queue Length [veh/ln]	3.41	3.41	1.34	4.17	1.49	3.49	4.11
95th-Percentile Queue Length [ft/ln]	85.26	85.31	33.47	104.36	37.33	87.19	102.65

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.78	9.78	8.50	0.00	24.45	22.36	26.29	14.38	0.00
Movement LOS				A	A	A		C	C	C	B	
d_A, Approach Delay [s/veh]	0.00			9.55			24.12			18.68		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	16.78											
Intersection LOS	B											
Intersection V/C	0.350											

**Emissions**

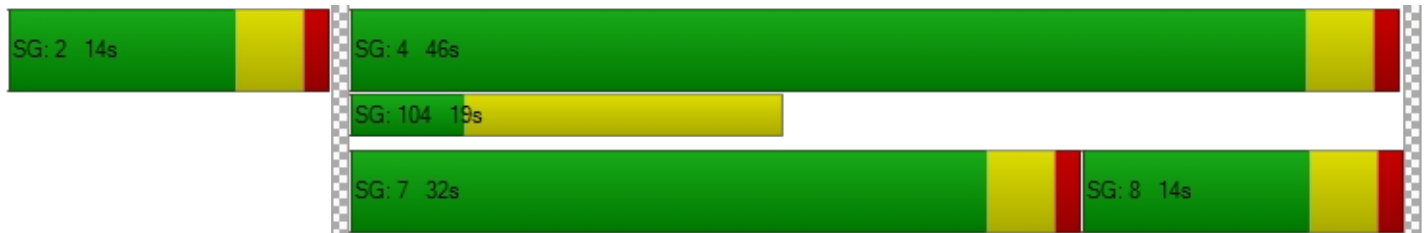
Vehicle Miles Traveled [mph]		19.00	19.01	8.18	43.83	8.31	44.13	78.05
Stops [stops/h]		113.68	113.74	44.62	278.30	49.77	232.50	273.74
Fuel consumption [US gal/h]		2.36	2.36	0.94	6.88	1.24	6.05	7.67
CO [g/h]		165.07	165.17	65.86	480.81	86.39	422.58	535.99
NOx [g/h]		32.12	32.14	12.81	93.55	16.81	82.22	104.28
VOC [g/h]		38.26	38.28	15.26	111.43	20.02	97.94	124.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.284	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	333	1400
d_b, Bicycle Delay [s]	30.00	20.83	20.83	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.754	1.955	2.261
Bicycle LOS	D	C	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	25.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.304

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	74	297	98	54	174	43	23	193	48	80	334	125
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	23	0	1	7	0	0	0	0	0	0	3
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	27	0	0	12	0	0	13	0	0	35
Total Hourly Volume [veh/h]	98	347	80	60	197	35	25	210	39	87	364	104
Peak Hour Factor	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699
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]	28	100	23	17	57	10	7	60	11	25	105	30
Total Analysis Volume [veh/h]	113	399	92	69	226	40	29	241	45	100	418	120
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	9	26	0	9	26	0	5	22	0	7	24	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	30	0	14	30	0	9	26	0	10	27	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	6	44	44	4	42	42	2	10	10	6	13	13
g / C, Green / Cycle	0.08	0.55	0.55	0.05	0.52	0.52	0.03	0.13	0.13	0.07	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.13	0.04	0.07	0.07	0.02	0.07	0.03	0.06	0.12	0.07
s, saturation flow rate [veh/h]	1810	1900	1779	1810	1900	1803	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	145	1051	984	90	994	943	54	456	203	128	603	269
d1, Uniform Delay [s]	36.10	9.21	9.22	37.53	9.79	9.81	38.25	32.74	31.43	36.56	31.40	30.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	8.72	0.54	0.58	12.37	0.28	0.31	7.96	0.95	0.54	9.83	1.44	1.15
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	0.78	0.24	0.24	0.76	0.14	0.14	0.54	0.53	0.22	0.78	0.69	0.45
d, Delay for Lane Group [s/veh]	44.82	9.75	9.80	49.90	10.08	10.12	46.21	33.69	31.98	46.39	32.84	31.15
Lane Group LOS	D	A	A	D	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.39	2.00	1.91	1.57	1.10	1.07	0.65	2.11	0.77	2.16	3.66	2.03
50th-Percentile Queue Length [ft/ln]	59.64	50.12	47.68	39.25	27.45	26.79	16.25	52.73	19.13	53.96	91.40	50.65
95th-Percentile Queue Length [veh/ln]	4.29	3.61	3.43	2.83	1.98	1.93	1.17	3.80	1.38	3.88	6.58	3.65
95th-Percentile Queue Length [ft/ln]	107.34	90.21	85.83	70.65	49.42	48.22	29.26	94.92	34.44	97.12	164.52	91.16

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	44.82	9.77	9.80	49.90	10.09	10.12	46.21	33.69	31.98	46.39	32.84	31.15
Movement LOS	D	A	A	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	16.33			18.29			34.60			34.64		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	25.90											
Intersection LOS	C											
Intersection V/C	0.304											

**Emissions**

Vehicle Miles Traveled [mph]	56.63	126.50	119.54	34.54	67.58	65.57	14.68	121.98	22.78	16.63	69.50	19.95
Stops [stops/h]	107.34	90.21	85.83	70.65	49.42	48.22	29.26	189.84	34.44	97.12	329.03	91.16
Fuel consumption [US gal/h]	4.31	5.96	5.64	2.76	3.21	3.12	1.14	8.19	1.50	2.72	9.27	2.58
CO [g/h]	301.00	416.51	394.28	193.12	224.23	217.86	79.66	572.75	104.97	190.23	647.72	180.21
NOx [g/h]	58.56	81.04	76.71	37.57	43.63	42.39	15.50	111.44	20.42	37.01	126.02	35.06
VOC [g/h]	69.76	96.53	91.38	44.76	51.97	50.49	18.46	132.74	24.33	44.09	150.12	41.77

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.631			2.585			2.689			2.767		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			575		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			20.31		
I_b,int, Bicycle LOS Score for Intersection	2.080			1.846			1.830			2.115		
Bicycle LOS	B			A			A			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	92	634	50	62	407	16	13	205	97	107	342	103
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	401	0	0	471	2	11	0	16	0	17	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	13	0	0	5	0	0	31	0	0	28
Total Hourly Volume [veh/h]	102	1092	37	68	915	14	25	223	91	117	390	84
Peak Hour Factor	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802
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]	33	350	12	22	293	4	8	71	29	37	125	27
Total Analysis Volume [veh/h]	131	1400	47	87	1173	18	32	286	117	150	500	108
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	14	47	0	6	39	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	30	0	14	32	0	9	30	0	16	37	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	8	49	49	6	47	47	3	10	10	9	16	16
g / C, Green / Cycle	0.09	0.55	0.55	0.06	0.52	0.52	0.03	0.11	0.11	0.10	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.27	0.03	0.05	0.32	0.01	0.02	0.08	0.07	0.08	0.14	0.07
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	161	2823	881	113	1877	838	56	407	182	184	664	297
d1, Uniform Delay [s]	40.27	12.75	9.58	41.56	15.41	10.53	43.03	38.49	38.21	39.58	34.80	32.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13	0.11	0.11
l, 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]	9.53	0.63	0.12	10.52	1.58	0.05	9.00	2.22	3.78	10.15	1.75	0.75
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	0.81	0.50	0.05	0.77	0.62	0.02	0.57	0.70	0.64	0.81	0.75	0.36
d, Delay for Lane Group [s/veh]	49.80	13.37	9.69	52.08	16.99	10.58	52.03	40.71	42.00	49.73	36.56	32.89
Lane Group LOS	D	B	A	D	B	B	D	D	D	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.14	5.14	0.40	2.15	7.74	0.16	0.81	3.02	2.54	3.72	5.25	2.09
50th-Percentile Queue Length [ft/ln]	78.47	128.45	10.12	53.66	193.51	4.12	20.31	75.50	63.55	93.02	131.27	52.30
95th-Percentile Queue Length [veh/ln]	5.65	8.86	0.73	3.86	12.30	0.30	1.46	5.44	4.58	6.70	9.01	3.77
95th-Percentile Queue Length [ft/ln]	141.25	221.39	18.21	96.60	307.57	7.41	36.56	135.90	114.39	167.44	225.21	94.14

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	49.80	13.37	9.69	52.08	16.99	10.58	52.03	40.71	42.00	49.73	36.56	32.89
Movement LOS	D	B	A	D	B	B	D	D	D	D	D	C
d_A, Approach Delay [s/veh]	16.29			19.29			41.89			38.64		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.17											
Intersection LOS	C											
Intersection V/C	0.559											

**Emissions**

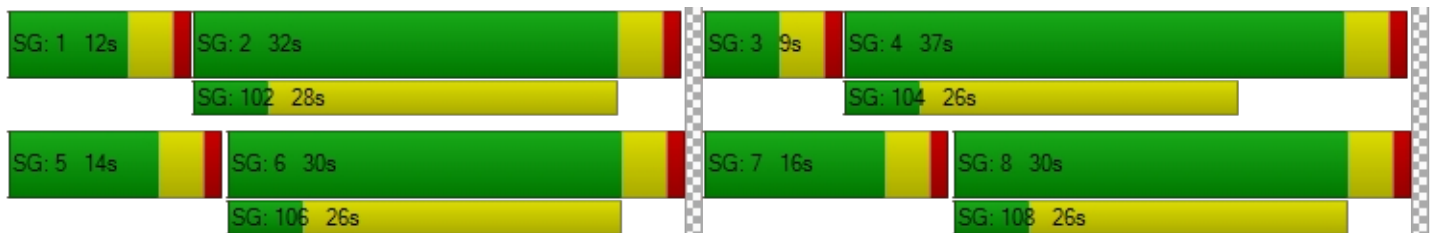
Vehicle Miles Traveled [mph]	7.01	74.94	2.52	38.33	516.85	7.93	3.10	27.75	11.35	75.92	253.06	54.66
Stops [stops/h]	125.56	616.57	16.18	85.86	619.22	6.59	32.50	241.60	101.68	148.84	420.05	83.68
Fuel consumption [US gal/h]	3.13	14.04	0.38	3.30	29.47	0.39	0.85	6.32	2.65	5.47	16.46	3.44
CO [g/h]	218.71	981.72	26.57	230.92	2060.12	27.44	59.37	442.07	185.46	382.04	1150.39	240.13
NOx [g/h]	42.55	191.01	5.17	44.93	400.82	5.34	11.55	86.01	36.08	74.33	223.82	46.72
VOC [g/h]	50.69	227.52	6.16	53.52	477.45	6.36	13.76	102.45	42.98	88.54	266.61	55.65

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.305			3.198			2.874			2.692		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			622			578			733		
d_b, Bicycle Delay [s]	22.76			21.36			22.76			18.05		
I_b,int, Bicycle LOS Score for Intersection	2.435			2.618			1.944			2.208		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.039

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	7	0	13	11	301	0	0	367	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	21	0	0	0	9
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]	0	0	0	8	0	14	12	349	0	0	400	41
Peak Hour Factor	1.0000	1.0000	1.0000	0.7917	1.0000	0.7917	0.6689	0.6689	0.6689	0.7828	0.7828	0.7828
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]	0	0	0	3	0	4	4	130	0	0	128	13
Total Analysis Volume [veh/h]	0	0	0	10	0	18	18	522	0	0	511	52
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.04	0.00	0.02	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.75	22.62	9.84	19.43	0.00	10.12	8.60	0.00	0.00	8.41	0.00	0.00
Movement LOS	C	C	A	C		B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.12	0.00	0.08	0.05	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	2.99	0.00	1.92	1.35	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.07			13.44			0.29			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.47											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

**Intersection Setup**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	170.00	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	55	20	206	58	2	1	84	2	62	87	239
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	21	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]	0	60	22	246	63	2	1	92	2	68	95	261
Peak Hour Factor	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409
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]	0	18	7	73	19	1	0	27	1	20	28	78
Total Analysis Volume [veh/h]	0	71	26	293	75	2	1	109	2	81	113	310
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	521	516	556	461	493	494	513	546	612
Degree of Utilization, x	0.19	0.57	0.14	0.00	0.11	0.11	0.19	0.18	0.51

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.68	3.50	0.48	0.01	0.38	0.38	0.69	0.64	2.87
95th-Percentile Queue Length [ft]	16.95	87.59	11.95	0.16	9.46	9.42	17.29	16.04	71.63
Approach Delay [s/veh]	11.49	16.74		10.91			13.15		
Approach LOS	B	C		B			B		
Intersection Delay [s/veh]	14.00								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	155	3	80	41	1	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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]	169	3	87	45	1	96
Peak Hour Factor	0.6058	0.6058	0.6058	0.6058	0.6058	0.6058
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	1	36	19	0	40
Total Analysis Volume [veh/h]	279	5	144	74	2	158
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.11	0.00	0.01	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	8.14	0.00	14.37	9.92
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.38	0.00	0.02	0.64
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.40	0.00	0.39	16.09
d_A, Approach Delay [s/veh]	0.00		5.38		9.98	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.18					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	66	231	22	54	200	68	56	89	42	36	147	62
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	40	0	0	7	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]	78	292	22	59	225	74	61	97	46	39	160	68
Peak Hour Factor	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457
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]	23	86	7	17	67	22	18	29	14	12	47	20
Total Analysis Volume [veh/h]	92	345	26	70	266	87	72	115	54	46	189	80
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	494	528	536	492	526	551	513	565	496	529	583
Degree of Utilization, x	0.19	0.35	0.35	0.14	0.34	0.32	0.14	0.30	0.09	0.36	0.14

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.68	1.57	1.53	0.49	1.47	1.37	0.48	1.25	0.31	1.61	0.47
95th-Percentile Queue Length [ft]	16.94	39.14	38.37	12.34	36.70	34.27	12.12	31.24	7.63	40.23	11.84
Approach Delay [s/veh]	12.77			12.39			11.50			12.02	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	12.28										
Intersection LOS	B										

**Intersection Level Of Service Report  
Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	32	621	138	15	612	12	21	4	18	211	4	47
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	402	0	0	485	2	1	0	10	0	6	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	38	0	0	4	0	0	8	0	0	13
Total Hourly Volume [veh/h]	43	1079	112	16	1152	11	24	4	22	230	10	38
Peak Hour Factor	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417
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]	11	286	30	4	306	3	6	1	6	61	3	10
Total Analysis Volume [veh/h]	46	1146	119	17	1223	12	25	4	23	244	11	40
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	5	21	0	0	12	0	0	10	0	0	37	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	27	0	0	16	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall	No	No			No			No			No	
Maximum Recall	No	No			No			No			No	
Pedestrian Recall	No	No			No			No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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	2.00	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]	3	48	48	41	41	41	7	13	13	13
g / C, Green / Cycle	0.04	0.60	0.60	0.51	0.51	0.51	0.09	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.04	0.24	0.01	0.03	0.13	0.01	0.02
s, saturation flow rate [veh/h]	1810	3618	1810	445	5176	1615	1724	1810	1900	1615
c, Capacity [veh/h]	73	2170	1086	246	2637	823	148	297	312	265
d1, Uniform Delay [s]	37.80	8.35	8.35	17.49	12.60	9.70	34.46	32.30	28.10	28.65
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, 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]	8.60	0.53	1.05	0.54	0.59	0.03	1.41	5.61	0.05	0.26
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	0.63	0.39	0.39	0.07	0.46	0.01	0.35	0.82	0.04	0.15
d, Delay for Lane Group [s/veh]	46.39	8.88	9.40	18.03	13.19	9.73	35.87	37.91	28.15	28.91
Lane Group LOS	D	A	A	B	B	A	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.05	3.45	3.62	0.23	4.05	0.10	1.00	4.95	0.18	0.67
50th-Percentile Queue Length [ft/ln]	26.13	86.35	90.41	5.71	101.28	2.40	25.12	123.86	4.50	16.81
95th-Percentile Queue Length [veh/ln]	1.88	6.22	6.51	0.41	7.29	0.17	1.81	8.60	0.32	1.21
95th-Percentile Queue Length [ft/ln]	47.03	155.43	162.74	10.28	182.31	4.32	45.22	215.12	8.11	30.25

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.39	9.02	9.40	18.03	13.19	9.73	35.87	35.87	35.87	37.91	28.15	28.91
Movement LOS	D	A	A	B	B	A	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	10.36			13.23			35.87			36.33		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	14.68											
Intersection LOS	B											
Intersection V/C	0.427											

**Emissions**

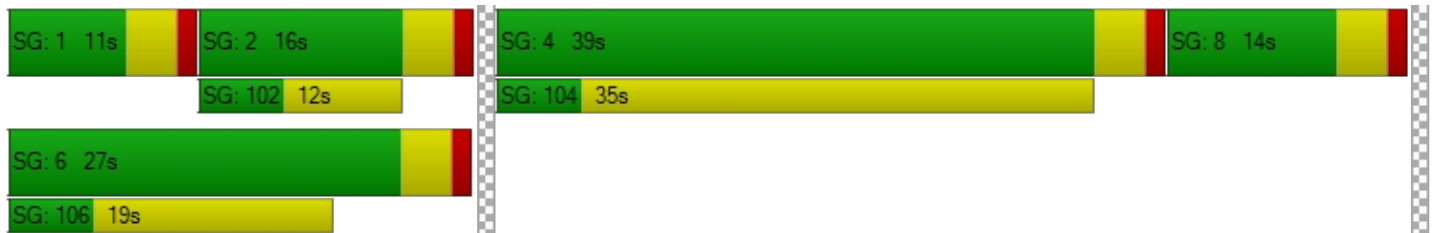
Vehicle Miles Traveled [mph]	22.96	420.73	210.60	1.64	118.33	1.16	4.15	123.27	5.56	20.21
Stops [stops/h]	47.03	310.87	162.74	10.28	546.92	4.32	45.22	222.94	8.11	30.25
Fuel consumption [US gal/h]	1.64	20.56	10.38	0.25	14.14	0.12	0.74	8.28	0.34	1.26
CO [g/h]	114.58	1437.19	725.31	17.23	988.40	8.19	51.69	578.83	24.05	88.08
NOx [g/h]	22.29	279.63	141.12	3.35	192.31	1.59	10.06	112.62	4.68	17.14
VOC [g/h]	26.55	333.08	168.10	3.99	229.07	1.90	11.98	134.15	5.57	20.41

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.254	1.776	2.268
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	575	300	250	875
d_b, Bicycle Delay [s]	20.31	28.90	30.63	12.66
I_b,int, Bicycle LOS Score for Intersection	2.302	2.250	1.659	2.068
Bicycle LOS	B	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	39.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	83	94	199	119	113	226	111	424	45	173	598	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	48	0	0	55	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	54	0	0	62	0	0	12	0	0	37
Total Hourly Volume [veh/h]	90	102	163	130	123	184	121	510	37	189	707	112
Peak Hour Factor	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102
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]	32	36	57	46	43	65	43	180	13	67	249	39
Total Analysis Volume [veh/h]	127	144	230	183	173	259	170	718	52	266	995	158
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	18	35	0	14	31	0	19	26	0	29	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	34	0	16	35	0	15	28	0	22	35	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
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
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
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
g_i, Effective Green Time [s]	9	31	12	35	35	11	24	24	17	30	30
g / C, Green / Cycle	0.09	0.31	0.12	0.35	0.35	0.11	0.24	0.24	0.17	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.07	0.22	0.10	0.09	0.16	0.09	0.20	0.03	0.15	0.28	0.10
s, saturation flow rate [veh/h]	1810	1714	1810	1900	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	159	539	214	656	557	199	874	390	299	1074	480
d1, Uniform Delay [s]	44.74	30.06	43.22	23.59	25.54	43.71	35.87	29.71	40.83	34.08	27.39
k, delay calibration	0.11	0.50	0.21	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	8.85	7.20	16.51	0.98	2.77	9.93	2.00	0.15	8.84	4.04	0.40
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
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
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

**Lane Group Results**

X, volume / capacity	0.80	0.69	0.85	0.26	0.46	0.85	0.82	0.13	0.89	0.93	0.33
d, Delay for Lane Group [s/veh]	53.59	37.25	59.73	24.57	28.31	53.64	37.87	29.86	49.68	38.13	27.79
Lane Group LOS	D	D	E	C	C	D	D	C	D	D	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.49	8.91	5.43	3.13	5.21	4.43	7.88	0.93	6.71	11.25	2.77
50th-Percentile Queue Length [ft/ln]	87.27	222.82	135.69	78.27	130.35	110.83	196.88	23.31	167.84	281.20	69.24
95th-Percentile Queue Length [veh/ln]	6.28	13.81	9.25	5.64	8.96	7.89	12.48	1.68	10.96	16.75	4.99
95th-Percentile Queue Length [ft/ln]	157.08	345.22	231.20	140.89	223.97	197.16	311.93	41.95	274.07	418.70	124.63

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.59	37.25	37.25	59.73	24.57	28.31	53.64	37.87	29.86	49.68	38.13	27.79
Movement LOS	D	D	D	E	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]	41.39			36.61			40.28			39.14		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	39.33											
Intersection LOS	D											
Intersection V/C	0.688											

**Emissions**

Vehicle Miles Traveled [mph]	17.81	52.46	25.47	24.08	36.05	85.07	359.32	26.02	69.49	259.92	41.27
Stops [stops/h]	125.67	320.86	195.39	112.72	187.70	159.60	567.01	33.56	241.68	809.84	99.70
Fuel consumption [US gal/h]	2.67	6.43	4.12	2.38	3.83	7.67	28.08	1.81	9.50	31.46	4.13
CO [g/h]	186.50	449.12	287.92	166.38	267.95	535.86	1963.12	126.51	664.23	2198.84	288.41
NOx [g/h]	36.29	87.38	56.02	32.37	52.13	104.26	381.95	24.61	129.23	427.81	56.11
VOC [g/h]	43.22	104.09	66.73	38.56	62.10	124.19	454.97	29.32	153.94	509.60	66.84

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.310	2.467	3.190	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	620	480	620
d_b, Bicycle Delay [s]	24.50	23.81	28.88	23.81
I_b,int, Bicycle LOS Score for Intersection	2.475	2.677	2.345	2.761
Bicycle LOS	B	B	B	C

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 25: Neuvo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	23.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.562

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	95	228	136	25	238	75	77	416	109	212	782	31
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	0	7	0	23	48	0	0	55	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	37	0	0	21	0	0	30	0	0	9
Total Hourly Volume [veh/h]	104	272	111	27	266	61	107	501	89	231	907	25
Peak Hour Factor	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051
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]	29	75	31	7	73	17	30	138	25	64	251	7
Total Analysis Volume [veh/h]	115	301	123	30	294	67	118	554	98	255	1002	28
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	22	0	0	22	0	6	22	0	14	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	26	0	0	26	0	13	26	0	18	31	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	29	29	29	29	6	17	17	12	23	23
g / C, Green / Cycle	0.42	0.42	0.42	0.42	0.08	0.24	0.24	0.17	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.11	0.16	0.08	0.22	0.07	0.15	0.06	0.14	0.28	0.02
s, saturation flow rate [veh/h]	1037	1900	1615	1776	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	292	797	678	801	156	874	390	303	1169	522
d1, Uniform Delay [s]	19.34	14.01	12.76	14.97	31.28	23.77	21.43	28.25	22.18	16.32
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.20	0.11	0.11
l, 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]	3.96	1.36	0.59	2.13	7.37	0.77	0.33	10.95	1.94	0.04
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	0.39	0.38	0.18	0.49	0.76	0.63	0.25	0.84	0.86	0.05
d, Delay for Lane Group [s/veh]	23.30	15.38	13.35	17.09	38.65	24.53	21.76	39.19	24.12	16.36
Lane Group LOS	C	B	B	B	D	C	C	D	C	B
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.76	3.05	1.14	4.29	2.14	3.83	1.23	4.74	7.12	0.29
50th-Percentile Queue Length [ft/ln]	44.12	76.36	28.38	107.29	53.58	95.72	30.69	118.49	178.12	7.15
95th-Percentile Queue Length [veh/ln]	3.18	5.50	2.04	7.69	3.86	6.89	2.21	8.31	11.50	0.52
95th-Percentile Queue Length [ft/ln]	79.41	137.45	51.09	192.23	96.45	172.29	55.25	207.75	287.56	12.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	23.30	15.38	13.35	17.09	17.09	17.09	38.65	24.53	21.76	39.19	24.12	16.36
Movement LOS	C	B	B	B	B	B	D	C	C	D	C	B
d_A, Approach Delay [s/veh]	16.60			17.09			26.34			26.94		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	23.63											
Intersection LOS	C											
Intersection V/C	0.562											

**Emissions**

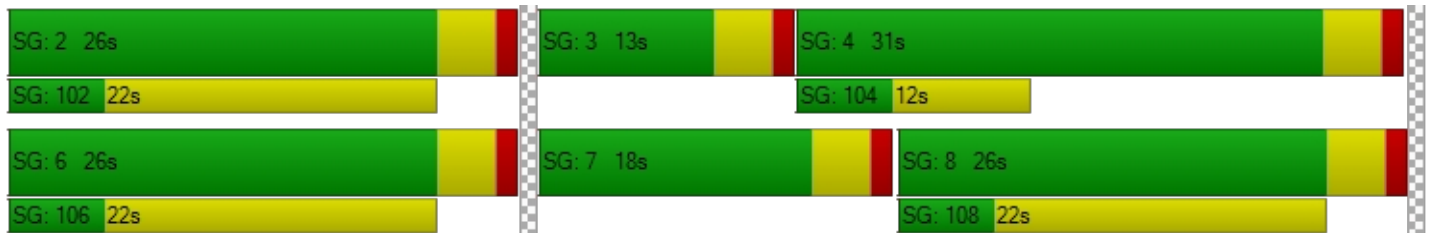
Vehicle Miles Traveled [mph]	43.45	113.73	46.47	196.45	59.70	280.27	49.58	127.61	501.44	14.01
Stops [stops/h]	90.75	157.08	58.39	220.71	110.22	393.81	63.14	243.75	732.85	14.72
Fuel consumption [US gal/h]	3.16	6.79	2.65	10.84	4.15	16.67	2.83	9.00	30.08	0.74
CO [g/h]	221.10	474.85	185.46	757.58	290.03	1165.52	197.83	629.07	2102.58	51.71
NOx [g/h]	43.02	92.39	36.08	147.40	56.43	226.77	38.49	122.39	409.09	10.06
VOC [g/h]	51.24	110.05	42.98	175.58	67.22	270.12	45.85	145.79	487.29	11.98

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersectio	2.708	2.368	3.082	2.939
Crosswalk LOS	B	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]	629	629	629	771
d_b, Bicycle Delay [s]	16.46	16.46	16.46	13.21
I_b,int, Bicycle LOS Score for Intersection	2.510	2.239	2.220	2.627
Bicycle LOS	B	B	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	43.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.751

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	187	510	213	151	374	177	245	505	98	256	617	164
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	356	1	1	420	74	52	69	2	2	51	2
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	58	0	0	67	0	0	27	0	0	45
Total Hourly Volume [veh/h]	205	912	175	166	828	200	319	619	82	281	724	136
Peak Hour Factor	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432
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	270	52	49	245	59	95	184	24	83	215	40
Total Analysis Volume [veh/h]	243	1082	208	197	982	237	378	734	97	333	859	161
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	17	43	0	8	34	14	14	32	0	21	39	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	24	48	0	12	36	17	17	36	0	24	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	5	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	

**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	R	L	C	R	L	C	R
C, Calculated 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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	51	51	8	41	58	13	31	31	14	32	32
g / C, Green / Cycle	0.15	0.43	0.43	0.07	0.34	0.49	0.11	0.26	0.26	0.11	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.13	0.30	0.13	0.06	0.27	0.08	0.11	0.20	0.06	0.09	0.24	0.10
s, saturation flow rate [veh/h]	1810	3618	1615	3514	3618	2859	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	271	1545	690	234	1245	1388	381	933	416	404	957	427
d1, Uniform Delay [s]	50.10	28.09	22.60	55.37	35.44	17.31	53.45	41.46	35.16	51.91	42.57	36.05
k, delay calibration	0.29	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	22.49	2.67	1.12	7.90	5.13	0.27	19.83	1.52	0.28	4.28	3.33	0.55
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	0.90	0.70	0.30	0.84	0.79	0.17	0.99	0.79	0.23	0.82	0.90	0.38
d, Delay for Lane Group [s/veh]	72.59	30.76	23.72	63.27	40.57	17.57	73.29	42.98	35.44	56.19	45.89	36.60
Lane Group LOS	E	C	C	E	D	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.65	12.55	3.92	3.13	13.21	1.80	6.64	10.05	2.24	5.06	12.38	3.85
50th-Percentile Queue Length [ft/ln]	216.23	313.82	98.02	78.29	330.31	45.11	165.91	251.13	56.01	126.38	309.39	96.35
95th-Percentile Queue Length [veh/ln]	13.47	18.36	7.06	5.64	19.17	3.25	10.86	15.24	4.03	8.74	18.14	6.94
95th-Percentile Queue Length [ft/ln]	336.80	459.08	176.43	140.92	479.34	81.20	271.53	381.08	100.81	218.57	453.62	173.43

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	72.59	30.76	23.72	63.27	40.57	17.57	73.29	42.98	35.44	56.19	45.89	36.60
Movement LOS	E	C	C	E	D	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	36.43			39.88			51.85			47.32		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	43.37											
Intersection LOS	D											
Intersection V/C	0.751											

**Emissions**

Vehicle Miles Traveled [mph]	91.48	407.34	78.31	98.32	490.09	118.28	84.19	163.48	21.60	168.47	434.58	81.45
Stops [stops/h]	259.47	753.17	117.62	187.89	792.75	108.26	398.18	602.72	67.21	303.31	742.54	115.62
Fuel consumption [US gal/h]	9.95	30.10	5.15	8.24	34.76	6.25	12.56	18.20	2.13	12.82	30.88	5.25
CO [g/h]	695.58	2103.93	360.03	576.15	2429.92	436.73	878.22	1271.90	149.15	896.22	2158.71	367.15
NOx [g/h]	135.33	409.35	70.05	112.10	472.77	84.97	170.87	247.46	29.02	174.37	420.01	71.43
VOC [g/h]	161.21	487.61	83.44	133.53	563.16	101.22	203.54	294.77	34.57	207.71	500.30	85.09

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.289			3.471			3.208			3.155		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	733			533			533			650		
d_b, Bicycle Delay [s]	24.07			32.27			32.27			27.34		
I_b,int, Bicycle LOS Score for Intersection	2.872			2.783			2.579			2.713		
Bicycle LOS	C			C			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 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	21.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.600

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	148	0	1107	942	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0900	1.0000	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	337	297	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]	0	161	0	1544	1324	77
Peak Hour Factor	1.0000	0.8409	1.0000	0.7814	0.9648	0.9648
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	48	0	494	343	20
Total Analysis Volume [veh/h]	0	191	0	1976	1372	80
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.60	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	21.07	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.23	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	30.77	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.07		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.11					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	18.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	192	0	423	0	0	0	69	686	0	0	719	372
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0000	1.0000	1.0000	1.0900	1.0900	1.0000	1.0000	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	89	0	168	0	0	0	45	169	0	0	149	148
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	157	0	0	0	0	0	0	0	0	138
Total Hourly Volume [veh/h]	298	0	472	0	0	0	120	917	0	0	933	415
Peak Hour Factor	0.8887	0.8887	0.8887	1.0000	1.0000	1.0000	0.8887	0.8887	1.0000	1.0000	0.8887	0.8887
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]	84	0	133	0	0	0	34	258	0	0	262	117
Total Analysis Volume [veh/h]	335	0	531	0	0	0	135	1032	0	0	1050	467
Presence of On-Street Parking	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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	22	0	0	0	0	7	50	0	0	39	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	25	0	0	0	0	11	45	0	0	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	70	70		70	70	70	70
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27		7	35	24	24
g / C, Green / Cycle	0.39	0.39		0.09	0.50	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.19	0.19		0.07	0.29	0.20	0.29
s, saturation flow rate [veh/h]	1810	2859		1810	3618	5176	1615
c, Capacity [veh/h]	695	1099		171	1814	1810	565
d1, Uniform Delay [s]	16.28	16.29		31.01	12.17	18.56	20.82
k, delay calibration	0.50	0.50		0.17	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.38	1.52		11.98	0.28	0.30	3.16
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.48	0.48		0.79	0.57	0.58	0.83
d, Delay for Lane Group [s/veh]	18.66	17.82		42.99	12.46	18.86	23.98
Lane Group LOS	B	B		D	B	B	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.00	3.04		2.65	4.67	4.14	6.62
50th-Percentile Queue Length [ft/ln]	100.09	76.07		66.28	116.78	103.52	165.42
95th-Percentile Queue Length [veh/ln]	7.21	5.48		4.77	8.22	7.45	10.84
95th-Percentile Queue Length [ft/ln]	180.16	136.93		119.30	205.40	186.34	270.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	18.66	18.66	17.82	0.00	0.00	0.00	42.99	12.46	0.00	0.00	18.86	23.98
Movement LOS	B	B	B				D	B			B	C
d_A, Approach Delay [s/veh]	18.14			0.00			15.99			20.44		
Approach LOS	B			A			B			C		
d_I, Intersection Delay [s/veh]	18.41											
Intersection LOS	B											
Intersection V/C	0.550											

**Emissions**

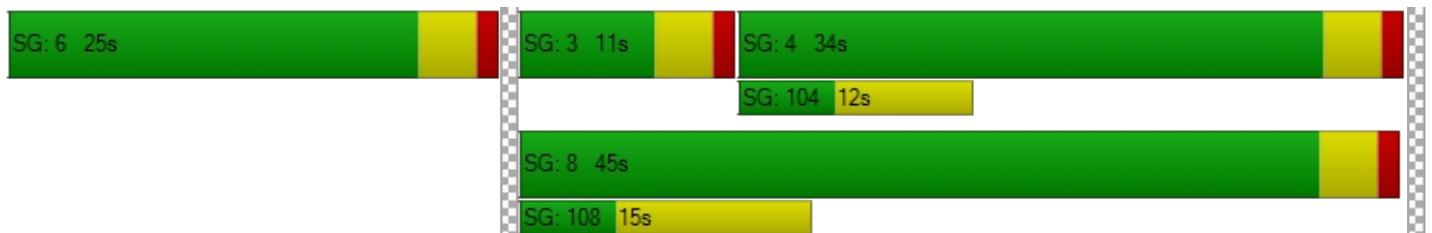
Vehicle Miles Traveled [mph]	58.23	92.30		11.18	85.50	57.71	25.67
Stops [stops/h]	205.90	312.99		136.35	480.48	638.87	340.29
Fuel consumption [US gal/h]	5.38	8.31		2.92	10.40	12.37	6.54
CO [g/h]	376.13	580.61		204.19	726.88	864.90	457.21
NOx [g/h]	73.18	112.97		39.73	141.42	168.28	88.96
VOC [g/h]	87.17	134.56		47.32	168.46	200.45	105.96

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.596	2.064	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	0	1171	857
d_b, Bicycle Delay [s]	17.15	35.00	6.01	11.43
I_b,int, Bicycle LOS Score for Intersection	3.248	4.132	2.522	2.470
Bicycle LOS	C	D	B	B

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	18.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	276	1	77	0	479	130	325	586	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	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	168	0	89	0	46	45	148	89	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	43	0	0	47	0	0	0
Total Hourly Volume [veh/h]	0	0	0	469	1	130	0	568	140	502	728	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8189	0.8189	0.8189	1.0000	0.7346	0.7346	0.9069	0.9069	1.0000
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]	0	0	0	143	0	40	0	193	48	138	201	0
Total Analysis Volume [veh/h]	0	0	0	573	1	159	0	773	191	554	803	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	28	0	10	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	18	0	28	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	C	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		16	16	16	19	19	13	36
g / C, Green / Cycle		0.27	0.27	0.27	0.32	0.32	0.21	0.60
(v / s)_i Volume / Saturation Flow Rate		0.16	0.16	0.10	0.25	0.27	0.16	0.22
s, saturation flow rate [veh/h]		1810	1810	1615	1900	1776	3514	3618
c, Capacity [veh/h]		480	480	428	616	576	741	2176
d1, Uniform Delay [s]		19.26	19.26	17.97	18.36	18.81	22.18	6.12
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.43	5.42	2.46	2.22	3.33	1.54	0.10
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		0.60	0.60	0.37	0.78	0.84	0.75	0.37
d, Delay for Lane Group [s/veh]		24.68	24.68	20.44	20.58	22.13	23.72	6.22
Lane Group LOS		C	C	C	C	C	C	A
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		3.76	3.76	1.86	5.49	5.77	3.39	1.74
50th-Percentile Queue Length [ft/ln]		93.95	93.96	46.56	137.35	144.25	84.83	43.56
95th-Percentile Queue Length [veh/ln]		6.76	6.76	3.35	9.34	9.71	6.11	3.14
95th-Percentile Queue Length [ft/ln]		169.11	169.12	83.80	233.45	242.74	152.69	78.41

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	24.68	24.68	20.44	0.00	21.17	22.13	23.72	6.22	0.00
Movement LOS				C	C	C		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			23.76			21.36			13.37		
Approach LOS	A			C			C			B		
d_I, Intersection Delay [s/veh]	18.38											
Intersection LOS	B											
Intersection V/C	0.588											

**Emissions**

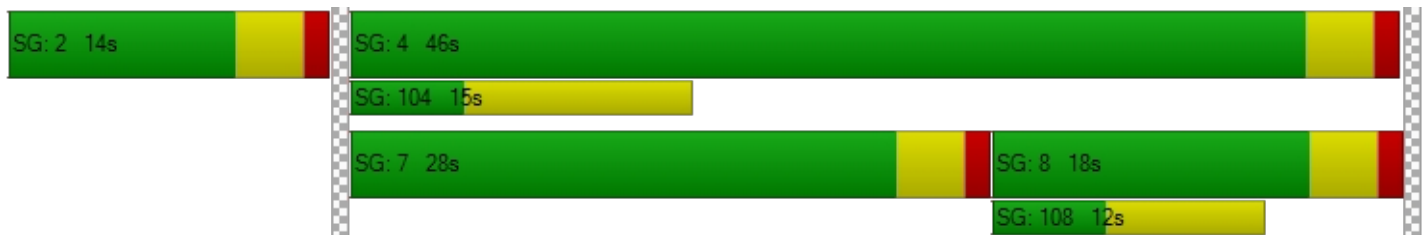
Vehicle Miles Traveled [mph]		24.81	24.82	13.75	127.75	127.75	45.90	66.53
Stops [stops/h]		225.48	225.50	111.73	329.63	346.20	407.18	209.08
Fuel consumption [US gal/h]		4.55	4.55	2.25	9.83	10.15	8.32	5.45
CO [g/h]		317.73	317.76	157.37	687.34	709.35	581.46	381.26
NOx [g/h]		61.82	61.82	30.62	133.73	138.01	113.13	74.18
VOC [g/h]		73.64	73.64	36.47	159.30	164.40	134.76	88.36

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.082	2.318	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	467	1400
d_b, Bicycle Delay [s]	30.00	20.83	17.63	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.840	2.394	2.679
Bicycle LOS	D	C	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	21.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.776

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	70	382	10	29	591	45	63	23	61	13	55	37
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	0	7	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]	76	439	11	32	651	49	69	25	66	14	60	40
Peak Hour Factor	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569
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]	22	128	3	9	190	14	20	7	19	4	18	12
Total Analysis Volume [veh/h]	89	512	13	37	760	57	81	29	77	16	70	47
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	472	505	508	490	527	534	476	469
Degree of Utilization, x	0.19	0.52	0.52	0.08	0.78	0.76	0.39	0.28

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.69	2.96	2.93	0.24	7.03	6.80	1.85	1.16
95th-Percentile Queue Length [ft]	17.22	73.95	73.31	6.10	175.74	169.92	46.29	28.96
Approach Delay [s/veh]	16.47			27.89			15.41	13.71
Approach LOS	C			D			C	B
Intersection Delay [s/veh]	21.61							
Intersection LOS	C							

**Intersection Level Of Service Report**  
**Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	1001	201	46	655	161	129
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	358	0	0	423	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
Right Turn on Red Volume [veh/h]	0	55	0	0	0	35
Total Hourly Volume [veh/h]	1449	164	50	1137	175	106
Peak Hour Factor	0.8199	0.8199	0.8199	0.8199	0.8199	0.8199
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	442	50	15	347	53	32
Total Analysis Volume [veh/h]	1767	200	61	1387	213	129
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	61	0	5	70	22	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	37	0	36	73	27	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	69	69	4	78	14	14
g / C, Green / Cycle	0.69	0.69	0.04	0.78	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.52	0.54	0.03	0.38	0.12	0.08
s, saturation flow rate [veh/h]	1900	1834	1810	3618	1810	1615
c, Capacity [veh/h]	1318	1273	82	2818	255	228
d1, Uniform Delay [s]	9.71	10.10	47.17	3.96	41.83	40.11
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.88	4.60	12.55	0.62	7.07	2.21
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.75	0.77	0.75	0.49	0.84	0.57
d, Delay for Lane Group [s/veh]	13.59	14.71	59.72	4.57	48.89	42.32
Lane Group LOS	B	B	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	11.46	12.07	1.74	3.13	5.62	3.11
50th-Percentile Queue Length [ft/ln]	286.51	301.73	43.38	78.29	140.51	77.83
95th-Percentile Queue Length [veh/ln]	17.01	17.77	3.12	5.64	9.51	5.60
95th-Percentile Queue Length [ft/ln]	425.31	444.17	78.08	140.92	237.70	140.09

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	14.09	14.71	59.72	4.57	48.89	42.32
Movement LOS	B	B	E	A	D	D
d_A, Approach Delay [s/veh]	14.15		6.90		46.41	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	14.29					
Intersection LOS	B					
Intersection V/C	0.688					

**Emissions**

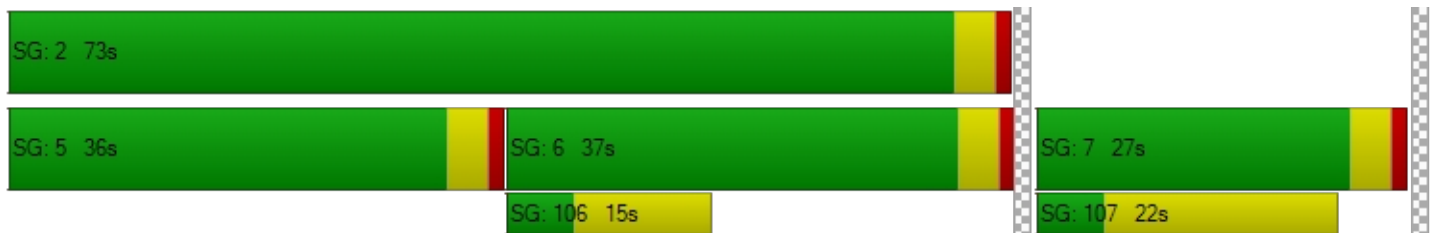
Vehicle Miles Traveled [mph]	427.02	427.02	22.96	522.17	106.92	64.75
Stops [stops/h]	412.57	434.50	62.47	225.47	202.33	112.07
Fuel consumption [US gal/h]	22.49	22.98	2.31	21.99	7.70	4.45
CO [g/h]	1571.88	1606.52	161.12	1537.34	538.45	311.23
NOx [g/h]	305.83	312.57	31.35	299.11	104.76	60.55
VOC [g/h]	364.30	372.33	37.34	356.29	124.79	72.13

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		41.41		41.41	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.295		2.184	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	660		1380		460	
d_b, Bicycle Delay [s]	22.45		4.81		29.65	
I_b,int, Bicycle LOS Score for Intersection	3.228		2.754		1.560	
Bicycle LOS	C		C		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	62	727	8	59	577	233	172	65	55	1	93	98
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	337	0	11	411	0	0	0	0	0	0	22
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	2	0	0	64	0	0	15	0	0	32
Total Hourly Volume [veh/h]	68	1129	7	75	1040	190	187	71	45	1	101	97
Peak Hour Factor	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922
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]	21	356	2	24	328	60	59	22	14	0	32	31
Total Analysis Volume [veh/h]	86	1425	9	95	1313	240	236	90	57	1	127	122
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	41	0	11	42	0	16	26	0	16	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	34	0	12	35	0	34	35	0	29	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	7	60	60	7	60	60	16	27	27	0	11	11
g / C, Green / Cycle	0.06	0.54	0.54	0.07	0.55	0.55	0.15	0.24	0.24	0.00	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.05	0.39	0.01	0.05	0.36	0.15	0.13	0.05	0.04	0.00	0.07	0.08
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	109	1957	874	120	1978	883	271	464	395	6	185	158
d1, Uniform Delay [s]	50.98	19.13	11.66	50.62	17.74	13.27	45.71	32.97	32.55	54.69	47.99	48.44
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.72	2.42	0.02	11.15	1.78	0.76	8.42	0.20	0.17	14.15	4.41	7.83
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	0.79	0.73	0.01	0.79	0.66	0.27	0.87	0.19	0.14	0.18	0.68	0.77
d, Delay for Lane Group [s/veh]	62.70	21.54	11.68	61.77	19.52	14.03	54.13	33.17	32.72	68.84	52.41	56.28
Lane Group LOS	E	C	B	E	B	B	D	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.63	12.94	0.10	2.87	11.07	3.08	6.72	1.87	1.17	0.05	3.50	3.51
50th-Percentile Queue Length [ft/ln]	65.65	323.44	2.49	71.85	276.80	77.03	167.95	46.74	29.28	1.23	87.40	87.82
95th-Percentile Queue Length [veh/ln]	4.73	18.84	0.18	5.17	16.53	5.55	10.97	3.37	2.11	0.09	6.29	6.32
95th-Percentile Queue Length [ft/ln]	118.18	470.91	4.49	129.34	413.22	138.66	274.21	84.13	52.70	2.22	157.33	158.07

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	62.70	21.54	11.68	61.77	19.52	14.03	54.13	33.17	32.72	68.84	52.41	56.28
Movement LOS	E	C	B	E	B	B	D	C	C	E	D	E
d_A, Approach Delay [s/veh]	23.81			21.16			46.02			54.36		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	26.91											
Intersection LOS	C											
Intersection V/C	0.652											

**Emissions**

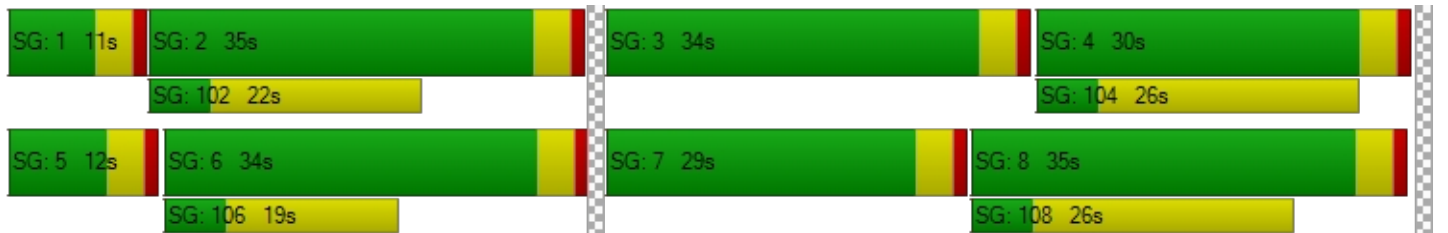
Vehicle Miles Traveled [mph]	24.87	412.10	2.60	18.24	252.13	46.09	26.60	10.14	6.42	0.13	16.03	15.40
Stops [stops/h]	85.95	846.81	3.26	94.06	724.70	100.84	219.86	61.18	38.33	1.61	114.42	114.96
Fuel consumption [US gal/h]	3.02	30.90	0.15	2.99	22.87	3.52	6.24	1.72	1.08	0.04	3.33	3.35
CO [g/h]	210.98	2160.06	10.57	208.92	1598.49	245.98	436.51	119.94	75.23	2.68	232.53	234.47
NOx [g/h]	41.05	420.27	2.06	40.65	311.01	47.86	84.93	23.34	14.64	0.52	45.24	45.62
VOC [g/h]	48.90	500.61	2.45	48.42	370.47	57.01	101.17	27.80	17.44	0.62	53.89	54.34

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.176			3.415			2.600			2.363		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	545			564			564			473		
d_b, Bicycle Delay [s]	29.09			28.37			28.37			32.07		
I_b,int, Bicycle LOS Score for Intersection	2.815			2.972			2.216			1.792		
Bicycle LOS	C			C			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 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	32.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	50	195	85	16	57	38	101	876	57	28	1438	110
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	15	0	0	5	1	276	0	28	383	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	27	0	0	12	0	0	16	0	0	30
Total Hourly Volume [veh/h]	55	213	81	17	62	34	111	1231	46	59	1950	90
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
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	58	22	5	17	9	30	335	13	16	530	24
Total Analysis Volume [veh/h]	60	232	88	18	67	37	121	1340	50	64	2122	98
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	35	0	5	32	0	9	56	0	8	55	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	39	0	11	36	0	17	58	0	12	53	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	5	40	40	2	37	37	10	56	56	5	52	52
g / C, Green / Cycle	0.04	0.33	0.33	0.02	0.31	0.31	0.08	0.47	0.47	0.05	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.09	0.01	0.02	0.02	0.07	0.26	0.03	0.04	0.41	0.06
s, saturation flow rate [veh/h]	1810	1900	1727	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	78	632	574	35	1115	498	148	2429	758	83	2244	700
d1, Uniform Delay [s]	56.81	29.28	29.38	58.31	29.25	29.38	54.23	22.80	17.44	56.64	32.64	20.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.14	0.11	0.11	0.11	0.11	0.11
l, 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]	14.40	1.00	1.16	11.59	0.10	0.29	12.91	0.20	0.04	14.05	2.72	0.09
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	0.77	0.26	0.27	0.52	0.06	0.07	0.82	0.55	0.07	0.77	0.95	0.14
d, Delay for Lane Group [s/veh]	71.21	30.28	30.53	69.90	29.35	29.67	67.14	22.99	17.47	70.69	35.36	20.59
Lane Group LOS	E	C	C	E	C	C	E	C	B	E	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.07	3.55	3.37	0.64	0.68	0.78	3.98	8.27	0.71	2.17	18.36	1.57
50th-Percentile Queue Length [ft/ln]	51.78	88.81	84.28	16.03	17.04	19.47	99.45	206.74	17.79	54.17	459.00	39.15
95th-Percentile Queue Length [veh/ln]	3.73	6.39	6.07	1.15	1.23	1.40	7.16	12.99	1.28	3.90	25.39	2.82
95th-Percentile Queue Length [ft/ln]	93.20	159.85	151.71	28.85	30.68	35.04	179.01	324.64	32.03	97.51	634.68	70.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.21	30.35	30.53	69.90	29.35	29.67	67.14	22.99	17.47	70.69	35.36	20.59
Movement LOS	E	C	C	E	C	C	E	C	B	E	D	C
d_A, Approach Delay [s/veh]	36.85			35.43			26.35			35.72		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	32.51											
Intersection LOS	C											
Intersection V/C	0.577											

**Emissions**

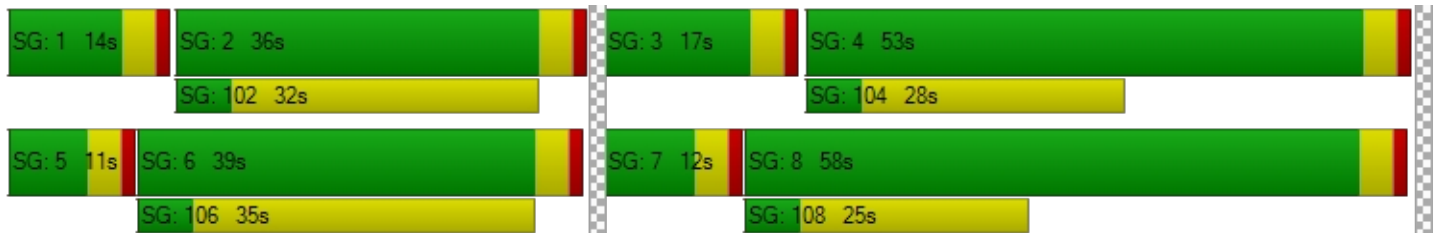
Vehicle Miles Traveled [mph]	34.84	95.75	90.08	3.15	11.73	6.48	13.72	151.97	5.67	15.99	530.33	24.49
Stops [stops/h]	62.13	106.57	101.14	19.23	40.90	23.36	119.34	744.27	21.35	65.01	1652.39	46.98
Fuel consumption [US gal/h]	2.84	5.62	5.31	0.60	1.31	0.74	4.33	25.18	0.76	2.66	63.70	2.10
CO [g/h]	198.25	393.06	371.11	42.16	91.63	51.44	302.58	1759.96	53.41	186.14	4452.73	146.97
NOx [g/h]	38.57	76.47	72.20	8.20	17.83	10.01	58.87	342.42	10.39	36.22	866.34	28.60
VOC [g/h]	45.95	91.09	86.01	9.77	21.24	11.92	70.13	407.89	12.38	43.14	1031.96	34.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	2.530			2.635			3.634			3.630		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			900			817		
d_b, Bicycle Delay [s]	30.10			32.27			18.15			21.00		
l_b,int, Bicycle LOS Score for Intersection	1.895			1.670			2.399			2.832		
Bicycle LOS	A			A			B			C		

**Sequence**





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



**Intersection Level Of Service Report  
Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.232

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	55	354	10	9	104	21	15	115	50	12	154	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	0	0	28	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	3	0	0	6	0	0	14	0	0	1
Total Hourly Volume [veh/h]	60	401	8	10	141	17	16	125	41	13	168	2
Peak Hour Factor	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240
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]	21	138	3	3	49	6	6	43	14	4	58	1
Total Analysis Volume [veh/h]	83	554	11	14	195	23	22	173	57	18	232	3
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	26	0	8	22	0	5	25	0	5	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	12	26	0	9	29	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	51	51	1	47	47	2	10	10	2	10	10
g / C, Green / Cycle	0.06	0.63	0.63	0.02	0.59	0.59	0.02	0.13	0.13	0.02	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.05	0.15	0.15	0.01	0.06	0.06	0.01	0.06	0.06	0.01	0.06	0.06
s, saturation flow rate [veh/h]	1810	1900	1887	1810	1900	1831	1810	1900	1744	1810	1900	1891
c, Capacity [veh/h]	109	1202	1193	31	1120	1079	44	246	226	38	239	238
d1, Uniform Delay [s]	37.02	6.35	6.35	38.92	7.16	7.16	38.54	32.32	32.42	38.73	32.59	32.59
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.36	0.46	0.47	9.58	0.17	0.19	8.37	1.44	1.71	8.96	1.57	1.58
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	0.76	0.24	0.24	0.45	0.10	0.10	0.50	0.48	0.50	0.48	0.49	0.49
d, Delay for Lane Group [s/veh]	47.38	6.82	6.82	48.51	7.33	7.35	46.90	33.75	34.13	47.69	34.15	34.17
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.82	1.68	1.67	0.34	0.70	0.69	0.52	2.13	2.07	0.43	2.15	2.15
50th-Percentile Queue Length [ft/ln]	45.52	41.96	41.74	8.54	17.48	17.29	12.91	53.24	51.65	10.83	53.79	53.71
95th-Percentile Queue Length [veh/ln]	3.28	3.02	3.01	0.61	1.26	1.24	0.93	3.83	3.72	0.78	3.87	3.87
95th-Percentile Queue Length [ft/ln]	81.94	75.53	75.13	15.37	31.47	31.12	23.24	95.82	92.97	19.50	96.83	96.68

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.38	6.82	6.82	48.51	7.34	7.35	46.90	33.87	34.13	47.69	34.16	34.17
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	12.01			9.82			35.07			35.12		
Approach LOS	B			A			D			D		
d_I, Intersection Delay [s/veh]	20.06											
Intersection LOS	C											
Intersection V/C	0.232											

**Emissions**

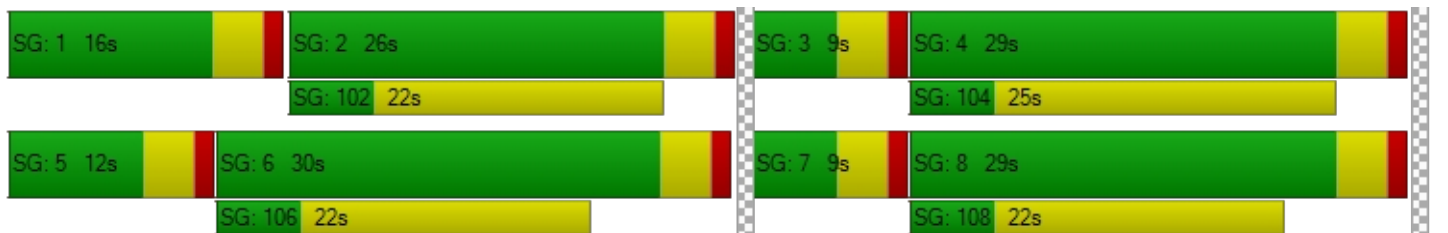
Vehicle Miles Traveled [mph]	41.25	140.82	139.97	8.13	63.79	62.80	0.97	5.17	4.97	9.03	58.99	58.87
Stops [stops/h]	81.94	75.53	75.13	15.37	31.47	31.12	23.24	95.82	92.97	19.50	96.83	96.68
Fuel consumption [US gal/h]	3.23	6.16	6.12	0.61	2.74	2.70	0.42	1.72	1.67	0.67	3.79	3.79
CO [g/h]	225.99	430.54	427.98	42.50	191.66	188.83	29.48	120.44	116.83	46.51	265.21	264.73
NOx [g/h]	43.97	83.77	83.27	8.27	37.29	36.74	5.74	23.43	22.73	9.05	51.60	51.51
VOC [g/h]	52.37	99.78	99.19	9.85	44.42	43.76	6.83	27.91	27.08	10.78	61.46	61.35

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.573			2.543			2.454			2.400		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			550			625			625		
d_b, Bicycle Delay [s]	18.23			21.03			18.91			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.097			1.756			1.779			1.769		
Bicycle LOS	B			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	22.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.241

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	17	328	49	21	55	14	6	61	18	104	109	54
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	0	0	28	0	0	0	0	47	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	13	0	0	4	0	0	5	0	0	15
Total Hourly Volume [veh/h]	19	373	40	23	88	11	7	66	15	160	119	44
Peak Hour Factor	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598
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]	5	97	10	6	23	3	2	17	4	42	31	11
Total Analysis Volume [veh/h]	20	389	42	24	92	11	7	69	16	167	124	46
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	7	22	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	11	26	0	15	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	2	44	44	2	45	45	1	9	9	9	17	17
g / C, Green / Cycle	0.02	0.55	0.55	0.03	0.56	0.56	0.01	0.11	0.11	0.11	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.12	0.01	0.03	0.01	0.00	0.02	0.01	0.09	0.03	0.03
s, saturation flow rate [veh/h]	1810	1900	1836	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	41	1051	1016	47	2014	899	17	389	173	205	763	341
d1, Uniform Delay [s]	38.63	9.02	9.03	38.45	8.07	7.92	39.39	32.49	32.19	34.66	25.79	25.63
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.16	0.11	0.11
l, 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]	8.62	0.45	0.47	8.18	0.04	0.02	14.28	0.22	0.23	11.06	0.10	0.18
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	0.49	0.21	0.21	0.51	0.05	0.01	0.40	0.18	0.09	0.82	0.16	0.14
d, Delay for Lane Group [s/veh]	47.25	9.47	9.50	46.63	8.11	7.94	53.67	32.70	32.41	45.71	25.89	25.81
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.48	1.86	1.82	0.55	0.31	0.08	0.20	0.58	0.27	3.60	0.91	0.68
50th-Percentile Queue Length [ft/ln]	11.99	46.54	45.59	13.68	7.69	1.89	4.97	14.61	6.85	89.97	22.70	16.97
95th-Percentile Queue Length [veh/ln]	0.86	3.35	3.28	0.98	0.55	0.14	0.36	1.05	0.49	6.48	1.63	1.22
95th-Percentile Queue Length [ft/ln]	21.57	83.77	82.06	24.62	13.85	3.40	8.94	26.30	12.34	161.95	40.85	30.54

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.25	9.48	9.50	46.63	8.11	7.94	53.67	32.70	32.41	45.71	25.89	25.81
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	11.16			15.37			34.25			35.70		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	22.01											
Intersection LOS	C											
Intersection V/C	0.241											

**Emissions**

Vehicle Miles Traveled [mph]	10.04	109.54	106.89	11.93	45.72	5.47	1.17	11.52	2.67	71.89	53.38	19.80
Stops [stops/h]	21.57	83.77	82.06	24.62	27.70	3.40	8.94	52.60	12.34	161.95	81.71	30.54
Fuel consumption [US gal/h]	0.72	5.39	5.27	0.94	2.06	0.25	0.23	1.51	0.35	6.03	3.50	1.30
CO [g/h]	50.67	376.94	368.04	65.90	144.24	17.30	15.91	105.40	24.50	421.58	244.56	90.88
NOx [g/h]	9.86	73.34	71.61	12.82	28.06	3.37	3.10	20.51	4.77	82.02	47.58	17.68
VOC [g/h]	11.74	87.36	85.30	15.27	33.43	4.01	3.69	24.43	5.68	97.71	56.68	21.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.459			2.598			2.518			2.592		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			650		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			18.23		
I_b,int, Bicycle LOS Score for Intersection	1.942			1.668			1.640			1.850		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	57.9
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.876

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	475	45	62	296	209	306	645	42	45	552	43
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	334	0	1	409	1	2	0	0	0	0	2
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	12	0	0	57	0	0	12	0	0	12
Total Hourly Volume [veh/h]	57	852	37	69	732	172	336	703	34	49	602	37
Peak Hour Factor	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819
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]	16	242	10	20	207	49	95	199	10	14	171	10
Total Analysis Volume [veh/h]	65	966	42	78	830	195	381	797	39	56	683	42
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	45	0	11	51	0	25	41	0	7	23	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	47	0	10	48	0	27	44	0	9	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	5	43	43	6	44	44	23	41	41	4	22	22
g / C, Green / Cycle	0.05	0.39	0.39	0.05	0.40	0.40	0.21	0.37	0.37	0.04	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.04	0.27	0.27	0.04	0.44	0.12	0.21	0.22	0.22	0.03	0.19	0.19
s, saturation flow rate [veh/h]	1810	1900	1872	1810	1900	1615	1810	1900	1869	1810	1900	1862
c, Capacity [veh/h]	82	743	732	99	760	646	378	699	687	75	380	372
d1, Uniform Delay [s]	51.98	27.84	27.85	51.38	33.00	22.52	43.50	28.25	28.25	52.16	43.60	43.61
k, delay calibration	0.16	0.50	0.50	0.11	0.50	0.50	0.39	0.16	0.16	0.11	0.38	0.38
l, 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]	21.33	5.05	5.13	13.04	60.64	1.20	42.53	1.25	1.27	13.85	32.14	32.71
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	0.79	0.68	0.68	0.79	1.09	0.30	1.01	0.60	0.60	0.75	0.96	0.96
d, Delay for Lane Group [s/veh]	73.31	32.90	32.98	64.42	93.64	23.72	86.03	29.49	29.53	66.01	75.74	76.32
Lane Group LOS	E	C	C	E	F	C	F	C	C	E	E	E
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.21	11.47	11.32	2.42	31.51	3.49	14.54	9.00	8.87	1.80	13.07	12.87
50th-Percentile Queue Length [ft/ln]	55.34	286.66	282.91	60.55	787.71	87.27	363.57	225.06	221.80	45.04	326.63	321.74
95th-Percentile Queue Length [veh/ln]	3.98	17.02	16.83	4.36	43.36	6.28	20.88	13.92	13.76	3.24	18.99	18.75
95th-Percentile Queue Length [ft/ln]	99.61	425.49	420.83	108.98	1084.03	157.08	521.96	348.08	343.93	81.08	474.83	468.83

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	73.31	32.94	32.98	64.42	93.64	23.72	86.03	29.51	29.53	66.01	76.01	76.32
Movement LOS	E	C	C	E	F	C	F	C	C	E	E	E
d_A, Approach Delay [s/veh]	35.38			79.21			47.21			75.31		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	57.88											
Intersection LOS	E											
Intersection V/C	0.876											

**Emissions**

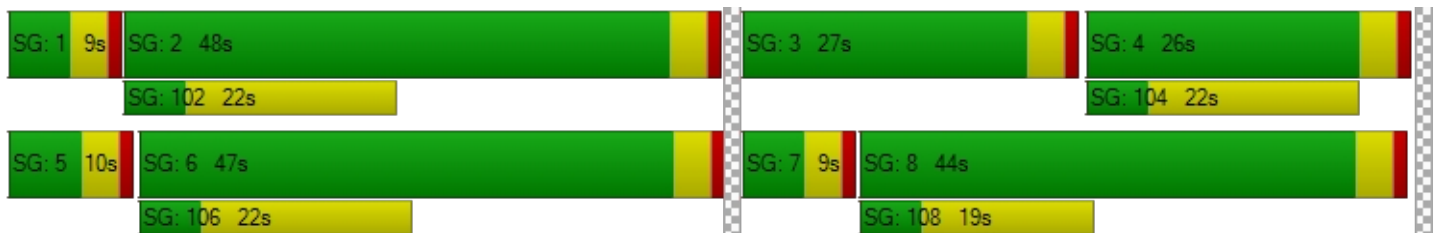
Vehicle Miles Traveled [mph]	4.66	36.37	35.85	22.56	240.03	56.39	35.32	39.05	38.45	6.64	43.42	42.57
Stops [stops/h]	72.44	375.26	370.35	79.26	1031.19	114.24	475.95	294.63	290.36	58.97	427.59	421.19
Fuel consumption [US gal/h]	2.03	9.31	9.19	2.78	36.86	4.29	11.60	6.23	6.14	1.45	10.51	10.36
CO [g/h]	141.89	650.85	642.44	194.40	2576.74	300.19	810.50	435.62	429.29	101.27	734.77	724.47
NOx [g/h]	27.61	126.63	124.99	37.82	501.34	58.41	157.69	84.76	83.53	19.70	142.96	140.96
VOC [g/h]	32.88	150.84	148.89	45.05	597.18	69.57	187.84	100.96	99.49	23.47	170.29	167.90

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.899			3.141			2.835			2.720		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	782			800			727			400		
d_b, Bicycle Delay [s]	20.40			19.80			22.27			35.20		
I_b,int, Bicycle LOS Score for Intersection	2.455			3.474			2.574			2.214		
Bicycle LOS	B			C			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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↵		↵		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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	403	487	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	404	488	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	404	488	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	86	77	0	26	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.68	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.03	0.05	0.00	0.00	0.00	0.00
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	0.00	0.08	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.38	0.49	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.69	0.88	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.33		0.72		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.54					
Intersection LOS	A					
Intersection V/C	0.094					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	62.22	31.37	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.37	1.76	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.18	1.17	0.00	0.00	0.00	0.00
CO [g/h]	0.00	152.16	81.70	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	29.61	15.90	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	35.26	18.94	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.796		2.904		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.782		1.828		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.147

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	101	6	64	123	60	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
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]	107	6	68	130	64	39
Peak Hour Factor	0.7230	0.7230	0.8330	0.8330	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	2	20	39	21	13
Total Analysis Volume [veh/h]	148	8	82	156	82	50
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.00	0.15	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	12.56	8.87
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.18	0.00	0.51	0.16
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.54	0.00	12.81	4.03
d_A, Approach Delay [s/veh]	0.00		2.64		11.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↱	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	403	487	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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↑		↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	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	0	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	403	487	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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	689	14	1	1	0	0	0	0	0	0	7
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	403	0	0	487	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]	0	1092	14	1	488	0	0	0	0	0	0	7
Peak Hour 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
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]	0	273	4	0	122	0	0	0	0	0	0	2
Total Analysis Volume [veh/h]	0	1092	14	1	488	0	0	0	0	0	0	7
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				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	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	10.19	0.00	0.00	15.19	0.00	0.00	0.00	0.00	10.55	25.96	38.34	13.88
Movement LOS	B	A	A	C	A	A			B	D	E	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.00	1.29	1.29	1.29
d_A, Approach Delay [s/veh]	0.00			0.03			10.55			13.88		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.07											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	21.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.159

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	14	6	8	323	443	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	9	21	0	0	21
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]	42	15	29	342	470	41
Peak Hour Factor	1.0000	1.0000	0.7802	0.7802	0.7828	0.7828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	4	9	110	150	13
Total Analysis Volume [veh/h]	42	15	37	438	600	52
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.16	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	21.20	12.86	8.97	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.65	0.65	0.12	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.32	16.32	3.06	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.00		0.70		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.20					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	1	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	296	449
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0600	1.0600
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	21	9
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	335	485
Peak Hour Factor	0.7802	0.7828
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	155
Total Analysis Volume [veh/h]	429	620
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	21	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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.60	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	21	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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Frontage Rd					
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	0	2	0	4
Auxiliary Signal Groups						
Maximum Green [s]	27	0	0	27	0	25
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	5	0	0	5	0	5
Pedestrian Clearance [s]	14	0	0	10	0	20
Delayed Vehicle Green [s]	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	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	10	0	0	10	0	5
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A
Critical Lane Group	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					
Intersection V/C	0.000					

**Emissions**

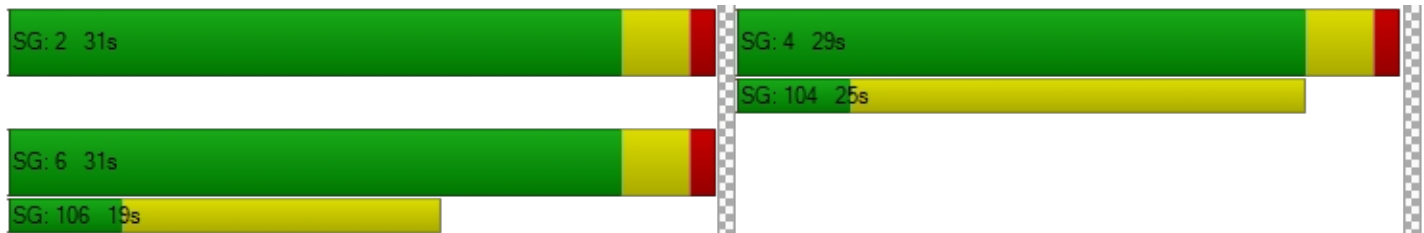
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.112	2.281	1.921
Crosswalk LOS	B	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560	1.560
Bicycle LOS	A	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach			Eastbound		Westbound	
Lane Configuration	↻		↻			
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.053

**Intersection Setup**

Name	Barrett Ave		Barrett Ave			
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	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave			
Base Volume Input [veh/h]	0	40	0	0	50	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0600	1.0000	1.0000	1.0600	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]	0	42	0	0	53	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	0	0	13	0
Total Analysis Volume [veh/h]	0	42	0	0	53	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	8.80	8.59
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	4.19	4.19
d_A, Approach Delay [s/veh]	0.00		3.64		8.80	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.91					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
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	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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Intersection 7: Rider St/Evans Rd .....	38
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Intersection 10: Placentia Ave/Redlands Ave .....	53
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Intersection 13: Placentia Ave/Indian Ave .....	62
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Intersection 16: Placentia Ave/I-215 SB .....	77
Intersection 17: Orange Ave/Redlands Ave .....	82
Intersection 18: Orange Ave/Perris Blvd .....	87
Intersection 19: Orange Ave/Barrett Ave .....	92
Intersection 20: Orange Ave/Indian Ave .....	94
Intersection 21: Orange Ave/Frontage Rd .....	96
Intersection 22: Citrus Ave/Redlands Ave .....	98
Intersection 23: Citrus Ave/Perris Blvd .....	100
Intersection 24: Nuevo Rd/Murrieta Rd .....	105

Intersection 25: Neuvo Rd/Redlands Ave .....	110
Intersection 26: Nuevo Rd/Perris Blvd .....	115
Intersection 27: Nuevo Rd/Frontage Rd .....	120
Intersection 28: Nuevo Rd/I-215 NB .....	122
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Intersection 30: Redlands Ave/Mildred St .....	132
Intersection 31: Perris Blvd/Mildred St .....	134
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Intersection 33: Indian Ave/Ramona Expy .....	144
Intersection 34: Indian Ave/Morgan St .....	149
Intersection 35: Indian Ave/Rider St .....	154
Intersection 36: Perris Blvd/4th St .....	159
Intersection 37: Perris Blvd/Harvest Landing Way .....	164
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Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way .....	173
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Intersection 43: Commercial Driveway 6/Barrett Ave .....	179
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Intersection 45: Commercial Driveway 8/N. Perris Blvd .....	183
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Intersection 48: Building 1 Auto Driveway 1/Orange Ave .....	189
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Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd .....	193
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Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd .....	204
Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd .....	206
Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd .....	208
Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd .....	210
Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd .....	212
Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave .....	214
Intersection 60: Building 6 Auto Driveway 2/Barrett Ave .....	216
Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd .....	218
Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd .....	220

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Intersection 63: Building 7 Auto Driveway 2/Barrett Ave ..... 222

Harvest Landing

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Scenario 2 Opening Year I PM

Report File: C:\...\OY I PM.pdf

10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	WB Left	0.841	51.3	D
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	NB Left	0.796	39.5	D
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.706	32.1	C
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.604	15.2	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	SB Left	0.825	48.2	D
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	NB Left	0.487	10.7	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	EB Left	0.534	28.7	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	NB Left	0.611	37.0	D
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	SB Left	0.549	28.3	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.731	19.0	C
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	WB Left	0.698	32.0	C
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	WB Thru	0.604	17.4	C
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	SB Left	0.726	34.8	C
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.547	21.1	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.461	13.9	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	EB Thru	0.555	20.0	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.362	28.6	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	WB Left	0.709	32.2	C
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.090	15.2	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.418	11.8	B
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.013	14.8	B
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	EB Thru	0.502	13.7	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.598	19.8	B
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	SB Left	0.543	31.6	C
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.546	22.7	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.694	40.9	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.975	30.3	D
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.618	21.3	C
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	EB Right	0.679	29.0	C
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	0.497	13.7	B
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.472	7.6	A
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.516	20.7	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	SB Left	0.604	36.6	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.214	16.6	B
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	NB Left	0.328	31.3	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	SB Thru	0.827	50.5	D
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.089	0.5	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.143	14.3	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Right	0.024	10.6	B
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.483	32.3	D
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.005	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.100	9.1	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	51.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	166	769	364	186	708	15	29	358	116	266	310	105
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	99	0	0	4	0	0	32	0	0	29
Total Hourly Volume [veh/h]	181	1750	298	203	1531	12	32	390	94	290	338	85
Peak Hour Factor	0.8396	0.8396	0.8396	0.9214	0.9214	0.9214	0.9410	0.9410	0.9410	0.9098	0.9098	0.9098
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]	54	521	89	55	415	3	9	104	25	80	93	23
Total Analysis Volume [veh/h]	216	2084	355	220	1662	13	34	414	100	319	372	93
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	25	0	10	25	0	6	35	0	14	43	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	15	29	0	9	39	0	16	46	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	12	44	44	11	43	43	3	17	17	12	26	26
g / C, Green / Cycle	0.12	0.44	0.44	0.11	0.43	0.43	0.03	0.17	0.17	0.12	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.12	0.40	0.22	0.12	0.30	0.30	0.02	0.14	0.14	0.18	0.13	0.13
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1892	1810	1900	1775	1810	1900	1771
c, Capacity [veh/h]	217	2285	713	199	1561	817	56	320	299	217	489	456
d1, Uniform Delay [s]	43.97	26.11	19.99	44.50	23.21	23.22	47.86	40.15	40.24	44.00	31.55	31.56
k, delay calibration	0.38	0.50	0.50	0.45	0.50	0.50	0.11	0.11	0.11	0.50	0.11	0.11
l, 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]	52.24	6.94	2.48	91.52	2.69	5.06	10.25	5.37	6.11	234.46	0.76	0.82
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	0.99	0.91	0.50	1.11	0.70	0.70	0.61	0.83	0.84	1.47	0.49	0.49
d, Delay for Lane Group [s/veh]	96.21	33.05	22.46	136.02	25.91	28.28	58.11	45.52	46.35	278.46	32.31	32.38
Lane Group LOS	F	C	C	F	C	C	E	D	D	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	8.27	15.35	5.92	9.79	10.23	11.24	0.97	6.47	6.19	19.29	4.80	4.50
50th-Percentile Queue Length [ft/ln]	206.81	383.63	147.99	244.80	255.70	281.11	24.21	161.87	154.81	482.35	120.04	112.38
95th-Percentile Queue Length [veh/ln]	12.99	21.77	9.91	15.53	15.47	16.74	1.74	10.65	10.27	30.44	8.40	7.97
95th-Percentile Queue Length [ft/ln]	324.74	544.24	247.75	388.26	386.82	418.59	43.58	266.20	256.84	760.97	209.88	199.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	96.21	33.05	22.46	136.02	26.71	28.28	58.11	45.82	46.35	278.46	32.34	32.38
Movement LOS	F	C	C	F	C	C	E	D	D	F	C	C
d_A, Approach Delay [s/veh]	36.77			39.41			46.68			132.49		
Approach LOS	D			D			D			F		
d_I, Intersection Delay [s/veh]	51.30											
Intersection LOS	D											
Intersection V/C	0.841											

**Emissions**

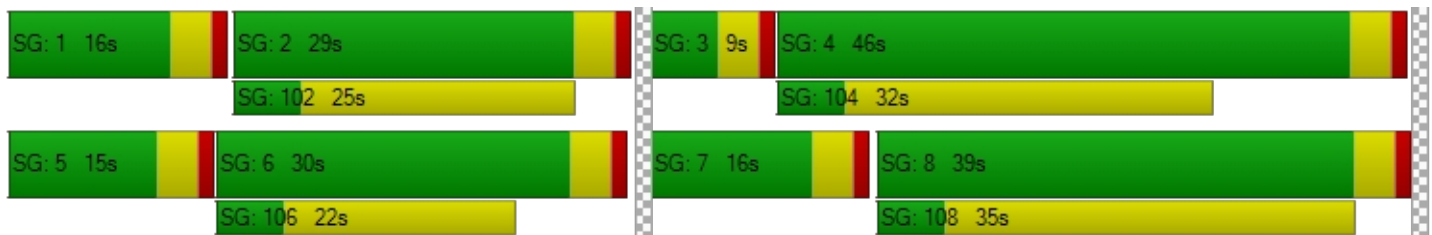
Vehicle Miles Traveled [mph]	108.23	1044.18	177.87	13.71	68.50	35.85	2.37	18.44	17.45	20.98	15.81	14.77
Stops [stops/h]	297.81	1657.28	213.11	352.51	736.42	404.80	34.86	233.09	222.93	694.58	172.85	161.82
Fuel consumption [US gal/h]	11.64	70.41	10.37	10.94	17.30	9.57	0.92	5.98	5.73	27.43	4.27	4.00
CO [g/h]	813.72	4921.90	724.83	764.81	1209.36	669.19	64.09	417.81	400.27	1917.23	298.60	279.49
NOx [g/h]	158.32	957.62	141.03	148.80	235.30	130.20	12.47	81.29	77.88	373.02	58.10	54.38
VOC [g/h]	188.59	1140.70	167.99	177.25	280.28	155.09	14.85	96.83	92.77	444.34	69.20	64.78

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	41.41		41.41		41.41		41.41	
I_p,int, Pedestrian LOS Score for Intersectio	3.763		3.471		2.699		2.904	
Crosswalk LOS	D		C		B		C	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	520		500		700		840	
d_b, Bicycle Delay [s]	27.38		28.13		21.13		16.82	
I_b,int, Bicycle LOS Score for Intersection	3.074		2.604		2.038		2.230	
Bicycle LOS	C		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 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	39.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.796

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	69	1132	169	114	879	20	26	128	92	195	97	115
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	46	0	0	6	0	0	25	0	0	31
Total Hourly Volume [veh/h]	75	2146	138	124	1717	16	28	140	75	213	106	94
Peak Hour Factor	0.8779	0.8779	0.8779	0.8866	0.8866	0.8866	0.8183	0.8183	0.8183	0.8130	0.8130	0.8130
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]	21	611	39	35	484	5	9	43	23	65	33	29
Total Analysis Volume [veh/h]	85	2445	157	140	1937	18	34	171	92	262	130	116
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	10	36	0	10	36	0	0	29	0	0	29	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	31	34	0	20	23	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated 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]	7	60	60	11	64	64	13	13	13	20	20	20
g / C, Green / Cycle	0.06	0.50	0.50	0.09	0.53	0.53	0.11	0.11	0.11	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.05	0.47	0.48	0.08	0.35	0.36	0.02	0.09	0.06	0.14	0.07	0.07
s, saturation flow rate [veh/h]	1810	3618	1843	1810	3618	1891	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	110	1801	917	168	1917	1002	200	210	178	300	315	268
d1, Uniform Delay [s]	55.54	28.73	29.30	53.52	20.56	20.57	48.40	52.19	50.36	48.82	44.82	44.98
k, delay calibration	0.11	0.50	0.50	0.12	0.50	0.50	0.11	0.11	0.11	0.16	0.11	0.11
l, 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]	10.89	12.34	23.51	11.22	1.88	3.57	0.40	7.54	2.31	10.80	0.86	1.11
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	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	0.77	0.95	0.97	0.83	0.67	0.67	0.17	0.82	0.52	0.87	0.41	0.43
d, Delay for Lane Group [s/veh]	66.43	41.07	52.81	64.74	22.44	24.14	48.80	59.73	52.67	59.62	45.68	46.09
Lane Group LOS	E	D	D	E	C	C	D	E	D	E	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.81	24.47	28.70	4.57	12.53	13.59	0.93	5.39	2.68	8.40	3.49	3.14
50th-Percentile Queue Length [ft/ln]	70.19	611.84	717.43	114.28	313.27	339.68	23.36	134.63	67.05	209.92	87.26	78.51
95th-Percentile Queue Length [veh/ln]	5.05	32.59	37.48	8.08	18.34	19.63	1.68	9.19	4.83	13.15	6.28	5.65
95th-Percentile Queue Length [ft/ln]	126.35	814.67	937.06	201.94	458.40	490.81	42.04	229.78	120.70	328.72	157.07	141.32

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.43	44.59	52.81	64.74	23.01	24.14	48.80	59.73	52.67	59.62	45.68	46.09
Movement LOS	E	D	D	E	C	C	D	E	D	E	D	D
d_A, Approach Delay [s/veh]	45.77			25.81			56.29			52.96		
Approach LOS	D			C			E			D		
d_I, Intersection Delay [s/veh]	39.50											
Intersection LOS	D											
Intersection V/C	0.796											

**Emissions**

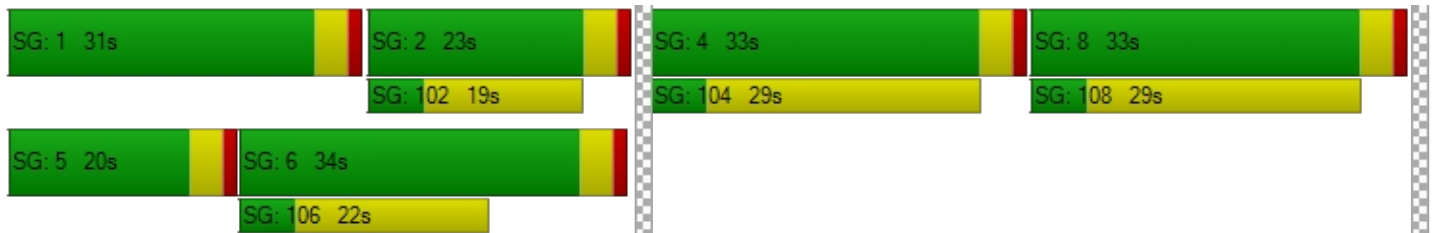
Vehicle Miles Traveled [mph]	139.84	2815.36	1465.32	70.15	643.08	336.46	2.84	14.28	7.69	31.15	15.46	13.79
Stops [stops/h]	84.23	1468.42	860.91	137.14	751.84	407.62	28.03	161.56	80.47	251.90	104.71	94.21
Fuel consumption [US gal/h]	6.99	129.06	70.50	5.95	37.25	19.90	0.71	4.18	2.05	6.77	2.79	2.51
CO [g/h]	488.57	9021.54	4928.20	416.17	2603.95	1390.98	49.96	291.98	143.42	473.15	195.08	175.27
NOx [g/h]	95.06	1755.26	958.85	80.97	506.63	270.63	9.72	56.81	27.90	92.06	37.95	34.10
VOC [g/h]	113.23	2090.83	1142.16	96.45	603.49	322.37	11.58	67.67	33.24	109.66	45.21	40.62

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	3.729		3.605		2.364		2.633	
Crosswalk LOS	D		D		B		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	500		317		483		483	
d_b, Bicycle Delay [s]	33.75		42.50		34.50		34.50	
I_b,int, Bicycle LOS Score for Intersection	3.063		2.715		2.091		2.449	
Bicycle LOS	C		B		B		B	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	32.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.706

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	36	806	5	154	1048	280	250	155	62	9	133	135
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	1	0	0	76	0	0	17	0	0	37
Total Hourly Volume [veh/h]	39	1791	4	168	1901	229	273	169	51	10	145	110
Peak Hour Factor	0.8615	0.8615	0.8615	0.8521	0.8521	0.8521	0.8694	0.8694	0.8694	0.9095	0.9095	0.9095
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]	11	520	1	49	558	67	79	49	15	3	40	30
Total Analysis Volume [veh/h]	45	2079	5	197	2231	269	314	194	59	11	159	121
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	6	36	0	16	47	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	10	40	0	20	51	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	61	61	6	63	63	16	25	25	1	11	11
g / C, Green / Cycle	0.03	0.56	0.56	0.05	0.58	0.58	0.15	0.23	0.23	0.01	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.01	0.40	0.00	0.06	0.43	0.17	0.17	0.05	0.04	0.00	0.03	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	120	2878	898	192	2983	931	263	835	373	46	510	159
d1, Uniform Delay [s]	51.98	18.12	10.88	52.00	17.35	11.84	47.00	34.39	33.78	53.72	46.11	48.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, 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]	1.94	1.61	0.01	37.51	1.76	0.78	117.97	0.14	0.20	2.57	0.34	7.25
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	0.38	0.72	0.01	1.03	0.75	0.29	1.19	0.23	0.16	0.24	0.31	0.76
d, Delay for Lane Group [s/veh]	53.91	19.73	10.89	89.51	19.11	12.63	164.97	34.53	33.97	56.30	46.45	55.56
Lane Group LOS	D	B	B	F	B	B	F	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.62	11.99	0.05	3.57	12.72	3.22	15.57	2.06	1.24	0.16	1.33	3.46
50th-Percentile Queue Length [ft/ln]	15.59	299.83	1.32	89.14	317.97	80.58	389.23	51.53	31.05	4.08	33.21	86.49
95th-Percentile Queue Length [veh/ln]	1.12	17.67	0.10	6.42	18.57	5.80	23.82	3.71	2.24	0.29	2.39	6.23
95th-Percentile Queue Length [ft/ln]	28.07	441.82	2.38	160.45	464.19	145.04	595.58	92.76	55.90	7.35	59.78	155.67

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.91	19.73	10.89	89.51	19.11	12.63	164.97	34.53	33.97	56.30	46.45	55.56
Movement LOS	D	B	B	F	B	B	F	C	C	E	D	E
d_A, Approach Delay [s/veh]	20.43			23.60			106.71			50.61		
Approach LOS	C			C			F			D		
d_I, Intersection Delay [s/veh]	32.09											
Intersection LOS	C											
Intersection V/C	0.706											

**Emissions**

Vehicle Miles Traveled [mph]	16.79	775.56	1.87	324.09	3670.32	442.54	46.98	29.02	8.83	1.34	19.31	14.70
Stops [stops/h]	40.82	1177.51	1.73	233.39	1248.76	105.48	509.54	134.93	40.65	10.69	130.43	113.22
Fuel consumption [US gal/h]	1.58	49.57	0.10	17.60	150.01	17.17	18.48	4.04	1.22	0.30	3.79	3.28
CO [g/h]	110.21	3465.17	6.75	1230.17	10485.8	1200.33	1292.10	282.08	84.99	21.30	264.68	229.24
NOx [g/h]	21.44	674.20	1.31	239.35	2040.17	233.54	251.40	54.88	16.54	4.14	51.50	44.60
VOC [g/h]	25.54	803.09	1.56	285.10	2430.20	278.19	299.46	65.37	19.70	4.94	61.34	53.13

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.585			3.834			2.866			3.031		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	655			655			855			655		
d_b, Bicycle Delay [s]	24.89			24.89			18.04			24.89		
I_b,int, Bicycle LOS Score for Intersection	2.731			3.085			2.041			1.740		
Bicycle LOS	B			C			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: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	16	766	15	8	1075	32	43	42	67	13	44	26
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	4	0	0	9	0	0	18	0	0	7
Total Hourly Volume [veh/h]	17	1747	12	9	1931	26	47	46	55	14	48	21
Peak Hour Factor	0.9246	0.9246	0.9246	0.8460	0.8460	0.8460	0.5611	0.5611	0.5611	0.6762	0.6762	0.6762
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]	5	472	3	3	571	8	21	20	25	5	18	8
Total Analysis Volume [veh/h]	18	1889	13	11	2283	31	84	82	98	21	71	31
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	15	59	0	5	49	0	11	29	0	11	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	45	0	30	66	0	12	33	0	12	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	2	86	86	2	85	85	7	14	14	3	10	10
g / C, Green / Cycle	0.02	0.71	0.71	0.01	0.71	0.71	0.06	0.12	0.12	0.02	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.01	0.52	0.01	0.01	0.42	0.42	0.05	0.04	0.06	0.01	0.03	0.03
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1887	1810	1900	1615	1810	1900	1714
c, Capacity [veh/h]	34	2580	1152	25	2561	1336	106	226	192	38	154	139
d1, Uniform Delay [s]	58.34	10.33	4.98	58.74	8.83	8.85	55.74	48.69	49.60	58.16	52.07	52.19
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.98	1.88	0.02	12.21	1.02	1.96	12.19	0.98	2.10	11.68	1.26	1.58
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	0.53	0.73	0.01	0.45	0.59	0.59	0.79	0.36	0.51	0.55	0.33	0.36
d, Delay for Lane Group [s/veh]	70.32	12.21	5.00	70.95	9.85	10.80	67.94	49.67	51.70	69.84	53.33	53.76
Lane Group LOS	E	B	A	E	A	B	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.64	12.48	0.08	0.41	8.43	9.18	2.85	2.31	2.85	0.75	1.52	1.49
50th-Percentile Queue Length [ft/ln]	16.09	311.97	2.10	10.20	210.85	229.53	71.25	57.82	71.32	18.78	37.89	37.22
95th-Percentile Queue Length [veh/ln]	1.16	18.27	0.15	0.73	13.20	14.15	5.13	4.16	5.13	1.35	2.73	2.68
95th-Percentile Queue Length [ft/ln]	28.96	456.81	3.78	18.36	329.91	353.76	128.24	104.08	128.37	33.81	68.20	67.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	70.32	12.21	5.00	70.95	10.17	10.80	67.94	49.67	51.70	69.84	53.45	53.76
Movement LOS	E	B	A	E	B	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	12.71			10.47			56.24			56.33		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	15.22											
Intersection LOS	B											
Intersection V/C	0.604											

**Emissions**

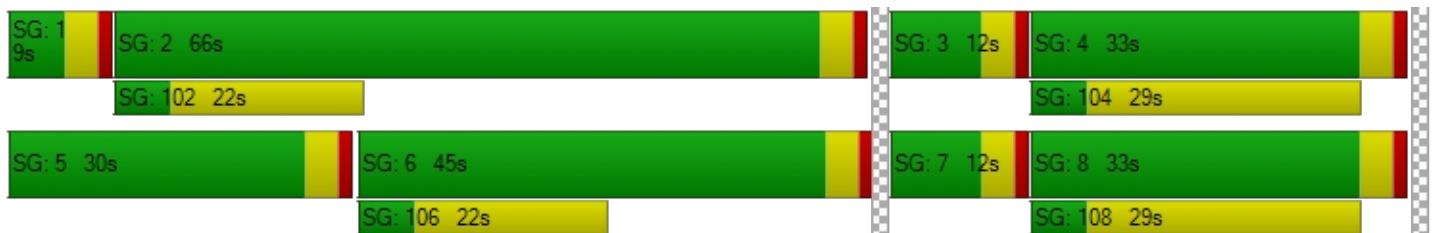
Vehicle Miles Traveled [mph]	9.06	950.98	6.54	4.10	566.84	296.38	4.63	4.52	5.40	1.40	3.43	3.35
Stops [stops/h]	19.31	748.74	2.52	12.24	506.03	275.44	85.50	69.38	85.58	22.54	45.47	44.67
Fuel consumption [US gal/h]	0.81	46.60	0.27	0.45	28.77	15.33	1.98	1.52	1.88	0.52	1.03	1.01
CO [g/h]	56.49	3257.42	18.79	31.57	2010.87	1071.63	138.44	106.44	131.43	36.43	72.23	70.90
NOx [g/h]	10.99	633.78	3.66	6.14	391.24	208.50	26.93	20.71	25.57	7.09	14.05	13.80
VOC [g/h]	13.09	754.94	4.36	7.32	466.04	248.36	32.08	24.67	30.46	8.44	16.74	16.43

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.522			3.530			2.434			2.380		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	683			1033			483			483		
d_b, Bicycle Delay [s]	26.00			14.02			34.50			34.50		
I_b,int, Bicycle LOS Score for Intersection	3.147			2.843			1.792			1.667		
Bicycle LOS	C			C			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	48.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.825

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	123	413	109	284	632	251	297	1030	135	144	732	99
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	586	0	0	494	265	326	3	2	0	1	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	30	0	0	135	0	0	37	0	0	27
Total Hourly Volume [veh/h]	135	1036	89	310	1183	404	650	1126	112	157	799	81
Peak Hour Factor	0.8200	0.8200	0.8200	0.9321	0.9321	0.9321	0.8971	0.8971	0.8971	0.9286	0.9286	0.9286
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]	41	316	27	83	317	108	181	314	31	42	215	22
Total Analysis Volume [veh/h]	165	1263	109	333	1269	433	725	1255	125	169	860	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	12	42	0	24	48	0	8	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	39	0	16	44	0	29	54	0	11	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	7	43	43	12	48	48	25	42	42	7	24	24
g / C, Green / Cycle	0.06	0.36	0.36	0.10	0.40	0.40	0.21	0.35	0.35	0.06	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.05	0.35	0.07	0.09	0.35	0.27	0.21	0.24	0.08	0.05	0.17	0.17
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1812
c, Capacity [veh/h]	205	1291	576	351	1442	644	732	1819	568	205	729	365
d1, Uniform Delay [s]	55.83	38.13	26.61	53.69	33.43	29.66	47.38	33.31	27.35	55.89	46.33	46.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.20
l, 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]	7.23	20.37	0.73	12.93	7.99	5.54	13.36	0.47	0.19	8.08	3.24	10.86
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	0.80	0.98	0.19	0.95	0.88	0.67	0.99	0.69	0.22	0.82	0.86	0.87
d, Delay for Lane Group [s/veh]	63.06	58.50	27.34	66.62	41.42	35.20	60.74	33.79	27.55	63.97	49.58	57.22
Lane Group LOS	E	E	C	E	D	D	E	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.61	20.98	2.20	5.49	17.70	10.73	11.57	9.81	2.42	2.66	8.96	9.78
50th-Percentile Queue Length [ft/ln]	65.36	524.52	55.10	137.33	442.42	268.37	289.36	245.13	60.41	66.49	223.98	244.39
95th-Percentile Queue Length [veh/ln]	4.71	28.49	3.97	9.34	24.60	16.11	17.15	14.94	4.35	4.79	13.87	14.90
95th-Percentile Queue Length [ft/ln]	117.65	712.32	99.18	233.42	614.90	402.70	428.84	373.51	108.74	119.68	346.70	372.58

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	63.06	58.50	27.34	66.62	41.42	35.20	60.74	33.79	27.55	63.97	51.62	57.22
Movement LOS	E	E	C	E	D	D	E	C	C	E	D	E
d_A, Approach Delay [s/veh]	56.78			44.22			42.70			53.93		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	48.19											
Intersection LOS	D											
Intersection V/C	0.825											

**Emissions**

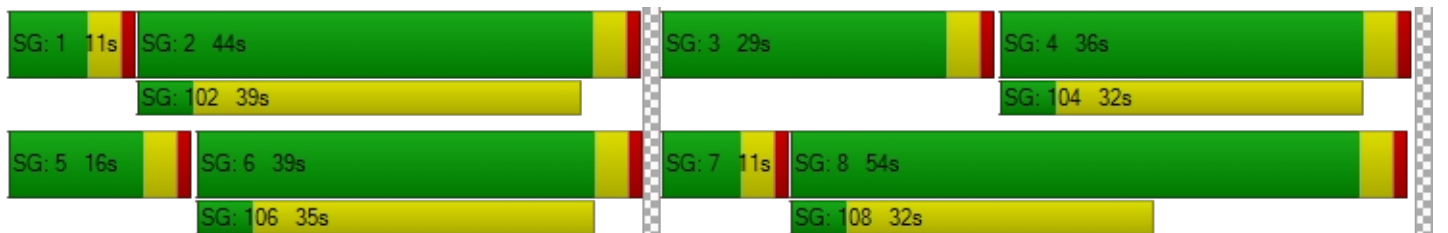
Vehicle Miles Traveled [mph]	81.97	627.47	54.15	167.64	638.85	217.99	181.19	313.65	31.24	18.35	68.46	34.38
Stops [stops/h]	156.87	1258.85	66.12	329.59	1061.81	322.04	694.46	882.46	72.49	159.57	537.56	293.26
Fuel consumption [US gal/h]	6.88	52.20	3.28	14.36	45.80	14.58	27.92	35.51	3.09	5.78	18.63	10.28
CO [g/h]	480.73	3648.47	229.60	1003.63	3201.21	1018.97	1951.63	2482.28	216.15	403.87	1302.56	718.82
NOx [g/h]	93.53	709.86	44.67	195.27	622.84	198.25	379.72	482.96	42.05	78.58	253.43	139.86
VOC [g/h]	111.41	845.57	53.21	232.60	741.91	236.16	452.31	575.29	50.09	93.60	301.88	166.59

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.362			3.714			3.659			3.420		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			667			833			533		
d_b, Bicycle Delay [s]	30.10			26.67			20.42			32.27		
I_b,int, Bicycle LOS Score for Intersection	2.852			3.350			2.738			2.188		
Bicycle LOS	C			C			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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	10.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.487

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	29	602	15	18	857	15	19	15	12	24	17	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	587	0	0	496	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	4	0	0	4	0	0	3	0	0	4
Total Hourly Volume [veh/h]	32	1243	12	20	1430	12	21	16	10	26	19	12
Peak Hour Factor	0.8770	0.8770	0.8770	0.9127	0.9127	0.9127	0.6389	0.6389	0.6389	0.6453	0.6453	0.6453
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	354	3	5	392	3	8	6	4	10	7	5
Total Analysis Volume [veh/h]	36	1417	14	22	1567	13	33	25	16	40	29	19
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	30	0	5	30	0	27	32	0	27	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	34	0	9	34	0	31	36	0	31	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	3	81	81	2	80	80	3	7	7	4	8	8
g / C, Green / Cycle	0.03	0.73	0.73	0.02	0.72	0.72	0.03	0.07	0.07	0.03	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.26	0.01	0.43	0.01	0.02	0.01	0.01	0.02	0.02	0.01
s, saturation flow rate [veh/h]	1810	3618	1890	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	55	2647	1383	40	2618	1169	54	245	109	60	135	114
d1, Uniform Delay [s]	52.76	5.35	5.35	53.22	7.41	4.23	52.74	48.15	48.29	52.60	48.22	48.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	12.42	0.37	0.71	10.91	1.02	0.02	10.82	0.18	0.61	12.35	0.79	0.68
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	0.65	0.36	0.36	0.54	0.60	0.01	0.61	0.10	0.15	0.67	0.22	0.17
d, Delay for Lane Group [s/veh]	65.18	5.72	6.06	64.13	8.43	4.25	63.56	48.33	48.90	64.95	49.02	48.73
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.15	3.06	3.33	0.72	8.02	0.08	1.05	0.33	0.43	1.29	0.77	0.51
50th-Percentile Queue Length [ft/ln]	28.68	76.54	83.27	18.09	200.46	1.95	26.35	8.14	10.72	32.15	19.36	12.70
95th-Percentile Queue Length [veh/ln]	2.06	5.51	6.00	1.30	12.66	0.14	1.90	0.59	0.77	2.32	1.39	0.91
95th-Percentile Queue Length [ft/ln]	51.62	137.77	149.88	32.56	316.56	3.52	47.43	14.66	19.30	57.88	34.85	22.85

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.18	5.84	6.06	64.13	8.43	4.25	63.56	48.33	48.90	64.95	49.02	48.73
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	7.30			9.16			55.24			56.20		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	10.65											
Intersection LOS	B											
Intersection V/C	0.487											

**Emissions**

Vehicle Miles Traveled [mph]	7.07	184.54	96.44	10.93	778.50	6.46	16.55	12.54	8.02	10.73	7.78	5.10
Stops [stops/h]	37.54	200.39	109.00	23.68	524.85	2.56	34.49	21.32	14.04	42.09	25.35	16.62
Fuel consumption [US gal/h]	1.19	9.91	5.27	0.87	37.64	0.29	1.32	0.88	0.57	1.25	0.78	0.51
CO [g/h]	82.94	692.84	368.17	60.66	2630.78	20.36	92.06	61.80	39.89	87.66	54.26	35.48
NOx [g/h]	16.14	134.80	71.63	11.80	511.85	3.96	17.91	12.02	7.76	17.06	10.56	6.90
VOC [g/h]	19.22	160.57	85.33	14.06	609.71	4.72	21.34	14.32	9.24	20.32	12.58	8.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.258			3.040			2.498			2.499		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	545			545			582			582		
d_b, Bicycle Delay [s]	29.09			29.09			27.65			27.65		
I_b,int, Bicycle LOS Score for Intersection	2.369			2.885			1.623			1.711		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	28.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.534

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	72	372	14	65	454	156	172	278	82	14	228	57
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	168	0	0	166	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	4	0	0	43	0	0	22	0	0	16
Total Hourly Volume [veh/h]	78	405	11	71	495	127	187	471	67	15	415	46
Peak Hour Factor	0.6662	0.6662	0.6662	0.9500	0.9500	0.9500	0.9283	0.9283	0.9283	0.6898	0.6898	0.6898
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]	29	152	4	19	130	33	50	127	18	5	150	17
Total Analysis Volume [veh/h]	117	608	17	75	521	134	201	507	72	22	602	67
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	22	0	6	22	0	11	31	0	5	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	28	0	9	26	0	14	34	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	7	33	33	4	30	30	10	25	25	2	17	17
g / C, Green / Cycle	0.08	0.41	0.41	0.05	0.38	0.38	0.13	0.31	0.31	0.02	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.06	0.17	0.17	0.04	0.18	0.18	0.11	0.16	0.16	0.01	0.18	0.18
s, saturation flow rate [veh/h]	1810	1900	1882	1810	1900	1768	1810	1900	1818	1810	1900	1834
c, Capacity [veh/h]	148	775	768	97	722	671	226	594	569	46	405	391
d1, Uniform Delay [s]	36.04	16.79	16.79	37.37	18.72	18.74	34.45	22.37	22.38	38.46	30.16	30.18
k, delay calibration	0.17	0.50	0.50	0.11	0.50	0.50	0.25	0.11	0.11	0.11	0.13	0.13
l, 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]	13.22	1.57	1.59	12.10	2.19	2.37	22.18	0.65	0.68	7.56	5.66	5.99
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	0.79	0.40	0.41	0.77	0.47	0.47	0.89	0.50	0.50	0.48	0.84	0.84
d, Delay for Lane Group [s/veh]	49.25	18.36	18.38	49.47	20.91	21.11	56.63	23.01	23.05	46.02	35.82	36.17
Lane Group LOS	D	B	B	D	C	C	E	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.68	4.02	3.99	1.71	4.74	4.46	4.98	4.20	4.04	0.50	6.40	6.24
50th-Percentile Queue Length [ft/ln]	66.98	100.58	99.77	42.78	118.38	111.52	124.60	105.11	100.91	12.49	160.12	155.97
95th-Percentile Queue Length [veh/ln]	4.82	7.24	7.18	3.08	8.30	7.92	8.65	7.57	7.27	0.90	10.56	10.33
95th-Percentile Queue Length [ft/ln]	120.57	181.05	179.58	77.00	207.60	198.12	216.14	189.17	181.65	22.48	263.88	258.37

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	49.25	18.37	18.38	49.47	20.98	21.11	56.63	23.03	23.05	46.02	35.97	36.17
Movement LOS	D	B	B	D	C	C	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	23.24			23.93			31.69			36.31		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	28.72											
Intersection LOS	C											
Intersection V/C	0.534											

**Emissions**

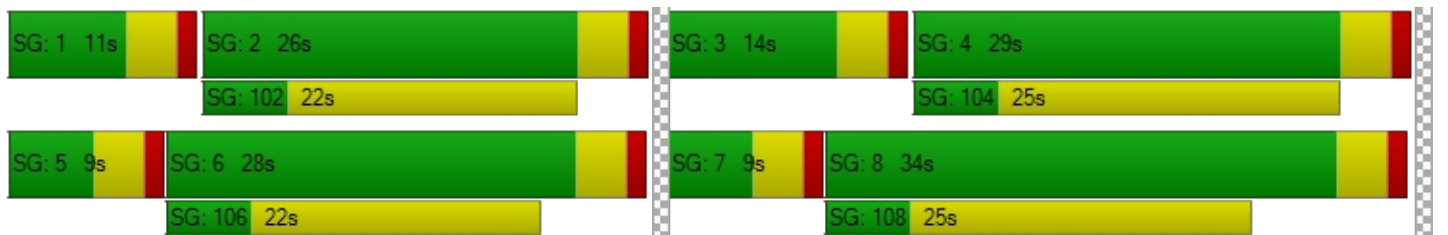
Vehicle Miles Traveled [mph]	17.70	47.50	47.07	8.62	38.94	36.39	121.44	178.59	171.22	4.09	63.15	61.14
Stops [stops/h]	120.57	181.05	179.58	77.00	213.09	200.74	224.28	189.19	181.65	22.48	288.21	280.74
Fuel consumption [US gal/h]	2.99	4.65	4.61	1.82	4.93	4.63	9.27	9.86	9.46	0.63	8.23	8.01
CO [g/h]	209.08	325.23	322.49	127.24	344.51	323.95	647.79	689.11	661.04	43.73	574.99	559.81
NOx [g/h]	40.68	63.28	62.75	24.76	67.03	63.03	126.04	134.08	128.61	8.51	111.87	108.92
VOC [g/h]	48.46	75.37	74.74	29.49	79.84	75.08	150.13	159.71	153.20	10.14	133.26	129.74

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.661			2.790			2.823			2.701		
Crosswalk LOS	B			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			550			750			625		
d_b, Bicycle Delay [s]	19.60			21.03			15.63			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.175			2.197			2.221			2.143		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	37.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.611

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	25	140	91	58	168	14	10	341	38	124	316	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	10	14	8	25	18	20	159	26	26	179	7
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	28	0	0	8	0	0	17	0	0	10
Total Hourly Volume [veh/h]	36	163	85	71	208	25	31	531	50	161	523	29
Peak Hour Factor	0.8574	0.8574	0.8574	0.8571	0.8571	0.8571	0.7729	0.7729	0.7729	0.9044	0.9044	0.9044
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]	10	48	25	21	61	7	10	172	16	45	145	8
Total Analysis Volume [veh/h]	42	190	99	83	243	29	40	687	65	178	578	32
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	22	0	6	22	0	8	53	0	13	58	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	26	0	13	26	0	13	46	0	25	58	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	33	33	6	36	36	4	42	42	13	51	51
g / C, Green / Cycle	0.03	0.30	0.30	0.06	0.32	0.32	0.03	0.38	0.38	0.12	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.06	0.05	0.13	0.02	0.02	0.36	0.04	0.10	0.16	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1865
c, Capacity [veh/h]	61	564	480	107	612	520	59	726	617	211	885	869
d1, Uniform Delay [s]	52.58	30.21	28.96	51.06	28.97	25.73	52.61	32.91	21.89	47.59	18.72	18.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.28	0.11	0.11	0.11	0.11
l, 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]	13.03	1.61	0.97	11.53	1.92	0.20	12.42	15.23	0.07	8.76	0.23	0.24
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	0.69	0.34	0.21	0.78	0.40	0.06	0.67	0.95	0.11	0.84	0.35	0.35
d, Delay for Lane Group [s/veh]	65.61	31.82	29.93	62.59	30.89	25.93	65.03	48.14	21.96	56.35	18.96	18.96
Lane Group LOS	E	C	C	E	C	C	E	D	C	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.36	4.13	2.07	2.57	5.23	0.55	1.27	19.55	1.05	5.14	4.74	4.66
50th-Percentile Queue Length [ft/ln]	33.92	103.21	51.65	64.31	130.63	13.72	31.71	488.85	26.25	128.51	118.50	116.44
95th-Percentile Queue Length [veh/ln]	2.44	7.43	3.72	4.63	8.97	0.99	2.28	26.81	1.89	8.86	8.31	8.20
95th-Percentile Queue Length [ft/ln]	61.05	185.77	92.97	115.77	224.35	24.69	57.08	670.15	47.26	221.47	207.76	204.93

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.61	31.82	29.93	62.59	30.89	25.93	65.03	48.14	21.96	56.35	18.96	18.96
Movement LOS	E	C	C	E	C	C	E	D	C	E	B	B
d_A, Approach Delay [s/veh]	35.54			37.90			46.84			27.41		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	37.03											
Intersection LOS	D											
Intersection V/C	0.611											

**Emissions**

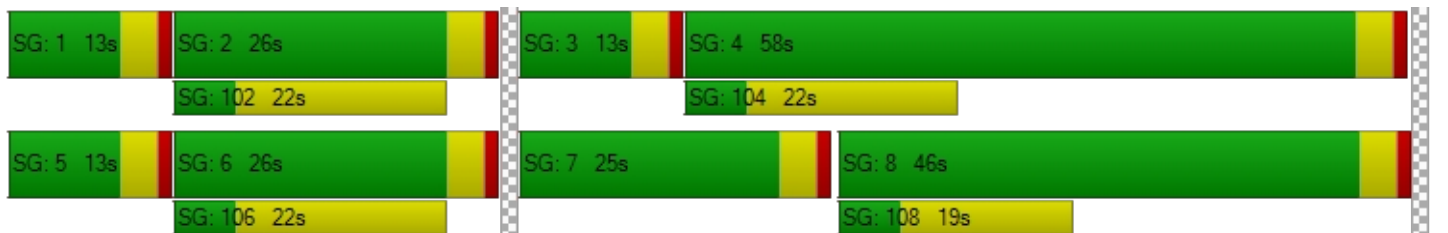
Vehicle Miles Traveled [mph]	18.46	83.51	43.51	6.53	19.13	2.28	2.65	45.44	4.30	25.94	44.84	44.05
Stops [stops/h]	44.40	135.11	67.61	84.19	171.00	17.96	41.52	639.95	34.37	168.24	155.12	152.43
Fuel consumption [US gal/h]	1.60	5.43	2.77	1.94	3.54	0.38	1.14	16.24	0.87	5.02	4.65	4.57
CO [g/h]	111.72	379.52	193.63	135.56	247.66	26.22	79.42	1135.45	60.48	351.03	325.23	319.56
NOx [g/h]	21.74	73.84	37.67	26.37	48.19	5.10	15.45	220.92	11.77	68.30	63.28	62.17
VOC [g/h]	25.89	87.96	44.88	31.42	57.40	6.08	18.41	263.15	14.02	81.35	75.38	74.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	46.37		46.37		46.37		46.37	
I_p,int, Pedestrian LOS Score for Intersectio	2.427		2.467		2.764		2.821	
Crosswalk LOS	B		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]	400		400		764		982	
d_b, Bicycle Delay [s]	35.20		35.20		21.02		14.25	
I_b,int, Bicycle LOS Score for Intersection	2.152		2.159		2.894		2.218	
Bicycle LOS	B		B		C		B	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	28.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	2	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	17	536	182	66	798	26	27	158	45	182	113	56
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	466	34	140	381	123	3	3	3	3	76	154
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	58	0	0	38	0	0	13	0	0	54
Total Hourly Volume [veh/h]	32	1050	174	212	1251	113	32	175	39	201	199	161
Peak Hour Factor	0.9023	0.9023	0.9023	0.9304	0.9304	0.9304	0.8297	0.8297	0.8297	0.7930	0.7930	0.7930
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	291	48	57	336	30	10	53	12	63	63	51
Total Analysis Volume [veh/h]	35	1164	193	228	1345	121	39	211	47	253	251	203
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	26	0	17	31	0	16	32	0	19	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	30	0	21	40	0	20	36	0	23	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	3	51	51	16	63	63	4	10	10	17	24	24
g / C, Green / Cycle	0.03	0.46	0.46	0.14	0.58	0.58	0.03	0.09	0.09	0.16	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.12	0.13	0.26	0.07	0.02	0.06	0.03	0.14	0.07	0.13
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	54	2402	750	258	2984	931	58	332	148	283	781	349
d1, Uniform Delay [s]	52.77	20.37	17.94	46.28	13.32	10.66	52.66	48.19	46.74	45.51	36.34	38.68
k, delay calibration	0.11	0.50	0.50	0.29	0.50	0.50	0.11	0.11	0.11	0.29	0.11	0.11
l, 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]	12.11	0.70	0.83	21.77	0.49	0.29	12.62	2.03	1.22	21.52	0.24	1.54
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	0.65	0.48	0.26	0.88	0.45	0.13	0.67	0.64	0.32	0.89	0.32	0.58
d, Delay for Lane Group [s/veh]	64.88	21.08	18.77	68.05	13.82	10.95	65.28	50.22	47.96	67.03	36.57	40.22
Lane Group LOS	E	C	B	E	B	B	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.11	6.56	2.98	7.46	5.81	1.30	1.24	2.80	1.22	8.22	2.78	4.89
50th-Percentile Queue Length [ft/ln]	27.83	164.03	74.44	186.61	145.14	32.47	31.01	70.12	30.54	205.61	69.41	122.14
95th-Percentile Queue Length [veh/ln]	2.00	10.76	5.36	11.94	9.76	2.34	2.23	5.05	2.20	12.93	5.00	8.51
95th-Percentile Queue Length [ft/ln]	50.09	269.06	133.99	298.62	243.93	58.44	55.82	126.22	54.97	323.19	124.94	212.77

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	64.88	21.08	18.77	68.05	13.82	10.95	65.28	50.22	47.96	67.03	36.57	40.22
Movement LOS	E	C	B	E	B	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	21.86			20.91			51.84			48.52		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	28.25											
Intersection LOS	C											
Intersection V/C	0.549											

**Emissions**

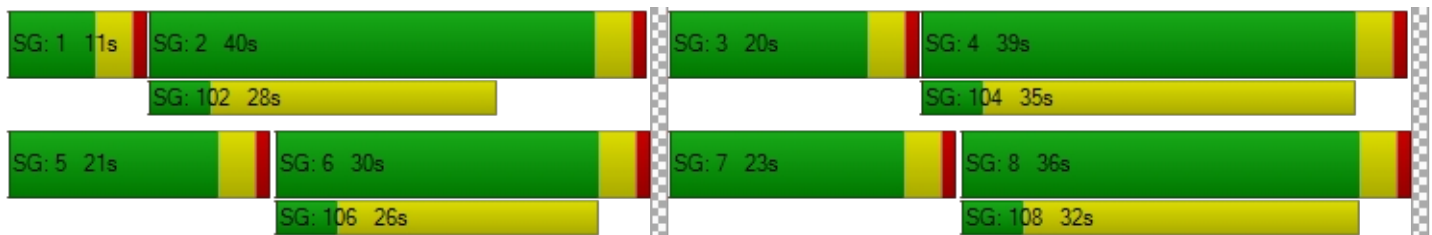
Vehicle Miles Traveled [mph]	14.53	483.13	80.11	68.10	401.72	36.14	2.76	14.92	3.32	46.56	46.20	37.36
Stops [stops/h]	36.43	644.20	97.45	244.28	570.01	42.51	40.60	183.59	39.98	269.16	181.73	159.89
Fuel consumption [US gal/h]	1.41	29.56	4.69	8.53	24.64	2.04	1.12	4.95	1.07	8.39	5.71	4.93
CO [g/h]	98.77	2066.43	328.15	596.16	1722.30	142.38	78.10	346.02	74.77	586.68	399.20	344.61
NOx [g/h]	19.22	402.05	63.85	115.99	335.10	27.70	15.20	67.32	14.55	114.15	77.67	67.05
VOC [g/h]	22.89	478.92	76.05	138.17	399.16	33.00	18.10	80.19	17.33	135.97	92.52	79.87

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.387			3.374			2.667			2.895		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	473			655			582			636		
d_b, Bicycle Delay [s]	32.07			24.89			27.65			25.57		
I_b,int, Bicycle LOS Score for Intersection	2.357			2.512			1.815			2.187		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	60	150	7	67	251	31	48	126	116	1	84	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	4	23	77	20	99	0	5	109	10
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]	65	172	10	77	297	111	72	236	126	6	201	42
Peak Hour Factor	0.9435	0.9435	0.9435	0.8756	0.8756	0.8756	0.8401	0.8401	0.8401	0.7370	0.7370	0.7370
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]	17	46	3	22	85	32	21	70	37	2	68	14
Total Analysis Volume [veh/h]	69	182	11	88	339	127	86	281	150	8	273	57
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	405	428	433	436	464	509	437	464	507	495	533
Degree of Utilization, x	0.17	0.23	0.22	0.20	0.73	0.25	0.20	0.61	0.30	0.02	0.62

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.61	0.85	0.85	0.75	5.92	0.98	0.72	3.94	1.23	0.05	4.19
95th-Percentile Queue Length [ft]	15.19	21.37	21.13	18.63	147.90	24.49	18.09	98.42	30.64	1.23	104.83
Approach Delay [s/veh]	13.45			22.48			17.65			19.61	
Approach LOS	B			C			C			C	
Intersection Delay [s/veh]	18.99										
Intersection LOS	C										

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	32.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	2
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	47	688	63	65	901	71	45	202	76	40	87	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	106	385	2	10	347	105	195	107	103	1	175	10
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	18	0	0	46	0	0	47	0	0	11
Total Hourly Volume [veh/h]	157	1135	53	81	1329	136	244	327	139	45	270	31
Peak Hour Factor	0.9427	0.9427	0.9427	0.9056	0.9056	0.9056	0.9714	0.9714	0.9714	0.8451	0.8451	0.8451
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]	42	301	14	22	367	38	63	84	36	13	80	9
Total Analysis Volume [veh/h]	167	1204	56	89	1468	150	251	337	143	53	319	37
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	33	0	11	32	0	24	37	0	13	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	19	40	0	12	33	0	23	30	0	28	35	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	12	60	60	7	55	55	17	23	23	4	10	10
g / C, Green / Cycle	0.11	0.55	0.55	0.06	0.50	0.50	0.16	0.21	0.21	0.04	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.09	0.33	0.03	0.05	0.41	0.09	0.14	0.09	0.09	0.03	0.06	0.02
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	197	1969	879	113	1801	804	281	753	336	72	478	149
d1, Uniform Delay [s]	48.09	17.11	11.83	50.85	23.35	15.29	45.56	38.03	37.83	52.27	48.28	46.37
k, delay calibration	0.18	0.50	0.50	0.11	0.50	0.50	0.18	0.11	0.11	0.11	0.11	0.11
l, 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]	15.16	1.43	0.14	11.43	4.20	0.51	14.48	0.42	0.85	13.86	1.61	0.86
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	0.85	0.61	0.06	0.79	0.82	0.19	0.89	0.45	0.43	0.74	0.67	0.25
d, Delay for Lane Group [s/veh]	63.25	18.54	11.97	62.28	27.55	15.81	60.04	38.44	38.69	66.13	49.89	47.23
Lane Group LOS	E	B	B	E	C	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.18	9.71	0.63	2.71	15.57	2.06	7.68	3.92	3.35	1.70	2.84	0.96
50th-Percentile Queue Length [ft/ln]	129.59	242.80	15.83	67.66	389.31	51.46	191.99	98.00	83.82	42.42	70.96	24.00
95th-Percentile Queue Length [veh/ln]	8.92	14.82	1.14	4.87	22.04	3.71	12.22	7.06	6.03	3.05	5.11	1.73
95th-Percentile Queue Length [ft/ln]	222.94	370.58	28.50	121.79	551.10	92.63	305.60	176.40	150.87	76.35	127.72	43.21

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	63.25	18.54	11.97	62.28	27.55	15.81	60.04	38.44	38.69	66.13	49.89	47.23
Movement LOS	E	B	B	E	C	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	23.51			28.33			45.91			51.76		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.97											
Intersection LOS	C											
Intersection V/C	0.698											

**Emissions**

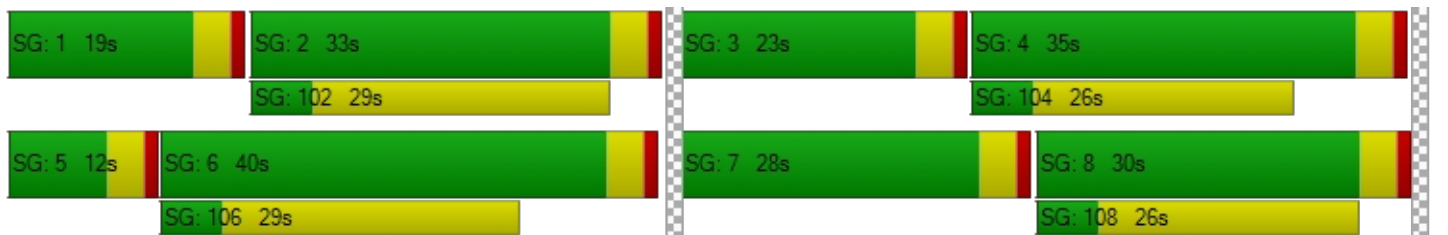
Vehicle Miles Traveled [mph]	10.88	78.44	3.65	7.05	116.27	11.88	27.35	36.72	15.58	26.70	160.73	18.64
Stops [stops/h]	169.65	635.70	20.73	88.58	1019.28	67.37	251.33	256.58	109.73	55.53	278.67	31.42
Fuel consumption [US gal/h]	4.63	15.13	0.52	2.47	24.89	1.73	6.52	6.47	2.76	2.22	11.73	1.33
CO [g/h]	323.75	1057.91	36.29	172.71	1739.70	120.75	455.40	452.41	193.05	154.84	820.17	93.11
NOx [g/h]	62.99	205.83	7.06	33.60	338.48	23.49	88.60	88.02	37.56	30.13	159.57	18.12
VOC [g/h]	75.03	245.18	8.41	40.03	403.19	27.98	105.54	104.85	44.74	35.89	190.08	21.58

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.259			3.323			2.943			2.792		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	655			527			473			564		
d_b, Bicycle Delay [s]	24.89			29.82			32.07			28.37		
I_b,int, Bicycle LOS Score for Intersection	2.752			3.006			2.201			1.791		
Bicycle LOS	C			C			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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	37	16	8	3	10	12	10	330	47	9	213	10
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	0	0	554	0	0	569	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]	48	17	9	3	11	13	11	914	51	10	801	11
Peak Hour Factor	0.7625	0.7625	0.7625	0.6125	0.6125	0.6125	0.9369	0.9369	0.9369	0.7804	0.7804	0.7804
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]	16	6	3	1	4	5	3	244	14	3	257	4
Total Analysis Volume [veh/h]	63	22	12	5	18	21	12	976	54	13	1026	14
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	476	490	531	572	572	583	532	574	574	577
Degree of Utilization, x	0.20	0.09	0.02	0.60	0.60	0.59	0.02	0.60	0.60	0.60

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.76	0.29	0.07	3.95	3.95	3.82	0.08	4.01	4.01	3.98
95th-Percentile Queue Length [ft]	18.90	7.37	1.73	98.72	98.72	95.40	1.88	100.3	100.3	99.44
Approach Delay [s/veh]	12.49	11.08	17.66				17.93			
Approach LOS	B	B	C				C			
Intersection Delay [s/veh]	17.43									
Intersection LOS	C									

**Intersection Level Of Service Report  
Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	34.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.726

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	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			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	32	60	12	30	149	180	80	331	53	8	238	12
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	233	39	554	22	0	576	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	3	0	0	107	0	0	20	0	0	3
Total Hourly Volume [veh/h]	35	65	10	33	162	322	126	915	60	9	835	10
Peak Hour Factor	0.8771	0.8771	0.8771	0.8074	0.8074	0.8074	0.8657	0.8657	0.8657	0.8526	0.8526	0.8526
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]	10	19	3	10	50	100	36	264	17	3	245	3
Total Analysis Volume [veh/h]	40	74	11	41	201	399	146	1057	69	11	979	12
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	5	42	0	17	54	0	11	40	40	5	34	34
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	14	14	0	10	10
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	37	0	9	36	0	19	43	43	11	35	35
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
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
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	3	41	41	3	41	10	39	46	1	30	37
g / C, Green / Cycle	0.03	0.41	0.41	0.03	0.41	0.10	0.39	0.46	0.01	0.30	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.02	0.35	0.08	0.29	0.04	0.01	0.27	0.01
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1700	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	62	771	655	62	690	180	1392	741	27	1086	605
d1, Uniform Delay [s]	47.68	18.37	17.77	47.69	27.26	44.09	26.74	15.28	48.81	33.58	19.71
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.13	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	10.58	0.25	0.05	11.13	13.99	8.38	0.88	0.07	9.53	3.08	0.01
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
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
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

**Lane Group Results**

X, volume / capacity	0.64	0.10	0.02	0.66	0.87	0.81	0.76	0.09	0.41	0.90	0.02
d, Delay for Lane Group [s/veh]	58.25	18.61	17.82	58.82	41.26	52.48	27.62	15.35	58.34	36.66	19.72
Lane Group LOS	E	B	B	E	D	D	C	B	E	D	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.16	1.10	0.16	1.17	14.66	3.83	10.26	0.84	0.34	11.12	0.17
50th-Percentile Queue Length [ft/ln]	29.06	27.51	3.98	29.22	366.44	95.70	256.42	20.99	8.38	277.89	4.23
95th-Percentile Queue Length [veh/ln]	2.09	1.98	0.29	2.10	20.94	6.89	15.51	1.51	0.60	16.58	0.30
95th-Percentile Queue Length [ft/ln]	52.31	49.52	7.16	52.59	523.41	172.26	387.73	37.78	15.08	414.58	7.61

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.25	18.61	17.82	58.82	41.26	41.26	52.48	27.62	15.35	58.34	36.66	19.72
Movement LOS	E	B	B	E	D	D	D	C	B	E	D	B
d_A, Approach Delay [s/veh]	31.23			42.38			29.80			36.70		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	34.79											
Intersection LOS	C											
Intersection V/C	0.726											

**Emissions**

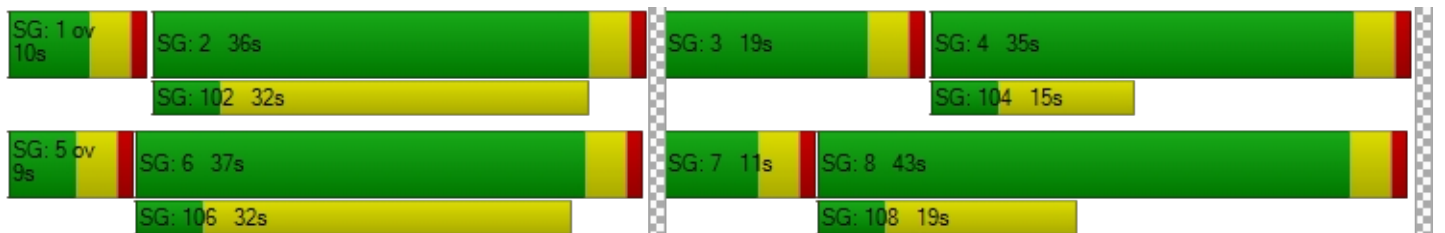
Vehicle Miles Traveled [mph]	10.08	18.64	2.77	20.59	301.31	13.40	97.04	6.33	2.73	242.87	2.98
Stops [stops/h]	41.85	39.62	5.73	42.08	527.67	137.81	738.50	30.22	12.07	800.32	6.09
Fuel consumption [US gal/h]	1.12	1.27	0.19	1.72	21.93	3.73	18.45	0.81	0.37	25.58	0.23
CO [g/h]	78.30	88.54	12.98	120.20	1532.64	260.86	1289.56	56.51	26.15	1788.01	15.79
NOx [g/h]	15.23	17.23	2.52	23.39	298.20	50.75	250.90	11.00	5.09	347.88	3.07
VOC [g/h]	18.15	20.52	3.01	27.86	355.20	60.46	298.87	13.10	6.06	414.39	3.66

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	2.247			2.578			3.175			3.047		
Crosswalk LOS	B			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]	660			640			780			620		
d_b, Bicycle Delay [s]	22.45			23.12			18.61			23.81		
I_b,int, Bicycle LOS Score for Intersection	1.771			2.794			2.626			2.389		
Bicycle LOS	A			C			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 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.547

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	127	31	8	16	68	129	32	445	215	8	436	5
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	634	0	0	833	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	2	0	0	35	0	0	59	0	0	1
Total Hourly Volume [veh/h]	138	34	7	17	74	106	35	1119	175	9	1308	4
Peak Hour Factor	0.9167	0.9167	0.9167	0.7870	0.7870	0.7870	0.8687	0.8687	0.8687	0.9239	0.9239	0.9239
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]	38	9	2	5	24	34	10	322	50	2	354	1
Total Analysis Volume [veh/h]	151	37	8	22	94	135	40	1288	201	10	1416	4
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	5	37	0	5	37	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	9	38	0	12	41	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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]	30	30	30	30	3	37	37	1	35	35
g / C, Green / Cycle	0.38	0.38	0.38	0.38	0.04	0.46	0.46	0.01	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.13	0.02	0.02	0.13	0.02	0.36	0.12	0.01	0.39	0.00
s, saturation flow rate [veh/h]	1170	1842	1383	1721	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	387	693	552	647	67	1665	743	25	1580	705
d1, Uniform Delay [s]	25.57	15.96	18.03	17.96	37.92	18.10	13.31	39.12	20.85	12.72
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	2.95	0.18	0.14	1.52	8.10	0.79	0.19	9.99	2.04	0.00
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	0.39	0.06	0.04	0.35	0.59	0.77	0.27	0.40	0.90	0.01
d, Delay for Lane Group [s/veh]	28.52	16.14	18.17	19.48	46.01	18.89	13.51	49.11	22.89	12.72
Lane Group LOS	C	B	B	B	D	B	B	D	C	B
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.61	0.52	0.28	3.05	0.88	8.60	1.97	0.25	10.86	0.04
50th-Percentile Queue Length [ft/ln]	65.32	13.01	6.92	76.33	22.02	215.03	49.31	6.35	271.41	0.91
95th-Percentile Queue Length [veh/ln]	4.70	0.94	0.50	5.50	1.59	13.41	3.55	0.46	16.26	0.07
95th-Percentile Queue Length [ft/ln]	117.57	23.41	12.46	137.39	39.64	335.28	88.76	11.43	406.50	1.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	28.52	16.14	16.14	18.17	19.48	19.48	46.01	18.89	13.51	49.11	22.89	12.72
Movement LOS	C	B	B	B	B	B	D	B	B	D	C	B
d_A, Approach Delay [s/veh]	25.68			19.37			18.90			23.04		
Approach LOS	C			B			B			C		
d_I, Intersection Delay [s/veh]	21.06											
Intersection LOS	C											
Intersection V/C	0.547											

**Emissions**

Vehicle Miles Traveled [mph]	51.29	15.29	5.32	55.35	4.68	150.83	23.54	0.82	116.04	0.33
Stops [stops/h]	117.57	23.41	12.46	137.39	39.64	774.11	88.76	11.43	977.07	1.64
Fuel consumption [US gal/h]	3.87	0.93	0.39	4.24	1.03	19.75	2.46	0.27	22.72	0.04
CO [g/h]	270.42	64.69	27.56	296.38	71.86	1380.38	172.16	18.89	1588.20	2.94
NOx [g/h]	52.61	12.59	5.36	57.66	13.98	268.57	33.50	3.67	309.01	0.57
VOC [g/h]	62.67	14.99	6.39	68.69	16.65	319.92	39.90	4.38	368.08	0.68

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	2.312	2.145	3.558	3.152
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	650	850	925
d_b, Bicycle Delay [s]	18.23	18.23	13.23	11.56
I_b,int, Bicycle LOS Score for Intersection	1.886	2.032	2.870	2.740
Bicycle LOS	A	B	C	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	2	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	635.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	34	3	170	0	0	0	46	522	0	0	421	257
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0000	1.0000	1.0000	1.0900	1.0900	1.0000	1.0000	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	70	0	281	0	0	0	107	353	0	0	439	394
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	117	0	0	0	0	0	0	0	0	169
Total Hourly Volume [veh/h]	107	3	349	0	0	0	157	922	0	0	898	505
Peak Hour Factor	0.8655	0.8655	0.8655	1.0000	1.0000	1.0000	0.9008	0.9008	1.0000	1.0000	0.8591	0.8591
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]	31	1	101	0	0	0	44	256	0	0	261	147
Total Analysis Volume [veh/h]	124	3	403	0	0	0	174	1024	0	0	1045	588
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	30	0	0	0	0	5	52	0	0	43	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	14	0	0	0	0	9	46	0	0	37	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	60	60	60		60	60	60	60
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]	17	17	17		5	35	26	26
g / C, Green / Cycle	0.29	0.29	0.29		0.08	0.58	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.05		0.05	0.28	0.29	0.36
s, saturation flow rate [veh/h]	1810	1814	8500		3514	3618	3618	1615
c, Capacity [veh/h]	520	521	2442		278	2096	1569	700
d1, Uniform Delay [s]	15.79	15.79	16.00		26.77	7.40	13.53	15.13
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.48	0.48	0.15		2.32	0.18	0.49	2.79
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	0.12	0.12	0.17		0.63	0.49	0.67	0.84
d, Delay for Lane Group [s/veh]	16.27	16.27	16.14		29.09	7.58	14.02	17.92
Lane Group LOS	B	B	B		C	A	B	B
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.66	0.66	3.90		1.17	2.52	4.93	6.61
50th-Percentile Queue Length [ft/ln]	16.50	16.54	97.52		29.21	62.94	123.18	165.24
95th-Percentile Queue Length [veh/ln]	1.19	1.19	7.02		2.10	4.53	8.57	10.83
95th-Percentile Queue Length [ft/ln]	29.71	29.77	175.53		52.57	113.29	214.19	270.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	16.27	16.27	16.14	0.00	0.00	0.00	29.09	7.58	0.00	0.00	14.02	17.92
Movement LOS	B	B	B				C	A			B	B
d_A, Approach Delay [s/veh]	16.18			0.00			10.70			15.43		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	13.86											
Intersection LOS	B											
Intersection V/C	0.461											

**Emissions**

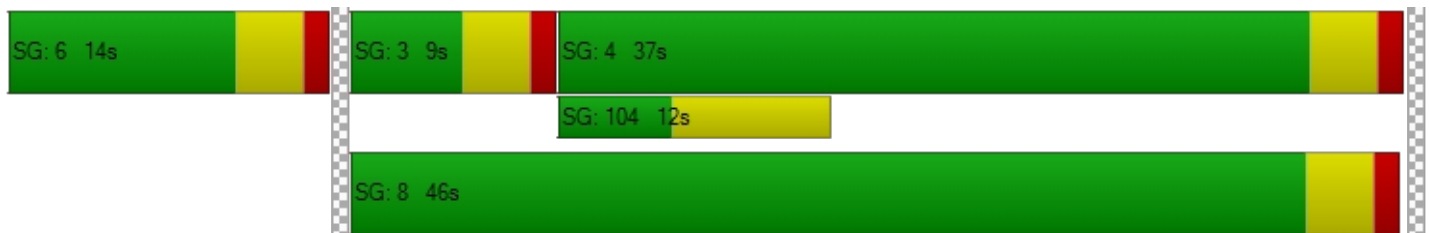
Vehicle Miles Traveled [mph]	9.50	9.52	60.34		25.01	147.18	122.38	68.86
Stops [stops/h]	39.61	39.69	234.04		140.19	302.10	591.26	396.57
Fuel consumption [US gal/h]	0.82	0.82	5.10		3.63	10.38	11.29	7.17
CO [g/h]	57.31	57.43	356.56		253.76	725.61	788.92	501.22
NOx [g/h]	11.15	11.17	69.37		49.37	141.18	153.50	97.52
VOC [g/h]	13.28	13.31	82.64		58.81	168.17	182.84	116.16

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.224	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	0	1400	1100
d_b, Bicycle Delay [s]	20.83	30.00	2.70	6.08
I_b,int, Bicycle LOS Score for Intersection	2.627	4.132	2.548	3.046
Bicycle LOS	B	D	B	C

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	343	1	34	0	228	87	292	160	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	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	281	0	70	0	179	107	394	115	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	27	0	0	51	0	0	0
Total Hourly Volume [veh/h]	0	0	0	655	1	80	0	428	151	712	289	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9087	0.9087	0.9087	1.0000	0.9128	0.9128	0.8958	0.8958	1.0000
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]	0	0	0	180	0	22	0	117	41	199	81	0
Total Analysis Volume [veh/h]	0	0	0	721	1	88	0	469	165	795	323	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	16	0	0	10	0	22	36	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	28	0	0	15	0	17	32	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	R	L	C
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60
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]	20	20	20	11	11	17	32
g / C, Green / Cycle	0.34	0.34	0.34	0.18	0.18	0.28	0.53
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20	0.05	0.13	0.10	0.23	0.09
s, saturation flow rate [veh/h]	1810	1810	1615	3618	1615	3514	3618
c, Capacity [veh/h]	612	612	546	649	290	993	1912
d1, Uniform Delay [s]	16.42	16.42	13.90	23.21	22.50	19.96	7.32
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.14	4.14	0.63	1.54	1.76	1.55	0.04
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	0.59	0.59	0.16	0.72	0.57	0.80	0.17
d, Delay for Lane Group [s/veh]	20.56	20.56	14.53	24.74	24.25	21.51	7.36
Lane Group LOS	C	C	B	C	C	C	A
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.18	4.18	0.81	2.86	2.00	4.52	0.77
50th-Percentile Queue Length [ft/ln]	104.49	104.49	20.33	71.58	49.99	112.96	19.24
95th-Percentile Queue Length [veh/ln]	7.52	7.52	1.46	5.15	3.60	8.00	1.39
95th-Percentile Queue Length [ft/ln]	188.08	188.09	36.60	128.84	89.99	200.11	34.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	20.56	20.56	14.53	0.00	24.74	24.25	21.51	7.36	0.00
Movement LOS				C	C	B		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			19.91			24.62			17.42		
Approach LOS	A			B			C			B		
d_I, Intersection Delay [s/veh]	19.99											
Intersection LOS	B											
Intersection V/C	0.555											

**Emissions**

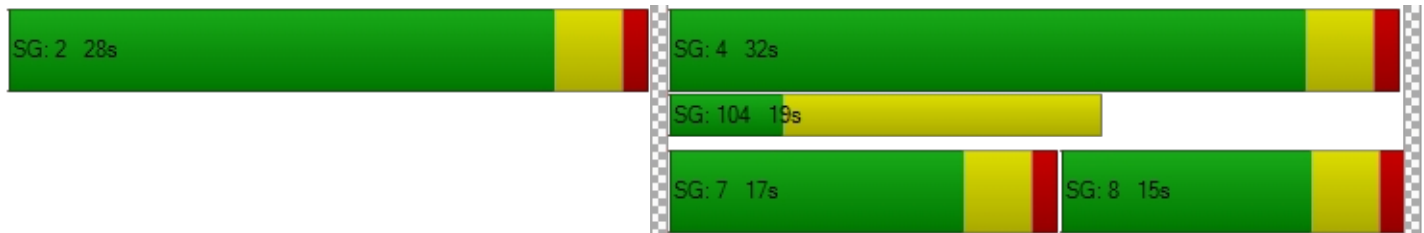
Vehicle Miles Traveled [mph]		24.20	24.20	5.90	53.39	18.78	114.27	46.43
Stops [stops/h]		250.78	250.79	48.80	343.58	119.98	542.22	92.37
Fuel consumption [US gal/h]		4.84	4.84	0.95	8.46	2.95	14.14	3.22
CO [g/h]		338.40	338.41	66.47	591.62	206.21	988.31	225.34
NOx [g/h]		65.84	65.84	12.93	115.11	40.12	192.29	43.84
VOC [g/h]		78.43	78.43	15.41	137.11	47.79	229.05	52.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.322	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	800	367	933
d_b, Bicycle Delay [s]	30.00	10.80	20.01	8.53
I_b,int, Bicycle LOS Score for Intersection	4.132	2.941	2.125	2.482
Bicycle LOS	D	C	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	28.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	70	162	30	50	277	34	51	352	105	64	327	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	49	9	0	3	25	0	0	0	0	0	0	1
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	8	0	0	9	0	0	29	0	0	9
Total Hourly Volume [veh/h]	125	186	25	58	327	28	56	384	85	70	356	28
Peak Hour Factor	0.7846	0.7846	0.7846	0.8624	0.8624	0.8624	0.8872	0.8872	0.8872	0.8643	0.8643	0.8643
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]	40	59	8	17	95	8	16	108	24	20	103	8
Total Analysis Volume [veh/h]	159	237	32	67	379	32	63	433	96	81	412	32
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	31	0	6	26	0	5	22	0	5	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	31	0	12	30	0	11	27	0	10	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	9	43	43	4	38	38	4	12	12	5	13	13
g / C, Green / Cycle	0.11	0.54	0.54	0.05	0.48	0.48	0.05	0.15	0.15	0.06	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.09	0.07	0.07	0.04	0.11	0.11	0.03	0.12	0.06	0.04	0.11	0.02
s, saturation flow rate [veh/h]	1810	1900	1822	1810	1900	1849	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	195	1024	982	89	913	888	86	556	248	105	593	265
d1, Uniform Delay [s]	34.91	9.16	9.17	37.55	12.12	12.13	37.58	32.54	30.45	37.16	31.55	28.52
k, delay calibration	0.14	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.15	0.27	0.29	11.99	0.58	0.60	11.13	2.40	0.98	11.30	1.47	0.20
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	0.82	0.13	0.13	0.75	0.23	0.23	0.73	0.78	0.39	0.77	0.69	0.12
d, Delay for Lane Group [s/veh]	45.06	9.43	9.45	49.54	12.70	12.73	48.72	34.94	31.44	48.46	33.02	28.72
Lane Group LOS	D	A	A	D	B	B	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.38	1.06	1.03	1.52	2.00	1.97	1.42	3.94	1.62	1.80	3.61	0.51
50th-Percentile Queue Length [ft/ln]	84.62	26.38	25.74	37.98	50.09	49.23	35.40	98.40	40.61	45.06	90.32	12.63
95th-Percentile Queue Length [veh/ln]	6.09	1.90	1.85	2.73	3.61	3.54	2.55	7.09	2.92	3.24	6.50	0.91
95th-Percentile Queue Length [ft/ln]	152.31	47.48	46.33	68.36	90.16	88.61	63.72	177.13	73.10	81.11	162.58	22.73

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	45.06	9.44	9.45	49.54	12.72	12.73	48.72	34.94	31.44	48.46	33.02	28.72
Movement LOS	D	A	A	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	22.67			17.88			35.84			35.14		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	28.63											
Intersection LOS	C											
Intersection V/C	0.362											

**Emissions**

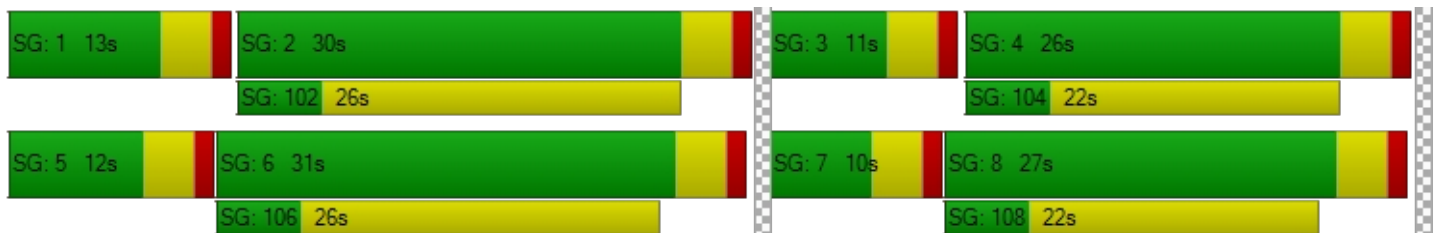
Vehicle Miles Traveled [mph]	79.68	68.37	66.43	33.54	103.91	101.82	31.89	219.15	48.59	13.47	68.50	5.32
Stops [stops/h]	152.31	47.48	46.33	68.36	90.16	88.61	63.72	354.25	73.10	81.11	325.15	22.73
Fuel consumption [US gal/h]	6.08	3.20	3.11	2.67	5.22	5.12	2.51	15.00	3.19	2.27	9.16	0.65
CO [g/h]	425.17	223.38	217.25	186.98	364.84	357.81	175.43	1048.15	222.88	158.59	640.23	45.58
NOx [g/h]	82.72	43.46	42.27	36.38	70.99	69.62	34.13	203.93	43.36	30.86	124.57	8.87
VOC [g/h]	98.54	51.77	50.35	43.33	84.56	82.93	40.66	242.92	51.65	36.75	148.38	10.56

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.606			2.551			2.790			2.723		
Crosswalk LOS	B			B			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	675			650			575			550		
d_b, Bicycle Delay [s]	17.56			18.23			20.31			21.03		
I_b,int, Bicycle LOS Score for Intersection	1.919			1.961			2.072			2.000		
Bicycle LOS	A			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 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	32.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	155	644	137	192	794	31	23	264	190	131	230	96
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	467	0	0	443	2	9	0	12	31	18	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	34	0	0	9	0	0	55	0	0	26
Total Hourly Volume [veh/h]	171	1169	103	209	1308	27	34	288	164	174	269	79
Peak Hour Factor	0.9266	0.9266	0.9266	0.9141	0.9141	0.9141	0.9141	0.9141	0.9141	0.9550	0.9550	0.9550
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]	46	315	28	57	358	7	9	79	45	46	70	21
Total Analysis Volume [veh/h]	185	1262	111	229	1431	30	37	315	179	182	282	83
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	13	47	0	16	50	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	30	0	16	32	0	14	30	0	14	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	10	39	39	12	41	41	3	13	13	10	20	20
g / C, Green / Cycle	0.11	0.44	0.44	0.13	0.46	0.46	0.03	0.14	0.14	0.11	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.10	0.24	0.07	0.13	0.40	0.02	0.02	0.09	0.11	0.10	0.08	0.05
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	201	2259	705	241	1659	741	63	511	228	201	788	352
d1, Uniform Delay [s]	39.60	18.90	15.35	38.70	21.82	13.44	42.80	36.34	37.31	39.53	29.86	29.03
k, delay calibration	0.20	0.50	0.50	0.21	0.50	0.50	0.11	0.11	0.11	0.31	0.11	0.11
l, 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]	24.26	1.00	0.48	27.06	6.19	0.10	8.47	1.21	5.83	30.61	0.28	0.34
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	0.56	0.16	0.95	0.86	0.04	0.59	0.62	0.78	0.91	0.36	0.24
d, Delay for Lane Group [s/veh]	63.86	19.91	15.83	65.76	28.01	13.54	51.27	37.55	43.14	70.14	30.14	29.37
Lane Group LOS	E	B	B	E	C	B	D	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.20	6.06	1.35	6.56	13.21	0.33	0.93	3.18	3.98	5.62	2.58	1.49
50th-Percentile Queue Length [ft/ln]	129.98	151.43	33.65	163.99	330.24	8.13	23.13	79.42	99.41	140.56	64.49	37.30
95th-Percentile Queue Length [veh/ln]	8.94	10.09	2.42	10.76	19.17	0.59	1.67	5.72	7.16	9.51	4.64	2.69
95th-Percentile Queue Length [ft/ln]	223.47	252.33	60.57	269.00	479.26	14.64	41.64	142.95	178.93	237.78	116.08	67.14

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	63.86	19.91	15.83	65.76	28.01	13.54	51.27	37.55	43.14	70.14	30.14	29.37
Movement LOS	E	B	B	E	C	B	D	D	D	E	C	C
d_A, Approach Delay [s/veh]	24.84			32.87			40.39			43.33		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	32.22											
Intersection LOS	C											
Intersection V/C	0.709											

**Emissions**

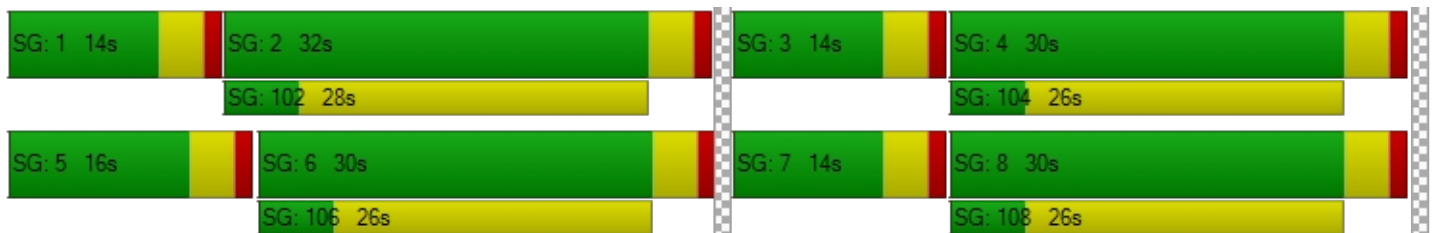
Vehicle Miles Traveled [mph]	9.90	67.55	5.94	100.90	630.53	13.22	3.57	30.41	17.28	92.11	142.73	42.01
Stops [stops/h]	207.97	726.84	53.84	262.39	1056.78	13.02	37.01	254.14	159.05	224.90	206.36	59.68
Fuel consumption [US gal/h]	5.33	16.47	1.23	9.79	42.91	0.70	0.97	6.61	4.14	7.63	8.75	2.56
CO [g/h]	372.51	1150.94	86.02	683.99	2999.35	48.76	67.70	461.98	289.47	533.47	611.28	178.60
NOx [g/h]	72.48	223.93	16.74	133.08	583.57	9.49	13.17	89.88	56.32	103.79	118.93	34.75
VOC [g/h]	86.33	266.74	19.94	158.52	695.13	11.30	15.69	107.07	67.09	123.64	141.67	41.39

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.404			3.257			2.799			2.696		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			622			578			578		
d_b, Bicycle Delay [s]	22.76			21.36			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.435			2.961			2.043			2.032		
Bicycle LOS	B			C			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 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.090

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	26	0	17	20	339	0	0	231	14
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	22	0	0	0	8
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]	0	0	0	28	0	19	22	392	0	0	252	23
Peak Hour Factor	1.0000	1.0000	1.0000	0.8077	1.0000	0.8077	0.8800	0.8800	0.8800	0.8277	0.8277	0.8277
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]	0	0	0	9	0	6	6	111	0	0	76	7
Total Analysis Volume [veh/h]	0	0	0	35	0	24	25	445	0	0	304	28
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.09	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.50	16.89	9.57	15.22	0.00	9.33	7.97	0.00	0.00	8.20	0.00	0.00
Movement LOS	C	C	A	C		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.30	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	7.41	0.00	2.16	1.54	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.99			12.83			0.42			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.11											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

**Intersection Setup**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	170.00	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	41	59	138	82	0	1	172	1	101	79	65
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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	22	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]	0	45	64	172	89	0	1	187	1	110	86	71
Peak Hour Factor	0.9950	0.9950	0.9950	0.7801	0.7801	0.7801	0.8788	0.8788	0.8788	0.8652	0.8652	0.8652
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]	0	11	16	55	29	0	0	53	0	32	25	21
Total Analysis Volume [veh/h]	0	45	64	220	114	0	1	213	1	127	99	82
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	561	526	566	494	530	530	501	539	604
Degree of Utilization, x	0.19	0.42	0.20	0.00	0.20	0.20	0.25	0.18	0.14

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.71	2.05	0.75	0.01	0.75	0.75	1.00	0.67	0.47
95th-Percentile Queue Length [ft]	17.87	51.21	18.65	0.15	18.71	18.69	24.96	16.68	11.71
Approach Delay [s/veh]	10.96	13.11		11.19			11.13		
Approach LOS	B	B		B			B		
Intersection Delay [s/veh]	11.81								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	90	2	170	118	4	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
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]	98	2	185	129	4	83
Peak Hour Factor	0.8214	0.8214	0.8944	0.8944	0.7950	0.7950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	1	52	36	1	26
Total Analysis Volume [veh/h]	119	2	207	144	5	104
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.14	0.00	0.01	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	7.83	0.00	14.78	9.02
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.49	0.00	0.04	0.35
95th-Percentile Queue Length [ft/ln]	0.00	0.00	12.17	0.00	1.02	8.68
d_A, Approach Delay [s/veh]	0.00		4.62		9.28	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.53					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.502

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	39	189	37	81	247	77	50	146	59	13	101	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	58	0	0	25	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]	49	264	37	88	294	84	55	159	64	14	110	55
Peak Hour Factor	0.8588	0.8588	0.8588	0.8821	0.8821	0.8821	0.8231	0.8231	0.8231	0.8039	0.8039	0.8039
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]	14	77	11	25	83	24	17	48	19	4	34	17
Total Analysis Volume [veh/h]	57	307	43	100	333	95	67	193	78	17	137	68
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	467	498	510	476	509	531	493	539	475	504	553
Degree of Utilization, x	0.12	0.35	0.34	0.21	0.42	0.40	0.14	0.50	0.04	0.27	0.12





**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.41	1.56	1.51	0.78	2.06	1.93	0.47	2.79	0.11	1.09	0.42
95th-Percentile Queue Length [ft]	10.34	39.09	37.82	19.62	51.60	48.26	11.69	69.80	2.78	27.34	10.45
Approach Delay [s/veh]	13.30			14.00			14.96			11.62	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	13.67										
Intersection LOS	B										

**Intersection Level Of Service Report**  
**Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.598

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	55	804	189	49	941	29	45	25	54	207	15	41
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	444	0	0	459	2	1	0	8	0	6	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	52	0	0	9	0	0	17	0	0	11
Total Hourly Volume [veh/h]	68	1320	154	53	1485	25	50	27	50	226	22	34
Peak Hour Factor	0.9319	0.9319	0.9319	0.8802	0.8802	0.8802	0.8576	0.8576	0.8576	0.8506	0.8506	0.8506
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]	18	354	41	15	422	7	15	8	15	66	6	10
Total Analysis Volume [veh/h]	73	1416	165	60	1687	28	58	31	58	266	26	40
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	5	23	0	0	14	0	0	10	0	0	35	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	27	0	0	16	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall	No	No			No			No			No	
Maximum Recall	No	No			No			No			No	
Pedestrian Recall	No	No			No			No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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	2.00	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	44	44	36	36	36	10	14	14	14
g / C, Green / Cycle	0.05	0.55	0.55	0.45	0.45	0.45	0.12	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.29	0.29	0.18	0.33	0.02	0.08	0.15	0.01	0.02
s, saturation flow rate [veh/h]	1810	3618	1800	329	5176	1615	1744	1810	1900	1615
c, Capacity [veh/h]	95	1997	994	163	2326	726	210	321	338	287
d1, Uniform Delay [s]	37.41	11.33	11.34	29.53	17.99	12.34	33.80	31.71	27.43	27.74
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, 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]	12.00	1.01	2.01	6.26	2.01	0.10	4.20	5.42	0.10	0.22
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	0.77	0.53	0.53	0.37	0.73	0.04	0.70	0.83	0.08	0.14
d, Delay for Lane Group [s/veh]	49.41	12.34	13.35	35.78	20.00	12.44	38.01	37.14	27.52	27.96
Lane Group LOS	D	B	B	D	C	B	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.70	5.53	5.79	1.29	7.65	0.27	2.96	5.36	0.42	0.66
50th-Percentile Queue Length [ft/ln]	42.50	138.32	144.80	32.19	191.18	6.66	73.92	133.99	10.53	16.47
95th-Percentile Queue Length [veh/ln]	3.06	9.39	9.74	2.32	12.18	0.48	5.32	9.16	0.76	1.19
95th-Percentile Queue Length [ft/ln]	76.51	234.76	243.48	57.94	304.56	11.99	133.05	228.91	18.95	29.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	49.41	12.60	13.35	35.78	20.00	12.44	38.01	38.01	38.01	37.14	27.52	27.96
Movement LOS	D	B	B	D	C	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	14.30			20.42			38.01			35.28		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	19.75											
Intersection LOS	B											
Intersection V/C	0.598											

**Emissions**

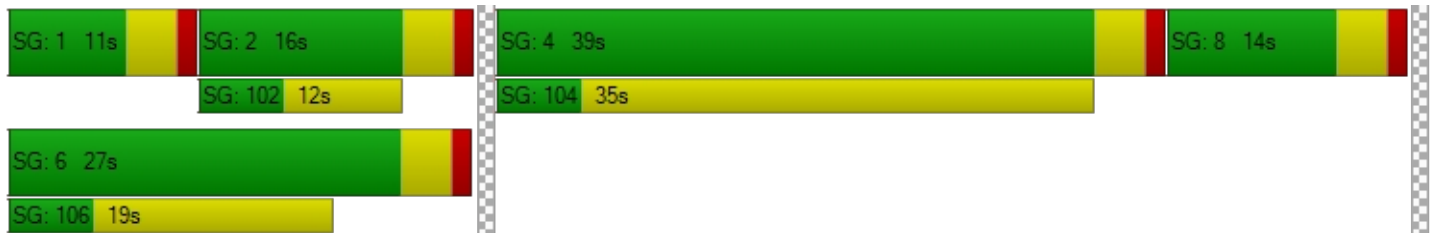
Vehicle Miles Traveled [mph]	36.43	526.69	262.35	5.81	163.23	2.71	11.72	134.38	13.14	20.21
Stops [stops/h]	76.51	497.95	260.65	57.94	1032.38	11.99	133.05	241.18	18.95	29.64
Fuel consumption [US gal/h]	2.66	27.08	13.67	1.36	25.30	0.31	2.17	8.98	0.81	1.25
CO [g/h]	185.69	1893.09	955.42	94.80	1768.35	21.87	152.00	627.59	56.55	87.38
NOx [g/h]	36.13	368.33	185.89	18.45	344.06	4.25	29.57	122.11	11.00	17.00
VOC [g/h]	43.03	438.74	221.43	21.97	409.83	5.07	35.23	145.45	13.11	20.25

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.395	1.857	2.360
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	575	300	250	875
d_b, Bicycle Delay [s]	20.31	28.90	30.63	12.66
I_b,int, Bicycle LOS Score for Intersection	2.498	2.541	1.830	2.126
Bicycle LOS	B	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	31.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	36	105	148	41	53	58	45	554	14	158	543	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	8	8	0	0	0	111	0	8	111	8
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	42	0	0	16	0	0	4	0	0	13
Total Hourly Volume [veh/h]	39	114	127	53	58	47	49	715	11	180	703	39
Peak Hour Factor	0.8780	0.8780	0.8780	0.8608	0.8608	0.8608	0.8955	0.8955	0.8955	0.7629	0.7629	0.7629
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]	11	32	36	15	17	14	14	200	3	59	230	13
Total Analysis Volume [veh/h]	44	130	145	62	67	55	55	798	12	236	921	51
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	11	28	0	11	26	0	15	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	22	0	19	32	0	18	25	0	24	31	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	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	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
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
g_i, Effective Green Time [s]	3	34	4	35	35	4	22	22	14	32	32
g / C, Green / Cycle	0.04	0.38	0.05	0.38	0.38	0.04	0.25	0.25	0.15	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.02	0.16	0.03	0.04	0.03	0.03	0.22	0.01	0.13	0.25	0.03
s, saturation flow rate [veh/h]	1810	1738	1810	1900	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	68	651	84	729	619	78	900	402	276	1295	578
d1, Uniform Delay [s]	42.74	20.91	42.38	17.73	17.70	42.48	32.58	25.58	37.17	24.88	19.15
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13	0.11	0.11
l, 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
d2, Incremental Delay [s]	10.09	2.01	11.91	0.25	0.28	10.83	3.18	0.03	9.08	0.73	0.07
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
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
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

**Lane Group Results**

X, volume / capacity	0.65	0.42	0.74	0.09	0.09	0.70	0.89	0.03	0.86	0.71	0.09
d, Delay for Lane Group [s/veh]	52.83	22.92	54.29	17.98	17.99	53.31	35.76	25.61	46.24	25.61	19.22
Lane Group LOS	D	C	D	B	B	D	D	C	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.15	4.60	1.64	0.94	0.77	1.37	7.95	0.18	5.36	7.55	0.64
50th-Percentile Queue Length [ft/ln]	28.87	114.89	40.97	23.40	19.36	34.14	198.76	4.54	133.91	188.74	16.07
95th-Percentile Queue Length [veh/ln]	2.08	8.11	2.95	1.68	1.39	2.46	12.57	0.33	9.15	12.06	1.16
95th-Percentile Queue Length [ft/ln]	51.97	202.78	73.75	42.12	34.86	61.45	314.36	8.18	228.80	301.40	28.92

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.83	22.92	22.92	54.29	17.98	17.99	53.31	35.76	25.61	46.24	25.61	19.22
Movement LOS	D	C	C	D	B	B	D	D	C	D	C	B
d_A, Approach Delay [s/veh]	27.04			30.21			36.73			29.37		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.62											
Intersection LOS	C											
Intersection V/C	0.543											

**Emissions**

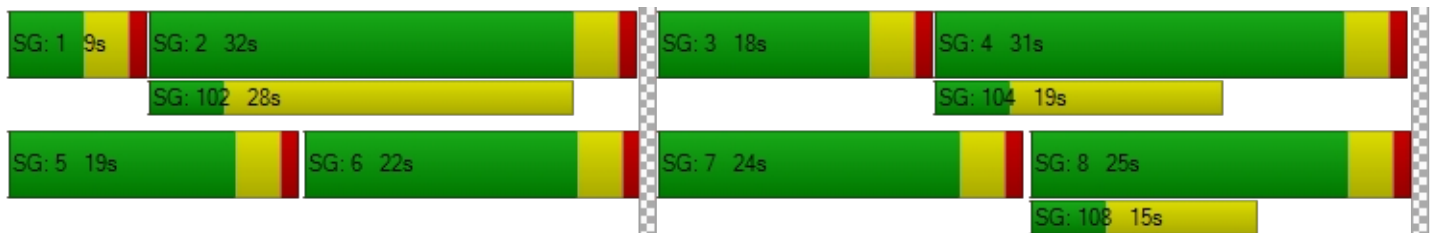
Vehicle Miles Traveled [mph]	6.17	38.58	8.63	9.33	7.66	27.52	399.35	6.01	61.65	240.59	13.32
Stops [stops/h]	46.20	183.82	65.56	37.44	30.98	54.62	636.03	7.27	214.25	603.98	25.71
Fuel consumption [US gal/h]	0.93	3.72	1.32	0.81	0.66	2.53	30.98	0.40	8.26	24.07	1.12
CO [g/h]	64.85	260.21	92.58	56.49	46.45	176.98	2165.49	27.85	577.56	1682.33	78.47
NOx [g/h]	12.62	50.63	18.01	10.99	9.04	34.43	421.32	5.42	112.37	327.32	15.27
VOC [g/h]	15.03	60.31	21.46	13.09	10.76	41.02	501.87	6.45	133.86	389.90	18.19

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.186	2.247	3.028	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	622	467	600
d_b, Bicycle Delay [s]	28.80	21.36	26.45	22.05
I_b,int, Bicycle LOS Score for Intersection	2.155	1.890	2.277	2.567
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 25: Nuevo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	104	233	129	20	246	55	56	632	107	129	565	27
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	25	0	55	111	0	0	111	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	35	0	0	15	0	0	29	0	0	7
Total Hourly Volume [veh/h]	113	263	106	22	293	45	116	800	88	141	727	22
Peak Hour Factor	0.8158	0.8158	0.8158	0.9249	0.9249	0.9249	0.9147	0.9147	0.9147	0.8738	0.8738	0.8738
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]	35	81	32	6	79	12	32	219	24	40	208	6
Total Analysis Volume [veh/h]	139	322	130	24	317	49	127	875	96	161	832	25
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	22	0	0	22	0	11	28	0	8	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	27	0	0	27	0	27	27	0	16	16	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	30	30	30	30	6	20	20	8	21	21
g / C, Green / Cycle	0.43	0.43	0.43	0.43	0.09	0.29	0.29	0.11	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.13	0.17	0.08	0.22	0.07	0.24	0.06	0.09	0.23	0.02
s, saturation flow rate [veh/h]	1032	1900	1615	1809	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	356	818	695	833	170	1034	462	203	1100	491
d1, Uniform Delay [s]	17.88	13.67	12.35	14.37	30.89	23.55	18.98	30.27	22.01	17.22
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	3.19	1.42	0.59	1.89	6.36	2.01	0.22	6.79	1.09	0.04
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	0.39	0.39	0.19	0.47	0.75	0.85	0.21	0.79	0.76	0.05
d, Delay for Lane Group [s/veh]	21.07	15.10	12.94	16.26	37.26	25.56	19.20	37.06	23.10	17.26
Lane Group LOS	C	B	B	B	D	C	B	D	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.93	3.23	1.18	4.14	2.25	6.38	1.10	2.84	5.66	0.26
50th-Percentile Queue Length [ft/ln]	48.13	80.83	29.40	103.54	56.36	159.39	27.62	71.12	141.54	6.60
95th-Percentile Queue Length [veh/ln]	3.47	5.82	2.12	7.45	4.06	10.52	1.99	5.12	9.56	0.48
95th-Percentile Queue Length [ft/ln]	86.63	145.50	52.92	186.37	101.45	262.91	49.72	128.02	239.10	11.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	21.07	15.10	12.94	16.26	16.26	16.26	37.26	25.56	19.20	37.06	23.10	17.26
Movement LOS	C	B	B	B	B	B	D	C	B	D	C	B
d_A, Approach Delay [s/veh]	16.03			16.26			26.35			25.16		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.72											
Intersection LOS	C											
Intersection V/C	0.546											

**Emissions**

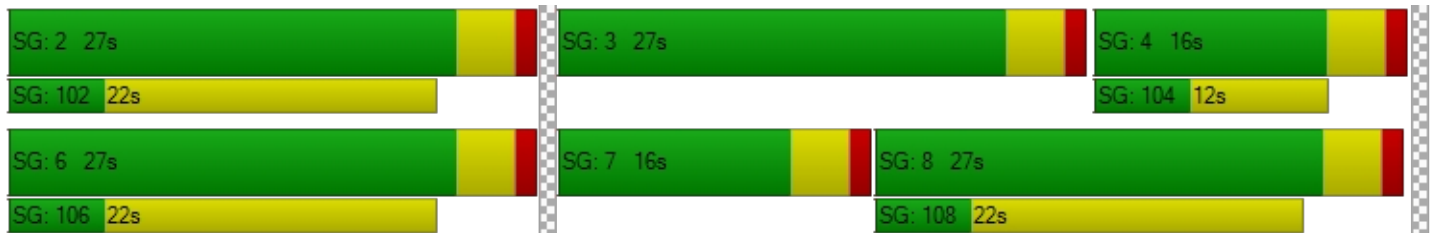
Vehicle Miles Traveled [mph]	52.52	121.66	49.12	195.94	64.25	442.67	48.57	80.57	416.37	12.51
Stops [stops/h]	99.00	166.28	60.48	212.99	115.94	655.77	56.82	146.31	582.35	13.58
Fuel consumption [US gal/h]	3.63	7.23	2.78	10.66	4.40	26.85	2.67	5.54	24.55	0.67
CO [g/h]	253.54	505.17	194.19	744.80	307.79	1876.78	186.84	387.09	1715.76	46.79
NOx [g/h]	49.33	98.29	37.78	144.91	59.88	365.15	36.35	75.31	333.82	9.10
VOC [g/h]	58.76	117.08	45.01	172.61	71.33	434.96	43.30	89.71	397.64	10.84

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersectio	2.698	2.373	3.149	2.938
Crosswalk LOS	B	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]	657	657	657	343
d_b, Bicycle Delay [s]	15.78	15.78	15.78	24.03
I_b,int, Bicycle LOS Score for Intersection	2.593	2.228	2.489	2.405
Bicycle LOS	B	B	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	40.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.694

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	134	475	120	226	549	220	288	554	165	207	451	181
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	384	2	1	359	107	66	163	2	2	107	2
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	33	0	0	87	0	0	46	0	0	50
Total Hourly Volume [veh/h]	148	902	100	247	957	260	380	767	136	228	599	149
Peak Hour Factor	0.9406	0.9406	0.9406	0.9342	0.9342	0.9342	0.8402	0.8402	0.8402	0.8991	0.8991	0.8991
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]	39	240	27	66	256	70	113	228	40	63	167	41
Total Analysis Volume [veh/h]	157	959	106	264	1024	278	452	913	162	254	666	166
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	12	36	0	12	36	17	17	45	0	11	39	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	20	40	0	16	36	21	21	50	0	14	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	5	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	

**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	R	L	C	R	L	C	R
C, Calculated 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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	49	49	11	48	69	17	34	34	10	27	27
g / C, Green / Cycle	0.10	0.41	0.41	0.09	0.40	0.57	0.14	0.28	0.28	0.08	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.09	0.27	0.07	0.08	0.28	0.10	0.13	0.25	0.10	0.07	0.18	0.10
s, saturation flow rate [veh/h]	1810	3618	1615	3514	3618	2859	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	186	1480	661	321	1439	1637	498	1023	457	293	812	362
d1, Uniform Delay [s]	52.88	28.50	22.42	53.55	30.36	12.14	50.73	41.28	34.31	54.34	44.23	40.22
k, delay calibration	0.17	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	14.62	2.21	0.52	5.24	3.02	0.22	6.64	2.97	0.47	7.69	2.13	0.90
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	0.84	0.65	0.16	0.82	0.71	0.17	0.91	0.89	0.35	0.87	0.82	0.46
d, Delay for Lane Group [s/veh]	67.50	30.71	22.94	58.79	33.38	12.36	57.37	44.26	34.77	62.04	46.36	41.13
Lane Group LOS	E	C	C	E	C	B	E	D	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.29	10.97	1.92	4.05	12.38	1.69	7.01	12.99	3.76	4.04	9.43	4.26
50th-Percentile Queue Length [ft/ln]	132.15	274.24	48.10	101.20	309.51	42.30	175.35	324.71	94.12	100.97	235.83	106.46
95th-Percentile Queue Length [veh/ln]	9.06	16.40	3.46	7.29	18.15	3.05	11.36	18.90	6.78	7.27	14.47	7.64
95th-Percentile Queue Length [ft/ln]	226.42	410.03	86.57	182.16	453.77	76.15	283.94	472.48	169.42	181.75	361.75	191.06

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	67.50	30.71	22.94	58.79	33.38	12.36	57.37	44.26	34.77	62.04	46.36	41.13
Movement LOS	E	C	C	E	C	B	E	D	C	E	D	D
d_A, Approach Delay [s/veh]	34.76			33.93			47.13			49.23		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	40.93											
Intersection LOS	D											
Intersection V/C	0.694											

**Emissions**

Vehicle Miles Traveled [mph]	59.11	361.04	39.91	131.76	511.05	138.74	100.67	203.35	36.08	128.50	336.94	83.98
Stops [stops/h]	158.58	658.17	57.71	242.88	742.82	101.53	420.84	779.31	112.95	242.33	565.99	127.75
Fuel consumption [US gal/h]	6.15	26.55	2.58	10.69	33.71	6.72	13.02	23.16	3.55	10.19	23.91	5.65
CO [g/h]	430.18	1855.98	180.36	747.54	2356.27	469.55	909.87	1619.02	248.03	712.27	1671.47	395.10
NOx [g/h]	83.70	361.11	35.09	145.44	458.44	91.36	177.03	315.00	48.26	138.58	325.21	76.87
VOC [g/h]	99.70	430.14	41.80	173.25	546.09	108.82	210.87	375.22	57.48	165.08	387.38	91.57

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.183			3.521			3.255			3.136		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			533			767			650		
d_b, Bicycle Delay [s]	29.40			32.27			22.82			27.34		
I_b,int, Bicycle LOS Score for Intersection	2.595			2.923			2.857			2.497		
Bicycle LOS	B			C			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	30.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.975

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	196	0	1091	946	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0900	1.0000	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	466	458	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]	0	214	0	1655	1489	37
Peak Hour Factor	1.0000	0.8099	1.0000	0.9633	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	66	0	429	407	10
Total Analysis Volume [veh/h]	0	264	0	1718	1627	40
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.97	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	30.30	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	2.49	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	62.34	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	30.30		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.19					
Intersection LOS	D					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	21.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.618

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	63	4	409	0	0	0	54	686	0	0	750	383
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0000	1.0000	1.0000	1.0900	1.0900	1.0000	1.0000	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	62	0	232	0	0	0	95	234	0	0	230	228
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	170	0	0	0	0	0	0	0	0	161
Total Hourly Volume [veh/h]	131	4	508	0	0	0	154	982	0	0	1048	484
Peak Hour Factor	0.9006	0.9006	0.9006	1.0000	1.0000	1.0000	0.8783	0.8783	1.0000	1.0000	0.9261	0.9261
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]	36	1	141	0	0	0	44	280	0	0	283	131
Total Analysis Volume [veh/h]	145	4	564	0	0	0	175	1118	0	0	1132	523
Presence of On-Street Parking	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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	23	0	0	0	0	9	49	0	0	36	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	27	0	0	0	0	13	53	0	0	40	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	80	80		80	80	80	80
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29		9	43	30	30
g / C, Green / Cycle	0.36	0.36		0.11	0.54	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.08	0.20		0.10	0.31	0.22	0.32
s, saturation flow rate [veh/h]	1812	2859		1810	3618	5176	1615
c, Capacity [veh/h]	650	1025		204	1958	1960	612
d1, Uniform Delay [s]	17.92	20.49		34.88	12.18	19.76	22.83
k, delay calibration	0.50	0.50		0.27	0.11	0.11	0.25
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.82	2.12		21.59	0.26	0.27	7.77
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.23	0.55		0.86	0.57	0.58	0.85
d, Delay for Lane Group [s/veh]	18.75	22.62		56.47	12.45	20.03	30.60
Lane Group LOS	B	C		E	B	C	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.92	4.13		4.40	5.63	5.11	9.42
50th-Percentile Queue Length [ft/ln]	47.96	103.31		109.88	140.68	127.74	235.61
95th-Percentile Queue Length [veh/ln]	3.45	7.44		7.83	9.52	8.82	14.46
95th-Percentile Queue Length [ft/ln]	86.32	185.96		195.83	237.94	220.42	361.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	18.75	18.75	22.62	0.00	0.00	0.00	56.47	12.45	0.00	0.00	20.03	30.60
Movement LOS	B	B	C				E	B			C	C
d_A, Approach Delay [s/veh]	21.81			0.00			18.40			23.37		
Approach LOS	C			A			B			C		
d_I, Intersection Delay [s/veh]	21.31											
Intersection LOS	C											
Intersection V/C	0.618											

**Emissions**

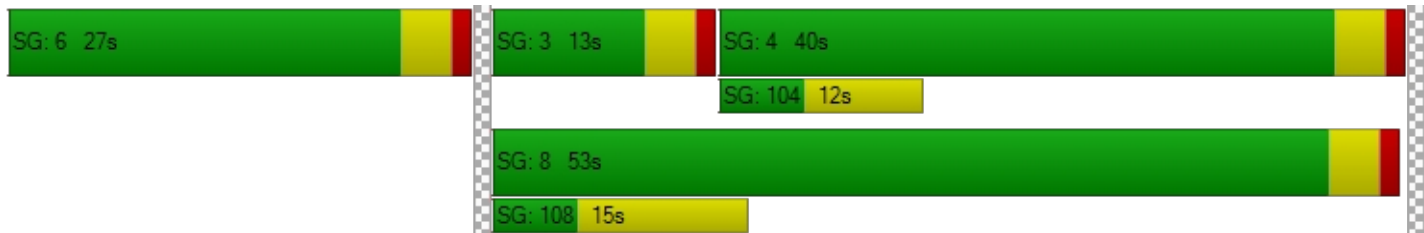
Vehicle Miles Traveled [mph]	25.90	98.03		14.50	92.62	62.22	28.75
Stops [stops/h]	86.32	371.92		197.78	506.46	689.81	424.10
Fuel consumption [US gal/h]	2.34	9.76		4.47	11.12	13.62	8.45
CO [g/h]	163.86	682.30		312.67	777.63	951.98	590.81
NOx [g/h]	31.88	132.75		60.83	151.30	185.22	114.95
VOC [g/h]	37.98	158.13		72.46	180.22	220.63	136.93

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		0.0		0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00
d_p, Pedestrian Delay [s]	31.51		31.51		0.00		0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.560		2.131		0.000		0.000
Crosswalk LOS	B		B		F		F
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000
c_b, Capacity of the bicycle lane [bicycles/h]	575		0		1225		900
d_b, Bicycle Delay [s]	20.31		40.00		6.01		12.10
I_b,int, Bicycle LOS Score for Intersection	3.017		4.132		2.626		2.558
Bicycle LOS	C		D		B		B

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	487	1	83	0	272	77	486	335	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0900	1.0900	1.0900	1.0000	1.0900	1.0900	1.0900	1.0900	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	232	0	62	0	97	95	228	63	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	38	0	0	45	0	0	0
Total Hourly Volume [veh/h]	0	0	0	763	1	114	0	393	134	758	428	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8912	0.8912	0.8912	1.0000	0.7591	0.7591	0.8880	0.8880	1.0000
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]	0	0	0	214	0	32	0	129	44	213	120	0
Total Analysis Volume [veh/h]	0	0	0	856	1	128	0	518	177	854	482	0
Presence of On-Street Parking				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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	27	0	0	24	0	27	55	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	34	0	0	28	0	28	56	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	C	L	C
C, Calculated 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]	32	32	32	21	21	25	50
g / C, Green / Cycle	0.35	0.35	0.35	0.23	0.23	0.28	0.56
(v / s)_i Volume / Saturation Flow Rate	0.24	0.24	0.08	0.18	0.20	0.24	0.13
s, saturation flow rate [veh/h]	1810	1810	1615	1900	1743	3514	3618
c, Capacity [veh/h]	635	635	567	442	406	994	2026
d1, Uniform Delay [s]	24.83	24.83	20.58	32.42	33.09	30.58	10.05
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.65	5.65	0.92	3.13	5.29	2.30	0.06
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	0.67	0.67	0.23	0.79	0.86	0.86	0.24
d, Delay for Lane Group [s/veh]	30.48	30.47	21.50	35.55	38.38	32.88	10.11
Lane Group LOS	C	C	C	D	D	C	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	8.23	8.23	1.94	7.13	7.48	8.55	2.15
50th-Percentile Queue Length [ft/ln]	205.69	205.67	48.39	178.17	186.93	213.67	53.73
95th-Percentile Queue Length [veh/ln]	12.93	12.93	3.48	11.50	11.96	13.34	3.87
95th-Percentile Queue Length [ft/ln]	323.29	323.27	87.10	287.62	299.04	333.54	96.72

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.48	30.47	21.50	0.00	36.48	38.38	32.88	10.11	0.00
Movement LOS				C	C	C		D	D	C	B	
d_A, Approach Delay [s/veh]	0.00			29.31			36.96			24.67		
Approach LOS	A			C			D			C		
d_I, Intersection Delay [s/veh]	29.02											
Intersection LOS	C											
Intersection V/C	0.679											

**Emissions**

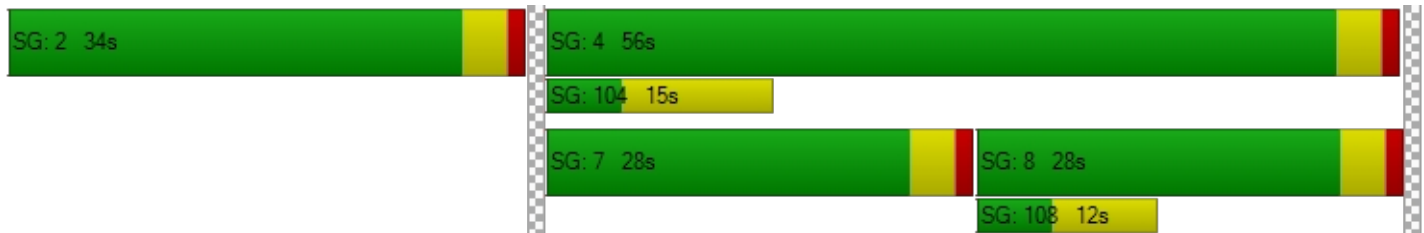
Vehicle Miles Traveled [mph]		37.05	37.05	11.07	92.10	92.10	70.75	39.93
Stops [stops/h]		329.10	329.08	77.42	285.07	299.09	683.76	171.94
Fuel consumption [US gal/h]		7.22	7.22	1.72	8.61	8.95	14.97	4.11
CO [g/h]		504.52	504.49	120.03	602.06	625.67	1046.08	287.38
NOx [g/h]		98.16	98.15	23.35	117.14	121.73	203.53	55.91
VOC [g/h]		116.93	116.92	27.82	139.53	145.00	242.44	66.60

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.241	2.439	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	667	533	1156
d_b, Bicycle Delay [s]	45.00	20.00	24.20	8.02
I_b,int, Bicycle LOS Score for Intersection	4.132	3.248	2.170	2.662
Bicycle LOS	D	C	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.497

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	38	410	9	32	381	24	31	16	43	5	13	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	25	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]	41	456	10	35	440	26	34	17	47	5	14	26
Peak Hour Factor	0.7862	0.7862	0.7862	0.7814	0.7814	0.7814	0.7336	0.7336	0.7336	0.7685	0.7685	0.7685
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]	13	145	3	11	141	8	12	6	16	2	5	8
Total Analysis Volume [veh/h]	52	580	13	45	563	33	46	23	64	7	18	34
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	554	600	603	553	599	607	532	527
Degree of Utilization, x	0.09	0.49	0.49	0.08	0.50	0.49	0.25	0.11

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.31	2.74	2.71	0.26	2.77	2.70	0.98	0.38
95th-Percentile Queue Length [ft]	7.74	68.40	67.79	6.62	69.17	67.62	24.56	9.39
Approach Delay [s/veh]	14.01			14.04			12.02	10.69
Approach LOS	B			B			B	B
Intersection Delay [s/veh]	13.71							
Intersection LOS	B							

**Intersection Level Of Service Report**  
**Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	7.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	724	68	88	781	53	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	388	0	0	362	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
Right Turn on Red Volume [veh/h]	0	19	0	0	0	18
Total Hourly Volume [veh/h]	1177	55	96	1213	58	52
Peak Hour Factor	0.8868	0.8868	0.9123	0.9123	0.7565	0.7565
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	332	16	26	332	19	17
Total Analysis Volume [veh/h]	1327	62	105	1330	77	69
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	15	0	11	30	22	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	19	0	15	34	26	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	39	39	5	47	5	5
g / C, Green / Cycle	0.65	0.65	0.08	0.79	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.37	0.37	0.06	0.37	0.04	0.04
s, saturation flow rate [veh/h]	1900	1871	1810	3618	1810	1615
c, Capacity [veh/h]	1226	1207	138	2852	142	126
d1, Uniform Delay [s]	5.94	6.00	27.18	2.12	26.62	26.62
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.90	2.00	8.33	0.55	3.22	3.63
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.57	0.58	0.76	0.47	0.54	0.55
d, Delay for Lane Group [s/veh]	7.84	8.00	35.51	2.67	29.84	30.25
Lane Group LOS	A	A	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.19	3.23	1.64	0.22	1.15	1.04
50th-Percentile Queue Length [ft/ln]	79.65	80.82	40.97	5.45	28.75	26.11
95th-Percentile Queue Length [veh/ln]	5.73	5.82	2.95	0.39	2.07	1.88
95th-Percentile Queue Length [ft/ln]	143.36	145.47	73.74	9.81	51.74	47.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	7.91	8.00	35.51	2.67	29.84	30.25
Movement LOS	A	A	D	A	C	C
d_A, Approach Delay [s/veh]	7.92		5.08		30.03	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	7.63					
Intersection LOS	A					
Intersection V/C	0.472					

**Emissions**

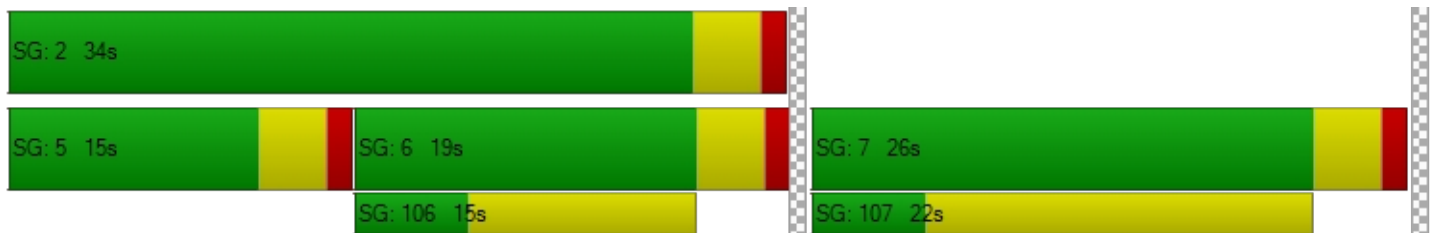
Vehicle Miles Traveled [mph]	301.54	301.54	39.53	500.71	38.65	34.63
Stops [stops/h]	191.15	193.96	98.32	26.16	68.99	62.67
Fuel consumption [US gal/h]	13.82	13.88	3.34	18.21	2.47	2.22
CO [g/h]	966.10	970.06	233.20	1273.03	172.67	155.37
NOx [g/h]	187.97	188.74	45.37	247.69	33.60	30.23
VOC [g/h]	223.90	224.82	54.05	295.04	40.02	36.01

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		21.68		21.68	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.114		2.041	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	500		1000		733	
d_b, Bicycle Delay [s]	16.88		7.50		12.03	
I_b,int, Bicycle LOS Score for Intersection	2.721		2.743		1.560	
Bicycle LOS	B		B		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.516

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	66	519	5	69	513	196	110	58	79	3	82	101
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	372	0	24	339	0	0	0	0	0	0	15
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	1	0	0	54	0	0	22	0	0	31
Total Hourly Volume [veh/h]	72	938	4	99	898	160	120	63	64	3	89	94
Peak Hour Factor	0.8932	0.8932	0.8932	0.8568	0.8568	0.8568	0.8129	0.8129	0.8129	0.7283	0.7283	0.7283
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]	20	263	1	29	262	47	37	19	20	1	31	32
Total Analysis Volume [veh/h]	81	1050	4	116	1048	187	148	77	79	4	122	129
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	19	0	8	22	0	11	26	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	23	0	13	26	0	13	30	0	14	31	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	39	39	7	41	41	8	18	18	0	10	10
g / C, Green / Cycle	0.06	0.49	0.49	0.08	0.52	0.52	0.10	0.22	0.22	0.01	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.04	0.29	0.00	0.06	0.29	0.12	0.08	0.04	0.05	0.00	0.06	0.08
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	105	1775	792	148	1861	831	183	421	357	11	240	204
d1, Uniform Delay [s]	37.17	14.62	10.40	36.03	13.27	10.66	35.18	25.28	25.50	39.59	32.64	33.19
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.40	1.46	0.01	8.73	1.24	0.63	8.27	0.21	0.31	17.73	1.67	3.23
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	0.77	0.59	0.01	0.78	0.56	0.23	0.81	0.18	0.22	0.35	0.51	0.63
d, Delay for Lane Group [s/veh]	48.57	16.08	10.42	44.77	14.51	11.29	43.45	25.48	25.81	57.32	34.31	36.42
Lane Group LOS	D	B	B	D	B	B	D	C	C	E	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.80	6.08	0.03	2.45	5.63	1.67	3.07	1.13	1.17	0.13	2.18	2.41
50th-Percentile Queue Length [ft/ln]	45.12	151.99	0.84	61.16	140.84	41.70	76.65	28.19	29.31	3.25	54.51	60.20
95th-Percentile Queue Length [veh/ln]	3.25	10.12	0.06	4.40	9.53	3.00	5.52	2.03	2.11	0.23	3.92	4.33
95th-Percentile Queue Length [ft/ln]	81.21	253.09	1.51	110.09	238.15	75.07	137.96	50.74	52.76	5.85	98.11	108.35

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.57	16.08	10.42	44.77	14.51	11.29	43.45	25.48	25.81	57.32	34.31	36.42
Movement LOS	D	B	B	D	B	B	D	C	C	E	C	D
d_A, Approach Delay [s/veh]	18.38			16.66			34.32			35.74		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	20.66											
Intersection LOS	C											
Intersection V/C	0.516											

**Emissions**

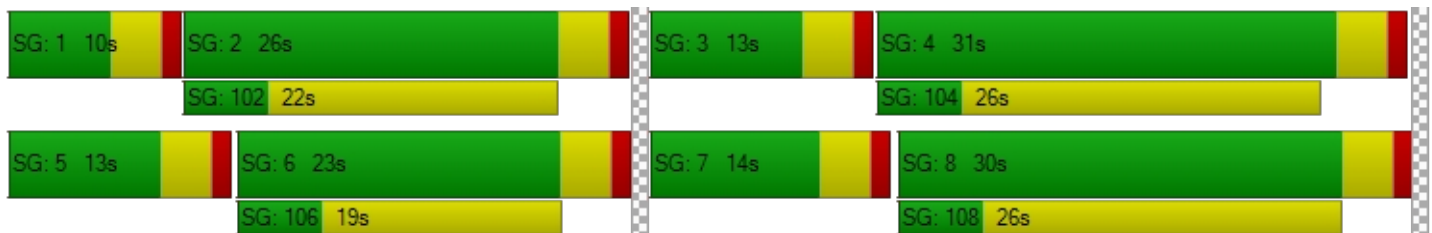
Vehicle Miles Traveled [mph]	23.42	303.65	1.16	22.27	201.24	35.91	16.68	8.68	8.90	0.51	15.40	16.29
Stops [stops/h]	81.21	547.18	1.51	110.09	507.01	75.07	137.96	50.74	52.76	5.85	98.11	108.35
Fuel consumption [US gal/h]	2.61	20.65	0.07	3.19	16.30	2.59	3.60	1.33	1.38	0.14	2.60	2.86
CO [g/h]	182.66	1443.31	4.68	222.91	1139.14	181.31	251.34	92.80	96.19	9.56	181.70	200.02
NOx [g/h]	35.54	280.82	0.91	43.37	221.63	35.28	48.90	18.06	18.72	1.86	35.35	38.92
VOC [g/h]	42.33	334.50	1.08	51.66	264.01	42.02	58.25	21.51	22.29	2.21	42.11	46.36

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	3.008			3.199			2.552			2.348		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	475			550			650			675		
d_b, Bicycle Delay [s]	23.26			21.03			18.23			17.56		
I_b,int, Bicycle LOS Score for Intersection	2.497			2.719			2.098			1.796		
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 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	36.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	78	120	63	70	212	142	98	1376	115	114	969	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	29	0	0	2	5	302	0	20	247	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	25	0	0	39	0	0	31	0	0	11
Total Hourly Volume [veh/h]	85	131	73	76	231	118	112	1802	94	144	1303	33
Peak Hour Factor	0.7647	0.7647	0.7647	0.8573	0.8573	0.8573	0.9297	0.9297	0.9297	0.9590	0.9590	0.9590
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]	28	43	24	22	67	34	30	485	25	38	340	9
Total Analysis Volume [veh/h]	111	171	95	89	269	138	120	1938	101	150	1359	34
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	35	0	7	32	0	20	50	0	12	42	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	39	0	13	36	0	19	49	0	19	49	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	9	37	37	7	35	35	10	48	48	12	50	50
g / C, Green / Cycle	0.08	0.31	0.31	0.06	0.29	0.29	0.08	0.40	0.40	0.10	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.08	0.05	0.07	0.09	0.07	0.37	0.06	0.08	0.26	0.02
s, saturation flow rate [veh/h]	1810	1900	1680	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	137	585	517	112	1064	475	147	2063	644	178	2151	671
d1, Uniform Delay [s]	54.61	31.01	31.13	55.52	32.31	32.70	54.23	34.69	23.15	53.19	27.79	20.93
k, delay calibration	0.13	0.50	0.50	0.14	0.50	0.50	0.11	0.11	0.11	0.17	0.11	0.11
l, 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]	12.58	0.95	1.14	14.53	0.57	1.55	10.36	2.66	0.11	15.57	0.31	0.03
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	0.81	0.24	0.25	0.79	0.25	0.29	0.82	0.94	0.16	0.84	0.63	0.05
d, Delay for Lane Group [s/veh]	67.19	31.97	32.27	70.05	32.88	34.24	64.59	37.35	23.26	68.76	28.10	20.96
Lane Group LOS	E	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.70	3.07	2.86	3.05	2.99	3.22	3.84	17.04	1.74	5.03	9.55	0.54
50th-Percentile Queue Length [ft/ln]	92.51	76.63	71.59	76.15	74.68	80.46	96.07	426.01	43.62	125.71	238.70	13.55
95th-Percentile Queue Length [veh/ln]	6.66	5.52	5.15	5.48	5.38	5.79	6.92	23.81	3.14	8.71	14.62	0.98
95th-Percentile Queue Length [ft/ln]	166.53	137.93	128.86	137.07	134.43	144.83	172.93	595.26	78.52	217.64	365.39	24.39

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	67.19	32.02	32.27	70.05	32.88	34.24	64.59	37.35	23.26	68.76	28.10	20.96
Movement LOS	E	C	C	E	C	C	E	D	C	E	C	C
d_A, Approach Delay [s/veh]	42.44			39.93			38.20			31.89		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	36.61											
Intersection LOS	D											
Intersection V/C	0.604											

**Emissions**

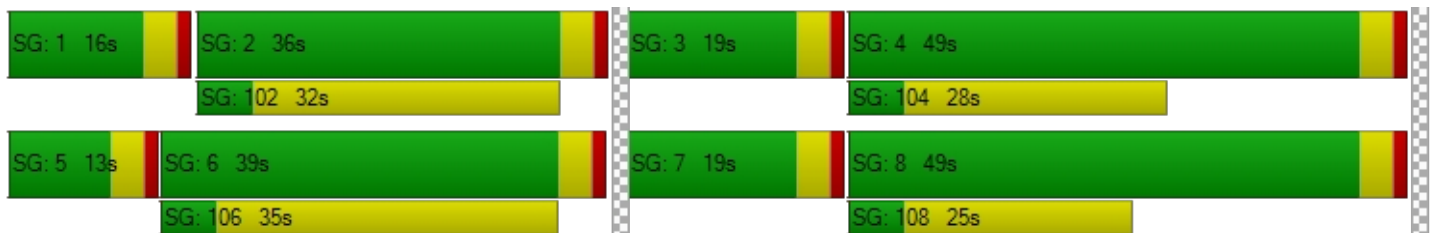
Vehicle Miles Traveled [mph]	64.46	80.28	74.19	15.58	47.10	24.16	13.61	219.79	11.45	37.49	339.64	8.50
Stops [stops/h]	111.02	91.95	85.90	91.38	179.24	96.55	115.28	1533.65	52.35	150.85	859.31	16.26
Fuel consumption [US gal/h]	5.11	4.79	4.45	2.94	5.64	2.99	4.17	50.57	1.83	6.15	35.09	0.73
CO [g/h]	357.01	335.12	311.07	205.43	394.43	209.02	291.74	3534.61	128.16	430.21	2453.01	51.12
NOx [g/h]	69.46	65.20	60.52	39.97	76.74	40.67	56.76	687.71	24.94	83.70	477.27	9.95
VOC [g/h]	82.74	77.67	72.09	47.61	91.41	48.44	67.61	819.18	29.70	99.71	568.51	11.85

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.629			2.736			3.671			3.583		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			750			750		
d_b, Bicycle Delay [s]	30.10			32.27			23.44			23.44		
I_b,int, Bicycle LOS Score for Intersection	1.891			2.001			2.764			2.414		
Bicycle LOS	A			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.214

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	57	149	13	10	307	26	13	24	54	18	23	18
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	20	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	4	0	0	7	0	0	15	0	0	5
Total Hourly Volume [veh/h]	62	191	10	11	355	21	14	26	44	20	25	15
Peak Hour Factor	0.7432	0.7432	0.7432	0.8693	0.8693	0.8693	0.7109	0.7109	0.7109	0.7770	0.7770	0.7770
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]	21	64	3	3	102	6	5	9	15	6	8	5
Total Analysis Volume [veh/h]	83	257	13	13	408	24	20	37	62	26	32	19
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	26	0	8	22	0	5	23	0	7	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	12	26	0	9	26	0	12	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	52	52	1	48	48	2	9	9	2	9	9
g / C, Green / Cycle	0.06	0.65	0.65	0.02	0.60	0.60	0.02	0.11	0.11	0.03	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.07	0.01	0.11	0.12	0.01	0.02	0.04	0.01	0.01	0.02
s, saturation flow rate [veh/h]	1810	1900	1868	1810	1900	1863	1810	1900	1615	1810	1900	1677
c, Capacity [veh/h]	109	1225	1204	29	1141	1119	41	212	181	50	222	196
d1, Uniform Delay [s]	37.04	5.44	5.45	39.01	7.21	7.21	38.64	32.18	32.82	38.37	31.62	31.67
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.58	0.18	0.19	10.48	0.37	0.38	8.79	0.39	1.12	8.05	0.23	0.29
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	0.76	0.11	0.11	0.45	0.19	0.19	0.49	0.17	0.34	0.52	0.12	0.13
d, Delay for Lane Group [s/veh]	47.62	5.63	5.63	49.49	7.58	7.60	47.43	32.57	33.94	46.42	31.85	31.96
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.83	0.69	0.69	0.32	1.42	1.40	0.48	0.65	1.13	0.60	0.45	0.44
50th-Percentile Queue Length [ft/ln]	45.66	17.34	17.20	8.10	35.48	35.08	11.90	16.26	28.22	15.00	11.14	10.99
95th-Percentile Queue Length [veh/ln]	3.29	1.25	1.24	0.58	2.55	2.53	0.86	1.17	2.03	1.08	0.80	0.79
95th-Percentile Queue Length [ft/ln]	82.18	31.22	30.97	14.58	63.86	63.14	21.43	29.27	50.80	27.01	20.05	19.77

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.62	5.63	5.63	49.49	7.59	7.60	47.43	32.57	33.94	46.42	31.87	31.96
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	15.50			8.81			35.78			36.81		
Approach LOS	B			A			D			D		
d_I, Intersection Delay [s/veh]	16.59											
Intersection LOS	B											
Intersection V/C	0.214											

**Emissions**

Vehicle Miles Traveled [mph]	41.25	67.43	66.75	7.55	126.30	124.57	0.88	1.63	2.73	13.04	12.92	12.66
Stops [stops/h]	82.18	31.22	30.97	14.58	63.86	63.14	21.43	29.27	50.80	27.01	20.05	19.77
Fuel consumption [US gal/h]	3.24	2.85	2.83	0.57	5.46	5.39	0.39	0.53	0.91	0.95	0.81	0.80
CO [g/h]	226.48	199.56	197.62	39.91	381.59	376.52	27.10	36.87	63.91	66.11	56.62	55.61
NOx [g/h]	44.06	38.83	38.45	7.77	74.24	73.26	5.27	7.17	12.44	12.86	11.02	10.82
VOC [g/h]	52.49	46.25	45.80	9.25	88.44	87.26	6.28	8.55	14.81	15.32	13.12	12.89

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.555			2.526			2.381			2.337		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			550			550			625		
d_b, Bicycle Delay [s]	18.23			21.03			21.03			18.91		
I_b,int, Bicycle LOS Score for Intersection	1.854			1.933			1.670			1.627		
Bicycle LOS	A			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	31.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.328

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	8	80	63	52	242	19	12	111	25	79	48	28
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	10	0	20	0	0	0	0	213	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	20	0	0	5	0	0	7	0	0	8
Total Hourly Volume [veh/h]	9	116	59	57	284	16	13	121	20	299	52	23
Peak Hour Factor	0.9406	0.9406	0.9406	0.8054	0.8054	0.8054	0.9545	0.9545	0.9545	0.8708	0.8708	0.8708
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	31	16	18	88	5	3	32	5	86	15	7
Total Analysis Volume [veh/h]	10	123	63	71	353	20	14	127	21	343	60	26
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	17	22	0	21	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	21	26	0	25	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	1	41	41	5	44	44	2	10	10	19	27	27
g / C, Green / Cycle	0.01	0.45	0.45	0.05	0.49	0.49	0.02	0.11	0.11	0.21	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.05	0.04	0.10	0.01	0.01	0.04	0.01	0.19	0.02	0.02
s, saturation flow rate [veh/h]	1810	1900	1693	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	23	860	766	92	1775	792	32	396	177	379	1090	486
d1, Uniform Delay [s]	44.11	14.20	14.25	42.21	12.94	11.82	43.75	36.99	36.16	34.69	22.34	22.33
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.30	0.11	0.11
l, 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]	12.62	0.26	0.32	13.27	0.25	0.06	9.03	0.46	0.30	18.66	0.02	0.05
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	0.44	0.11	0.12	0.77	0.20	0.03	0.44	0.32	0.12	0.90	0.06	0.05
d, Delay for Lane Group [s/veh]	56.73	14.46	14.57	55.48	13.19	11.88	52.78	37.45	36.46	53.35	22.36	22.38
Lane Group LOS	E	B	B	E	B	B	D	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.30	1.14	1.10	1.83	1.85	0.20	0.38	1.26	0.41	8.82	0.43	0.37
50th-Percentile Queue Length [ft/ln]	7.48	28.53	27.61	45.71	46.30	4.96	9.42	31.42	10.32	220.51	10.68	9.34
95th-Percentile Queue Length [veh/ln]	0.54	2.05	1.99	3.29	3.33	0.36	0.68	2.26	0.74	13.69	0.77	0.67
95th-Percentile Queue Length [ft/ln]	13.47	51.35	49.71	82.28	83.34	8.92	16.96	56.56	18.57	342.28	19.22	16.80

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.73	14.48	14.57	55.48	13.19	11.88	52.78	37.45	36.46	53.35	22.36	22.38
Movement LOS	E	B	B	E	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	16.67			19.89			38.65			47.14		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	31.34											
Intersection LOS	C											
Intersection V/C	0.328											

**Emissions**

Vehicle Miles Traveled [mph]	5.02	47.71	45.69	35.29	175.43	9.94	2.34	21.20	3.50	147.65	25.83	11.19
Stops [stops/h]	11.97	45.64	44.18	73.14	148.15	7.93	15.08	100.56	16.51	352.82	34.18	14.94
Fuel consumption [US gal/h]	0.39	2.50	2.39	2.92	8.80	0.49	0.42	2.94	0.48	13.17	1.58	0.69
CO [g/h]	27.14	174.46	167.40	204.14	615.33	34.09	29.21	205.84	33.63	920.70	110.67	48.07
NOx [g/h]	5.28	33.94	32.57	39.72	119.72	6.63	5.68	40.05	6.54	179.13	21.53	9.35
VOC [g/h]	6.29	40.43	38.80	47.31	142.61	7.90	6.77	47.70	7.80	213.38	25.65	11.14

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
l_p,int, Pedestrian LOS Score for Intersectio	2.513			2.613			2.529			2.641		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			578			489			578		
d_b, Bicycle Delay [s]	22.76			22.76			25.69			22.76		
l_b,int, Bicycle LOS Score for Intersection	1.738			1.930			1.699			1.920		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	50.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	266	49	92	354	167	236	690	36	73	460	49
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	369	0	2	335	2	2	0	0	0	0	2
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	13	0	0	46	0	0	10	0	0	14
Total Hourly Volume [veh/h]	57	659	40	102	721	138	259	752	29	80	501	41
Peak Hour Factor	0.8368	0.8368	0.8368	0.8264	0.8264	0.8264	0.8504	0.8504	0.8504	0.8966	0.8966	0.8966
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]	17	197	12	31	218	42	76	221	9	22	140	11
Total Analysis Volume [veh/h]	68	788	48	123	873	167	305	884	34	89	559	46
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	39	0	15	49	0	18	34	0	6	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	33	0	12	36	0	19	34	0	11	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	4	34	34	8	38	38	15	26	26	6	17	17
g / C, Green / Cycle	0.05	0.38	0.38	0.08	0.42	0.42	0.17	0.29	0.29	0.06	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.04	0.22	0.22	0.07	0.46	0.10	0.17	0.24	0.24	0.05	0.16	0.16
s, saturation flow rate [veh/h]	1810	1900	1862	1810	1900	1615	1810	1900	1875	1810	1900	1850
c, Capacity [veh/h]	88	725	711	154	794	675	302	555	548	115	359	349
d1, Uniform Delay [s]	42.31	22.11	22.11	40.43	26.19	17.00	37.50	29.80	29.81	41.51	35.30	35.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.31	0.19	0.19	0.11	0.19	0.19
l, 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]	13.20	3.39	3.46	9.19	62.52	0.87	43.71	5.76	5.87	10.54	9.69	10.09
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	0.77	0.58	0.58	0.80	1.10	0.25	1.01	0.83	0.83	0.77	0.85	0.86
d, Delay for Lane Group [s/veh]	55.51	25.50	25.57	49.62	88.71	17.87	81.21	35.56	35.68	52.05	44.99	45.40
Lane Group LOS	E	C	C	D	F	B	F	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.75	7.13	7.00	2.94	28.77	2.21	10.08	9.79	9.69	2.24	7.24	7.10
50th-Percentile Queue Length [ft/ln]	43.79	178.30	175.09	73.53	719.24	55.19	251.88	244.81	242.29	55.93	180.92	177.50
95th-Percentile Queue Length [veh/ln]	3.15	11.51	11.34	5.29	40.19	3.97	15.37	14.92	14.80	4.03	11.65	11.47
95th-Percentile Queue Length [ft/ln]	78.83	287.80	283.59	132.36	1004.70	99.34	384.13	373.10	369.93	100.67	291.22	286.75

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	55.51	25.54	25.57	49.62	88.71	17.87	81.21	35.62	35.68	52.05	45.18	45.40
Movement LOS	E	C	C	D	F	B	F	D	D	D	D	D
d_A, Approach Delay [s/veh]	27.79			74.41			46.99			46.07		
Approach LOS	C			E			D			D		
d_I, Intersection Delay [s/veh]	50.48											
Intersection LOS	D											
Intersection V/C	0.827											

**Emissions**

Vehicle Miles Traveled [mph]	4.87	30.25	29.64	35.57	252.47	48.30	28.27	42.81	42.29	10.56	36.32	35.44
Stops [stops/h]	70.07	285.28	280.14	117.65	1150.79	88.30	403.01	391.69	387.66	89.49	289.48	284.00
Fuel consumption [US gal/h]	1.81	6.78	6.65	3.92	38.72	3.36	9.15	7.92	7.84	2.02	6.37	6.25
CO [g/h]	126.26	473.59	465.02	274.29	2706.58	234.91	639.47	553.58	548.01	141.06	444.91	436.66
NOx [g/h]	24.57	92.14	90.48	53.37	526.60	45.71	124.42	107.71	106.62	27.44	86.56	84.96
VOC [g/h]	29.26	109.76	107.77	63.57	627.27	54.44	148.20	128.30	127.01	32.69	103.11	101.20

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.854			3.058			2.787			2.725		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	644			711			667			489		
d_b, Bicycle Delay [s]	20.67			18.69			20.00			25.69		
I_b,int, Bicycle LOS Score for Intersection	2.316			3.554			2.577			2.144		
Bicycle LOS	B			D			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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.089

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	←		→		←→→	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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	445	461	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	446	462	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	112	116	0	0	0
Total Analysis Volume [veh/h]	0	446	462	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	86	77	0	26	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.09	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.67	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.04	0.04	0.00	0.00	0.00	0.00
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	0.00	0.09	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.42	0.46	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.76	0.83	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.34		0.71		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	A					
Intersection V/C	0.089					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	68.68	29.70	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.53	1.65	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.40	1.11	0.00	0.00	0.00	0.00
CO [g/h]	0.00	168.03	77.30	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	32.69	15.04	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	38.94	17.92	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.799		2.907		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.805		1.814		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↶↷		↶↷	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.143

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	108	3	83	201	54	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
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]	114	3	88	213	57	66
Peak Hour Factor	0.7370	0.7370	0.7820	0.7820	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	1	28	68	16	19
Total Analysis Volume [veh/h]	155	4	113	272	65	75
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.14	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.73	0.00	14.25	9.00
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.26	0.00	0.50	0.25
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.41	0.00	12.41	6.24
d_A, Approach Delay [s/veh]	0.00		2.27		11.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.62					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↗	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	445	461	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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↑		↶	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration					R	
Turning Movement	Left	Thru	Thru	Right	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	0	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	445	461	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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	0	14	0	1	0	0	0	0	0	0	16
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	445	0	0	461	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]	0	445	14	0	462	0	0	0	0	0	0	16
Peak Hour 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
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]	0	111	4	0	116	0	0	0	0	0	0	4
Total Analysis Volume [veh/h]	0	445	14	0	462	0	0	0	0	0	0	16
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	10.05	0.00	0.00	10.03	0.00	0.00	0.00	0.00	10.44	13.72	18.22	10.56
Movement LOS	B	A	A	B	A	A			B	B	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85
d_A, Approach Delay [s/veh]	0.00			0.00			10.44			10.56		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.18											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	32.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	95	26	27	490	394	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	8	22	0	0	22
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]	122	36	51	519	418	57
Peak Hour Factor	1.0000	1.0000	0.9141	0.9141	0.8277	0.8277
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	9	14	142	126	17
Total Analysis Volume [veh/h]	122	36	56	568	505	69
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.48	0.05	0.06	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	32.30	23.08	8.78	0.00	0.00	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.93	2.93	0.18	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	73.22	73.22	4.40	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	30.20		0.79		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	3.88					
Intersection LOS	D					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	1	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	326	420
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.0600	1.0600
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	22	8
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	368	453
Peak Hour Factor	0.9141	0.8277
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	101	137
Total Analysis Volume [veh/h]	403	547
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	22	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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.61	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	22	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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Frontage Rd					
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	0	2	0	4
Auxiliary Signal Groups						
Maximum Green [s]	27	0	0	27	0	25
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	5	0	0	5	0	5
Pedestrian Clearance [s]	14	0	0	10	0	20
Delayed Vehicle Green [s]	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	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	10	0	0	10	0	5
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A
Critical Lane Group	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					
Intersection V/C	0.000					

**Emissions**

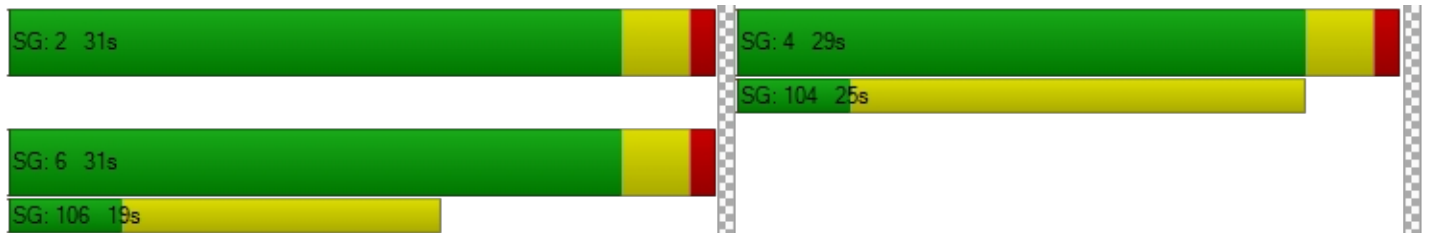
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.112	2.281	1.921
Crosswalk LOS	B	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560	1.560
Bicycle LOS	A	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.100

**Intersection Setup**

Name	Barrett Ave		Barrett Ave			
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	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave			
Base Volume Input [veh/h]	0	94	0	0	91	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0600	1.0000	1.0000	1.0600	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]	0	100	0	0	96	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	25	0	0	24	0
Total Analysis Volume [veh/h]	0	100	0	0	96	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.10	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.39	0.00	9.15	8.93
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.33	0.33
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	8.27	8.27
d_A, Approach Delay [s/veh]	0.00		3.70		9.15	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.48					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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Harvest Landing

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Scenario 5 Opening Year II AM

Report File: C:\...\OY II AM.pdf

10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	NB Left	0.986	84.3	F
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	NB Left	0.838	64.6	E
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.740	37.4	D
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.744	17.2	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.991	92.4	F
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	EB Left	0.535	12.6	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	WB Left	0.628	35.8	D
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.624	31.0	C
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	SB Left	0.661	30.2	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.670	20.6	C
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	NB Left	0.767	41.5	D
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	EB Thru	0.896	30.9	D
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	NB Left	0.739	41.3	D
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.693	29.4	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.363	15.3	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	WB Left	0.371	17.0	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.336	26.4	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.600	26.1	C
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.045	21.8	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.614	14.8	B
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.006	15.5	C
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	WB Thru	0.404	13.0	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.463	15.9	B
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	NB Right	0.763	42.2	D
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.622	23.8	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.814	48.1	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.735	24.5	C
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.592	21.1	C
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	SB Left	0.637	19.5	B
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	0.921	32.5	D
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.752	18.3	B
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.710	29.9	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.631	36.7	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.257	20.5	C
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	EB Left	0.263	22.4	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	NB Left	0.944	72.1	E
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.094	0.5	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.175	13.4	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Right	0.010	10.3	B
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.193	24.4	C
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.007	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.059	8.8	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	84.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.986

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	238	715	299	170	520	40	25	267	74	294	506	114
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	91	0	0	12	0	0	23	0	0	35
Total Hourly Volume [veh/h]	288	1640	271	206	1703	36	30	323	67	356	612	103
Peak Hour Factor	0.8987	0.8987	0.8987	0.7510	0.7510	0.7510	0.7777	0.7777	0.7777	0.7871	0.7871	0.7871
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]	80	456	75	69	567	12	10	104	22	113	194	33
Total Analysis Volume [veh/h]	320	1825	302	274	2268	48	39	415	86	452	778	131
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	22	0	13	25	0	5	35	0	14	44	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	18	28	0	19	29	0	9	39	0	24	54	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	14	41	41	15	42	42	3	18	18	20	34	34
g / C, Green / Cycle	0.13	0.38	0.38	0.14	0.38	0.38	0.03	0.16	0.16	0.18	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.18	0.35	0.19	0.15	0.42	0.42	0.02	0.14	0.14	0.25	0.24	0.25
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1880	1810	1900	1789	1810	1900	1806
c, Capacity [veh/h]	230	1940	605	247	1389	722	58	307	289	329	592	563
d1, Uniform Delay [s]	48.00	33.20	26.44	47.50	33.88	33.88	52.69	44.70	44.79	45.00	34.50	34.59
k, delay calibration	0.50	0.50	0.50	0.48	0.50	0.50	0.11	0.11	0.11	0.50	0.11	0.11
l, 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]	199.73	10.55	2.92	89.24	54.44	64.90	12.95	5.98	6.73	186.38	2.38	2.66
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	1.39	0.94	0.50	1.11	1.09	1.10	0.68	0.84	0.85	1.37	0.78	0.79
d, Delay for Lane Group [s/veh]	247.73	43.76	29.36	136.74	88.32	98.78	65.63	50.68	51.52	231.38	36.88	37.25
Lane Group LOS	F	D	C	F	F	F	E	D	D	F	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	18.87	16.48	6.26	12.64	27.68	30.87	1.24	7.06	6.79	25.65	11.13	10.73
50th-Percentile Queue Length [ft/ln]	471.84	412.02	156.43	315.95	692.10	771.76	31.11	176.42	169.71	641.31	278.31	268.34
95th-Percentile Queue Length [veh/ln]	29.49	23.14	10.36	19.34	38.67	42.79	2.24	11.41	11.06	39.16	16.60	16.11
95th-Percentile Queue Length [ft/ln]	737.33	578.46	258.98	483.62	966.79	1069.67	56.00	285.33	276.53	978.95	415.11	402.67

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	247.73	43.76	29.36	136.74	91.77	98.78	65.63	51.00	51.52	231.38	37.03	37.25
Movement LOS	F	D	C	F	F	F	E	D	D	F	D	D
d_A, Approach Delay [s/veh]	68.65			96.66			52.14			101.60		
Approach LOS	E			F			D			F		
d_I, Intersection Delay [s/veh]	84.28											
Intersection LOS	F											
Intersection V/C	0.986											

**Emissions**

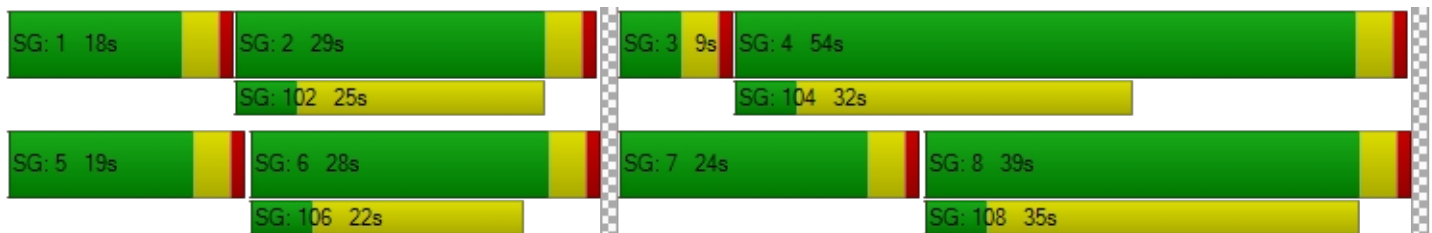
Vehicle Miles Traveled [mph]	160.33	914.41	151.32	17.07	94.74	49.55	2.72	17.92	17.07	29.73	30.53	29.25
Stops [stops/h]	617.68	1618.10	204.78	413.60	1812.04	1010.30	40.73	230.95	222.16	839.53	364.33	351.29
Fuel consumption [US gal/h]	29.30	67.71	9.54	13.35	53.11	30.24	1.12	6.13	5.91	32.74	9.06	8.74
CO [g/h]	2048.41	4733.04	666.66	933.23	3712.09	2114.10	78.33	428.60	413.06	2288.21	633.32	611.06
NOx [g/h]	398.55	920.88	129.71	181.57	722.24	411.33	15.24	83.39	80.37	445.20	123.22	118.89
VOC [g/h]	474.74	1096.93	154.50	216.28	860.31	489.96	18.15	99.33	95.73	530.32	146.78	141.62

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.847			3.590			2.847			3.086		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	436			455			636			909		
d_b, Bicycle Delay [s]	33.62			32.84			25.57			16.36		
I_b,int, Bicycle LOS Score for Intersection	2.956			2.991			2.024			2.711		
Bicycle LOS	C			C			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 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	64.6
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.838

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	84	980	159	100	746	7	19	148	81	213	137	187
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	48	0	0	2	0	0	25	0	0	57
Total Hourly Volume [veh/h]	102	1961	144	121	1977	6	23	179	73	258	166	169
Peak Hour Factor	0.8910	0.8910	0.8910	0.7568	0.7568	0.7568	0.7348	0.7348	0.7348	0.8323	0.8323	0.8323
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]	29	550	40	40	653	2	8	61	25	77	50	51
Total Analysis Volume [veh/h]	114	2201	162	160	2612	8	31	244	99	310	199	203
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	7	27	0	9	29	0	0	29	0	0	29	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	33	0	11	35	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	5	49	49	7	51	51	17	17	17	22	22	22
g / C, Green / Cycle	0.05	0.44	0.44	0.06	0.46	0.46	0.15	0.15	0.15	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.06	0.43	0.44	0.09	0.47	0.48	0.02	0.13	0.06	0.17	0.10	0.13
s, saturation flow rate [veh/h]	1810	3618	1835	1810	3618	1897	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	82	1603	813	115	1668	875	274	288	244	356	374	317
d1, Uniform Delay [s]	52.50	29.98	30.38	51.50	29.63	29.63	40.30	45.45	42.20	42.84	39.65	40.60
k, delay calibration	0.32	0.50	0.50	0.41	0.50	0.50	0.11	0.11	0.11	0.19	0.11	0.11
l, 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]	214.40	16.87	29.07	212.85	30.03	38.66	0.18	6.89	1.08	11.09	1.18	2.14
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	1.39	0.97	0.99	1.39	1.03	1.03	0.11	0.85	0.41	0.87	0.53	0.64
d, Delay for Lane Group [s/veh]	266.90	46.86	59.45	264.35	59.66	68.29	40.49	52.34	43.28	53.93	40.83	42.75
Lane Group LOS	F	D	E	F	F	F	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.10	22.16	25.80	9.89	26.90	30.31	0.73	6.88	2.46	9.03	4.84	5.12
50th-Percentile Queue Length [ft/ln]	177.62	554.03	644.95	247.21	672.52	757.79	18.17	171.97	61.44	225.81	120.96	127.88
95th-Percentile Queue Length [veh/ln]	12.41	29.88	34.13	16.50	36.22	40.30	1.31	11.18	4.42	13.96	8.45	8.82
95th-Percentile Queue Length [ft/ln]	310.18	747.04	853.19	412.55	905.49	1007.40	32.71	279.50	110.58	349.03	211.15	220.61

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	266.90	50.53	59.45	264.35	62.62	68.29	40.49	52.34	43.28	53.93	40.83	42.75
Movement LOS	F	D	E	F	F	E	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	61.07			74.24			48.96			47.08		
Approach LOS	E			E			D			D		
d_I, Intersection Delay [s/veh]	64.56											
Intersection LOS	E											
Intersection V/C	0.838											

**Emissions**

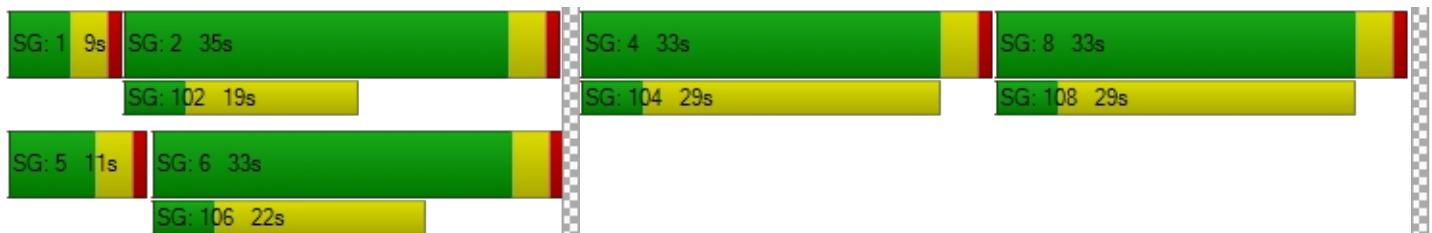
Vehicle Miles Traveled [mph]	187.55	2564.67	1322.82	80.17	860.78	451.96	2.59	20.38	8.27	36.86	23.66	24.14
Stops [stops/h]	232.52	1450.54	844.29	323.62	1760.78	992.01	23.79	225.12	80.42	295.60	158.35	167.40
Fuel consumption [US gal/h]	15.51	120.81	65.57	15.38	72.25	40.36	0.58	5.54	1.96	7.63	4.06	4.27
CO [g/h]	1084.17	8444.66	4583.16	1074.85	5050.53	2821.27	40.67	387.27	136.88	533.06	283.56	298.82
NOx [g/h]	210.94	1643.02	891.72	209.13	982.65	548.92	7.91	75.35	26.63	103.71	55.17	58.14
VOC [g/h]	251.27	1957.13	1062.19	249.11	1170.51	653.86	9.43	89.75	31.72	123.54	65.72	69.25

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.837			3.710			2.412			2.752		
Crosswalk LOS	D			D			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	527			564			527			527		
d_b, Bicycle Delay [s]	29.82			28.37			29.82			29.82		
I_b,int, Bicycle LOS Score for Intersection	2.948			3.090			2.218			2.828		
Bicycle LOS	C			C			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	37.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	124	902	0	87	678	277	165	36	23	0	276	234
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	84	0	0	7	0	0	71
Total Hourly Volume [veh/h]	150	1866	0	105	1894	251	200	44	21	0	334	212
Peak Hour Factor	0.8289	0.8289	0.8289	0.9148	0.9148	0.9148	0.9538	0.9538	0.9538	0.8413	0.8413	0.8413
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]	45	563	0	29	518	69	52	12	6	0	99	63
Total Analysis Volume [veh/h]	181	2251	0	115	2070	274	210	46	22	0	397	252
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	40	0	5	39	0	13	44	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	9	39	0	11	42	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	6	53	53	5	52	52	7	26	26	0	19	19
g / C, Green / Cycle	0.06	0.53	0.53	0.05	0.52	0.52	0.07	0.26	0.26	0.00	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.43	0.00	0.03	0.40	0.17	0.12	0.01	0.01	0.00	0.08	0.16
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	211	2755	860	176	2703	843	127	930	415	3	972	303
d1, Uniform Delay [s]	46.58	19.36	0.00	46.65	19.02	13.75	46.50	27.96	27.98	0.00	35.73	39.08
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.32	0.11	0.11	0.11	0.11	0.11
l, 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]	9.71	2.82	0.00	4.09	2.14	1.02	317.59	0.02	0.05	0.00	0.28	5.85
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	0.86	0.82	0.00	0.65	0.77	0.32	1.66	0.05	0.05	0.00	0.41	0.83
d, Delay for Lane Group [s/veh]	56.29	22.19	0.00	50.74	21.16	14.77	364.09	27.98	28.04	0.00	36.00	44.94
Lane Group LOS	E	C	A	D	C	B	F	C	C	A	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.44	13.22	0.00	1.46	11.68	3.44	14.21	0.40	0.39	0.00	2.75	6.17
50th-Percentile Queue Length [ft/ln]	60.89	330.56	0.00	36.41	292.02	85.96	355.18	10.02	9.67	0.00	68.74	154.23
95th-Percentile Queue Length [veh/ln]	4.38	19.19	0.00	2.62	17.29	6.19	23.31	0.72	0.70	0.00	4.95	10.24
95th-Percentile Queue Length [ft/ln]	109.60	479.65	0.00	65.54	432.14	154.73	582.74	18.03	17.41	0.00	123.73	256.07

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.29	22.19	0.00	50.74	21.16	14.77	364.09	27.98	28.04	0.00	36.00	44.94
Movement LOS	E	C	A	D	C	B	F	C	C	A	D	D
d_A, Approach Delay [s/veh]	24.72			21.83			281.88			39.47		
Approach LOS	C			C			F			D		
d_I, Intersection Delay [s/veh]	37.43											
Intersection LOS	D											
Intersection V/C	0.740											

**Emissions**

Vehicle Miles Traveled [mph]	67.52	839.72	0.00	189.19	3405.46	450.77	31.42	6.88	3.29	0.00	48.22	30.61
Stops [stops/h]	175.35	1428.03	0.00	104.87	1261.51	123.78	511.47	28.85	13.93	0.00	296.95	222.10
Fuel consumption [US gal/h]	6.57	56.70	0.00	8.98	141.33	17.81	22.99	0.86	0.41	0.00	8.25	6.12
CO [g/h]	459.08	3963.47	0.00	627.44	9878.84	1245.20	1607.16	59.87	28.76	0.00	576.92	427.44
NOx [g/h]	89.32	771.15	0.00	122.08	1922.06	242.27	312.69	11.65	5.60	0.00	112.25	83.16
VOC [g/h]	106.40	918.57	0.00	145.41	2289.52	288.59	372.47	13.87	6.67	0.00	133.71	99.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.592			3.841			2.866			3.100		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	720			700			760			720		
d_b, Bicycle Delay [s]	20.48			21.13			19.22			20.48		
I_b,int, Bicycle LOS Score for Intersection	2.897			2.958			1.795			1.956		
Bicycle LOS	C			C			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 4: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.744

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	26	1079	39	34	696	43	20	20	22	11	32	6
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	775	0	0	1074	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	12	0	0	13	0	0	7	0	0	2
Total Hourly Volume [veh/h]	31	2081	35	41	1916	39	24	24	20	13	39	5
Peak Hour Factor	0.8408	0.8408	0.8408	0.9137	0.9137	0.9137	0.6630	0.6630	0.6630	0.8000	0.8000	0.8000
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	619	10	11	524	11	9	9	8	4	12	2
Total Analysis Volume [veh/h]	37	2475	42	45	2097	43	36	36	30	16	49	6
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	25	0	5	25	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	31	42	0	27	38	0	18	33	0	18	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	4	88	88	4	89	89	4	10	10	2	8	8
g / C, Green / Cycle	0.03	0.73	0.73	0.03	0.74	0.74	0.03	0.08	0.08	0.02	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.68	0.03	0.02	0.39	0.39	0.02	0.02	0.02	0.01	0.01	0.01
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1881	1810	1900	1634	1810	1900	1829
c, Capacity [veh/h]	54	2656	1186	59	2667	1386	53	156	134	32	134	129
d1, Uniform Delay [s]	57.64	13.41	4.35	57.57	6.78	6.80	57.68	51.45	51.56	58.44	52.62	52.64
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	14.13	7.44	0.06	17.82	0.75	1.45	14.15	0.68	0.92	12.07	0.75	0.82
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	0.68	0.93	0.04	0.76	0.53	0.53	0.68	0.21	0.24	0.51	0.21	0.21
d, Delay for Lane Group [s/veh]	71.77	20.85	4.40	75.39	7.54	8.24	71.84	52.13	52.49	70.51	53.37	53.46
Lane Group LOS	E	C	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.30	23.43	0.25	1.62	6.24	6.79	1.28	0.97	0.95	0.58	0.81	0.81
50th-Percentile Queue Length [ft/ln]	32.48	585.67	6.15	40.42	156.09	169.63	32.07	24.19	23.63	14.60	20.21	20.14
95th-Percentile Queue Length [veh/ln]	2.34	31.36	0.44	2.91	10.34	11.06	2.31	1.74	1.70	1.05	1.45	1.45
95th-Percentile Queue Length [ft/ln]	58.47	784.12	11.07	72.76	258.54	276.43	57.72	43.54	42.53	26.29	36.37	36.25

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.77	20.85	4.40	75.39	7.77	8.24	71.84	52.15	52.49	70.51	53.41	53.46
Movement LOS	E	C	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	21.32			9.17			59.20			57.27		
Approach LOS	C			A			E			E		
d_I, Intersection Delay [s/veh]	17.22											
Intersection LOS	B											
Intersection V/C	0.744											

**Emissions**

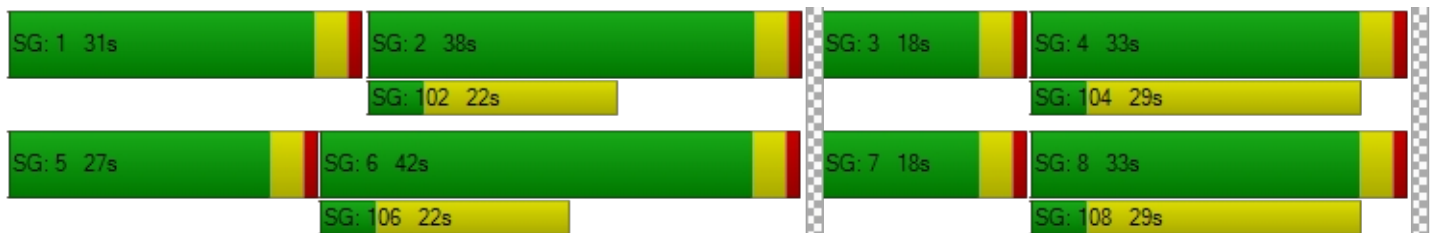
Vehicle Miles Traveled [mph]	18.63	1245.99	21.14	16.79	524.81	273.50	1.98	1.85	1.79	1.06	1.83	1.82
Stops [stops/h]	38.98	1405.61	7.38	48.50	374.62	203.56	38.48	29.03	28.35	17.53	24.25	24.17
Fuel consumption [US gal/h]	1.66	70.69	0.85	1.87	24.80	13.14	0.89	0.64	0.63	0.40	0.55	0.55
CO [g/h]	116.28	4941.21	59.71	130.63	1733.85	918.21	62.30	45.03	43.91	28.09	38.56	38.42
NOx [g/h]	22.62	961.38	11.62	25.42	337.34	178.65	12.12	8.76	8.54	5.47	7.50	7.47
VOC [g/h]	26.95	1145.17	13.84	30.27	401.84	212.80	14.44	10.44	10.18	6.51	8.94	8.90

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.612			3.613			2.382			2.365		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	633			567			483			483		
d_b, Bicycle Delay [s]	28.02			30.82			34.50			34.50		
l_b,int, Bicycle LOS Score for Intersection	3.677			2.769			1.650			1.620		
Bicycle LOS	D			C			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	92.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.991

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	207	671	83	118	352	244	328	618	63	87	1039	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	485	0	0	668	406	290	1	0	0	3	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	25	0	0	175	0	0	19	0	0	37
Total Hourly Volume [veh/h]	252	1297	75	143	1094	526	687	749	57	105	1260	109
Peak Hour Factor	0.7878	0.7878	0.7878	0.8529	0.8529	0.8529	0.9048	0.9048	0.9048	0.9230	0.9230	0.9230
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]	80	412	24	42	321	154	190	207	16	28	341	30
Total Analysis Volume [veh/h]	320	1646	95	168	1283	617	759	828	63	114	1365	118
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	39	0	5	39	0	8	35	0	5	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	52	0	9	48	0	23	45	0	14	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	9	48	48	5	44	44	19	45	45	6	32	32
g / C, Green / Cycle	0.08	0.40	0.40	0.04	0.37	0.37	0.16	0.38	0.38	0.05	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.09	0.45	0.06	0.05	0.35	0.38	0.22	0.16	0.04	0.03	0.27	0.27
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1824
c, Capacity [veh/h]	264	1447	646	146	1326	592	556	1946	607	173	965	486
d1, Uniform Delay [s]	55.50	36.00	22.95	57.50	37.29	38.00	50.50	27.82	24.32	56.07	44.00	44.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.20	0.11	0.11	0.11	0.11	0.47
l, 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]	104.11	70.86	0.48	82.87	18.03	48.35	168.57	0.15	0.07	4.27	19.42	45.35
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	1.21	1.14	0.15	1.15	0.97	1.04	1.36	0.43	0.10	0.66	1.02	1.02
d, Delay for Lane Group [s/veh]	159.61	106.86	23.43	140.37	55.32	86.35	219.07	27.97	24.39	60.34	63.42	89.35
Lane Group LOS	F	F	C	F	E	F	F	C	C	E	F	F
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.70	34.06	1.74	3.85	20.76	24.36	20.97	5.54	1.11	1.73	16.04	19.67
50th-Percentile Queue Length [ft/ln]	192.40	851.48	43.62	96.33	519.06	608.96	524.27	138.39	27.79	43.34	400.89	491.75
95th-Percentile Queue Length [veh/ln]	13.02	47.72	3.14	6.94	28.24	33.40	32.47	9.39	2.00	3.12	22.90	27.32
95th-Percentile Queue Length [ft/ln]	325.40	1192.98	78.52	173.40	705.88	835.09	811.75	234.85	50.03	78.02	572.58	682.96

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	159.61	106.86	23.43	140.37	55.32	86.35	219.07	27.97	24.39	60.34	70.62	89.35
Movement LOS	F	F	C	F	E	F	F	C	C	E	E	F
d_A, Approach Delay [s/veh]	111.20			71.49			115.74			71.27		
Approach LOS	F			E			F			E		
d_I, Intersection Delay [s/veh]	92.44											
Intersection LOS	F											
Intersection V/C	0.991											

**Emissions**

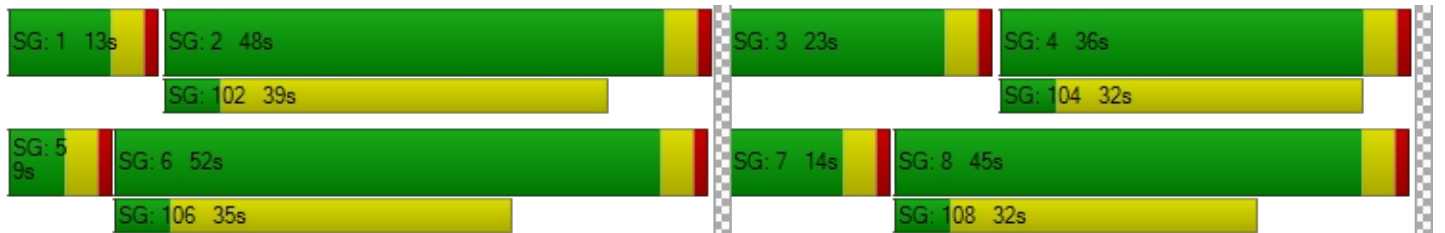
Vehicle Miles Traveled [mph]	158.98	817.75	47.20	84.58	645.90	310.62	189.69	206.93	15.74	12.38	107.06	53.99
Stops [stops/h]	461.75	2043.56	52.35	231.19	1245.74	730.76	1258.25	498.20	33.35	104.02	962.13	590.10
Fuel consumption [US gal/h]	21.58	89.23	2.72	10.57	52.07	30.57	63.55	20.89	1.46	3.75	34.17	21.81
CO [g/h]	1508.64	6236.95	190.24	738.96	3639.73	2137.09	4441.88	1460.11	101.97	261.85	2388.79	1524.21
NOx [g/h]	293.53	1213.48	37.01	143.78	708.16	415.80	864.23	284.08	19.84	50.95	464.77	296.56
VOC [g/h]	349.64	1445.47	44.09	171.26	843.54	495.29	1029.45	338.39	23.63	60.69	553.62	353.25

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.428			3.868			3.715			3.408		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			733			683			533		
d_b, Bicycle Delay [s]	21.60			24.07			26.00			32.27		
I_b,int, Bicycle LOS Score for Intersection	3.281			3.410			2.478			2.458		
Bicycle LOS	C			C			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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.535

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	24	999	6	9	414	35	8	105	5	12	103	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	487	0	0	668	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	2	0	0	11	0	0	2	0	0	5
Total Hourly Volume [veh/h]	29	1696	5	11	1169	31	10	127	4	15	125	13
Peak Hour Factor	0.8643	0.8643	0.8643	0.7467	0.7467	0.7467	0.8393	0.8393	0.8393	0.8520	0.8520	0.8520
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	491	1	4	391	10	3	38	1	4	37	4
Total Analysis Volume [veh/h]	34	1962	6	15	1565	42	12	151	5	18	147	15
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	5	32	0	11	38	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	10	31	0	24	36	0	24	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	3	70	70	2	69	69	1	10	10	2	10	10
g / C, Green / Cycle	0.03	0.70	0.70	0.02	0.69	0.69	0.01	0.10	0.10	0.02	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.36	0.36	0.01	0.43	0.03	0.01	0.04	0.00	0.01	0.08	0.01
s, saturation flow rate [veh/h]	1810	3618	1897	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	55	2543	1333	31	2494	1113	27	360	161	37	200	170
d1, Uniform Delay [s]	47.88	6.86	6.86	48.70	8.50	4.95	48.85	42.31	40.67	48.47	43.41	40.42
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.50	0.73	1.38	11.09	1.21	0.06	11.08	0.78	0.08	9.65	5.22	0.22
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	0.61	0.51	0.51	0.48	0.63	0.04	0.45	0.42	0.03	0.49	0.74	0.09
d, Delay for Lane Group [s/veh]	58.38	7.59	8.25	59.78	9.71	5.01	59.92	43.08	40.74	58.12	48.63	40.65
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.97	4.94	5.42	0.47	8.31	0.27	0.38	1.77	0.11	0.54	3.76	0.34
50th-Percentile Queue Length [ft/ln]	24.28	123.46	135.60	11.63	207.65	6.66	9.40	44.14	2.83	13.43	93.91	8.50
95th-Percentile Queue Length [veh/ln]	1.75	8.58	9.24	0.84	13.03	0.48	0.68	3.18	0.20	0.97	6.76	0.61
95th-Percentile Queue Length [ft/ln]	43.70	214.57	231.08	20.93	325.82	11.98	16.92	79.44	5.10	24.18	169.04	15.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.38	7.82	8.25	59.78	9.71	5.01	59.92	43.08	40.74	58.12	48.63	40.65
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	8.68			10.05			44.22			48.91		
Approach LOS	A			B			D			D		
d_I, Intersection Delay [s/veh]	12.56											
Intersection LOS	B											
Intersection V/C	0.535											

**Emissions**

Vehicle Miles Traveled [mph]	6.68	253.47	132.95	7.45	777.51	20.87	6.02	75.73	2.51	4.83	39.42	4.02
Stops [stops/h]	34.96	355.55	195.26	16.75	598.04	9.58	13.54	127.11	4.08	19.34	135.24	12.24
Fuel consumption [US gal/h]	1.07	15.10	8.12	0.58	38.40	0.95	0.48	5.17	0.17	0.54	3.97	0.37
CO [g/h]	74.62	1055.75	567.70	40.67	2684.36	66.74	33.38	361.13	11.72	37.91	277.80	25.82
NOx [g/h]	14.52	205.41	110.45	7.91	522.28	12.99	6.49	70.26	2.28	7.38	54.05	5.02
VOC [g/h]	17.29	244.68	131.57	9.42	622.13	15.47	7.74	83.69	2.72	8.79	64.38	5.98

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.354			3.121			2.539			2.535		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	520			540			640			640		
d_b, Bicycle Delay [s]	27.38			26.65			23.12			23.12		
I_b,int, Bicycle LOS Score for Intersection	2.662			2.907			1.700			1.865		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	35.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.628

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	84	431	14	98	395	189	120	268	45	23	398	140
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	200	0	0	176	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	4	0	0	57	0	0	14	0	0	42
Total Hourly Volume [veh/h]	102	522	13	119	478	172	145	524	40	28	658	127
Peak Hour Factor	0.9010	0.9010	0.9010	0.8191	0.8191	0.8191	0.8730	0.8730	0.8730	0.8333	0.8333	0.8333
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]	28	145	4	36	146	52	42	150	11	8	197	38
Total Analysis Volume [veh/h]	113	579	14	145	584	210	166	600	46	34	790	152
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	26	0	17	27	0	22	39	0	18	35	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	8	35	35	10	37	37	11	36	36	3	28	28
g / C, Green / Cycle	0.08	0.35	0.35	0.10	0.37	0.37	0.11	0.36	0.36	0.03	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.06	0.16	0.16	0.08	0.22	0.22	0.09	0.17	0.17	0.02	0.25	0.25
s, saturation flow rate [veh/h]	1810	1900	1884	1810	1900	1731	1810	1900	1853	1810	1900	1795
c, Capacity [veh/h]	143	658	653	177	694	632	201	691	673	58	541	511
d1, Uniform Delay [s]	45.25	25.33	25.33	44.23	25.77	25.77	43.49	24.47	24.47	47.72	34.35	34.35
k, delay calibration	0.11	0.50	0.50	0.13	0.50	0.50	0.11	0.11	0.11	0.11	0.22	0.22
l, 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]	9.39	2.24	2.26	10.88	3.79	4.15	8.28	0.51	0.52	8.87	10.25	10.76
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	0.79	0.45	0.45	0.82	0.60	0.60	0.83	0.47	0.47	0.58	0.90	0.90
d, Delay for Lane Group [s/veh]	54.64	27.57	27.59	55.12	29.56	29.92	51.77	24.98	24.99	56.59	44.60	45.11
Lane Group LOS	D	C	C	E	C	C	D	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.05	5.63	5.60	3.96	8.32	7.65	4.32	5.67	5.53	0.95	12.14	11.54
50th-Percentile Queue Length [ft/ln]	76.37	140.87	139.90	99.01	208.06	191.13	108.12	141.63	138.30	23.82	303.54	288.53
95th-Percentile Queue Length [veh/ln]	5.50	9.53	9.48	7.13	13.05	12.18	7.74	9.57	9.39	1.71	17.86	17.11
95th-Percentile Queue Length [ft/ln]	137.46	238.20	236.88	178.21	326.34	304.49	193.39	239.22	234.73	42.87	446.41	427.82

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.64	27.58	27.59	55.12	29.66	29.92	51.77	24.98	24.99	56.59	44.80	45.11
Movement LOS	D	C	C	E	C	C	D	C	C	E	D	D
d_A, Approach Delay [s/veh]	31.91			33.65			30.46			45.26		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	35.84											
Intersection LOS	D											
Intersection V/C	0.628											

**Emissions**

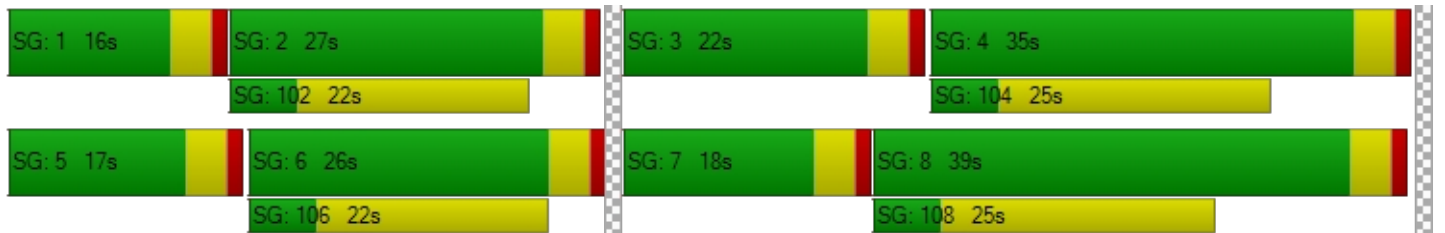
Vehicle Miles Traveled [mph]	17.10	45.04	44.69	16.67	47.78	43.52	100.29	197.53	192.76	6.32	90.00	85.02
Stops [stops/h]	109.97	202.86	201.45	142.57	299.61	275.22	155.70	203.95	199.15	34.29	437.10	415.48
Fuel consumption [US gal/h]	2.95	5.28	5.24	3.62	7.15	6.57	7.12	10.97	10.71	1.03	12.92	12.28
CO [g/h]	206.14	368.78	366.15	253.32	500.07	459.07	497.85	766.70	748.36	72.31	902.83	858.38
NOx [g/h]	40.11	71.75	71.24	49.29	97.30	89.32	96.86	149.17	145.60	14.07	175.66	167.01
VOC [g/h]	47.77	85.47	84.86	58.71	115.90	106.39	115.38	177.69	173.44	16.76	209.24	198.94

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	2.673			2.891			2.910			2.887		
Crosswalk LOS	B			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	440			460			700			620		
d_b, Bicycle Delay [s]	30.42			29.65			21.13			23.81		
I_b,int, Bicycle LOS Score for Intersection	2.145			2.381			2.241			2.399		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	37	274	152	40	113	23	14	150	12	173	442	53
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	7	22	7	14	9	31	212	7	10	165	6
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	52	0	0	9	0	0	6	0	0	18
Total Hourly Volume [veh/h]	68	339	154	55	151	28	48	394	16	219	700	52
Peak Hour Factor	0.8238	0.8238	0.8238	0.8554	0.8554	0.8554	0.8688	0.8688	0.8688	0.9003	0.9003	0.9003
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]	21	103	47	16	44	8	14	113	5	61	194	14
Total Analysis Volume [veh/h]	83	411	187	64	177	33	55	453	18	243	778	58
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	5	22	0	10	24	0	13	27	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	26	0	10	26	0	9	26	0	18	35	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	27	27	4	26	26	4	21	21	13	30	30
g / C, Green / Cycle	0.06	0.33	0.33	0.05	0.32	0.32	0.04	0.26	0.26	0.16	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.12	0.04	0.09	0.02	0.03	0.24	0.01	0.13	0.22	0.22
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1854
c, Capacity [veh/h]	109	632	537	89	612	520	82	496	422	284	709	691
d1, Uniform Delay [s]	37.04	22.73	20.14	37.49	20.29	18.78	37.61	28.67	22.08	32.84	20.24	20.24
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.29	0.11	0.24	0.12	0.12
l, 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]	10.56	5.12	1.78	10.37	1.19	0.23	9.16	15.76	0.04	14.84	0.92	0.95
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	0.76	0.65	0.35	0.72	0.29	0.06	0.67	0.91	0.04	0.86	0.60	0.60
d, Delay for Lane Group [s/veh]	47.60	27.85	21.92	47.86	21.48	19.01	46.76	44.43	22.12	47.68	21.16	21.19
Lane Group LOS	D	C	C	D	C	B	D	D	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.87	7.03	2.74	1.45	2.53	0.44	1.21	9.82	0.24	5.43	5.82	5.69
50th-Percentile Queue Length [ft/ln]	46.65	175.77	68.44	36.32	63.34	10.90	30.26	245.46	5.97	135.78	145.59	142.23
95th-Percentile Queue Length [veh/ln]	3.36	11.38	4.93	2.62	4.56	0.79	2.18	14.96	0.43	9.25	9.78	9.60
95th-Percentile Queue Length [ft/ln]	83.97	284.49	123.19	65.38	114.01	19.63	54.46	373.93	10.74	231.32	244.53	240.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.60	27.85	21.92	47.86	21.48	19.01	46.76	44.43	22.12	47.68	21.17	21.19
Movement LOS	D	C	C	D	C	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	28.63			27.34			43.91			27.14		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.01											
Intersection LOS	C											
Intersection V/C	0.624											

**Emissions**

Vehicle Miles Traveled [mph]	36.48	180.65	82.19	5.04	13.94	2.60	3.64	29.96	1.19	35.41	61.64	60.17
Stops [stops/h]	83.97	316.39	123.19	65.38	114.01	19.63	54.46	441.83	10.74	244.40	262.06	256.02
Fuel consumption [US gal/h]	2.83	11.59	4.89	1.31	2.16	0.37	1.33	10.62	0.26	6.61	7.19	7.03
CO [g/h]	197.54	810.47	342.06	91.37	151.15	26.17	92.63	742.07	17.85	462.05	502.80	491.13
NOx [g/h]	38.43	157.69	66.55	17.78	29.41	5.09	18.02	144.38	3.47	89.90	97.83	95.56
VOC [g/h]	45.78	187.83	79.28	21.18	35.03	6.06	21.47	171.98	4.14	107.09	116.53	113.82

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
l_p,int, Pedestrian LOS Score for Intersectio	2.535			2.496			2.724			2.863		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			550			550			775		
d_b, Bicycle Delay [s]	21.03			21.03			21.03			15.01		
l_b,int, Bicycle LOS Score for Intersection	2.769			2.027			2.437			2.465		
Bicycle LOS	C			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 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	2	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	19	888	51	28	328	30	25	84	14	125	222	122
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	473	85	193	467	31	0	0	0	1	16	153
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	37	0	0	17	0	0	4	0	0	75
Total Hourly Volume [veh/h]	23	1547	110	227	864	50	30	102	13	152	285	226
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
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]	7	440	31	65	246	14	9	29	4	43	81	64
Total Analysis Volume [veh/h]	26	1762	125	259	984	57	34	116	15	173	325	257
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	8	29	0	5	32	0	8	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	30	0	26	41	0	25	36	0	28	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	3	60	60	19	76	76	3	12	12	13	22	22
g / C, Green / Cycle	0.02	0.50	0.50	0.16	0.63	0.63	0.03	0.10	0.10	0.11	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.34	0.08	0.14	0.19	0.04	0.02	0.03	0.01	0.10	0.09	0.16
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	44	2569	802	287	3265	1019	52	358	160	203	661	295
d1, Uniform Delay [s]	57.94	23.07	16.49	49.56	10.10	8.48	57.67	50.31	49.16	52.27	44.04	47.67
k, delay calibration	0.11	0.50	0.50	0.28	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.83	1.51	0.41	21.44	0.24	0.10	12.90	0.52	0.25	9.53	0.57	7.85
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	0.59	0.69	0.16	0.90	0.30	0.06	0.65	0.32	0.09	0.85	0.49	0.87
d, Delay for Lane Group [s/veh]	69.77	24.58	16.91	71.00	10.34	8.58	70.57	50.83	49.41	61.80	44.61	55.52
Lane Group LOS	E	C	B	E	B	A	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.91	12.12	1.88	9.11	3.61	0.55	1.19	1.61	0.41	5.52	4.28	7.88
50th-Percentile Queue Length [ft/ln]	22.73	303.06	47.05	227.74	90.16	13.63	29.64	40.30	10.30	137.91	107.00	197.03
95th-Percentile Queue Length [veh/ln]	1.64	17.83	3.39	14.06	6.49	0.98	2.13	2.90	0.74	9.37	7.67	12.49
95th-Percentile Queue Length [ft/ln]	40.91	445.81	84.68	351.48	162.29	24.54	53.34	72.55	18.54	234.21	191.83	312.14

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	69.77	24.58	16.91	71.00	10.34	8.58	70.57	50.83	49.41	61.80	44.61	55.52
Movement LOS	E	C	B	E	B	A	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	24.69			22.35			54.77			52.26		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.19											
Intersection LOS	C											
Intersection V/C	0.661											

**Emissions**

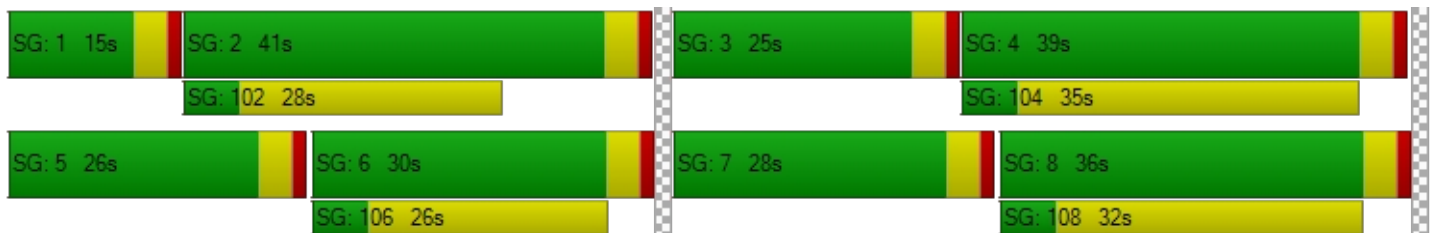
Vehicle Miles Traveled [mph]	10.79	731.34	51.88	77.36	293.90	17.02	2.40	8.20	1.06	31.84	59.82	47.30
Stops [stops/h]	27.27	1091.01	56.46	273.28	324.57	16.36	35.56	96.73	12.36	165.50	256.81	236.44
Fuel consumption [US gal/h]	1.08	47.45	2.91	9.79	16.18	0.89	1.01	2.68	0.34	5.32	8.19	7.46
CO [g/h]	75.36	3316.57	203.44	684.39	1130.98	61.97	70.80	187.59	23.82	372.18	572.71	521.77
NOx [g/h]	14.66	645.28	39.58	133.16	220.05	12.06	13.77	36.50	4.64	72.41	111.43	101.52
VOC [g/h]	17.47	768.65	47.15	158.62	262.11	14.36	16.41	43.48	5.52	86.26	132.73	120.93

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.365			3.395			2.619			2.908		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	433			617			533			583		
d_b, Bicycle Delay [s]	36.82			28.70			32.27			30.10		
I_b,int, Bicycle LOS Score for Intersection	2.632			2.284			1.699			2.244		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	101	339	14	52	200	45	62	108	53	3	146	63
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	5	10	7	18	56	68	0	1	66	2
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]	122	431	22	73	249	72	131	199	64	5	243	78
Peak Hour Factor	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882	0.8882
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]	34	121	6	21	70	20	37	56	18	1	68	22
Total Analysis Volume [veh/h]	137	485	25	82	280	81	147	224	72	6	274	88
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	407	432	435	396	418	454	398	420	454	506	545
Degree of Utilization, x	0.34	0.59	0.59	0.21	0.67	0.18	0.37	0.53	0.16	0.01	0.66

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.46	3.71	3.66	0.77	4.77	0.64	1.67	3.05	0.56	0.04	4.89
95th-Percentile Queue Length [ft]	36.42	92.82	91.46	19.22	119.24	16.09	41.75	76.34	13.95	0.90	122.26
Approach Delay [s/veh]	20.90			22.02			18.05			21.22	
Approach LOS	C			C			C			C	
Intersection Delay [s/veh]	20.56										
Intersection LOS	C										

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	41.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.767

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	2
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	61	772	16	19	398	37	94	118	36	19	226	76
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	61	353	0	8	448	75	264	116	43	2	74	8
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	5	0	0	30	0	0	22	0	0	25
Total Hourly Volume [veh/h]	135	1287	14	31	930	90	378	259	65	25	347	75
Peak Hour Factor	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463	0.8463
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]	40	380	4	9	275	27	112	77	19	7	103	22
Total Analysis Volume [veh/h]	160	1521	17	37	1099	106	447	306	77	30	410	89
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	29	0	5	29	0	14	26	0	14	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	9	33	0	32	30	0	32	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	11	51	51	3	43	43	28	37	37	3	12	12
g / C, Green / Cycle	0.10	0.46	0.46	0.03	0.39	0.39	0.25	0.33	0.33	0.03	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.09	0.42	0.01	0.02	0.30	0.07	0.25	0.08	0.05	0.02	0.08	0.06
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	181	1673	747	56	1423	635	461	1201	536	53	551	172
d1, Uniform Delay [s]	48.87	27.41	16.05	52.73	29.06	21.65	40.59	26.81	25.77	52.72	47.68	46.47
k, delay calibration	0.30	0.50	0.50	0.11	0.50	0.50	0.43	0.11	0.11	0.11	0.11	0.11
l, 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]	29.39	8.83	0.06	12.58	4.12	0.57	32.07	0.11	0.12	9.37	2.01	2.40
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	0.91	0.02	0.66	0.77	0.17	0.97	0.25	0.14	0.57	0.74	0.52
d, Delay for Lane Group [s/veh]	78.26	36.24	16.11	65.31	33.18	22.22	72.66	26.92	25.89	62.10	49.69	48.86
Lane Group LOS	E	D	B	E	C	C	E	C	C	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.68	18.91	0.23	1.18	12.62	1.80	15.64	2.87	1.40	0.94	3.66	2.37
50th-Percentile Queue Length [ft/ln]	141.96	472.71	5.81	29.48	315.52	44.92	391.08	71.72	34.93	23.52	91.52	59.31
95th-Percentile Queue Length [veh/ln]	9.59	26.04	0.42	2.12	18.45	3.23	22.13	5.16	2.51	1.69	6.59	4.27
95th-Percentile Queue Length [ft/ln]	239.66	651.00	10.46	53.06	461.18	80.86	553.24	129.10	62.87	42.34	164.73	106.76

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	78.26	36.24	16.11	65.31	33.18	22.22	72.66	26.92	25.89	62.10	49.69	48.86
Movement LOS	E	D	B	E	C	C	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	40.00			33.20			51.46			50.26		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	41.51											
Intersection LOS	D											
Intersection V/C	0.767											

**Emissions**

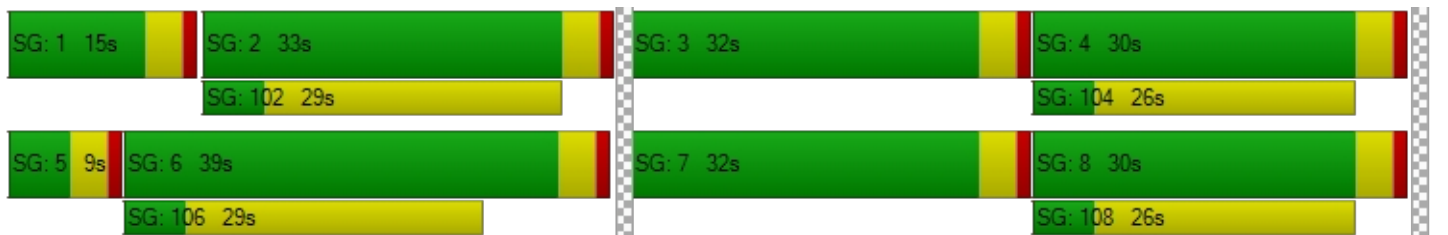
Vehicle Miles Traveled [mph]	10.42	99.09	1.11	2.93	87.05	8.40	48.71	33.34	8.39	15.12	206.58	44.84
Stops [stops/h]	185.84	1237.65	7.60	38.59	826.09	58.81	511.96	187.79	45.72	30.80	359.41	77.64
Fuel consumption [US gal/h]	5.22	30.00	0.19	1.07	20.68	1.50	13.38	4.72	1.16	1.22	15.08	3.25
CO [g/h]	364.59	2097.14	13.16	74.93	1445.21	104.73	935.43	329.60	80.76	85.49	1053.82	227.45
NOx [g/h]	70.94	408.03	2.56	14.58	281.19	20.38	182.00	64.13	15.71	16.63	205.04	44.25
VOC [g/h]	84.50	486.03	3.05	17.37	334.94	24.27	216.80	76.39	18.72	19.81	244.23	52.71

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
l_p,int, Pedestrian LOS Score for Intersectio	3.186			3.324			2.926			2.811		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	636			527			473			473		
d_b, Bicycle Delay [s]	25.57			29.82			32.07			32.07		
l_b,int, Bicycle LOS Score for Intersection	2.965			2.609			2.263			1.864		
Bicycle LOS	C			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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	30.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.896

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	25	15	1	6	6	6	44	267	42	7	295	8
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	0	529	0	0	238	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]	39	18	1	7	7	7	53	852	51	8	595	10
Peak Hour Factor	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956	0.5956
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]	16	8	0	3	3	3	22	358	21	3	250	4
Total Analysis Volume [veh/h]	65	30	2	12	12	12	89	1431	86	13	999	17
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	447	449	524	564	564	575	493	530	530	532
Degree of Utilization, x	0.22	0.08	0.17	0.90	0.90	0.88	0.03	0.64	0.64	0.64

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.82	0.26	0.61	10.59	10.59	10.11	0.08	4.49	4.49	4.44
95th-Percentile Queue Length [ft]	20.40	6.51	15.20	264.7	264.7	252.6	2.03	112.1	112.1	111.0
Approach Delay [s/veh]	13.27	11.73	38.92				20.59			
Approach LOS	B	B	E				C			
Intersection Delay [s/veh]	30.86									
Intersection LOS	D									

**Intersection Level Of Service Report  
Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	45	102	55	12	91	87	260	292	72	63	243	21
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	75	15	529	21	0	246	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	17	0	0	45	0	0	27	0	0	6
Total Hourly Volume [veh/h]	54	123	50	15	110	135	330	882	81	76	540	19
Peak Hour Factor	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807	0.6807
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]	20	45	18	6	40	50	121	324	30	28	198	7
Total Analysis Volume [veh/h]	79	181	73	22	162	198	485	1296	119	112	793	28
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	5	32	0	5	32	0	18	32	32	5	19	19
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	21	21	0	14	14
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	36	0	9	36	0	37	50	50	15	28	28
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
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
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	35	35	2	32	31	48	57	8	26	32
g / C, Green / Cycle	0.05	0.32	0.32	0.02	0.29	0.28	0.44	0.52	0.08	0.23	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.05	0.01	0.21	0.27	0.36	0.07	0.06	0.22	0.02
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1732	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	82	599	509	42	507	513	1588	841	140	842	472
d1, Uniform Delay [s]	52.40	28.50	27.00	53.15	34.72	38.56	26.99	13.64	49.91	41.48	28.06
k, delay calibration	0.25	0.50	0.50	0.11	0.50	0.38	0.11	0.50	0.13	0.11	0.11
l, 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
d2, Incremental Delay [s]	60.98	1.30	0.59	10.04	8.17	23.35	1.07	0.35	11.53	6.11	0.05
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
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
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

**Lane Group Results**

X, volume / capacity	0.96	0.30	0.14	0.53	0.71	0.95	0.82	0.14	0.80	0.94	0.06
d, Delay for Lane Group [s/veh]	113.38	29.79	27.59	63.19	42.89	61.92	28.06	13.99	61.44	47.59	28.11
Lane Group LOS	F	C	C	E	D	E	C	B	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.56	3.83	1.46	0.70	9.36	15.47	13.92	1.50	3.39	10.80	0.52
50th-Percentile Queue Length [ft/ln]	89.11	95.63	36.58	17.54	233.98	386.80	348.07	37.56	84.74	270.01	13.04
95th-Percentile Queue Length [veh/ln]	6.42	6.89	2.63	1.26	14.38	21.92	20.04	2.70	6.10	16.19	0.94
95th-Percentile Queue Length [ft/ln]	160.39	172.14	65.84	31.58	359.41	548.07	501.05	67.61	152.54	404.75	23.46

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	113.38	29.79	27.59	63.19	42.89	42.89	61.92	28.06	13.99	61.44	47.59	28.11
Movement LOS	F	C	C	E	D	D	E	C	B	E	D	C
d_A, Approach Delay [s/veh]	49.14			44.06			35.82			48.67		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.34											
Intersection LOS	D											
Intersection V/C	0.739											

**Emissions**

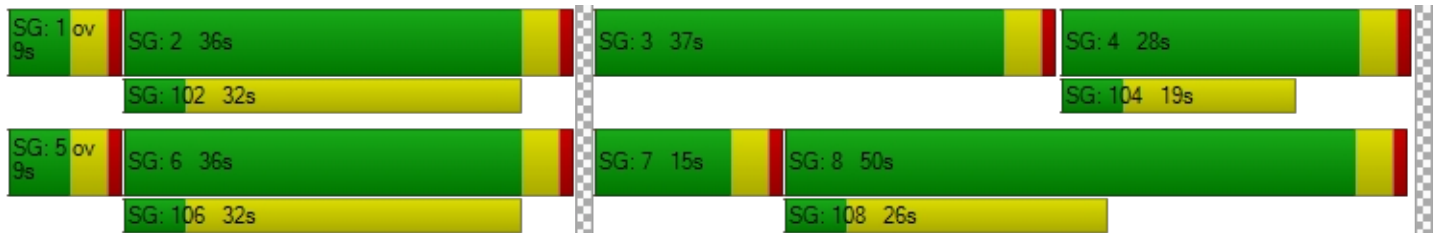
Vehicle Miles Traveled [mph]	19.90	45.60	18.39	11.05	180.78	44.53	118.98	10.93	27.79	196.73	6.95
Stops [stops/h]	116.65	125.19	47.88	22.96	306.30	506.36	911.31	49.17	110.94	706.93	17.06
Fuel consumption [US gal/h]	3.29	3.67	1.43	0.95	13.15	13.93	22.81	1.32	3.73	23.21	0.61
CO [g/h]	229.71	256.27	100.07	66.20	918.98	973.88	1594.39	92.60	260.86	1622.50	42.67
NOx [g/h]	44.69	49.86	19.47	12.88	178.80	189.48	310.21	18.02	50.75	315.68	8.30
VOC [g/h]	53.24	59.39	23.19	15.34	212.98	225.71	369.52	21.46	60.46	376.03	9.89

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
l_p,int, Pedestrian LOS Score for Intersectio	2.354			2.618			3.244			3.104		
Crosswalk LOS	B			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]	582			582			836			436		
d_b, Bicycle Delay [s]	27.65			27.65			18.62			33.62		
l_b,int, Bicycle LOS Score for Intersection	2.137			2.264			3.149			2.334		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	105	134	10	6	24	44	269	599	104	3	385	10
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	592	0	0	333	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	3	0	0	13	0	0	32	0	0	3
Total Hourly Volume [veh/h]	127	162	9	7	29	40	325	1317	94	4	799	9
Peak Hour Factor	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168	0.7168
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]	44	57	3	2	10	14	113	459	33	1	279	3
Total Analysis Volume [veh/h]	177	226	13	10	40	56	453	1837	131	6	1115	13
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	14	27	0	5	18	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	32	59	0	11	38	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
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]	28	28	28	28	27	59	59	1	33	33
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.27	0.59	0.59	0.01	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.06	0.25	0.51	0.08	0.00	0.31	0.01
s, saturation flow rate [veh/h]	1320	1882	1159	1723	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	359	528	252	484	483	2133	952	17	1202	536
d1, Uniform Delay [s]	35.34	29.63	36.00	27.39	35.83	17.11	9.16	49.21	32.24	22.48
k, delay calibration	0.50	0.50	0.50	0.50	0.37	0.11	0.11	0.11	0.11	0.11
l, 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]	4.76	2.78	0.30	0.92	22.80	1.11	0.07	11.31	3.74	0.02
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	0.49	0.45	0.04	0.20	0.94	0.86	0.14	0.34	0.93	0.02
d, Delay for Lane Group [s/veh]	40.10	32.41	36.30	28.31	58.63	18.22	9.23	60.51	35.97	22.50
Lane Group LOS	D	C	D	C	E	B	A	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.24	4.96	0.22	1.82	13.21	14.90	1.13	0.20	12.70	0.20
50th-Percentile Queue Length [ft/ln]	105.89	124.11	5.59	45.38	330.26	372.45	28.26	4.98	317.48	4.98
95th-Percentile Queue Length [veh/ln]	7.61	8.62	0.40	3.27	19.17	21.23	2.03	0.36	18.54	0.36
95th-Percentile Queue Length [ft/ln]	190.26	215.46	10.07	81.69	479.28	530.70	50.86	8.96	463.59	8.96

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	40.10	32.41	32.41	36.30	28.31	28.31	58.63	18.22	9.23	60.51	35.97	22.50
Movement LOS	D	C	C	D	C	C	E	B	A	E	D	C
d_A, Approach Delay [s/veh]	35.68			29.06			25.30			35.95		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	29.42											
Intersection LOS	C											
Intersection V/C	0.693											

**Emissions**

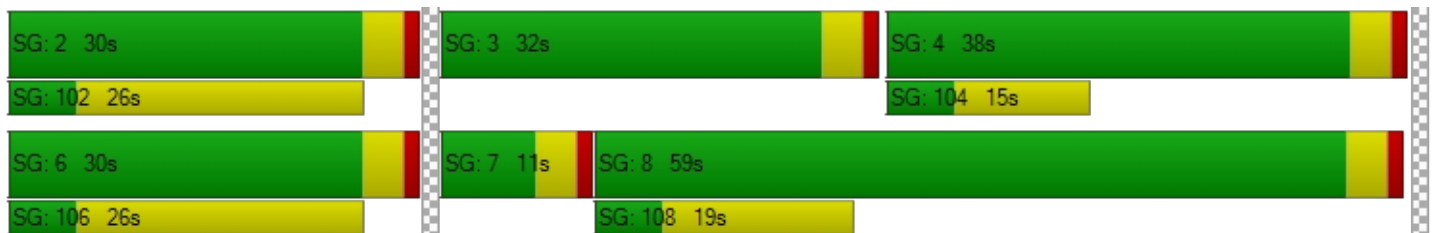
Vehicle Miles Traveled [mph]	60.13	81.19	2.42	23.20	53.05	215.13	15.34	0.49	91.37	1.07
Stops [stops/h]	152.48	178.71	8.05	65.35	475.57	1072.64	40.69	7.16	914.35	7.17
Fuel consumption [US gal/h]	5.10	6.24	0.24	2.03	13.14	27.52	1.28	0.18	22.66	0.19
CO [g/h]	356.21	436.17	16.75	141.63	918.21	1923.83	89.32	12.57	1584.14	12.94
NOx [g/h]	69.31	84.86	3.26	27.56	178.65	374.31	17.38	2.45	308.22	2.52
VOC [g/h]	82.56	101.09	3.88	32.82	212.80	445.87	20.70	2.91	367.14	3.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	41.41
I_p,int, Pedestrian LOS Score for Intersectio	2.346	2.318	3.686	3.209
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	520	1100	680
d_b, Bicycle Delay [s]	27.38	27.38	10.13	21.78
I_b,int, Bicycle LOS Score for Intersection	2.251	1.756	3.583	2.498
Bicycle LOS	B	A	D	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.363

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	2	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	635.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	118	28	613	0	0	0	43	361	0	0	307	224
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.0000	1.0000	1.0000	1.2100	1.2100	1.0000	1.0000	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	100	0	280	0	0	0	50	313	0	0	200	134
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	256	0	0	0	0	0	0	0	0	101
Total Hourly Volume [veh/h]	243	34	766	0	0	0	102	750	0	0	571	304
Peak Hour Factor	0.8478	0.8478	0.8478	1.0000	1.0000	1.0000	0.8478	0.8478	1.0000	1.0000	0.8478	0.8478
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]	72	10	226	0	0	0	30	221	0	0	168	90
Total Analysis Volume [veh/h]	287	40	903	0	0	0	120	885	0	0	673	359
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	31	0	0	0	0	5	21	0	0	12	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	21	0	0	0	0	9	39	0	0	30	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	60	60	60		60	60	60	60
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]	27	27	27		4	25	17	17
g / C, Green / Cycle	0.45	0.45	0.45		0.07	0.42	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.09	0.09	0.11		0.03	0.24	0.19	0.22
s, saturation flow rate [veh/h]	1810	1831	8500		3514	3618	3618	1615
c, Capacity [veh/h]	809	819	3800		254	1518	1015	453
d1, Uniform Delay [s]	10.08	10.07	10.26		26.73	13.38	19.08	19.97
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.56	0.55	0.15		1.36	0.36	0.75	3.17
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	0.20	0.20	0.24		0.47	0.58	0.66	0.79
d, Delay for Lane Group [s/veh]	10.64	10.62	10.41		28.08	13.74	19.83	23.14
Lane Group LOS	B	B	B		C	B	B	C
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.26	1.26	6.54		0.79	3.66	3.88	4.61
50th-Percentile Queue Length [ft/ln]	31.55	31.47	163.46		19.68	91.55	96.88	115.20
95th-Percentile Queue Length [veh/ln]	2.27	2.27	10.73		1.42	6.59	6.98	8.13
95th-Percentile Queue Length [ft/ln]	56.79	56.65	268.30		35.42	164.78	174.39	203.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	10.64	10.62	10.41	0.00	0.00	0.00	28.08	13.74	0.00	0.00	19.83	23.14
Movement LOS	B	B	B				C	B			B	C
d_A, Approach Delay [s/veh]	10.47			0.00			15.45			20.98		
Approach LOS	B			A			B			C		
d_I, Intersection Delay [s/veh]	15.32											
Intersection LOS	B											
Intersection V/C	0.363											

**Emissions**

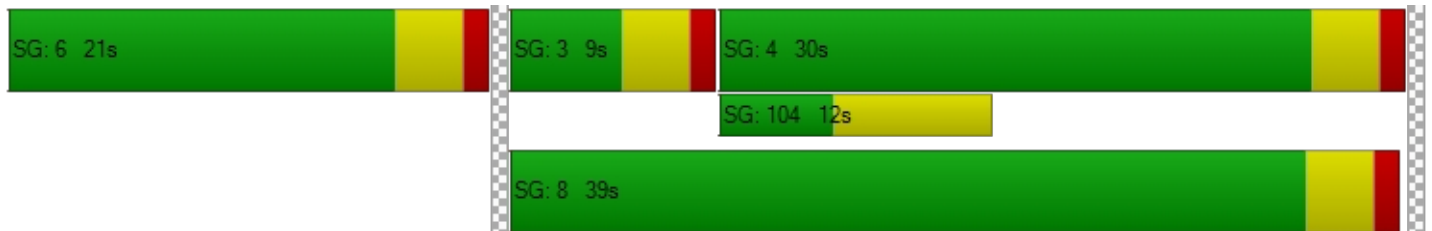
Vehicle Miles Traveled [mph]	24.48	24.48	135.20		17.25	127.20	78.81	42.04
Stops [stops/h]	75.72	75.53	392.31		94.44	439.42	465.04	276.49
Fuel consumption [US gal/h]	1.78	1.78	9.65		2.45	12.30	8.53	4.95
CO [g/h]	124.44	124.31	674.25		171.34	859.65	596.25	345.94
NOx [g/h]	24.21	24.19	131.18		33.34	167.26	116.01	67.31
VOC [g/h]	28.84	28.81	156.26		39.71	199.23	138.19	80.18

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		0.0		0.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		21.68		0.00		0.00	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		2.122		0.000		0.000	
Crosswalk LOS	F		B		F		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	567		0		1167		867	
d_b, Bicycle Delay [s]	15.41		30.00		5.21		9.63	
I_b,int, Bicycle LOS Score for Intersection	4.012		4.132		2.389		2.494	
Bicycle LOS	D		D		B		B	

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	17.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.371

**Intersection Setup**

Name	I-215 SB			Placentia Ave			Placentia Ave					
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	187	4	37	0	218	29	130	295	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	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	280	0	100	0	83	50	134	166	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	36	0	0	21	0	0	0
Total Hourly Volume [veh/h]	0	0	0	506	5	109	0	347	64	291	523	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8617	0.8617	0.8617	1.0000	0.8328	0.8328	0.8983	0.8983	1.0000
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]	0	0	0	147	1	32	0	104	19	81	146	0
Total Analysis Volume [veh/h]	0	0	0	587	6	126	0	417	77	324	582	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	10	0	28	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	14	0	32	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	R	L	C
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60
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]	30	30	30	10	10	8	22
g / C, Green / Cycle	0.50	0.50	0.50	0.17	0.17	0.14	0.37
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.08	0.12	0.05	0.09	0.16
s, saturation flow rate [veh/h]	1810	1811	1615	3618	1615	3514	3618
c, Capacity [veh/h]	896	897	799	603	269	486	1345
d1, Uniform Delay [s]	9.15	9.15	8.30	23.55	21.88	24.53	14.11
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	0.99	0.42	1.43	0.58	1.58	0.22
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	0.33	0.33	0.16	0.69	0.29	0.67	0.43
d, Delay for Lane Group [s/veh]	10.14	10.14	8.72	24.98	22.46	26.11	14.34
Lane Group LOS	B	B	A	C	C	C	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.04	2.04	0.78	2.55	0.88	2.04	2.45
50th-Percentile Queue Length [ft/ln]	50.95	50.98	19.60	63.83	21.95	50.94	61.13
95th-Percentile Queue Length [veh/ln]	3.67	3.67	1.41	4.60	1.58	3.67	4.40
95th-Percentile Queue Length [ft/ln]	91.70	91.76	35.29	114.89	39.51	91.69	110.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	10.14	10.14	8.72	0.00	24.98	22.46	26.11	14.34	0.00
Movement LOS				B	B	A		C	C	C	B	
d_A, Approach Delay [s/veh]	0.00			9.89			24.59			18.55		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	17.02											
Intersection LOS	B											
Intersection V/C	0.371											

**Emissions**

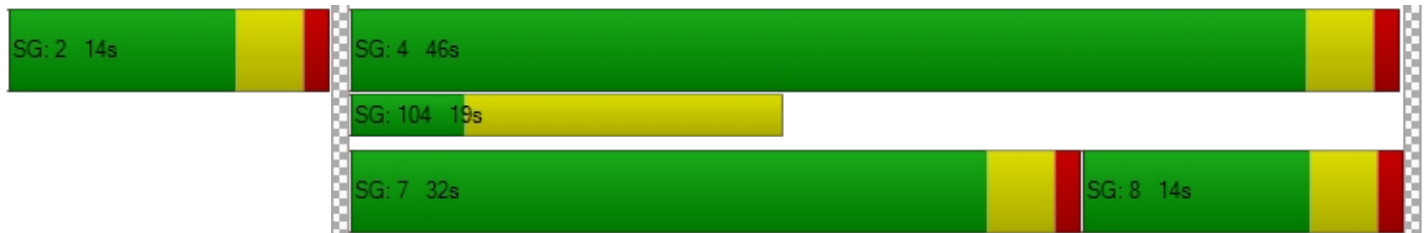
Vehicle Miles Traveled [mph]		19.87	19.88	8.45	47.47	8.77	46.57	83.65
Stops [stops/h]		122.27	122.34	47.05	306.38	52.68	244.51	293.42
Fuel consumption [US gal/h]		2.52	2.53	0.99	7.56	1.31	6.36	8.21
CO [g/h]		176.47	176.58	69.09	528.21	91.39	444.44	574.13
NOx [g/h]		34.33	34.36	13.44	102.77	17.78	86.47	111.70
VOC [g/h]		40.90	40.92	16.01	122.42	21.18	103.00	133.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.299	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	333	1400
d_b, Bicycle Delay [s]	30.00	20.83	20.83	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.805	1.984	2.307
Bicycle LOS	D	C	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	26.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.336

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	74	297	98	54	174	43	23	193	48	80	334	125
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	23	0	1	7	0	0	0	0	0	0	3
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	30	0	0	13	0	0	15	0	0	39
Total Hourly Volume [veh/h]	107	382	89	66	218	39	28	234	43	97	404	115
Peak Hour Factor	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699	0.8699
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]	31	110	26	19	63	11	8	67	12	28	116	33
Total Analysis Volume [veh/h]	123	439	102	76	251	45	32	269	49	112	464	132
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	30	0	12	30	0	9	26	0	12	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	7	43	43	4	41	41	3	10	10	6	14	14
g / C, Green / Cycle	0.09	0.54	0.54	0.05	0.51	0.51	0.03	0.13	0.13	0.08	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.15	0.04	0.08	0.08	0.02	0.07	0.03	0.06	0.13	0.08
s, saturation flow rate [veh/h]	1810	1900	1778	1810	1900	1802	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	156	1026	961	99	967	917	58	456	204	143	626	279
d1, Uniform Delay [s]	35.86	9.91	9.92	37.31	10.47	10.49	38.15	33.00	31.51	36.17	31.38	29.79
k, delay calibration	0.14	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.14	0.65	0.70	11.68	0.34	0.37	7.95	1.22	0.60	9.01	1.75	1.24
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	0.79	0.27	0.27	0.77	0.16	0.16	0.55	0.59	0.24	0.78	0.74	0.47
d, Delay for Lane Group [s/veh]	47.00	10.56	10.62	48.99	10.82	10.86	46.10	34.22	32.11	45.18	33.14	31.03
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.69	2.35	2.23	1.71	1.29	1.26	0.71	2.38	0.84	2.38	4.10	2.23
50th-Percentile Queue Length [ft/ln]	67.29	58.80	55.75	42.63	32.25	31.38	17.82	59.57	20.90	59.40	102.44	55.68
95th-Percentile Queue Length [veh/ln]	4.85	4.23	4.01	3.07	2.32	2.26	1.28	4.29	1.50	4.28	7.38	4.01
95th-Percentile Queue Length [ft/ln]	121.13	105.83	100.35	76.73	58.05	56.48	32.07	107.23	37.62	106.91	184.39	100.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	47.00	10.58	10.62	48.99	10.83	10.86	46.10	34.22	32.11	45.18	33.14	31.03
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	17.34			18.63			35.01			34.65		
Approach LOS	B			B			D			C		
d_I, Intersection Delay [s/veh]	26.37											
Intersection LOS	C											
Intersection V/C	0.336											

**Emissions**

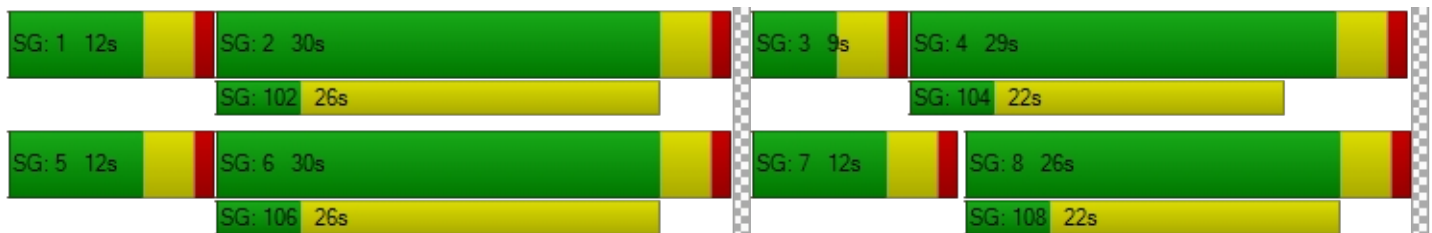
Vehicle Miles Traveled [mph]	61.64	139.60	131.49	38.04	75.31	72.85	16.20	136.15	24.80	18.62	77.15	21.95
Stops [stops/h]	121.13	105.83	100.35	76.73	58.05	56.48	32.07	214.47	37.62	106.91	368.79	100.22
Fuel consumption [US gal/h]	4.80	6.70	6.32	3.02	3.63	3.52	1.25	9.21	1.64	3.00	10.36	2.83
CO [g/h]	335.18	468.33	441.93	210.79	254.04	246.13	87.66	643.55	114.50	209.51	724.06	197.95
NOx [g/h]	65.21	91.12	85.98	41.01	49.43	47.89	17.06	125.21	22.28	40.76	140.88	38.51
VOC [g/h]	77.68	108.54	102.42	48.85	58.88	57.04	20.32	149.15	26.54	48.56	167.81	45.88

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.666			2.614			2.716			2.802		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			625		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.132			1.877			1.861			2.176		
Bicycle LOS	B			A			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.600

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	92	634	50	62	407	16	13	205	97	107	342	103
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	401	0	0	471	2	11	0	16	0	17	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	13	0	0	5	0	0	33	0	0	31
Total Hourly Volume [veh/h]	113	1168	37	75	963	16	27	248	100	129	431	94
Peak Hour Factor	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802	0.7802
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]	36	374	12	24	309	5	9	79	32	41	138	30
Total Analysis Volume [veh/h]	145	1497	47	96	1234	21	35	318	128	165	552	120
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	28	0	5	28	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	33	0	12	32	0	9	30	0	15	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	9	47	47	6	45	45	3	11	11	10	18	18
g / C, Green / Cycle	0.10	0.53	0.53	0.07	0.50	0.50	0.03	0.12	0.12	0.11	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.08	0.29	0.03	0.05	0.34	0.01	0.02	0.09	0.08	0.09	0.15	0.07
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	178	2717	848	123	1791	799	59	430	192	199	710	317
d1, Uniform Delay [s]	39.79	14.28	10.46	41.27	17.41	11.63	42.93	38.30	37.94	39.21	34.30	31.40
k, delay calibration	0.23	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.21	0.11	0.11
l, 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]	17.19	0.81	0.12	10.09	2.19	0.06	9.02	2.51	3.95	15.28	1.88	0.75
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	0.82	0.55	0.06	0.78	0.69	0.03	0.59	0.74	0.67	0.83	0.78	0.38
d, Delay for Lane Group [s/veh]	56.98	15.09	10.58	51.36	19.61	11.69	51.95	40.82	41.89	54.48	36.18	32.15
Lane Group LOS	E	B	B	D	B	B	D	D	D	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.84	6.02	0.43	2.35	9.01	0.21	0.88	3.37	2.78	4.36	5.80	2.30
50th-Percentile Queue Length [ft/ln]	96.00	150.46	10.76	58.65	225.16	5.14	22.11	84.31	69.51	109.04	144.90	57.47
95th-Percentile Queue Length [veh/ln]	6.91	10.04	0.77	4.22	13.93	0.37	1.59	6.07	5.00	7.79	9.74	4.14
95th-Percentile Queue Length [ft/ln]	172.81	251.04	19.36	105.58	348.20	9.26	39.80	151.76	125.11	194.66	243.60	103.45

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.98	15.09	10.58	51.36	19.61	11.69	51.95	40.82	41.89	54.48	36.18	32.15
Movement LOS	E	B	B	D	B	B	D	D	D	D	D	C
d_A, Approach Delay [s/veh]	18.56			21.74			41.91			39.21		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	26.09											
Intersection LOS	C											
Intersection V/C	0.600											

**Emissions**

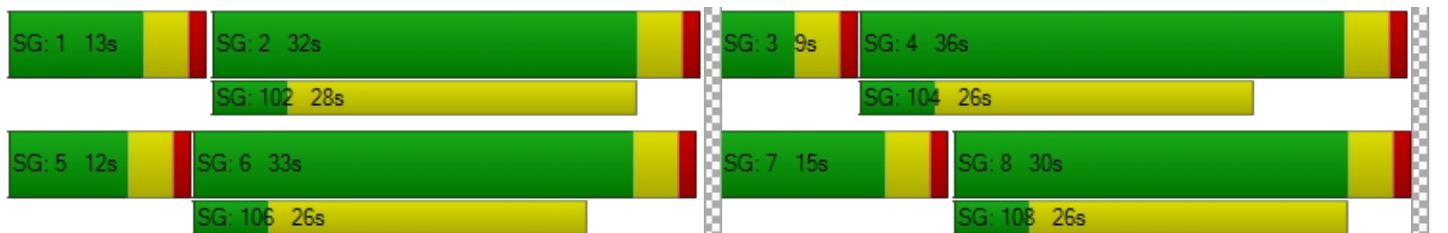
Vehicle Miles Traveled [mph]	7.76	80.13	2.52	42.30	543.73	9.25	3.38	30.70	12.36	83.51	279.38	60.73
Stops [stops/h]	153.61	722.20	17.21	93.85	720.51	8.23	35.38	269.79	111.21	174.46	463.67	91.95
Fuel consumption [US gal/h]	3.86	16.32	0.40	3.62	32.52	0.47	0.93	7.05	2.90	6.23	18.13	3.79
CO [g/h]	269.62	1141.04	28.06	253.04	2273.16	32.81	64.70	492.65	202.53	435.54	1267.03	265.14
NOx [g/h]	52.46	222.01	5.46	49.23	442.27	6.38	12.59	95.85	39.40	84.74	246.52	51.59
VOC [g/h]	62.49	264.45	6.50	58.64	526.83	7.60	15.00	114.18	46.94	100.94	293.65	61.45

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.342			3.237			2.901			2.717		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	644			622			578			711		
d_b, Bicycle Delay [s]	20.67			21.36			22.76			18.69		
I_b,int, Bicycle LOS Score for Intersection	2.496			2.678			1.984			2.276		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	21.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.045

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	7	0	13	11	301	0	0	367	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	21	0	0	0	9
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]	0	0	0	8	0	16	13	385	0	0	444	44
Peak Hour Factor	1.0000	1.0000	1.0000	0.7917	1.0000	0.7917	0.6689	0.6689	0.6689	0.7828	0.7828	0.7828
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]	0	0	0	3	0	5	5	144	0	0	142	14
Total Analysis Volume [veh/h]	0	0	0	10	0	20	19	576	0	0	567	56
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.04	0.00	0.03	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	20.91	25.69	10.04	21.82	0.00	10.37	8.79	0.00	0.00	8.57	0.00	0.00
Movement LOS	C	D	B	C		B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.14	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.49	0.00	2.24	1.50	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.88			14.19			0.28			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.47											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

**Intersection Setup**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T			T			T			T		
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	0	0	0	0	0	0	1	0	0	0	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	55	20	206	58	2	1	84	2	62	87	239
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	21	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]	0	67	24	270	70	2	1	102	2	75	105	289
Peak Hour Factor	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409	0.8409
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]	0	20	7	80	21	1	0	30	1	22	31	86
Total Analysis Volume [veh/h]	0	80	29	321	83	2	1	121	2	89	125	344
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	626	523	564	465	498	499	521	556	624
Degree of Utilization, x	0.05	0.61	0.15	0.00	0.12	0.12	0.21	0.19	0.55

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.15	4.11	0.53	0.01	0.42	0.42	0.76	0.71	3.36
95th-Percentile Queue Length [ft]	3.64	102.76	13.20	0.16	10.50	10.46	19.09	17.67	84.02
Approach Delay [s/veh]	9.03	17.92		10.93			13.68		
Approach LOS	A	C		B			B		
Intersection Delay [s/veh]	14.79								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	155	3	80	41	1	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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]	188	4	97	50	1	106
Peak Hour Factor	0.6058	0.6058	0.6058	0.6058	0.6058	0.6058
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	2	40	21	0	44
Total Analysis Volume [veh/h]	310	7	160	83	2	175
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.01	0.20
d_M, Delay for Movement [s/veh]	0.00	0.00	8.29	0.00	15.53	10.18
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.44	0.00	0.02	0.75
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.93	0.00	0.44	18.74
d_A, Approach Delay [s/veh]	0.00		5.46		10.24	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.26					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.404

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	66	231	22	54	200	68	56	89	42	36	147	62
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	40	0	0	7	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]	86	320	22	65	249	82	68	108	51	44	178	75
Peak Hour Factor	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457	0.8457
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]	25	95	7	19	74	24	20	32	15	13	53	22
Total Analysis Volume [veh/h]	102	378	26	77	294	97	80	128	60	52	210	89
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	484	517	523	482	514	539	515	565	488	520	571
Degree of Utilization, x	0.21	0.39	0.39	0.16	0.38	0.36	0.16	0.33	0.11	0.40	0.16





**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.79	1.84	1.81	0.56	1.76	1.64	0.55	1.45	0.36	1.94	0.55
95th-Percentile Queue Length [ft]	19.71	46.02	45.18	14.11	44.08	41.10	13.65	36.34	8.88	48.44	13.72
Approach Delay [s/veh]	13.59			13.21			11.85			12.72	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	13.00										
Intersection LOS	B										

**Intersection Level Of Service Report**  
**Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	32	621	138	15	612	12	21	4	18	211	4	47
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	402	0	0	485	2	1	0	10	0	6	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	42	0	0	4	0	0	8	0	0	14
Total Hourly Volume [veh/h]	47	1153	125	18	1226	13	26	5	24	255	11	43
Peak Hour Factor	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417	0.9417
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	306	33	5	325	3	7	1	6	68	3	11
Total Analysis Volume [veh/h]	50	1224	133	19	1302	14	28	5	25	271	12	46
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	5	27	0	0	18	0	0	10	0	0	51	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	27	0	0	16	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall	No	No			No			No			No	
Maximum Recall	No	No			No			No			No	
Pedestrian Recall	No	No			No			No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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	2.00	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]	3	46	46	39	39	39	7	14	14	14
g / C, Green / Cycle	0.04	0.58	0.58	0.49	0.49	0.49	0.09	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.25	0.05	0.25	0.01	0.03	0.15	0.01	0.03
s, saturation flow rate [veh/h]	1810	3618	1806	408	5176	1615	1727	1810	1900	1615
c, Capacity [veh/h]	77	2097	1047	217	2523	787	157	325	341	290
d1, Uniform Delay [s]	37.73	9.42	9.42	19.87	14.04	10.60	34.21	31.67	27.10	27.72
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, 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]	9.06	0.65	1.30	0.79	0.76	0.04	1.45	5.61	0.04	0.25
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	0.65	0.43	0.43	0.09	0.52	0.02	0.37	0.83	0.04	0.16
d, Delay for Lane Group [s/veh]	46.79	10.07	10.72	20.66	14.80	10.64	35.66	37.29	27.14	27.97
Lane Group LOS	D	B	B	C	B	B	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.14	4.08	4.26	0.28	4.71	0.12	1.12	5.47	0.19	0.76
50th-Percentile Queue Length [ft/ln]	28.47	101.99	106.57	7.03	117.68	2.98	27.91	136.82	4.80	18.95
95th-Percentile Queue Length [veh/ln]	2.05	7.34	7.65	0.51	8.27	0.21	2.01	9.31	0.35	1.36
95th-Percentile Queue Length [ft/ln]	51.25	183.59	191.23	12.66	206.63	5.37	50.23	232.74	8.65	34.12

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.79	10.24	10.72	20.66	14.80	10.64	35.66	35.66	35.66	37.29	27.14	27.97
Movement LOS	D	B	B	C	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	11.59			14.84			35.66			35.61		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	15.95											
Intersection LOS	B											
Intersection V/C	0.463											

**Emissions**

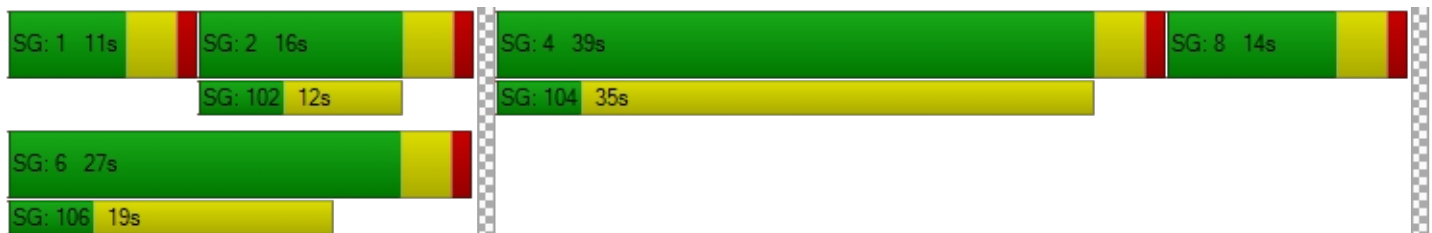
Vehicle Miles Traveled [mph]	24.95	451.70	225.54	1.84	125.98	1.35	4.63	136.91	6.06	23.24
Stops [stops/h]	51.25	367.18	191.83	12.66	635.46	5.37	50.23	246.28	8.65	34.12
Fuel consumption [US gal/h]	1.79	22.48	11.33	0.30	16.14	0.14	0.82	9.16	0.37	1.44
CO [g/h]	124.87	1571.31	792.03	20.99	1128.26	10.03	57.43	640.11	26.01	100.50
NOx [g/h]	24.30	305.72	154.10	4.08	219.52	1.95	11.17	124.54	5.06	19.55
VOC [g/h]	28.94	364.17	183.56	4.86	261.48	2.33	13.31	148.35	6.03	23.29

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.281	1.781	2.284
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	575	300	250	875
d_b, Bicycle Delay [s]	20.31	28.90	30.63	12.66
I_b,int, Bicycle LOS Score for Intersection	2.357	2.296	1.669	2.126
Bicycle LOS	B	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	42.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	83	94	199	119	113	226	111	424	45	173	598	137
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	48	0	0	55	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	60	0	0	68	0	0	14	0	0	42
Total Hourly Volume [veh/h]	100	114	181	144	137	205	134	561	40	209	779	124
Peak Hour Factor	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102	0.7102
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]	35	40	64	51	48	72	47	197	14	74	274	44
Total Analysis Volume [veh/h]	141	161	255	203	193	289	189	790	56	294	1097	175
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	24	0	10	28	0	8	18	0	12	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	23	0	25	32	0	23	19	0	33	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
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
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
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
g_i, Effective Green Time [s]	10	27	13	31	31	12	26	26	18	32	32
g / C, Green / Cycle	0.10	0.27	0.13	0.31	0.31	0.12	0.26	0.26	0.18	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.08	0.24	0.11	0.10	0.18	0.10	0.22	0.03	0.16	0.30	0.11
s, saturation flow rate [veh/h]	1810	1715	1810	1900	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	172	461	239	581	494	224	924	413	332	1140	509
d1, Uniform Delay [s]	44.40	35.27	42.43	26.81	29.34	42.87	35.46	28.71	39.80	33.65	26.29
k, delay calibration	0.15	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13	0.11	0.11
l, 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
d2, Incremental Delay [s]	12.48	23.43	8.21	1.53	5.00	8.41	2.39	0.15	9.06	6.30	0.40
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
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
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

**Lane Group Results**

X, volume / capacity	0.82	0.90	0.85	0.33	0.59	0.84	0.85	0.14	0.89	0.96	0.34
d, Delay for Lane Group [s/veh]	56.88	58.70	50.64	28.34	34.34	51.29	37.85	28.86	48.86	39.95	26.69
Lane Group LOS	E	E	D	C	C	D	D	C	D	D	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.03	12.70	5.45	3.82	6.54	4.81	8.72	0.98	7.39	12.79	3.00
50th-Percentile Queue Length [ft/ln]	100.85	317.54	136.26	95.53	163.55	120.30	217.97	24.57	184.65	319.87	74.94
95th-Percentile Queue Length [veh/ln]	7.26	18.55	9.28	6.88	10.74	8.41	13.56	1.77	11.84	18.66	5.40
95th-Percentile Queue Length [ft/ln]	181.54	463.66	231.97	171.95	268.42	210.23	339.04	44.22	296.08	466.53	134.90

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.88	58.70	58.70	50.64	28.34	34.34	51.29	37.85	28.86	48.86	39.95	26.69
Movement LOS	E	E	E	D	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]	58.24			37.48			39.82			40.14		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	42.20											
Intersection LOS	D											
Intersection V/C	0.763											

**Emissions**

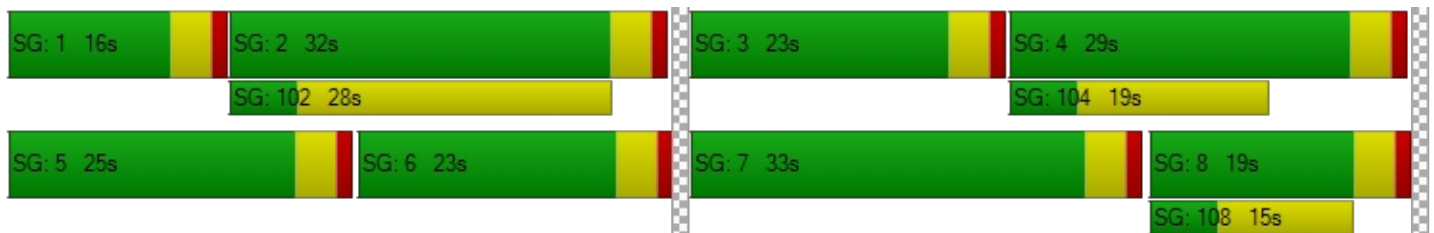
Vehicle Miles Traveled [mph]	19.78	58.35	28.26	26.87	40.23	94.58	395.35	28.02	76.80	286.57	45.72
Stops [stops/h]	145.23	457.25	196.21	137.56	235.52	173.23	627.76	35.37	265.90	921.23	107.92
Fuel consumption [US gal/h]	3.08	9.35	4.12	2.85	4.73	8.35	30.97	1.92	10.43	35.62	4.48
CO [g/h]	215.18	653.36	287.65	199.15	330.77	583.94	2164.80	134.45	729.14	2489.52	313.46
NOx [g/h]	41.87	127.12	55.97	38.75	64.36	113.61	421.19	26.16	141.86	484.37	60.99
VOC [g/h]	49.87	151.42	66.67	46.15	76.66	135.33	501.71	31.16	168.98	576.97	72.65

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.350	2.503	3.267	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	380	560	300	500
d_b, Bicycle Delay [s]	32.81	25.92	36.13	28.13
I_b,int, Bicycle LOS Score for Intersection	2.578	2.802	2.425	2.886
Bicycle LOS	B	C	B	C

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 25: Nuevo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	95	228	136	25	238	75	77	416	109	212	782	31
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	0	7	0	23	48	0	0	55	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	41	0	0	23	0	0	33	0	0	10
Total Hourly Volume [veh/h]	115	299	124	30	295	68	116	551	99	257	1001	28
Peak Hour Factor	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051	0.9051
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]	32	83	34	8	81	19	32	152	27	71	276	8
Total Analysis Volume [veh/h]	127	330	137	33	326	75	128	609	109	284	1106	31
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	25	0	0	25	0	14	24	0	19	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	26	0	0	26	0	28	26	0	18	16	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	27	27	27	27	7	18	18	13	24	24
g / C, Green / Cycle	0.39	0.39	0.39	0.39	0.09	0.26	0.26	0.18	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.13	0.17	0.08	0.25	0.07	0.17	0.07	0.16	0.31	0.02
s, saturation flow rate [veh/h]	999	1900	1615	1769	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	269	734	624	739	169	943	421	329	1262	563
d1, Uniform Delay [s]	21.51	15.96	14.41	17.25	30.95	23.00	20.52	27.80	21.38	15.13
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.13	0.11	0.11
l, 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]	5.83	1.99	0.81	3.41	6.70	0.75	0.32	7.78	2.11	0.04
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	0.47	0.45	0.22	0.59	0.76	0.65	0.26	0.86	0.88	0.06
d, Delay for Lane Group [s/veh]	27.34	17.95	15.22	20.66	37.65	23.75	20.84	35.58	23.49	15.17
Lane Group LOS	C	B	B	C	D	C	C	D	C	B
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.11	3.75	1.39	5.45	2.29	4.14	1.33	4.95	7.78	0.30
50th-Percentile Queue Length [ft/ln]	52.79	93.76	34.86	136.34	57.13	103.43	33.18	123.66	194.55	7.51
95th-Percentile Queue Length [veh/ln]	3.80	6.75	2.51	9.28	4.11	7.45	2.39	8.59	12.36	0.54
95th-Percentile Queue Length [ft/ln]	95.03	168.77	62.74	232.09	102.83	186.17	59.72	214.84	308.93	13.52

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	27.34	17.95	15.22	20.66	20.66	20.66	37.65	23.75	20.84	35.58	23.49	15.17
Movement LOS	C	B	B	C	C	C	D	C	C	D	C	B
d_A, Approach Delay [s/veh]	19.33			20.66			25.48			25.72		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	23.84											
Intersection LOS	C											
Intersection V/C	0.622											

**Emissions**

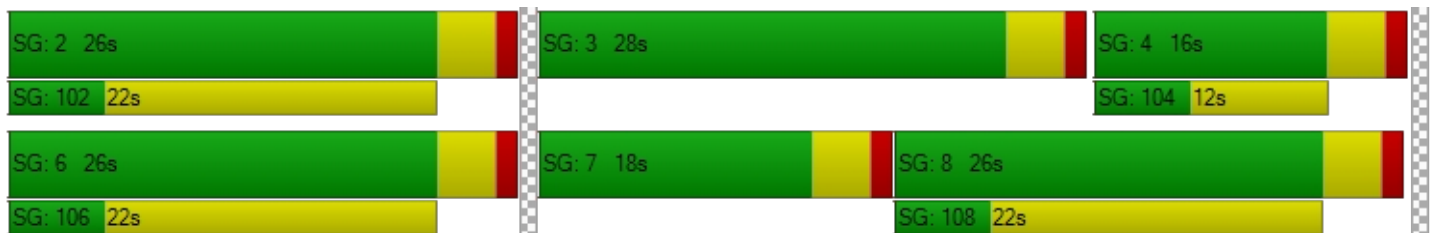
Vehicle Miles Traveled [mph]	47.98	124.68	51.76	218.05	64.76	308.10	55.14	142.12	553.49	15.51
Stops [stops/h]	108.60	192.88	71.71	280.47	117.52	425.52	68.25	254.38	800.44	15.45
Fuel consumption [US gal/h]	3.70	7.88	3.09	12.79	4.45	18.16	3.11	9.65	32.98	0.80
CO [g/h]	258.76	550.62	216.00	893.76	311.39	1269.39	217.25	674.26	2305.02	56.14
NOx [g/h]	50.34	107.13	42.03	173.89	60.58	246.98	42.27	131.19	448.47	10.92
VOC [g/h]	59.97	127.61	50.06	207.14	72.17	294.19	50.35	156.27	534.21	13.01

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersectio	2.753	2.435	3.148	2.991
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]	629	629	629	343
d_b, Bicycle Delay [s]	16.46	16.46	16.46	24.03
I_b,int, Bicycle LOS Score for Intersection	2.607	2.314	2.285	2.740
Bicycle LOS	B	B	B	B

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	48.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.814

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	187	510	213	151	374	177	245	505	98	256	617	164
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	356	1	1	420	74	52	69	2	2	51	2
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	65	0	0	72	0	0	30	0	0	50
Total Hourly Volume [veh/h]	227	973	194	184	873	216	348	680	91	312	798	150
Peak Hour Factor	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432	0.8432
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]	67	288	58	55	259	64	103	202	27	93	237	44
Total Analysis Volume [veh/h]	269	1154	230	218	1035	256	413	806	108	370	946	178
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	13	37	0	8	32	10	10	34	0	15	39	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	23	46	0	13	36	18	18	36	0	25	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	5	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	

**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	R	L	C	R	L	C	R
C, Calculated 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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	47	47	9	37	55	14	33	33	15	34	34
g / C, Green / Cycle	0.16	0.39	0.39	0.08	0.30	0.45	0.12	0.28	0.28	0.13	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.15	0.32	0.14	0.06	0.29	0.09	0.12	0.22	0.07	0.11	0.26	0.11
s, saturation flow rate [veh/h]	1810	3618	1615	3514	3618	2859	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	287	1404	627	264	1102	1300	410	1006	449	442	1038	463
d1, Uniform Delay [s]	49.93	33.00	26.20	54.73	40.63	19.60	53.00	40.25	33.52	51.26	41.30	34.28
k, delay calibration	0.38	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	33.34	5.54	1.66	6.52	15.92	0.34	22.46	1.54	0.27	4.29	3.53	0.52
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	0.94	0.82	0.37	0.83	0.94	0.20	1.01	0.80	0.24	0.84	0.91	0.38
d, Delay for Lane Group [s/veh]	83.26	38.54	27.86	61.25	56.55	19.94	75.46	41.78	33.80	55.55	44.83	34.80
Lane Group LOS	F	D	C	E	E	B	F	D	C	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	10.39	15.34	4.80	3.41	16.65	2.11	7.34	10.96	2.43	5.60	13.60	4.15
50th-Percentile Queue Length [ft/ln]	259.78	383.51	120.05	85.18	416.27	52.87	183.44	273.94	60.80	140.06	339.91	103.87
95th-Percentile Queue Length [veh/ln]	15.68	21.76	8.40	6.13	23.34	3.81	11.82	16.39	4.38	9.48	19.64	7.48
95th-Percentile Queue Length [ft/ln]	391.95	544.10	209.90	153.33	583.57	95.17	295.39	409.66	109.45	237.11	491.10	186.97

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	83.26	38.54	27.86	61.25	56.55	19.94	75.46	41.78	33.80	55.55	44.83	34.80
Movement LOS	F	D	C	E	E	B	F	D	C	E	D	C
d_A, Approach Delay [s/veh]	44.33			51.02			51.61			46.29		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	48.12											
Intersection LOS	D											
Intersection V/C	0.814											

**Emissions**

Vehicle Miles Traveled [mph]	101.27	434.45	86.59	108.80	516.54	127.76	91.99	179.52	24.05	187.19	478.59	90.05
Stops [stops/h]	311.74	920.43	144.06	204.44	999.04	126.90	440.24	657.46	72.97	336.15	815.80	124.65
Fuel consumption [US gal/h]	11.90	35.39	6.06	8.99	42.04	7.00	13.96	19.74	2.32	14.19	33.79	5.71
CO [g/h]	832.13	2473.54	423.82	628.27	2938.45	489.01	975.89	1379.95	162.25	991.85	2361.76	399.18
NOx [g/h]	161.90	481.26	82.46	122.24	571.72	95.14	189.87	268.49	31.57	192.98	459.51	77.67
VOC [g/h]	192.85	573.27	98.22	145.61	681.01	113.33	226.17	319.82	37.60	229.87	547.36	92.51

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.355			3.515			3.255			3.212		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	700			533			533			650		
d_b, Bicycle Delay [s]	25.35			32.27			32.27			27.34		
I_b,int, Bicycle LOS Score for Intersection	2.977			2.864			2.679			2.833		
Bicycle LOS	C			C			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	24.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	148	0	1107	942	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.2100	1.0000	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	337	297	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]	0	179	0	1676	1437	86
Peak Hour Factor	1.0000	0.8409	1.0000	0.7814	0.9648	0.9648
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	53	0	536	372	22
Total Analysis Volume [veh/h]	0	213	0	2145	1489	89
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.74	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	24.48	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.63	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	40.71	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	24.48		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.32					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.592

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	192	0	423	0	0	0	69	686	0	0	719	372
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.0000	1.0000	1.0000	1.2100	1.2100	1.0000	1.0000	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	89	0	168	0	0	0	45	169	0	0	149	148
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	170	0	0	0	0	0	0	0	0	150
Total Hourly Volume [veh/h]	321	0	510	0	0	0	128	999	0	0	1019	448
Peak Hour Factor	0.8887	0.8887	0.8887	1.0000	1.0000	1.0000	0.8887	0.8887	1.0000	1.0000	0.8887	0.8887
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]	90	0	143	0	0	0	36	281	0	0	287	126
Total Analysis Volume [veh/h]	361	0	574	0	0	0	144	1124	0	0	1147	504
Presence of On-Street Parking	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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	17	0	0	0	0	5	35	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	28	0	0	0	0	12	52	0	0	40	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	80	80		80	80	80	80
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31		8	41	30	30
g / C, Green / Cycle	0.38	0.38		0.10	0.52	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20		0.08	0.31	0.22	0.31
s, saturation flow rate [veh/h]	1810	2859		1810	3618	5176	1615
c, Capacity [veh/h]	689	1089		179	1877	1916	598
d1, Uniform Delay [s]	19.14	19.18		35.30	13.43	20.38	23.06
k, delay calibration	0.50	0.50		0.22	0.11	0.11	0.23
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.83	1.83		15.28	0.31	0.30	6.78
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.52	0.53		0.81	0.60	0.60	0.84
d, Delay for Lane Group [s/veh]	21.98	21.00		50.58	13.74	20.69	29.85
Lane Group LOS	C	C		D	B	C	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.23	4.01		3.37	6.09	5.29	8.94
50th-Percentile Queue Length [ft/ln]	130.86	100.31		84.25	152.13	132.37	223.60
95th-Percentile Queue Length [veh/ln]	8.99	7.22		6.07	10.13	9.07	13.85
95th-Percentile Queue Length [ft/ln]	224.66	180.56		151.65	253.27	226.72	346.21

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	21.98	21.98	21.00	0.00	0.00	0.00	50.58	13.74	0.00	0.00	20.69	29.85
Movement LOS	C	C	C				D	B			C	C
d_A, Approach Delay [s/veh]	21.38			0.00			17.92			23.48		
Approach LOS	C			A			B			C		
d_I, Intersection Delay [s/veh]	21.14											
Intersection LOS	C											
Intersection V/C	0.592											

**Emissions**

Vehicle Miles Traveled [mph]	62.75	99.77		11.93	93.12	63.04	27.70
Stops [stops/h]	235.54	361.11		151.65	547.67	714.81	402.48
Fuel consumption [US gal/h]	6.18	9.57		3.40	11.86	14.11	8.01
CO [g/h]	431.71	669.26		237.60	828.87	986.21	559.70
NOx [g/h]	83.99	130.21		46.23	161.27	191.88	108.90
VOC [g/h]	100.05	155.11		55.07	192.10	228.56	129.72

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.657	2.100	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	0	1200	900
d_b, Bicycle Delay [s]	19.60	40.00	6.40	12.10
I_b,int, Bicycle LOS Score for Intersection	3.383	4.132	2.606	2.550
Bicycle LOS	C	D	B	B

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	19.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	276	1	77	0	479	130	325	586	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	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	168	0	89	0	46	45	148	89	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	46	0	0	51	0	0	0
Total Hourly Volume [veh/h]	0	0	0	502	1	136	0	626	151	541	798	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8189	0.8189	0.8189	1.0000	0.7346	0.7346	0.9069	0.9069	1.0000
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]	0	0	0	153	0	42	0	213	51	149	220	0
Total Analysis Volume [veh/h]	0	0	0	613	1	166	0	852	206	597	880	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	13	0	0	21	0	14	39	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	30	0	0	18	0	12	30	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	C	L	C
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60
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]	14	14	14	21	21	13	38
g / C, Green / Cycle	0.23	0.23	0.23	0.35	0.35	0.22	0.64
(v / s)_i Volume / Saturation Flow Rate	0.17	0.17	0.10	0.28	0.30	0.17	0.24
s, saturation flow rate [veh/h]	1810	1810	1615	1900	1778	3514	3618
c, Capacity [veh/h]	413	413	368	668	625	775	2310
d1, Uniform Delay [s]	21.53	21.53	19.92	17.49	17.97	21.96	5.18
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.50	11.50	3.94	2.17	3.28	1.66	0.10
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	0.74	0.74	0.45	0.79	0.85	0.77	0.38
d, Delay for Lane Group [s/veh]	33.03	33.02	23.86	19.66	21.25	23.62	5.28
Lane Group LOS	C	C	C	B	C	C	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.85	4.85	2.17	5.87	6.19	3.64	1.58
50th-Percentile Queue Length [ft/ln]	121.28	121.28	54.28	146.82	154.72	91.11	39.49
95th-Percentile Queue Length [veh/ln]	8.46	8.46	3.91	9.85	10.27	6.56	2.84
95th-Percentile Queue Length [ft/ln]	211.58	211.59	97.71	246.17	256.71	164.00	71.08

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	33.03	33.02	23.86	0.00	20.26	21.25	23.62	5.28	0.00
Movement LOS				C	C	C		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			31.08			20.46			12.70		
Approach LOS	A			C			C			B		
d_I, Intersection Delay [s/veh]	19.50											
Intersection LOS	B											
Intersection V/C	0.637											

**Emissions**

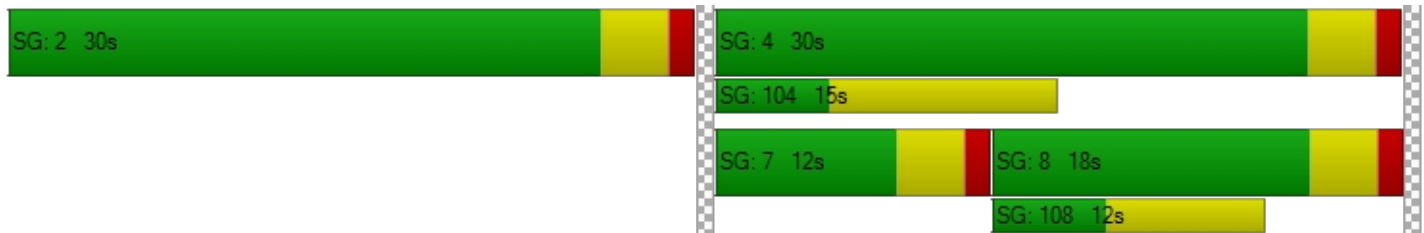
Vehicle Miles Traveled [mph]		26.54	26.55	14.35	140.20	140.20	49.46	72.91
Stops [stops/h]		291.07	291.08	130.28	352.36	371.32	437.32	189.53
Fuel consumption [US gal/h]		5.87	5.87	2.60	10.60	10.96	8.94	5.42
CO [g/h]		410.56	410.57	181.75	740.96	765.93	624.73	378.83
NOx [g/h]		79.88	79.88	35.36	144.16	149.02	121.55	73.71
VOC [g/h]		95.15	95.15	42.12	171.73	177.51	144.79	87.80

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.112	2.344	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	867	467	867
d_b, Bicycle Delay [s]	30.00	9.63	17.63	9.63
I_b,int, Bicycle LOS Score for Intersection	4.132	2.923	2.475	2.778
Bicycle LOS	D	C	B	C

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	32.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.921

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	70	382	10	29	591	45	63	23	61	13	55	37
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	0	7	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]	85	485	12	35	722	54	76	28	74	16	67	45
Peak Hour Factor	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569	0.8569
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]	25	142	4	10	211	16	22	8	22	5	20	13
Total Analysis Volume [veh/h]	99	566	14	41	843	63	89	33	86	19	78	53
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	442	472	474	460	492	499	442	434
Degree of Utilization, x	0.22	0.62	0.61	0.09	0.92	0.91	0.47	0.35

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.85	4.07	4.03	0.29	10.82	10.47	2.46	1.52
95th-Percentile Queue Length [ft]	21.26	101.67	100.78	7.30	270.43	261.86	61.57	37.99
Approach Delay [s/veh]	20.45			47.05			18.20	15.61
Approach LOS	C			E			C	C
Intersection Delay [s/veh]	32.54							
Intersection LOS	D							

**Intersection Level Of Service Report  
Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	1001	201	46	655	161	129
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	358	0	0	423	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
Right Turn on Red Volume [veh/h]	0	61	0	0	0	39
Total Hourly Volume [veh/h]	1569	182	56	1216	195	117
Peak Hour Factor	0.8199	0.8199	0.8199	0.8199	0.8199	0.8199
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	478	55	17	371	59	36
Total Analysis Volume [veh/h]	1914	222	68	1483	238	143
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	21	0	5	30	22	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	19	0	73	92	28	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	84	84	6	94	18	18
g / C, Green / Cycle	0.70	0.70	0.05	0.78	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.56	0.58	0.04	0.41	0.13	0.09
s, saturation flow rate [veh/h]	1900	1833	1810	3618	1810	1615
c, Capacity [veh/h]	1330	1283	91	2833	272	243
d1, Uniform Delay [s]	12.35	12.96	56.26	4.78	49.89	47.54
k, delay calibration	0.50	0.50	0.11	0.50	0.19	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.22	6.44	11.73	0.70	14.28	2.28
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.80	0.83	0.75	0.52	0.88	0.59
d, Delay for Lane Group [s/veh]	17.57	19.40	67.99	5.48	64.18	49.82
Lane Group LOS	B	B	E	A	E	D
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	17.61	18.75	2.28	4.88	8.11	4.18
50th-Percentile Queue Length [ft/ln]	440.16	468.66	57.03	121.91	202.82	104.52
95th-Percentile Queue Length [veh/ln]	24.49	25.85	4.11	8.50	12.78	7.53
95th-Percentile Queue Length [ft/ln]	612.20	646.18	102.66	212.45	319.60	188.13

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	18.38	19.40	67.99	5.48	64.18	49.82
Movement LOS	B	B	E	A	E	D
d_A, Approach Delay [s/veh]	18.48		8.22		58.79	
Approach LOS	B		A		E	
d_I, Intersection Delay [s/veh]	18.34					
Intersection LOS	B					
Intersection V/C	0.752					

**Emissions**

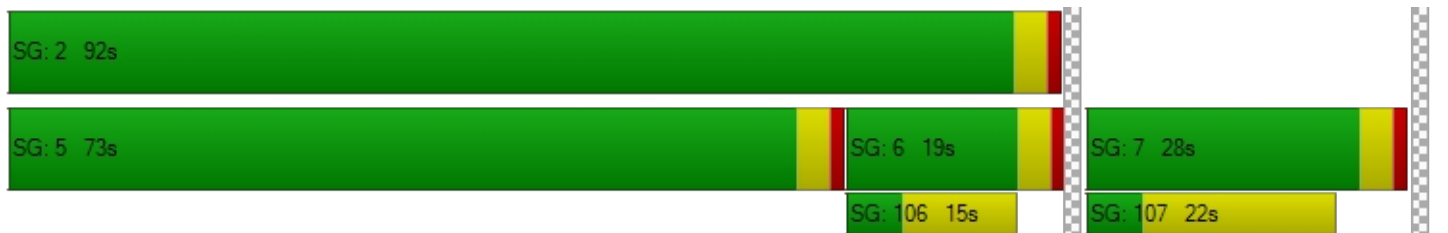
Vehicle Miles Traveled [mph]	463.71	463.71	25.60	558.31	119.47	71.78
Stops [stops/h]	528.19	562.39	68.44	292.58	243.38	125.42
Fuel consumption [US gal/h]	26.28	27.10	2.67	24.43	9.41	5.16
CO [g/h]	1837.01	1894.48	186.58	1707.54	658.02	360.58
NOx [g/h]	357.42	368.60	36.30	332.23	128.03	70.16
VOC [g/h]	425.75	439.07	43.24	395.74	152.50	83.57

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.382		2.220	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	250		1467		400	
d_b, Bicycle Delay [s]	45.94		4.27		38.40	
I_b,int, Bicycle LOS Score for Intersection	3.372		2.839		1.560	
Bicycle LOS	C		C		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	29.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.710

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	62	727	8	59	577	233	172	65	55	1	93	98
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	337	0	11	411	0	0	0	0	0	0	22
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	3	0	0	71	0	0	17	0	0	35
Total Hourly Volume [veh/h]	75	1217	7	82	1109	211	208	79	50	1	113	106
Peak Hour Factor	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922
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]	24	384	2	26	350	67	66	25	16	0	36	33
Total Analysis Volume [veh/h]	95	1536	9	104	1400	266	263	100	63	1	143	134
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	25	0	14	26	0	31	32	0	29	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	7	49	49	7	50	50	17	27	27	0	11	11
g / C, Green / Cycle	0.07	0.49	0.49	0.07	0.50	0.50	0.17	0.27	0.27	0.00	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.05	0.42	0.01	0.06	0.39	0.16	0.15	0.05	0.04	0.00	0.08	0.08
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	121	1785	797	132	1806	806	301	514	437	6	204	174
d1, Uniform Delay [s]	45.94	22.31	12.91	45.61	20.46	15.02	40.66	28.08	27.68	49.70	43.06	43.42
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.53	5.71	0.03	10.03	3.33	1.10	7.92	0.18	0.15	12.57	4.29	7.06
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	0.78	0.86	0.01	0.79	0.78	0.33	0.87	0.19	0.14	0.17	0.70	0.77
d, Delay for Lane Group [s/veh]	56.47	28.02	12.94	55.64	23.79	16.11	48.58	28.26	27.83	62.27	47.35	50.48
Lane Group LOS	E	C	B	E	C	B	D	C	C	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.60	15.42	0.10	2.82	12.63	3.54	6.69	1.79	1.11	0.05	3.53	3.44
50th-Percentile Queue Length [ft/ln]	64.89	385.57	2.52	70.39	315.86	88.40	167.31	44.67	27.80	1.13	88.18	86.09
95th-Percentile Queue Length [veh/ln]	4.67	21.86	0.18	5.07	18.46	6.36	10.93	3.22	2.00	0.08	6.35	6.20
95th-Percentile Queue Length [ft/ln]	116.81	546.59	4.53	126.71	461.59	159.11	273.37	80.41	50.03	2.03	158.73	154.96

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.47	28.02	12.94	55.64	23.79	16.11	48.58	28.26	27.83	62.27	47.35	50.48
Movement LOS	E	C	B	E	C	B	D	C	C	E	D	D
d_A, Approach Delay [s/veh]	29.59			24.51			40.74			48.91		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.86											
Intersection LOS	C											
Intersection V/C	0.710											

**Emissions**

Vehicle Miles Traveled [mph]	27.47	444.20	2.60	19.97	268.83	51.08	29.64	11.27	7.10	0.13	18.05	16.92
Stops [stops/h]	93.45	1110.45	3.62	101.37	909.68	127.29	240.92	64.33	40.03	1.62	126.98	123.96
Fuel consumption [US gal/h]	3.20	37.79	0.16	3.12	27.30	4.21	6.61	1.76	1.10	0.04	3.58	3.50
CO [g/h]	223.35	2641.67	11.04	218.25	1908.56	293.98	462.13	123.11	76.74	2.60	249.93	244.48
NOx [g/h]	43.46	513.97	2.15	42.46	371.34	57.20	89.91	23.95	14.93	0.51	48.63	47.57
VOC [g/h]	51.76	612.23	2.56	50.58	442.33	68.13	107.10	28.53	17.78	0.60	57.92	56.66

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.225			3.489			2.628			2.381		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	420			440			560			520		
d_b, Bicycle Delay [s]	31.21			30.42			25.92			27.38		
I_b,int, Bicycle LOS Score for Intersection	2.915			3.078			2.291			1.818		
Bicycle LOS	C			C			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 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	36.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	50	195	85	16	57	38	101	876	57	28	1438	110
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	15	0	0	5	1	276	0	28	383	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	30	0	0	13	0	0	17	0	0	33
Total Hourly Volume [veh/h]	61	236	88	19	69	38	123	1336	52	62	2123	100
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
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]	17	64	24	5	19	10	33	363	14	17	578	27
Total Analysis Volume [veh/h]	66	257	96	21	75	41	134	1454	57	67	2310	109
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	35	0	5	32	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	39	0	9	36	0	15	60	0	12	57	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	6	37	37	3	34	34	11	58	58	6	53	53
g / C, Green / Cycle	0.05	0.31	0.31	0.02	0.29	0.29	0.09	0.48	0.48	0.05	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.10	0.01	0.02	0.03	0.07	0.28	0.04	0.04	0.45	0.07
s, saturation flow rate [veh/h]	1810	1900	1729	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	87	592	539	40	1035	462	161	2504	781	88	2297	717
d1, Uniform Delay [s]	56.43	31.43	31.53	58.03	31.23	31.38	53.81	22.23	16.57	56.39	33.37	19.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.25	0.11	0.11	0.11	0.11	0.11
l, 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]	12.61	1.34	1.54	10.04	0.14	0.38	22.01	0.21	0.04	12.54	10.08	0.10
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	0.76	0.31	0.32	0.52	0.07	0.09	0.83	0.58	0.07	0.76	1.01	0.15
d, Delay for Lane Group [s/veh]	69.04	32.78	33.07	68.07	31.37	31.76	75.82	22.44	16.61	68.93	43.45	20.00
Lane Group LOS	E	C	C	E	C	C	E	C	B	E	F	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.24	4.12	3.90	0.73	0.79	0.90	4.80	8.92	0.79	2.23	22.12	1.71
50th-Percentile Queue Length [ft/ln]	55.88	103.10	97.50	18.24	19.85	22.49	119.90	222.91	19.64	55.87	552.92	42.87
95th-Percentile Queue Length [veh/ln]	4.02	7.42	7.02	1.31	1.43	1.62	8.39	13.81	1.41	4.02	29.96	3.09
95th-Percentile Queue Length [ft/ln]	100.58	185.57	175.50	32.83	35.73	40.48	209.69	345.34	35.36	100.56	748.88	77.17

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	69.04	32.86	33.07	68.07	31.37	31.76	75.82	22.44	16.61	68.93	43.45	20.00
Movement LOS	E	C	C	E	C	C	E	C	B	E	F	B
d_A, Approach Delay [s/veh]	38.61			37.11			26.59			43.11		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	36.73											
Intersection LOS	D											
Intersection V/C	0.631											

**Emissions**

Vehicle Miles Traveled [mph]	38.33	105.82	99.17	3.68	13.13	7.18	15.20	164.90	6.46	16.74	577.31	27.24
Stops [stops/h]	67.05	123.72	117.00	21.88	47.64	26.99	143.88	802.49	23.57	67.04	1990.53	51.44
Fuel consumption [US gal/h]	3.07	6.38	6.00	0.69	1.52	0.85	5.25	27.06	0.85	2.75	76.71	2.31
CO [g/h]	214.92	446.02	419.64	48.16	106.34	59.18	366.84	1891.62	59.19	191.88	5361.97	161.49
NOx [g/h]	41.81	86.78	81.65	9.37	20.69	11.51	71.37	368.04	11.52	37.33	1043.24	31.42
VOC [g/h]	49.81	103.37	97.26	11.16	24.64	13.71	85.02	438.40	13.72	44.47	1242.69	37.43

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.552			2.653			3.701			3.708		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			933			883		
d_b, Bicycle Delay [s]	30.10			32.27			17.07			18.70		
I_b,int, Bicycle LOS Score for Intersection	1.930			1.683			2.474			2.945		
Bicycle LOS	A			A			B			C		

**Sequence**





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



**Intersection Level Of Service Report  
Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.257

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	55	354	10	9	104	21	15	115	50	12	154	3
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	0	0	28	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	3	0	0	6	0	0	15	0	0	1
Total Hourly Volume [veh/h]	67	443	9	11	154	19	18	139	46	15	186	3
Peak Hour Factor	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240	0.7240
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]	23	153	3	4	53	7	6	48	16	5	64	1
Total Analysis Volume [veh/h]	93	612	12	15	213	26	25	192	64	21	257	4
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	29	0	13	26	0	9	29	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	50	50	1	46	46	2	10	10	2	10	10
g / C, Green / Cycle	0.07	0.63	0.63	0.02	0.58	0.58	0.03	0.13	0.13	0.02	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.01	0.06	0.06	0.01	0.07	0.07	0.01	0.07	0.07
s, saturation flow rate [veh/h]	1810	1900	1887	1810	1900	1829	1810	1900	1743	1810	1900	1890
c, Capacity [veh/h]	122	1194	1186	33	1102	1061	49	246	226	43	240	238
d1, Uniform Delay [s]	36.69	6.61	6.61	38.86	7.54	7.55	38.41	32.56	32.66	38.58	32.80	32.81
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.54	0.53	0.54	9.16	0.20	0.21	8.12	1.78	2.13	8.48	1.93	1.95
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	0.76	0.26	0.26	0.45	0.11	0.11	0.51	0.53	0.56	0.49	0.55	0.55
d, Delay for Lane Group [s/veh]	46.23	7.14	7.15	48.01	7.74	7.77	46.52	34.34	34.79	47.06	34.73	34.76
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.01	1.92	1.91	0.36	0.80	0.79	0.58	2.40	2.33	0.50	2.42	2.41
50th-Percentile Queue Length [ft/ln]	50.13	48.11	47.84	9.03	20.03	19.77	14.48	60.11	58.15	12.39	60.48	60.36
95th-Percentile Queue Length [veh/ln]	3.61	3.46	3.44	0.65	1.44	1.42	1.04	4.33	4.19	0.89	4.35	4.35
95th-Percentile Queue Length [ft/ln]	90.24	86.59	86.11	16.25	36.06	35.59	26.06	108.20	104.66	22.30	108.87	108.65

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.23	7.14	7.15	48.01	7.75	7.77	46.52	34.49	34.79	47.06	34.75	34.76
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	12.21			10.13			35.63			35.67		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	20.47											
Intersection LOS	C											
Intersection V/C	0.257											

**Emissions**

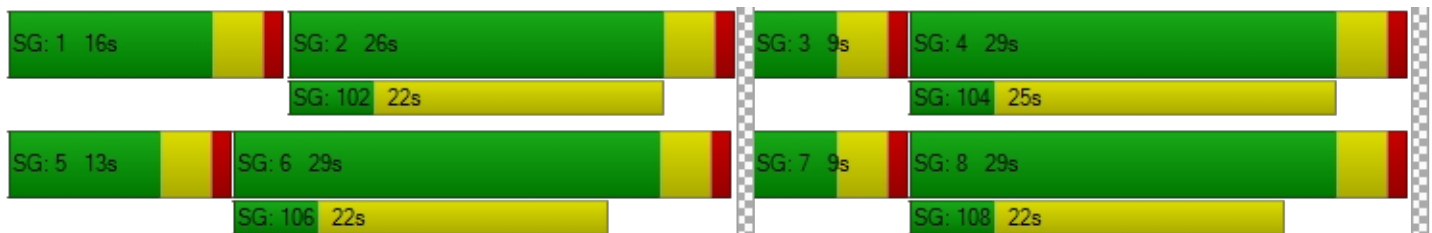
Vehicle Miles Traveled [mph]	46.22	155.55	154.57	8.71	70.00	68.79	1.10	5.76	5.52	10.53	65.54	65.36
Stops [stops/h]	90.24	86.59	86.11	16.25	36.06	35.59	26.06	108.20	104.66	22.30	108.87	108.65
Fuel consumption [US gal/h]	3.58	6.86	6.82	0.65	3.04	2.99	0.47	1.95	1.88	0.77	4.24	4.23
CO [g/h]	250.32	479.75	476.80	45.24	212.34	208.85	33.18	136.13	131.69	53.84	296.41	295.71
NOx [g/h]	48.70	93.34	92.77	8.80	41.31	40.63	6.46	26.49	25.62	10.48	57.67	57.53
VOC [g/h]	58.01	111.19	110.50	10.48	49.21	48.40	7.69	31.55	30.52	12.48	68.70	68.53

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.602			2.568			2.471			2.412		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	625			550			625			625		
d_b, Bicycle Delay [s]	18.91			21.03			18.91			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.154			1.774			1.804			1.793		
Bicycle LOS	B			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.263

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	17	328	49	21	55	14	6	61	18	104	109	54
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	0	0	28	0	0	0	0	47	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	15	0	0	4	0	0	6	0	0	16
Total Hourly Volume [veh/h]	21	412	44	25	95	13	7	74	16	173	132	49
Peak Hour Factor	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598	0.9598
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]	5	107	11	7	25	3	2	19	4	45	34	13
Total Analysis Volume [veh/h]	22	429	46	26	99	14	7	77	17	180	138	51
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	11	26	0	15	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	2	43	43	2	44	44	1	9	9	10	18	18
g / C, Green / Cycle	0.02	0.54	0.54	0.03	0.54	0.54	0.01	0.11	0.11	0.12	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.13	0.01	0.03	0.01	0.00	0.02	0.01	0.10	0.04	0.03
s, saturation flow rate [veh/h]	1810	1900	1836	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	44	1028	993	50	1969	879	17	401	179	218	802	358
d1, Uniform Delay [s]	38.54	9.65	9.66	38.37	8.55	8.38	39.39	32.31	31.96	34.35	25.19	25.02
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.20	0.11	0.11
l, 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]	8.37	0.53	0.56	8.06	0.05	0.03	14.28	0.23	0.23	13.08	0.10	0.18
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	0.50	0.23	0.24	0.52	0.05	0.02	0.40	0.19	0.09	0.83	0.17	0.14
d, Delay for Lane Group [s/veh]	46.90	10.19	10.22	46.43	8.59	8.42	53.67	32.54	32.19	47.44	25.29	25.20
Lane Group LOS	D	B	B	D	A	A	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.52	2.16	2.12	0.59	0.35	0.10	0.20	0.65	0.29	3.99	1.00	0.74
50th-Percentile Queue Length [ft/ln]	13.04	54.08	52.89	14.71	8.66	2.51	4.97	16.26	7.25	99.67	24.92	18.53
95th-Percentile Queue Length [veh/ln]	0.94	3.89	3.81	1.06	0.62	0.18	0.36	1.17	0.52	7.18	1.79	1.33
95th-Percentile Queue Length [ft/ln]	23.47	97.35	95.20	26.47	15.59	4.52	8.94	29.27	13.04	179.40	44.85	33.36

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.90	10.20	10.22	46.43	8.59	8.42	53.67	32.54	32.19	47.44	25.29	25.20
Movement LOS	D	B	B	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	11.83			15.65			33.95			36.08		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	22.42											
Intersection LOS	C											
Intersection V/C	0.263											

**Emissions**

Vehicle Miles Traveled [mph]	11.05	120.82	117.72	12.92	49.20	6.96	1.17	12.85	2.84	77.48	59.40	21.95
Stops [stops/h]	23.47	97.35	95.20	26.47	31.17	4.52	8.94	58.54	13.04	179.40	89.70	33.36
Fuel consumption [US gal/h]	0.79	6.01	5.86	1.02	2.25	0.32	0.23	1.68	0.37	6.62	3.86	1.43
CO [g/h]	55.53	420.11	409.59	71.13	157.08	22.28	15.91	117.31	25.92	463.03	269.93	99.88
NOx [g/h]	10.80	81.74	79.69	13.84	30.56	4.33	3.10	22.83	5.04	90.09	52.52	19.43
VOC [g/h]	12.87	97.37	94.93	16.49	36.41	5.16	3.69	27.19	6.01	107.31	62.56	23.15

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.476			2.612			2.527			2.605		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			650			550			650		
d_b, Bicycle Delay [s]	18.23			18.23			21.03			18.23		
I_b,int, Bicycle LOS Score for Intersection	1.982			1.678			1.648			1.877		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	72.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.944

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	475	45	62	296	209	306	645	42	45	552	43
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	334	0	1	409	1	2	0	0	0	0	2
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	14	0	0	64	0	0	13	0	0	14
Total Hourly Volume [veh/h]	63	909	40	76	767	190	372	780	38	54	668	40
Peak Hour Factor	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819	0.8819
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]	18	258	11	22	217	54	105	221	11	15	189	11
Total Analysis Volume [veh/h]	71	1031	45	86	870	215	422	884	43	61	757	45
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	47	0	15	53	0	30	47	0	11	28	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated 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]	5	47	47	7	49	49	26	45	45	5	24	24
g / C, Green / Cycle	0.04	0.39	0.39	0.06	0.41	0.41	0.22	0.37	0.37	0.04	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.04	0.29	0.29	0.05	0.46	0.13	0.23	0.25	0.25	0.03	0.21	0.21
s, saturation flow rate [veh/h]	1810	1900	1872	1810	1900	1615	1810	1900	1869	1810	1900	1863
c, Capacity [veh/h]	75	739	728	110	776	659	392	708	697	79	380	373
d1, Uniform Delay [s]	57.35	31.34	31.34	55.54	35.50	24.23	47.00	31.30	31.32	56.76	48.00	48.00
k, delay calibration	0.24	0.50	0.50	0.11	0.50	0.50	0.50	0.21	0.21	0.11	0.49	0.49
l, 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]	58.27	6.35	6.45	11.17	71.09	1.31	67.35	2.05	2.11	14.21	64.06	64.60
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	0.94	0.73	0.73	0.78	1.12	0.33	1.08	0.66	0.66	0.77	1.07	1.07
d, Delay for Lane Group [s/veh]	115.62	37.69	37.80	66.71	106.59	25.54	114.35	33.34	33.43	70.97	112.06	112.60
Lane Group LOS	F	D	D	E	F	C	F	C	C	E	F	F
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.32	14.03	13.85	2.85	36.51	4.25	18.85	11.41	11.27	2.13	17.95	17.65
50th-Percentile Queue Length [ft/ln]	82.94	350.76	346.33	71.20	912.66	106.20	471.17	285.26	281.79	53.24	448.77	441.36
95th-Percentile Queue Length [veh/ln]	5.97	20.17	19.96	5.13	50.37	7.63	27.06	16.95	16.78	3.83	25.78	25.41
95th-Percentile Queue Length [ft/ln]	149.29	504.33	498.94	128.15	1259.28	190.71	676.38	423.75	419.44	95.83	644.39	635.27

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	115.62	37.74	37.80	66.71	106.59	25.54	114.35	33.38	33.43	70.97	112.31	112.60
Movement LOS	F	D	D	E	F	C	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	42.56			88.78			58.71			109.40		
Approach LOS	D			F			E			F		
d_I, Intersection Delay [s/veh]	72.05											
Intersection LOS	E											
Intersection V/C	0.944											

**Emissions**

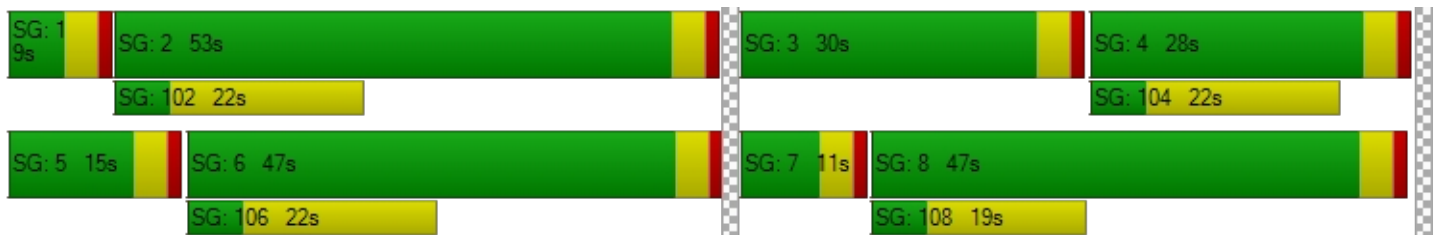
Vehicle Miles Traveled [mph]	5.09	38.82	38.27	24.87	251.60	62.18	39.12	43.26	42.67	7.23	48.02	47.09
Stops [stops/h]	99.53	420.91	415.60	85.43	1095.19	127.44	565.40	342.31	338.15	63.89	538.52	529.64
Fuel consumption [US gal/h]	3.08	10.72	10.59	3.08	41.11	4.83	15.56	7.39	7.30	1.64	15.11	14.88
CO [g/h]	215.44	749.31	740.06	215.44	2873.53	337.86	1087.77	516.57	510.28	114.43	1056.38	1039.79
NOx [g/h]	41.92	145.79	143.99	41.92	559.08	65.73	211.64	100.51	99.28	22.26	205.53	202.30
VOC [g/h]	49.93	173.66	171.52	49.93	665.97	78.30	252.10	119.72	118.26	26.52	244.83	240.98

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.952			3.210			2.895			2.769		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	717			817			717			400		
d_b, Bicycle Delay [s]	24.70			21.00			24.70			38.40		
I_b,int, Bicycle LOS Score for Intersection	2.517			3.597			2.683			2.283		
Bicycle LOS	B			D			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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↵		↵		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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	403	487	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	404	488	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	404	488	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	10	10	0	5	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.68	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.03	0.05	0.00	0.00	0.00	0.00
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	0.00	0.08	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.38	0.49	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.69	0.88	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.33		0.72		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.54					
Intersection LOS	A					
Intersection V/C	0.094					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	62.22	31.37	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.37	1.76	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.18	1.17	0.00	0.00	0.00	0.00
CO [g/h]	0.00	152.16	81.70	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	29.61	15.90	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	35.26	18.94	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.796		2.904		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.782		1.828		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↶   ↷		↶ ↷	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.175

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	101	6	64	123	60	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1800	1.1800	1.1800	1.1800	1.1800	1.1800
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]	119	7	76	145	71	44
Peak Hour Factor	0.7230	0.7230	0.8330	0.8330	0.7780	0.7780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	2	23	44	23	14
Total Analysis Volume [veh/h]	165	10	91	174	91	57
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.00	0.18	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.72	0.00	13.39	8.96
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.21	0.00	0.63	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.15	0.00	15.74	4.69
d_A, Approach Delay [s/veh]	0.00		2.65		11.68	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.14					
Intersection LOS	B					

**Intersection Level Of Service Report**

**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↗	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	403	487	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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↑		↶	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	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	0	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	403	487	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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	0	14	0	1	0	0	0	0	0	0	7
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	403	0	0	487	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]	0	403	14	0	488	0	0	0	0	0	0	7
Peak Hour 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
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]	0	101	4	0	122	0	0	0	0	0	0	2
Total Analysis Volume [veh/h]	0	403	14	0	488	0	0	0	0	0	0	7
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	10.19	0.00	0.00	9.81	0.00	0.00	0.00	0.00	10.55	13.29	17.86	10.32
Movement LOS	B	A	A	A	A	A			B	B	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.78	0.78
d_A, Approach Delay [s/veh]	0.00			0.00			10.55			10.32		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.08											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	24.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.193

**Intersection Setup**

Name	Southbound		Orange Ave Eastbound		Orange Ave Westbound	
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	14	6	8	323	443	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1800	1.1800	1.1800	1.1800	1.1800	1.1800
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	9	21	0	0	21
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]	44	16	30	381	523	43
Peak Hour Factor	1.0000	1.0000	0.7802	0.7802	0.7828	0.7828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	4	10	122	167	14
Total Analysis Volume [veh/h]	44	16	38	488	668	55
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.19	0.02	0.04	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	24.44	14.24	9.23	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.81	0.81	0.13	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	20.33	20.33	3.35	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.72		0.67		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.26					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	1	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	296	449
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.1800	1.1800
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	21	9
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	370	539
Peak Hour Factor	0.7802	0.7828
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	172
Total Analysis Volume [veh/h]	474	689
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	21	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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.60	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	21	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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name			Frontage Rd			
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	0	2	0	4
Auxiliary Signal Groups						
Maximum Green [s]	27	0	0	27	0	25
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	5	0	0	5	0	5
Pedestrian Clearance [s]	14	0	0	10	0	20
Delayed Vehicle Green [s]	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	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	10	0	0	10	0	5
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A
Critical Lane Group	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					
Intersection V/C	0.000					

**Emissions**

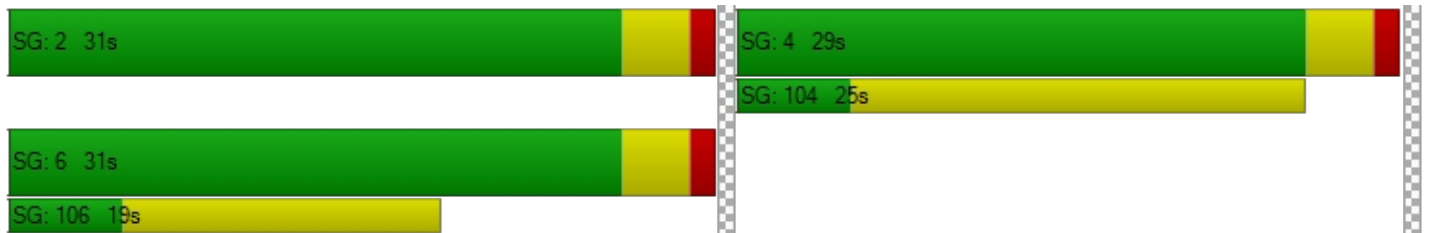
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.112	2.281	1.921
Crosswalk LOS	B	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560	1.560
Bicycle LOS	A	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↷		↷↶		↷↶	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

**Intersection Setup**

Name	Barrett Ave		Barrett Ave			
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	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave			
Base Volume Input [veh/h]	0	40	0	0	50	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.1800	1.0000	1.0000	1.1800	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]	0	47	0	0	59	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	0	0	15	0
Total Analysis Volume [veh/h]	0	47	0	0	59	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	8.83	8.63
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.19	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	4.71	4.71
d_A, Approach Delay [s/veh]	0.00		3.64		8.83	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.92					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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




**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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## Harvest Landing

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Scenario 6 Opening Year II PM

Report File: C:\...\OY II PM.pdf

10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	WB Left	0.911	61.5	E
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	SB Left	0.864	57.7	E
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.761	38.6	D
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.640	16.8	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	NB Left	0.882	59.3	E
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	WB Left	0.524	11.5	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	NB Left	0.587	29.8	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	NB Left	0.662	38.7	D
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	WB Left	0.589	29.7	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.833	22.8	C
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	WB Left	0.740	34.2	C
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	WB Thru	0.649	19.6	C
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	SB Left	0.768	39.0	D
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.579	21.1	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.483	28.2	C
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	EB Thru	0.587	22.8	C
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.398	29.1	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	EB Left	0.770	39.6	D
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.109	16.6	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.478	12.8	B
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.018	16.1	C
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	EB Thru	0.565	14.9	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.651	22.4	C
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	EB Left	0.597	32.1	C
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.602	23.3	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.752	44.2	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	1.194	39.3	F
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.658	23.0	C
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	SB Left	0.730	30.1	C
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	0.575	15.9	C
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.511	8.4	A
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.557	22.1	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	SB Left	0.662	42.9	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.236	16.8	B
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	NB Left	0.348	29.2	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	SB Thru	0.894	63.8	E
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.089	0.5	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.176	15.5	C
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Right	0.024	10.6	B
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.612	45.9	E
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.006	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.112	9.2	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	61.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.911

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	166	769	364	186	708	15	29	358	116	266	310	105
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	110	0	0	5	0	0	35	0	0	32
Total Hourly Volume [veh/h]	201	1842	330	225	1616	13	35	433	105	322	375	95
Peak Hour Factor	0.8396	0.8396	0.8396	0.9214	0.9214	0.9214	0.9410	0.9410	0.9410	0.9098	0.9098	0.9098
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]	60	548	98	61	438	4	9	115	28	88	103	26
Total Analysis Volume [veh/h]	239	2194	393	244	1754	14	37	460	112	354	412	104
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	13	32	0	11	30	0	7	35	0	16	44	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	23	36	0	16	29	0	18	39	0	19	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	16	47	47	12	43	43	3	20	20	15	31	31
g / C, Green / Cycle	0.15	0.43	0.43	0.11	0.39	0.39	0.03	0.18	0.18	0.14	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.13	0.42	0.24	0.13	0.32	0.32	0.02	0.15	0.16	0.20	0.14	0.14
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1892	1810	1900	1774	1810	1900	1770
c, Capacity [veh/h]	270	2212	690	197	1401	733	58	345	322	247	543	506
d1, Uniform Delay [s]	45.88	31.31	23.84	49.00	30.39	30.40	52.58	43.58	43.66	47.50	32.64	32.65
k, delay calibration	0.26	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.50	0.11	0.11
l, 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]	19.42	17.33	3.39	141.95	5.76	10.46	10.79	5.99	6.74	217.26	0.69	0.74
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	0.89	0.99	0.57	1.24	0.83	0.83	0.63	0.85	0.86	1.43	0.49	0.49
d, Delay for Lane Group [s/veh]	65.30	48.64	27.23	190.95	36.16	40.86	63.37	49.57	50.40	264.76	33.33	33.39
Lane Group LOS	E	D	C	F	D	D	E	D	D	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.63	21.22	7.88	13.03	14.06	15.67	1.16	8.05	7.66	21.41	5.77	5.39
50th-Percentile Queue Length [ft/ln]	190.85	530.56	197.01	325.64	351.44	391.87	28.96	201.24	191.49	535.32	144.35	134.74
95th-Percentile Queue Length [veh/ln]	12.17	28.78	12.48	20.54	20.21	22.17	2.08	12.70	12.20	33.35	9.72	9.20
95th-Percentile Queue Length [ft/ln]	304.14	719.44	312.10	513.47	505.17	554.19	52.12	317.57	304.96	833.87	242.88	229.93

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.30	48.64	27.23	190.95	37.75	40.86	63.37	49.87	50.40	264.76	33.35	33.39
Movement LOS	E	D	C	F	D	D	E	D	D	F	C	C
d_A, Approach Delay [s/veh]	47.07			56.35			50.78			127.52		
Approach LOS	D			E			D			F		
d_I, Intersection Delay [s/veh]	61.47											
Intersection LOS	E											
Intersection V/C	0.911											

**Emissions**

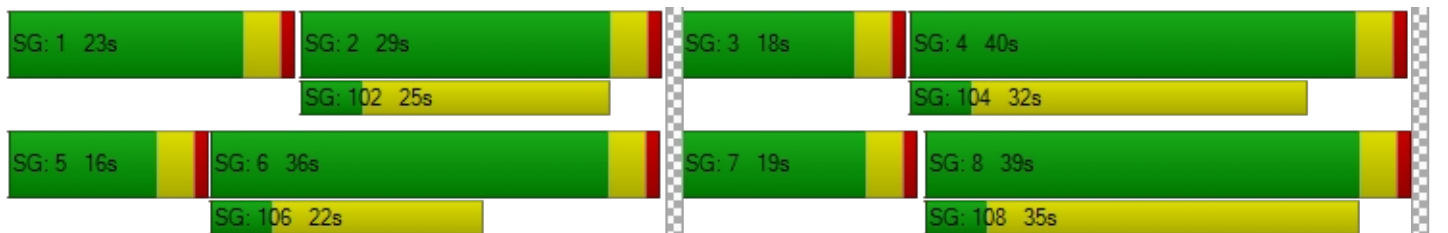
Vehicle Miles Traveled [mph]	119.75	1099.30	196.91	15.20	72.30	37.84	2.58	20.56	19.38	23.28	17.56	16.37
Stops [stops/h]	249.84	2083.67	257.90	426.29	920.15	512.99	37.91	263.44	250.68	700.78	188.97	176.39
Fuel consumption [US gal/h]	10.39	85.30	12.13	15.30	22.46	12.73	1.04	6.95	6.63	28.58	4.76	4.45
CO [g/h]	726.05	5962.81	848.14	1069.55	1569.84	889.58	72.48	485.85	463.20	1997.76	332.95	310.74
NOx [g/h]	141.26	1160.15	165.02	208.10	305.43	173.08	14.10	94.53	90.12	388.69	64.78	60.46
VOC [g/h]	168.27	1381.94	196.56	247.88	363.83	206.17	16.80	112.60	107.35	463.00	77.16	72.02

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	46.37		46.37		46.37		46.37	
I_p,int, Pedestrian LOS Score for Intersectio	3.842		3.528		2.745		2.973	
Crosswalk LOS	D		D		B		C	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	582		455		636		655	
d_b, Bicycle Delay [s]	27.65		32.84		25.57		24.89	
I_b,int, Bicycle LOS Score for Intersection	3.174		2.669		2.091		2.304	
Bicycle LOS	C		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 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	57.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	69	1132	169	114	879	20	26	128	92	195	97	115
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	51	0	0	6	0	0	28	0	0	35
Total Hourly Volume [veh/h]	83	2282	153	138	1823	18	31	155	83	236	117	104
Peak Hour Factor	0.8779	0.8779	0.8779	0.8866	0.8866	0.8866	0.8183	0.8183	0.8183	0.8130	0.8130	0.8130
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]	24	650	44	39	514	5	9	47	25	73	36	32
Total Analysis Volume [veh/h]	95	2599	174	156	2056	20	38	189	101	290	144	128
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	11	36	0	10	35	0	0	29	0	0	29	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	15	39	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated 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]	8	57	57	11	60	60	14	14	14	22	22	22
g / C, Green / Cycle	0.07	0.47	0.47	0.09	0.50	0.50	0.12	0.12	0.12	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.50	0.52	0.09	0.38	0.38	0.02	0.10	0.06	0.16	0.08	0.08
s, saturation flow rate [veh/h]	1810	3618	1841	1810	3618	1891	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	119	1713	872	166	1806	944	218	228	194	328	344	293
d1, Uniform Delay [s]	55.24	31.58	31.58	54.17	24.13	24.15	47.44	51.57	49.54	47.91	43.53	43.69
k, delay calibration	0.11	0.50	0.50	0.34	0.50	0.50	0.11	0.11	0.11	0.20	0.11	0.11
l, 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]	11.30	40.33	59.32	44.07	2.98	5.61	0.38	7.45	2.15	13.52	0.81	1.03
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	0.80	1.06	1.09	0.94	0.75	0.76	0.17	0.83	0.52	0.88	0.42	0.44
d, Delay for Lane Group [s/veh]	66.55	71.91	90.90	98.24	27.11	29.76	47.81	59.01	51.69	61.43	44.34	44.72
Lane Group LOS	E	F	F	F	C	C	D	E	D	E	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.14	32.33	37.50	6.59	15.08	16.49	1.03	5.93	2.92	9.51	3.81	3.41
50th-Percentile Queue Length [ft/ln]	78.48	808.36	937.57	164.77	377.07	412.17	25.80	148.21	72.92	237.64	95.26	85.36
95th-Percentile Queue Length [veh/ln]	5.65	43.65	50.93	10.80	21.45	23.15	1.86	9.92	5.25	14.56	6.86	6.15
95th-Percentile Queue Length [ft/ln]	141.27	1091.25	1273.29	270.02	536.30	578.65	46.43	248.04	131.25	364.05	171.47	153.65

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.55	77.61	90.90	98.24	28.01	29.76	47.81	59.01	51.69	61.43	44.34	44.72
Movement LOS	E	F	F	F	C	C	D	E	D	E	D	D
d_A, Approach Delay [s/veh]	78.05			32.93			55.46			53.25		
Approach LOS	E			C			E			D		
d_I, Intersection Delay [s/veh]	57.67											
Intersection LOS	E											
Intersection V/C	0.864											

**Emissions**

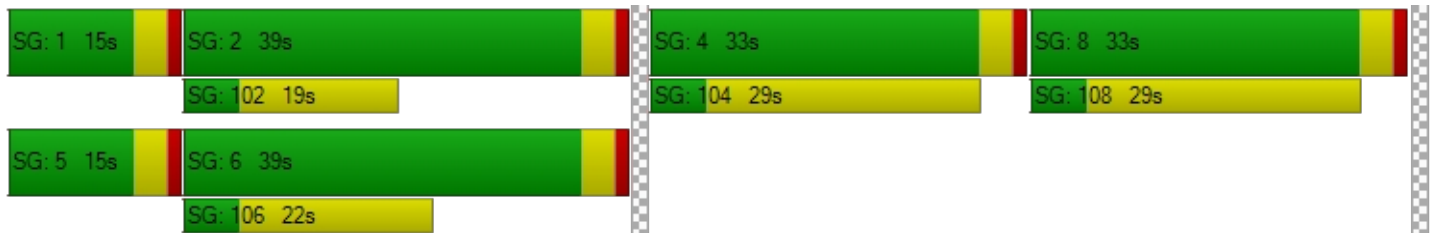
Vehicle Miles Traveled [mph]	156.29	2993.33	1568.66	78.16	682.82	357.35	3.17	15.79	8.44	34.48	17.12	15.22
Stops [stops/h]	94.18	1940.06	1125.08	197.72	904.97	494.60	30.96	177.85	87.50	285.17	114.32	102.43
Fuel consumption [US gal/h]	7.81	153.35	85.39	8.26	42.18	22.72	0.79	4.58	2.22	7.66	3.04	2.72
CO [g/h]	546.24	10719.1	5969.06	577.09	2948.17	1587.99	55.05	320.30	155.46	535.55	212.18	189.87
NOx [g/h]	106.28	2085.56	1161.36	112.28	573.61	308.96	10.71	62.32	30.25	104.20	41.28	36.94
VOC [g/h]	126.60	2484.27	1383.39	133.75	683.27	368.03	12.76	74.23	36.03	124.12	49.18	44.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.809			3.670			2.388			2.668		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			583			483			483		
d_b, Bicycle Delay [s]	30.10			30.10			34.50			34.50		
I_b,int, Bicycle LOS Score for Intersection	3.165			2.791			2.147			2.545		
Bicycle LOS	C			C			B			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	38.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.761

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	36	806	5	154	1048	280	250	155	62	9	133	135
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	2	0	0	85	0	0	19	0	0	41
Total Hourly Volume [veh/h]	44	1887	4	186	2027	254	303	188	56	11	161	122
Peak Hour Factor	0.8615	0.8615	0.8615	0.8521	0.8521	0.8521	0.8694	0.8694	0.8694	0.9095	0.9095	0.9095
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]	13	548	1	55	595	75	87	54	16	3	44	34
Total Analysis Volume [veh/h]	51	2190	5	218	2379	298	349	216	64	12	177	134
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	36	0	6	37	0	16	47	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	40	0	10	41	0	20	51	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	60	60	6	62	62	16	26	26	2	12	12
g / C, Green / Cycle	0.04	0.55	0.55	0.05	0.57	0.57	0.15	0.24	0.24	0.01	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.01	0.42	0.00	0.06	0.46	0.18	0.19	0.06	0.04	0.00	0.03	0.08
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	126	2834	884	192	2930	914	263	862	385	50	553	173
d1, Uniform Delay [s]	51.87	19.51	11.29	52.00	19.16	12.69	47.00	33.95	33.24	53.63	45.42	47.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, 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]	2.07	2.12	0.01	75.54	2.57	0.95	170.61	0.15	0.20	2.45	0.33	7.27
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	0.40	0.77	0.01	1.14	0.81	0.33	1.33	0.25	0.17	0.24	0.32	0.78
d, Delay for Lane Group [s/veh]	53.93	21.63	11.30	127.54	21.73	13.64	217.61	34.10	33.44	56.08	45.75	55.11
Lane Group LOS	D	C	B	F	C	B	F	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.71	13.52	0.05	4.58	14.90	3.78	19.42	2.28	1.34	0.18	1.47	3.82
50th-Percentile Queue Length [ft/ln]	17.66	337.93	1.36	114.45	372.38	94.40	485.44	57.09	33.40	4.42	36.68	95.44
95th-Percentile Queue Length [veh/ln]	1.27	19.55	0.10	8.24	21.22	6.80	29.97	4.11	2.40	0.32	2.64	6.87
95th-Percentile Queue Length [ft/ln]	31.78	488.66	2.44	206.01	530.61	169.92	749.26	102.76	60.12	7.96	66.02	171.79

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.93	21.63	11.30	127.54	21.73	13.64	217.61	34.10	33.44	56.08	45.75	55.11
Movement LOS	D	C	B	F	C	B	F	C	C	E	D	E
d_A, Approach Delay [s/veh]	22.34			28.86			135.85			50.02		
Approach LOS	C			C			F			D		
d_I, Intersection Delay [s/veh]	38.62											
Intersection LOS	D											
Intersection V/C	0.761											

**Emissions**

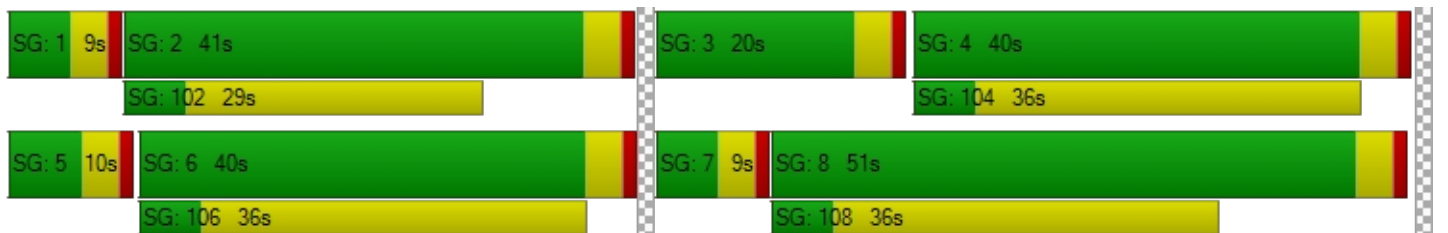
Vehicle Miles Traveled [mph]	19.03	816.96	1.87	358.64	3913.81	490.25	52.21	32.31	9.57	1.46	21.50	16.28
Stops [stops/h]	46.23	1327.13	1.77	299.66	1462.42	123.58	635.48	149.47	43.72	11.58	144.04	124.94
Fuel consumption [US gal/h]	1.79	54.14	0.10	21.68	162.86	19.17	25.14	4.46	1.31	0.33	4.18	3.61
CO [g/h]	124.88	3784.63	6.82	1515.18	11383.7	1339.88	1757.47	312.08	91.38	23.13	291.87	252.61
NOx [g/h]	24.30	736.35	1.33	294.80	2214.87	260.69	341.94	60.72	17.78	4.50	56.79	49.15
VOC [g/h]	28.94	877.13	1.58	351.16	2638.30	310.53	407.31	72.33	21.18	5.36	67.64	58.55

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.631			3.907			2.895			3.050		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	655			673			855			655		
d_b, Bicycle Delay [s]	24.89			24.22			18.04			24.89		
I_b,int, Bicycle LOS Score for Intersection	2.796			3.199			2.094			1.760		
Bicycle LOS	C			C			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: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.640

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	16	766	15	8	1075	32	43	42	67	13	44	26
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	912	0	0	759	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	5	0	0	10	0	0	20	0	0	8
Total Hourly Volume [veh/h]	19	1839	13	10	2060	29	52	51	61	16	53	23
Peak Hour Factor	0.9246	0.9246	0.9246	0.8460	0.8460	0.8460	0.5611	0.5611	0.5611	0.6762	0.6762	0.6762
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]	5	497	4	3	609	9	23	23	27	6	20	9
Total Analysis Volume [veh/h]	21	1989	14	12	2435	34	93	91	109	24	78	34
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	15	62	0	5	52	0	8	31	0	6	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	40	0	31	62	0	16	35	0	14	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	3	85	85	2	84	84	8	15	15	3	10	10
g / C, Green / Cycle	0.02	0.71	0.71	0.01	0.70	0.70	0.06	0.12	0.12	0.02	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.01	0.55	0.01	0.01	0.45	0.45	0.05	0.05	0.07	0.01	0.03	0.03
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1887	1810	1900	1615	1810	1900	1714
c, Capacity [veh/h]	38	2552	1139	26	2528	1319	117	235	200	42	156	140
d1, Uniform Delay [s]	58.17	11.57	5.25	58.65	9.86	9.89	55.32	48.41	49.42	58.02	52.12	52.25
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	11.84	2.43	0.02	11.78	1.26	2.43	11.35	1.04	2.32	11.69	1.43	1.78
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	0.55	0.78	0.01	0.46	0.64	0.64	0.79	0.39	0.55	0.57	0.36	0.39
d, Delay for Lane Group [s/veh]	70.01	14.00	5.27	70.43	11.12	12.31	66.67	49.45	51.74	69.71	53.55	54.03
Lane Group LOS	E	B	A	E	B	B	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.74	14.63	0.09	0.44	9.93	10.84	3.12	2.56	3.18	0.85	1.67	1.64
50th-Percentile Queue Length [ft/ln]	18.57	365.67	2.36	11.00	248.18	271.07	78.02	64.09	79.52	21.31	41.78	40.97
95th-Percentile Queue Length [veh/ln]	1.34	20.90	0.17	0.79	15.09	16.24	5.62	4.61	5.73	1.53	3.01	2.95
95th-Percentile Queue Length [ft/ln]	33.43	522.47	4.24	19.80	377.36	406.07	140.44	115.37	143.13	38.37	75.21	73.74

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	70.01	14.00	5.27	70.43	11.52	12.31	66.67	49.45	51.74	69.71	53.68	54.03
Movement LOS	E	B	A	E	B	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	14.53			11.81			55.77			56.60		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	16.77											
Intersection LOS	B											
Intersection V/C	0.640											

**Emissions**

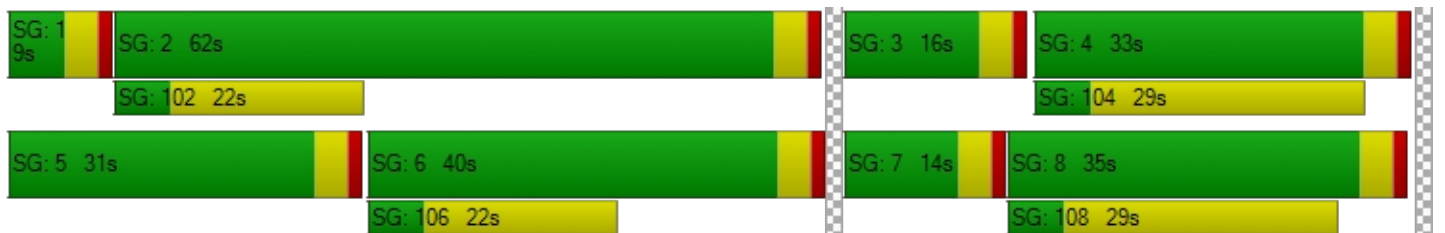
Vehicle Miles Traveled [mph]	10.57	1001.32	7.05	4.48	604.63	316.41	5.12	5.01	6.00	1.60	3.77	3.67
Stops [stops/h]	22.29	877.60	2.83	13.20	595.63	325.28	93.63	76.91	95.42	25.58	50.14	49.16
Fuel consumption [US gal/h]	0.94	50.90	0.29	0.49	31.80	17.02	2.16	1.69	2.09	0.59	1.14	1.12
CO [g/h]	65.61	3558.16	20.39	34.22	2222.74	1189.38	151.05	117.79	146.37	41.49	79.66	78.06
NOx [g/h]	12.77	692.29	3.97	6.66	432.46	231.41	29.39	22.92	28.48	8.07	15.50	15.19
VOC [g/h]	15.21	824.64	4.73	7.93	515.14	275.65	35.01	27.30	33.92	9.62	18.46	18.09

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.581			3.588			2.447			2.387		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			967			517			483		
d_b, Bicycle Delay [s]	29.40			16.02			33.00			34.50		
I_b,int, Bicycle LOS Score for Intersection	3.234			2.930			1.818			1.678		
Bicycle LOS	C			C			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	59.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.882

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	123	413	109	284	632	251	297	1030	135	144	732	99
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	586	0	0	494	265	326	3	2	0	1	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	33	0	0	142	0	0	41	0	0	30
Total Hourly Volume [veh/h]	150	1086	99	344	1259	427	685	1249	124	174	887	90
Peak Hour Factor	0.8200	0.8200	0.8200	0.9321	0.9321	0.9321	0.8971	0.8971	0.8971	0.9286	0.9286	0.9286
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]	46	331	30	92	338	115	191	348	35	47	239	24
Total Analysis Volume [veh/h]	183	1324	121	369	1351	458	764	1392	138	187	955	97
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	38	0	11	43	0	23	47	0	8	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	16	46	0	28	52	0	12	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	6	42	42	12	48	48	24	42	42	8	26	26
g / C, Green / Cycle	0.05	0.35	0.35	0.10	0.40	0.40	0.20	0.35	0.35	0.07	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.05	0.37	0.07	0.11	0.37	0.28	0.22	0.27	0.09	0.05	0.19	0.19
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1812
c, Capacity [veh/h]	176	1252	559	351	1432	639	703	1832	572	234	798	400
d1, Uniform Delay [s]	57.00	39.24	27.75	54.00	34.94	30.56	48.00	34.25	27.37	55.20	45.19	45.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.25
l, 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]	42.88	42.27	0.89	36.75	13.61	6.75	45.23	0.67	0.22	6.15	3.29	13.24
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	1.04	1.06	0.22	1.05	0.94	0.72	1.09	0.76	0.24	0.80	0.88	0.88
d, Delay for Lane Group [s/veh]	99.88	81.51	28.63	90.75	48.55	37.31	93.23	34.91	27.59	61.35	48.48	58.44
Lane Group LOS	F	F	C	F	D	D	F	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.65	24.77	2.52	6.95	20.55	11.78	14.36	11.24	2.68	2.88	9.92	11.05
50th-Percentile Queue Length [ft/ln]	91.13	619.31	63.01	173.87	513.70	294.43	359.07	281.05	67.00	71.89	247.88	276.20
95th-Percentile Queue Length [veh/ln]	6.56	34.23	4.54	11.49	27.98	17.41	21.49	16.74	4.82	5.18	15.08	16.50
95th-Percentile Queue Length [ft/ln]	164.03	855.64	113.41	287.23	699.55	435.13	537.24	418.52	120.60	129.39	376.98	412.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	99.88	81.51	28.63	90.75	48.55	37.31	93.23	34.91	27.59	61.35	51.13	58.44
Movement LOS	F	F	C	F	D	D	F	C	C	E	D	E
d_A, Approach Delay [s/veh]	79.64			53.34			53.89			53.25		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	59.33											
Intersection LOS	E											
Intersection V/C	0.882											

**Emissions**

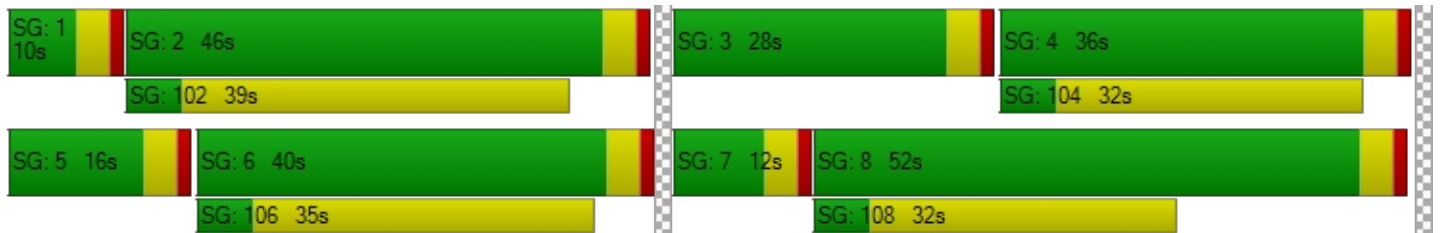
Vehicle Miles Traveled [mph]	90.92	657.78	60.11	185.77	680.13	230.57	190.94	347.89	34.49	20.31	76.10	38.15
Stops [stops/h]	218.71	1486.35	75.61	417.28	1232.88	353.32	861.76	1011.77	80.40	172.53	594.91	331.44
Fuel consumption [US gal/h]	9.55	62.99	3.71	18.37	51.99	15.77	36.89	40.32	3.42	6.22	20.51	11.61
CO [g/h]	667.87	4402.72	259.03	1284.04	3634.12	1102.55	2578.40	2818.35	239.19	434.67	1433.56	811.52
NOx [g/h]	129.94	856.61	50.40	249.83	707.07	214.52	501.66	548.35	46.54	84.57	278.92	157.89
VOC [g/h]	154.78	1020.37	60.03	297.59	842.24	255.53	597.57	653.18	55.44	100.74	332.24	188.08

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.405			3.772			3.732			3.495		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			700			800			533		
d_b, Bicycle Delay [s]	29.40			25.35			21.60			32.27		
I_b,int, Bicycle LOS Score for Intersection	2.930			3.474			2.844			2.258		
Bicycle LOS	C			C			C			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.524

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	29	602	15	18	857	15	19	15	12	24	17	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	587	0	0	496	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	5	0	0	5	0	0	4	0	0	5
Total Hourly Volume [veh/h]	35	1315	13	22	1533	13	23	18	11	29	21	13
Peak Hour Factor	0.8770	0.8770	0.8770	0.9127	0.9127	0.9127	0.6389	0.6389	0.6389	0.6453	0.6453	0.6453
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]	10	375	4	6	420	4	9	7	4	11	8	5
Total Analysis Volume [veh/h]	40	1499	15	24	1680	14	36	28	17	45	33	20
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	29	0	5	29	0	28	32	0	28	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	30	0	10	30	0	34	36	0	34	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	80	80	3	79	79	3	8	8	4	8	8
g / C, Green / Cycle	0.03	0.73	0.73	0.02	0.72	0.72	0.03	0.07	0.07	0.03	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.27	0.27	0.01	0.46	0.01	0.02	0.01	0.01	0.02	0.02	0.01
s, saturation flow rate [veh/h]	1810	3618	1890	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	58	2629	1374	43	2599	1160	56	252	113	62	139	118
d1, Uniform Delay [s]	52.69	5.66	5.66	53.13	8.15	4.40	52.71	47.97	48.11	52.59	48.06	47.82
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	13.49	0.42	0.79	10.95	1.26	0.02	11.85	0.19	0.61	14.55	0.86	0.67
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	0.69	0.38	0.38	0.56	0.65	0.01	0.65	0.11	0.15	0.72	0.24	0.17
d, Delay for Lane Group [s/veh]	66.18	6.08	6.46	64.08	9.41	4.42	64.57	48.16	48.72	67.13	48.93	48.49
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.28	3.42	3.72	0.79	9.41	0.09	1.16	0.36	0.45	1.47	0.88	0.53
50th-Percentile Queue Length [ft/ln]	32.04	85.56	93.04	19.64	235.17	2.17	28.93	9.10	11.36	36.75	22.00	13.31
95th-Percentile Queue Length [veh/ln]	2.31	6.16	6.70	1.41	14.44	0.16	2.08	0.66	0.82	2.65	1.58	0.96
95th-Percentile Queue Length [ft/ln]	57.68	154.01	167.47	35.36	360.92	3.90	52.08	16.38	20.44	66.15	39.60	23.96

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.18	6.21	6.46	64.08	9.41	4.42	64.57	48.16	48.72	67.13	48.93	48.49
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	7.75			10.13			55.57			57.20		
Approach LOS	A			B			E			E		
d_I, Intersection Delay [s/veh]	11.46											
Intersection LOS	B											
Intersection V/C	0.524											

**Emissions**

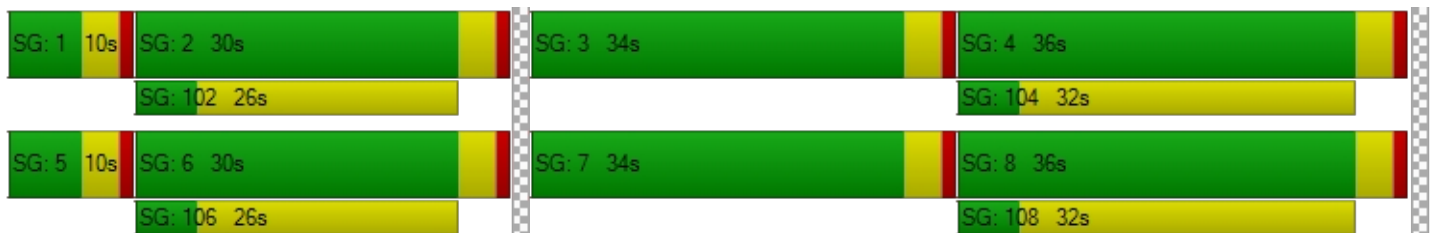
Vehicle Miles Traveled [mph]	7.85	195.25	102.03	11.92	834.64	6.96	18.05	14.04	8.53	12.07	8.85	5.36
Stops [stops/h]	41.95	224.02	121.80	25.72	615.72	2.84	37.87	23.83	14.87	48.11	28.80	17.43
Fuel consumption [US gal/h]	1.33	10.71	5.69	0.95	40.98	0.31	1.45	0.99	0.61	1.44	0.88	0.53
CO [g/h]	92.93	748.52	398.06	66.11	2864.28	21.99	101.07	69.12	42.31	100.41	61.69	37.24
NOx [g/h]	18.08	145.63	77.45	12.86	557.29	4.28	19.67	13.45	8.23	19.54	12.00	7.25
VOC [g/h]	21.54	173.48	92.25	15.32	663.82	5.10	23.42	16.02	9.81	23.27	14.30	8.63

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.303			3.069			2.503			2.504		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	473			473			582			582		
d_b, Bicycle Delay [s]	32.07			32.07			27.65			27.65		
I_b,int, Bicycle LOS Score for Intersection	2.417			2.981			1.630			1.730		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	29.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	72	372	14	65	454	156	172	278	82	14	228	57
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	168	0	0	166	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	4	0	0	47	0	0	25	0	0	17
Total Hourly Volume [veh/h]	87	450	13	79	549	142	208	504	74	17	442	52
Peak Hour Factor	0.6662	0.6662	0.6662	0.9500	0.9500	0.9500	0.9283	0.9283	0.9283	0.6898	0.6898	0.6898
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]	33	169	5	21	144	37	56	136	20	6	160	19
Total Analysis Volume [veh/h]	131	675	20	83	578	149	224	543	80	25	641	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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	25	0	7	22	0	16	37	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	26	0	10	26	0	15	35	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	6	30	30	5	29	29	11	27	27	2	18	18
g / C, Green / Cycle	0.08	0.38	0.38	0.06	0.36	0.36	0.14	0.34	0.34	0.03	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.07	0.18	0.18	0.05	0.20	0.20	0.12	0.17	0.17	0.01	0.19	0.19
s, saturation flow rate [veh/h]	1810	1900	1881	1810	1900	1767	1810	1900	1816	1810	1900	1831
c, Capacity [veh/h]	136	717	710	108	688	640	249	637	609	50	429	413
d1, Uniform Delay [s]	36.90	19.00	19.00	37.08	20.31	20.32	33.96	21.23	21.23	38.34	29.68	29.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.15	0.11	0.11	0.11	0.15	0.15
l, 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]	28.32	2.36	2.38	10.92	3.12	3.36	14.54	0.61	0.64	7.43	6.32	6.66
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	0.97	0.49	0.49	0.77	0.55	0.55	0.90	0.50	0.50	0.50	0.85	0.85
d, Delay for Lane Group [s/veh]	65.22	21.36	21.39	48.00	23.42	23.68	48.50	21.84	21.87	45.77	36.00	36.35
Lane Group LOS	E	C	C	D	C	C	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.50	4.96	4.91	1.86	5.68	5.34	4.99	4.39	4.21	0.56	6.91	6.71
50th-Percentile Queue Length [ft/ln]	87.48	123.89	122.79	46.38	141.93	133.40	124.83	109.85	105.19	14.03	172.66	167.73
95th-Percentile Queue Length [veh/ln]	6.30	8.61	8.55	3.34	9.58	9.12	8.66	7.83	7.57	1.01	11.22	10.96
95th-Percentile Queue Length [ft/ln]	157.46	215.16	213.66	83.48	239.61	228.11	216.45	195.79	189.30	25.26	280.40	273.93

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.22	21.37	21.39	48.00	23.51	23.68	48.50	21.85	21.87	45.77	36.15	36.35
Movement LOS	E	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	28.33			26.05			28.90			36.50		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	29.78											
Intersection LOS	C											
Intersection V/C	0.587											

**Emissions**

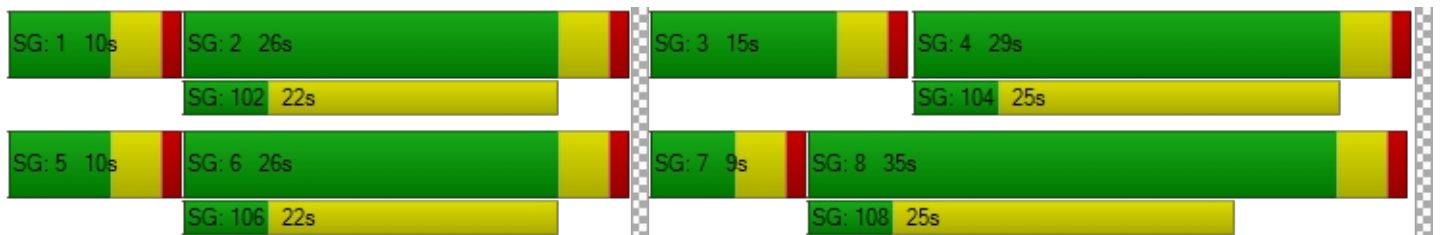
Vehicle Miles Traveled [mph]	19.82	52.84	52.32	9.54	43.27	40.33	135.33	192.39	184.00	4.64	67.67	65.35
Stops [stops/h]	157.46	223.00	221.03	83.48	255.47	240.12	224.70	197.72	189.35	25.26	310.78	301.91
Fuel consumption [US gal/h]	4.00	5.60	5.55	1.97	5.85	5.49	9.64	10.47	10.02	0.71	8.85	8.60
CO [g/h]	279.27	391.55	387.96	137.88	409.13	383.99	674.07	731.74	700.19	49.35	618.78	600.86
NOx [g/h]	54.34	76.18	75.48	26.83	79.60	74.71	131.15	142.37	136.23	9.60	120.39	116.91
VOC [g/h]	64.72	90.74	89.91	31.96	94.82	88.99	156.22	169.59	162.28	11.44	143.41	139.26

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.701			2.843			2.869			2.732		
Crosswalk LOS	B			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			550			775			625		
d_b, Bicycle Delay [s]	21.03			21.03			15.01			18.91		
I_b,int, Bicycle LOS Score for Intersection	2.244			2.267			2.279			2.185		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	38.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	25	140	91	58	168	14	10	341	38	124	316	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	10	14	8	25	18	20	159	26	26	179	7
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	31	0	0	9	0	0	18	0	0	11
Total Hourly Volume [veh/h]	39	179	93	78	228	26	32	572	54	176	561	31
Peak Hour Factor	0.8574	0.8574	0.8574	0.8571	0.8571	0.8571	0.7729	0.7729	0.7729	0.9044	0.9044	0.9044
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]	11	52	27	23	67	8	10	185	17	49	155	9
Total Analysis Volume [veh/h]	45	209	108	91	266	30	41	740	70	195	620	34
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	7	22	0	7	22	0	43	51	0	14	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	26	0	12	26	0	11	51	0	21	61	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	28	28	7	32	32	4	45	45	14	55	55
g / C, Green / Cycle	0.03	0.26	0.26	0.06	0.29	0.29	0.03	0.41	0.41	0.12	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.07	0.05	0.14	0.02	0.02	0.39	0.04	0.11	0.17	0.17
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1865
c, Capacity [veh/h]	64	489	415	116	543	462	61	776	659	227	950	933
d1, Uniform Delay [s]	52.50	34.10	32.53	50.75	32.62	28.58	52.57	31.54	20.13	47.17	16.63	16.63
k, delay calibration	0.11	0.50	0.50	0.15	0.50	0.50	0.11	0.35	0.11	0.21	0.11	0.11
l, 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]	13.39	2.73	1.52	14.96	3.14	0.27	12.44	17.98	0.07	16.00	0.22	0.22
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	0.71	0.43	0.26	0.79	0.49	0.06	0.68	0.95	0.11	0.86	0.35	0.35
d, Delay for Lane Group [s/veh]	65.89	36.83	34.04	65.72	35.76	28.86	65.01	49.52	20.20	63.16	16.85	16.85
Lane Group LOS	E	D	C	E	D	C	E	D	C	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.45	4.97	2.44	2.92	6.25	0.61	1.30	21.47	1.07	6.07	4.73	4.65
50th-Percentile Queue Length [ft/ln]	36.36	124.19	61.02	73.08	156.34	15.15	32.48	536.64	26.87	151.79	118.23	116.15
95th-Percentile Queue Length [veh/ln]	2.62	8.62	4.39	5.26	10.35	1.09	2.34	29.06	1.93	10.11	8.30	8.18
95th-Percentile Queue Length [ft/ln]	65.45	215.56	109.84	131.55	258.87	27.27	58.46	726.60	48.36	252.81	207.40	204.53

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.89	36.83	34.04	65.72	35.76	28.86	65.01	49.52	20.20	63.16	16.85	16.85
Movement LOS	E	D	C	E	D	C	E	D	C	E	B	B
d_A, Approach Delay [s/veh]	39.61			42.27			47.86			27.49		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	38.69											
Intersection LOS	D											
Intersection V/C	0.662											

**Emissions**

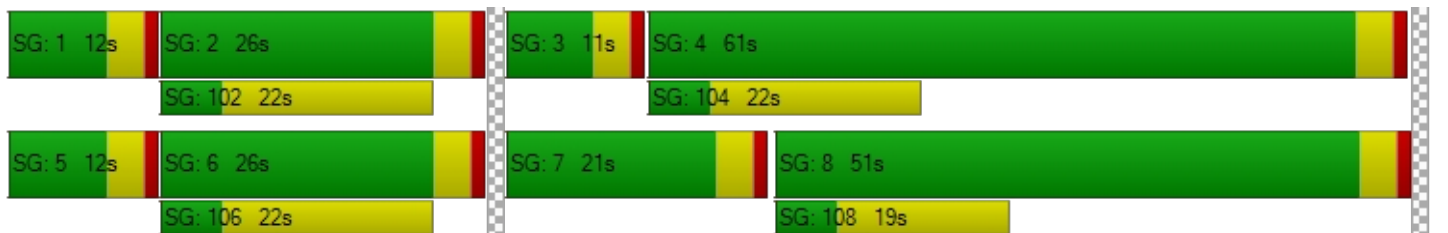
Vehicle Miles Traveled [mph]	19.78	91.86	47.47	7.16	20.94	2.36	2.71	48.95	4.63	28.41	48.08	47.22
Stops [stops/h]	47.60	162.57	79.88	95.67	204.66	19.83	42.52	702.51	35.17	198.70	154.78	152.05
Fuel consumption [US gal/h]	1.72	6.29	3.16	2.21	4.27	0.42	1.16	17.87	0.88	5.95	4.70	4.62
CO [g/h]	119.89	439.70	220.77	154.44	298.69	29.03	81.36	1249.08	61.77	415.96	328.80	322.98
NOx [g/h]	23.33	85.55	42.95	30.05	58.11	5.65	15.83	243.03	12.02	80.93	63.97	62.84
VOC [g/h]	27.79	101.90	51.16	35.79	69.22	6.73	18.86	289.49	14.32	96.40	76.20	74.85

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	46.37		46.37		46.37		46.37	
I_p,int, Pedestrian LOS Score for Intersectio	2.454		2.481		2.797		2.862	
Crosswalk LOS	B		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]	400		400		855		1036	
d_b, Bicycle Delay [s]	35.20		35.20		18.04		12.77	
I_b,int, Bicycle LOS Score for Intersection	2.208		2.213		2.993		2.269	
Bicycle LOS	B		B		C		B	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	29.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	2	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	17	536	182	66	798	26	27	158	45	182	113	56
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	466	34	140	381	123	3	3	3	3	76	154
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	64	0	0	39	0	0	14	0	0	56
Total Hourly Volume [veh/h]	34	1115	190	220	1347	115	36	194	43	223	213	166
Peak Hour Factor	0.9023	0.9023	0.9023	0.9304	0.9304	0.9304	0.8297	0.8297	0.8297	0.7930	0.7930	0.7930
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	309	53	59	362	31	11	58	13	70	67	52
Total Analysis Volume [veh/h]	38	1236	211	236	1448	124	43	234	52	281	269	209
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	17	38	0	6	32	0	19	45	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	21	42	0	20	36	0	23	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	3	49	49	16	62	62	4	10	10	19	25	25
g / C, Green / Cycle	0.03	0.45	0.45	0.15	0.56	0.56	0.03	0.09	0.09	0.17	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.13	0.13	0.28	0.08	0.02	0.06	0.03	0.16	0.07	0.13
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	57	2302	718	265	2898	904	62	334	149	309	829	370
d1, Uniform Delay [s]	52.71	22.28	19.51	46.07	14.78	11.53	52.56	48.43	46.81	44.77	35.31	37.54
k, delay calibration	0.11	0.50	0.50	0.31	0.50	0.50	0.11	0.11	0.11	0.35	0.11	0.11
l, 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]	12.83	0.90	1.04	23.03	0.62	0.32	13.19	2.66	1.39	25.46	0.23	1.35
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	0.67	0.54	0.29	0.89	0.50	0.14	0.70	0.70	0.35	0.91	0.32	0.56
d, Delay for Lane Group [s/veh]	65.55	23.18	20.55	69.10	15.40	11.85	65.75	51.09	48.19	70.23	35.54	38.90
Lane Group LOS	E	C	C	E	B	B	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.21	7.43	3.45	7.81	6.77	1.40	1.37	3.15	1.36	9.43	2.93	4.94
50th-Percentile Queue Length [ft/ln]	30.32	185.82	86.35	195.17	169.24	35.07	34.24	78.73	33.93	235.70	73.30	123.52
95th-Percentile Queue Length [veh/ln]	2.18	11.90	6.22	12.39	11.04	2.53	2.47	5.67	2.44	14.46	5.28	8.59
95th-Percentile Queue Length [ft/ln]	54.57	297.60	155.43	309.72	275.92	63.13	61.64	141.72	61.07	361.59	131.94	214.65

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.55	23.18	20.55	69.10	15.40	11.85	65.75	51.09	48.19	70.23	35.54	38.90
Movement LOS	E	C	C	E	B	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	23.89			22.17			52.55			49.31		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.74											
Intersection LOS	C											
Intersection V/C	0.589											

**Emissions**

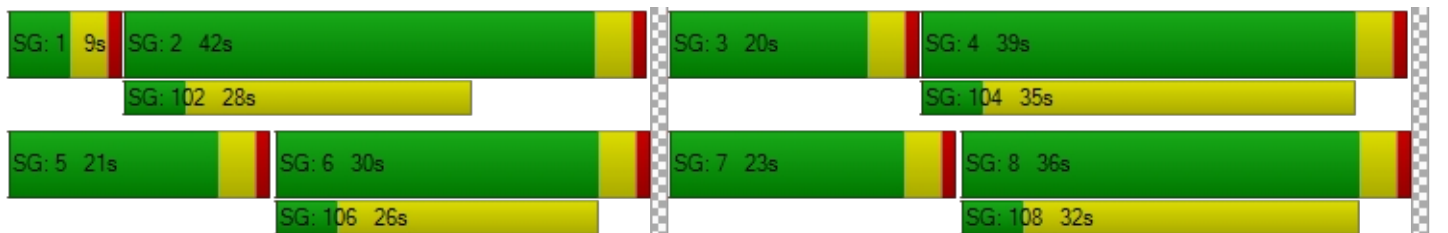
Vehicle Miles Traveled [mph]	15.77	513.01	87.58	70.49	432.48	37.04	3.04	16.55	3.68	51.72	49.51	38.47
Stops [stops/h]	39.69	729.78	113.04	255.49	664.66	45.91	44.83	206.13	44.42	308.55	191.92	161.70
Fuel consumption [US gal/h]	1.54	32.49	5.29	8.91	27.63	2.14	1.24	5.56	1.19	9.62	6.03	4.98
CO [g/h]	107.71	2270.99	369.75	622.87	1931.17	149.54	86.46	388.83	83.06	672.76	421.39	348.33
NOx [g/h]	20.96	441.85	71.94	121.19	375.74	29.10	16.82	75.65	16.16	130.90	81.99	67.77
VOC [g/h]	24.96	526.32	85.69	144.36	447.57	34.66	20.04	90.12	19.25	155.92	97.66	80.73

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.439			3.412			2.682			2.924		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	473			691			582			636		
d_b, Bicycle Delay [s]	32.07			23.56			27.65			25.57		
I_b,int, Bicycle LOS Score for Intersection	2.412			2.575			1.843			2.232		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	22.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	60	150	7	67	251	31	48	126	116	1	84	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	2	4	23	77	20	99	0	5	109	10
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]	73	190	10	85	327	115	78	251	140	6	211	45
Peak Hour Factor	0.9435	0.9435	0.9435	0.8756	0.8756	0.8756	0.8401	0.8401	0.8401	0.7370	0.7370	0.7370
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]	19	50	3	24	93	33	23	75	42	2	72	15
Total Analysis Volume [veh/h]	77	201	11	97	373	131	93	299	167	8	286	61
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	386	408	411	422	448	489	420	444	485	486	522
Degree of Utilization, x	0.20	0.26	0.26	0.23	0.83	0.27	0.22	0.67	0.34	0.02	0.66

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.73	1.03	1.02	0.88	8.05	1.07	0.84	4.87	1.52	0.05	4.87
95th-Percentile Queue Length [ft]	18.34	25.68	25.42	21.90	201.20	26.81	20.94	121.80	38.04	1.25	121.70
Approach Delay [s/veh]	14.50			29.65			20.34			21.95	
Approach LOS	B			D			C			C	
Intersection Delay [s/veh]	22.82										
Intersection LOS	C										

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	34.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	2
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	47	688	63	65	901	71	45	202	76	40	87	29
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	106	385	2	10	347	105	195	107	103	1	175	10
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	20	0	0	48	0	0	49	0	0	11
Total Hourly Volume [veh/h]	163	1217	58	89	1437	143	249	351	146	49	280	34
Peak Hour Factor	0.9427	0.9427	0.9427	0.9056	0.9056	0.9056	0.9714	0.9714	0.9714	0.8451	0.8451	0.8451
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]	43	323	15	25	397	39	64	90	38	14	83	10
Total Analysis Volume [veh/h]	173	1291	62	98	1587	158	256	361	150	58	331	40
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	13	47	0	13	47	0	18	26	0	18	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	19	40	0	12	33	0	28	30	0	28	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	12	59	59	7	54	54	18	23	23	5	10	10
g / C, Green / Cycle	0.11	0.54	0.54	0.07	0.49	0.49	0.16	0.21	0.21	0.04	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.10	0.36	0.04	0.05	0.44	0.10	0.14	0.10	0.09	0.03	0.06	0.02
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	203	1935	864	123	1774	792	289	755	337	78	476	149
d1, Uniform Delay [s]	47.92	18.51	12.38	50.51	25.44	15.83	45.23	38.26	37.97	52.02	48.44	46.49
k, delay calibration	0.20	0.50	0.50	0.11	0.50	0.50	0.19	0.11	0.11	0.11	0.11	0.11
l, 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]	16.33	1.84	0.16	11.03	7.44	0.57	14.05	0.47	0.92	12.95	1.83	0.96
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	0.85	0.67	0.07	0.80	0.89	0.20	0.89	0.48	0.45	0.74	0.69	0.27
d, Delay for Lane Group [s/veh]	64.25	20.35	12.54	61.54	32.88	16.40	59.28	38.73	38.89	64.98	50.27	47.45
Lane Group LOS	E	C	B	E	C	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.43	11.16	0.72	2.96	18.77	2.22	7.79	4.23	3.53	1.83	2.96	1.04
50th-Percentile Queue Length [ft/ln]	135.73	279.12	18.10	73.96	469.37	55.58	194.73	105.72	88.33	45.85	73.99	26.03
95th-Percentile Queue Length [veh/ln]	9.25	16.64	1.30	5.32	25.88	4.00	12.37	7.60	6.36	3.30	5.33	1.87
95th-Percentile Queue Length [ft/ln]	231.26	416.12	32.58	133.12	647.02	100.05	309.16	190.04	159.00	82.52	133.18	46.86

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	64.25	20.35	12.54	61.54	32.88	16.40	59.28	38.73	38.89	64.98	50.27	47.45
Movement LOS	E	C	B	E	C	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	25.01			32.99			45.62			52.00		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.23											
Intersection LOS	C											
Intersection V/C	0.740											

**Emissions**

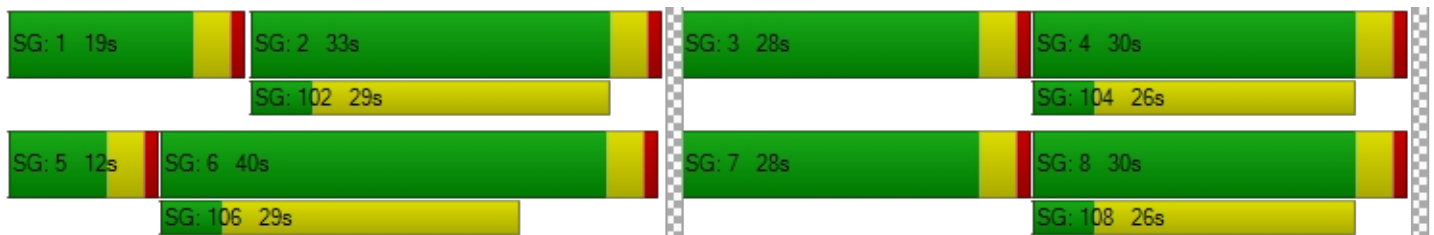
Vehicle Miles Traveled [mph]	11.27	84.10	4.04	7.76	125.70	12.51	27.90	39.34	16.35	29.22	166.77	20.15
Stops [stops/h]	177.68	730.79	23.70	96.82	1228.89	72.76	254.92	276.81	115.63	60.02	290.58	34.08
Fuel consumption [US gal/h]	4.86	17.32	0.59	2.70	30.21	1.86	6.59	6.97	2.91	2.40	12.21	1.44
CO [g/h]	339.52	1210.43	41.33	188.52	2111.52	130.07	460.74	487.46	203.31	167.99	853.79	100.86
NOx [g/h]	66.06	235.51	8.04	36.68	410.83	25.31	89.64	94.84	39.56	32.68	166.12	19.62
VOC [g/h]	78.69	280.53	9.58	43.69	489.37	30.15	106.78	112.97	47.12	38.93	197.87	23.38

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.319			3.383			2.958			2.803		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	655			527			473			473		
d_b, Bicycle Delay [s]	24.89			29.82			32.07			32.07		
I_b,int, Bicycle LOS Score for Intersection	2.835			3.120			2.233			1.802		
Bicycle LOS	C			C			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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	19.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.649

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	37	16	8	3	10	12	10	330	47	9	213	10
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	0	0	554	0	0	569	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]	53	19	10	4	12	15	12	953	57	11	827	12
Peak Hour Factor	0.7625	0.7625	0.7625	0.6125	0.6125	0.6125	0.9369	0.9369	0.9369	0.7804	0.7804	0.7804
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]	17	6	3	2	5	6	3	254	15	4	265	4
Total Analysis Volume [veh/h]	70	25	13	7	20	24	13	1017	61	14	1060	15
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	465	476	514	554	554	564	514	554	554	557
Degree of Utilization, x	0.23	0.11	0.03	0.65	0.65	0.64	0.03	0.65	0.65	0.64

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.89	0.36	0.08	4.65	4.65	4.48	0.08	4.62	4.62	4.58
95th-Percentile Queue Length [ft]	22.24	8.94	1.94	116.2	116.2	111.9	2.10	115.5	115.5	114.4
Approach Delay [s/veh]	13.07	11.47	20.01				20.12			
Approach LOS	B	B	C				C			
Intersection Delay [s/veh]	19.56									
Intersection LOS	C									

**Intersection Level Of Service Report  
Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	39.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.768

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	32	60	12	30	149	180	80	331	53	8	238	12
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	233	39	554	22	0	576	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	4	0	0	113	0	0	22	0	0	4
Total Hourly Volume [veh/h]	39	73	11	36	180	338	136	955	64	10	864	11
Peak Hour Factor	0.8771	0.8771	0.8771	0.8074	0.8074	0.8074	0.8657	0.8657	0.8657	0.8526	0.8526	0.8526
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]	11	21	3	11	56	105	39	276	18	3	253	3
Total Analysis Volume [veh/h]	44	83	13	45	223	419	157	1103	74	12	1013	13
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	5	32	0	28	55	0	11	38	38	6	33	33
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	21	21	0	14	14
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	42	0	9	41	0	21	46	46	13	38	38
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
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
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	4	45	45	4	45	11	44	51	2	34	42
g / C, Green / Cycle	0.03	0.41	0.41	0.03	0.41	0.10	0.40	0.47	0.01	0.31	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.02	0.38	0.09	0.30	0.05	0.01	0.28	0.01
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1704	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	61	777	661	62	697	189	1434	754	27	1111	610
d1, Uniform Delay [s]	52.61	20.09	19.36	52.62	30.80	48.33	28.83	16.40	53.72	36.67	21.47
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.21	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	14.39	0.28	0.05	15.03	19.42	9.28	0.90	0.11	10.86	3.33	0.01
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
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
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

**Lane Group Results**

X, volume / capacity	0.72	0.11	0.02	0.73	0.92	0.83	0.77	0.10	0.44	0.91	0.02
d, Delay for Lane Group [s/veh]	67.00	20.36	19.42	67.65	50.22	57.61	29.73	16.51	64.57	40.00	21.49
Lane Group LOS	E	C	B	E	D	E	C	B	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.45	1.38	0.21	1.46	18.68	4.58	11.97	1.01	0.40	12.90	0.20
50th-Percentile Queue Length [ft/ln]	36.17	34.40	5.22	36.39	466.91	114.51	299.34	25.24	10.07	322.40	5.12
95th-Percentile Queue Length [veh/ln]	2.60	2.48	0.38	2.62	25.76	8.09	17.65	1.82	0.72	18.79	0.37
95th-Percentile Queue Length [ft/ln]	65.11	61.93	9.40	65.50	644.10	202.25	441.22	45.43	18.12	469.64	9.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	67.00	20.36	19.42	67.65	50.22	50.22	57.61	29.73	16.51	64.57	40.00	21.49
Movement LOS	E	C	B	E	D	D	E	C	B	E	D	C
d_A, Approach Delay [s/veh]	34.93			51.37			32.28			40.05		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	39.01											
Intersection LOS	D											
Intersection V/C	0.768											

**Emissions**

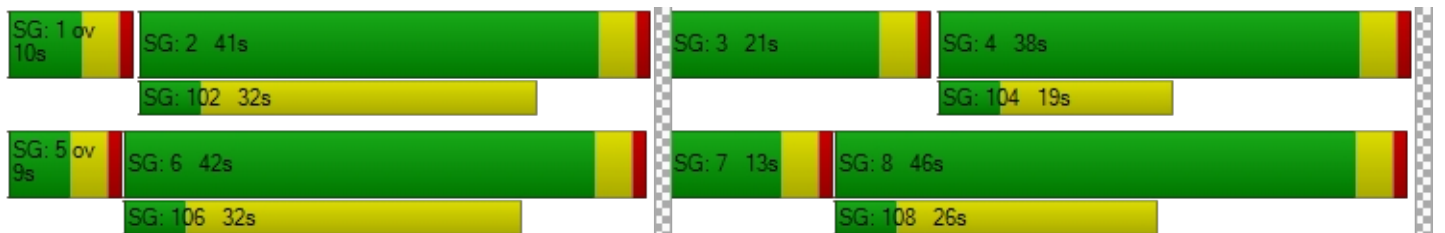
Vehicle Miles Traveled [mph]	11.09	20.91	3.28	22.60	322.40	14.41	101.26	6.79	2.98	251.31	3.23
Stops [stops/h]	47.35	45.04	6.83	47.64	611.23	149.90	783.73	33.04	13.18	844.11	6.70
Fuel consumption [US gal/h]	1.32	1.45	0.22	1.99	25.21	4.20	19.89	0.89	0.42	27.35	0.25
CO [g/h]	92.11	101.61	15.65	138.84	1762.30	293.46	1390.18	62.37	29.61	1912.09	17.53
NOx [g/h]	17.92	19.77	3.05	27.01	342.88	57.10	270.48	12.13	5.76	372.02	3.41
VOC [g/h]	21.35	23.55	3.63	32.18	408.43	68.01	322.19	14.45	6.86	443.15	4.06

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.264			2.689			3.213			3.072		
Crosswalk LOS	B			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]	691			673			764			618		
d_b, Bicycle Delay [s]	23.56			24.22			21.02			26.25		
I_b,int, Bicycle LOS Score for Intersection	1.797			2.880			2.678			2.419		
Bicycle LOS	A			C			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 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.579

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	127	31	8	16	68	129	32	445	215	8	436	5
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	634	0	0	833	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	3	0	0	39	0	0	65	0	0	2
Total Hourly Volume [veh/h]	154	38	7	19	82	117	39	1172	195	10	1361	4
Peak Hour Factor	0.9167	0.9167	0.9167	0.7870	0.7870	0.7870	0.8687	0.8687	0.8687	0.9239	0.9239	0.9239
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]	42	10	2	6	26	37	11	337	56	3	368	1
Total Analysis Volume [veh/h]	168	41	8	24	104	149	45	1349	224	11	1473	4
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	5	36	0	6	37	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	9	38	0	12	41	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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]	29	29	29	29	3	38	38	1	36	36
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.04	0.47	0.47	0.01	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.15	0.03	0.02	0.15	0.02	0.37	0.14	0.01	0.41	0.00
s, saturation flow rate [veh/h]	1144	1847	1378	1721	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	347	666	527	621	72	1716	766	27	1625	726
d1, Uniform Delay [s]	28.16	16.79	18.96	19.16	37.81	17.63	12.84	39.05	20.46	12.16
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	4.75	0.21	0.16	1.98	8.51	0.83	0.21	9.59	2.20	0.00
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	0.07	0.05	0.41	0.62	0.79	0.29	0.41	0.91	0.01
d, Delay for Lane Group [s/veh]	32.92	17.00	19.13	21.14	46.33	18.46	13.04	48.64	22.66	12.16
Lane Group LOS	C	B	B	C	D	B	B	D	C	B
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.19	0.59	0.31	3.56	0.99	8.91	2.15	0.27	11.27	0.04
50th-Percentile Queue Length [ft/ln]	79.82	14.67	7.82	89.11	24.77	222.80	53.80	6.87	281.63	0.88
95th-Percentile Queue Length [veh/ln]	5.75	1.06	0.56	6.42	1.78	13.81	3.87	0.49	16.77	0.06
95th-Percentile Queue Length [ft/ln]	143.68	26.40	14.07	160.39	44.59	345.19	96.83	12.37	419.24	1.59

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	32.92	17.00	17.00	19.13	21.14	21.14	46.33	18.46	13.04	48.64	22.66	12.16
Movement LOS	C	B	B	B	C	C	D	B	B	D	C	B
d_A, Approach Delay [s/veh]	29.32			20.96			18.48			22.82		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	21.12											
Intersection LOS	C											
Intersection V/C	0.579											

**Emissions**

Vehicle Miles Traveled [mph]	57.07	16.64	5.80	61.15	5.27	157.98	26.23	0.90	120.71	0.33
Stops [stops/h]	143.68	26.40	14.07	160.39	44.59	802.07	96.83	12.37	1013.86	1.59
Fuel consumption [US gal/h]	4.58	1.03	0.44	4.85	1.16	20.45	2.70	0.29	23.54	0.04
CO [g/h]	320.22	71.65	30.72	339.31	81.03	1429.76	188.58	20.52	1645.14	2.86
NOx [g/h]	62.30	13.94	5.98	66.02	15.77	278.18	36.69	3.99	320.09	0.56
VOC [g/h]	74.21	16.61	7.12	78.64	18.78	331.36	43.70	4.76	381.28	0.66

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	2.334	2.168	3.636	3.186
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	650	850	925
d_b, Bicycle Delay [s]	18.23	18.23	13.23	11.56
I_b,int, Bicycle LOS Score for Intersection	1.923	2.081	2.948	2.789
Bicycle LOS	A	B	C	C

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	2	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	635.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	34	3	170	0	0	0	46	522	0	0	421	257
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.0000	1.0000	1.0000	1.2100	1.2100	1.0000	1.0000	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	70	0	281	0	0	0	107	353	0	0	439	394
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	122	0	0	0	0	0	0	0	0	176
Total Hourly Volume [veh/h]	111	4	365	0	0	0	163	985	0	0	948	529
Peak Hour Factor	0.8655	0.8655	0.8655	1.0000	1.0000	1.0000	0.9008	0.9008	1.0000	1.0000	0.8591	0.8591
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]	32	1	105	0	0	0	45	273	0	0	276	154
Total Analysis Volume [veh/h]	128	5	422	0	0	0	181	1093	0	0	1103	616
Presence of On-Street Parking	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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	38	0	0	0	0	6	64	0	0	54	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	42	0	0	0	0	10	68	0	0	58	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	110	110	110		110	110	110	110
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]	46	46	46		6	56	46	46
g / C, Green / Cycle	0.41	0.41	0.41		0.05	0.51	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.05		0.05	0.30	0.30	0.38
s, saturation flow rate [veh/h]	1810	1816	8500		3514	3618	3618	1615
c, Capacity [veh/h]	749	752	3519		192	1857	1528	682
d1, Uniform Delay [s]	19.60	19.60	19.87		51.83	18.67	26.40	29.67
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.30
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.23	0.07		19.39	0.30	0.66	11.76
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	0.09	0.09	0.12		0.94	0.59	0.72	0.90
d, Delay for Lane Group [s/veh]	19.84	19.84	19.94		71.23	18.97	27.06	41.43
Lane Group LOS	B	B	B		E	B	C	D
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.08	1.09	6.73		2.93	8.95	11.87	16.96
50th-Percentile Queue Length [ft/ln]	27.05	27.14	168.18		73.31	223.78	296.86	423.93
95th-Percentile Queue Length [veh/ln]	1.95	1.95	10.98		5.28	13.86	17.53	23.71
95th-Percentile Queue Length [ft/ln]	48.69	48.85	274.53		131.96	346.44	438.14	592.76

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	19.84	19.84	19.94	0.00	0.00	0.00	71.23	18.97	0.00	0.00	27.06	41.43
Movement LOS	B	B	B				E	B			C	D
d_A, Approach Delay [s/veh]	19.92			0.00			26.40			32.21		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	28.20											
Intersection LOS	C											
Intersection V/C	0.483											

**Emissions**

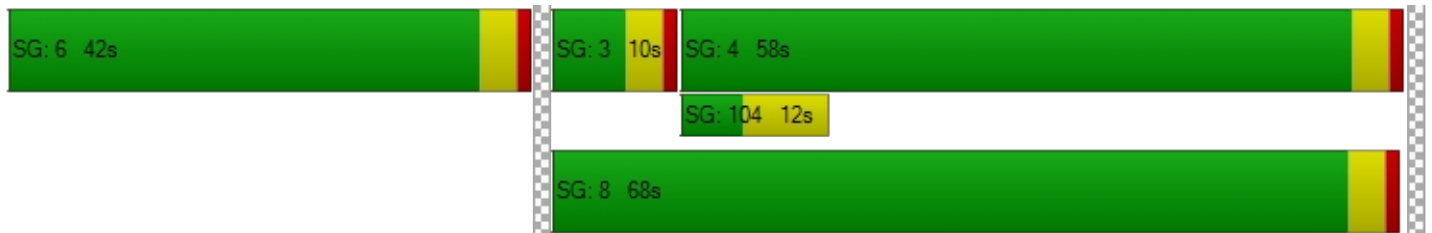
Vehicle Miles Traveled [mph]	9.94	9.97	63.18		26.02	157.10	129.17	72.14
Stops [stops/h]	35.41	35.53	220.17		191.95	585.89	777.23	554.96
Fuel consumption [US gal/h]	0.87	0.88	5.53		5.90	16.89	15.69	11.23
CO [g/h]	61.01	61.22	386.53		412.51	1180.60	1096.44	784.92
NOx [g/h]	11.87	11.91	75.20		80.26	229.70	213.33	152.72
VOC [g/h]	14.14	14.19	89.58		95.60	273.61	254.11	181.91

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	46.37	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.269	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	691	0	1164	982
d_b, Bicycle Delay [s]	23.56	55.00	9.62	14.25
I_b,int, Bicycle LOS Score for Intersection	2.677	4.132	2.611	3.123
Bicycle LOS	B	D	B	C

**Sequence**




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



**Intersection Level Of Service Report  
Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	343	1	34	0	228	87	292	160	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	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	281	0	70	0	179	107	394	115	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	28	0	0	53	0	0	0
Total Hourly Volume [veh/h]	0	0	0	696	1	83	0	455	159	747	309	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9087	0.9087	0.9087	1.0000	0.9128	0.9128	0.8958	0.8958	1.0000
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]	0	0	0	191	0	23	0	125	44	208	86	0
Total Analysis Volume [veh/h]	0	0	0	766	1	91	0	498	174	834	345	0
Presence of On-Street Parking				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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	21	0	0	14	0	23	41	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	29	0	0	17	0	24	41	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	R	L	C
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70
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]	25	25	25	13	13	20	37
g / C, Green / Cycle	0.36	0.36	0.36	0.18	0.18	0.29	0.53
(v / s)_i Volume / Saturation Flow Rate	0.21	0.21	0.06	0.14	0.11	0.24	0.10
s, saturation flow rate [veh/h]	1810	1810	1615	3618	1615	3514	3618
c, Capacity [veh/h]	649	649	580	659	294	1011	1906
d1, Uniform Delay [s]	18.26	18.26	15.25	27.15	26.24	23.29	8.66
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.92	3.91	0.58	1.80	1.90	1.77	0.05
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	0.59	0.59	0.16	0.76	0.59	0.83	0.18
d, Delay for Lane Group [s/veh]	22.17	22.17	15.82	28.95	28.14	25.06	8.71
Lane Group LOS	C	C	B	C	C	C	A
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.15	5.15	0.97	3.73	2.56	5.87	1.09
50th-Percentile Queue Length [ft/ln]	128.65	128.65	24.32	93.25	64.07	146.79	27.19
95th-Percentile Queue Length [veh/ln]	8.87	8.87	1.75	6.71	4.61	9.85	1.96
95th-Percentile Queue Length [ft/ln]	221.66	221.66	43.78	167.85	115.33	246.14	48.93

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	22.17	22.17	15.82	0.00	28.95	28.14	25.06	8.71	0.00
Movement LOS				C	C	B		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			21.50			28.74			20.28		
Approach LOS	A			C			C			C		
d_I, Intersection Delay [s/veh]	22.76											
Intersection LOS	C											
Intersection V/C	0.587											

**Emissions**

Vehicle Miles Traveled [mph]		25.71	25.71	6.10	56.69	19.81	119.87	49.59
Stops [stops/h]		264.66	264.66	50.03	383.66	131.80	603.93	111.85
Fuel consumption [US gal/h]		5.25	5.25	1.00	9.65	3.31	15.87	3.70
CO [g/h]		367.06	367.06	70.12	674.37	231.66	1109.43	258.75
NOx [g/h]		71.42	71.42	13.64	131.21	45.07	215.85	50.34
VOC [g/h]		85.07	85.07	16.25	156.29	53.69	257.12	59.97

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	26.58	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.353	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	714	371	1057
d_b, Bicycle Delay [s]	35.00	14.46	23.21	7.78
I_b,int, Bicycle LOS Score for Intersection	4.132	3.022	2.158	2.532
Bicycle LOS	D	C	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	29.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	70	162	30	50	277	34	51	352	105	64	327	33
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	49	9	0	3	25	0	0	0	0	0	0	1
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	9	0	0	10	0	0	32	0	0	10
Total Hourly Volume [veh/h]	134	205	27	64	360	31	62	426	95	77	396	31
Peak Hour Factor	0.7846	0.7846	0.7846	0.8624	0.8624	0.8624	0.8872	0.8872	0.8872	0.8643	0.8643	0.8643
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]	43	65	9	19	104	9	17	120	27	22	115	9
Total Analysis Volume [veh/h]	171	261	34	74	417	36	70	480	107	89	458	36
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	29	0	7	26	0	6	22	0	6	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	33	0	11	30	0	10	26	0	10	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	9	41	41	4	36	36	4	13	13	5	14	14
g / C, Green / Cycle	0.12	0.52	0.52	0.05	0.46	0.46	0.05	0.17	0.17	0.06	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.09	0.08	0.08	0.04	0.12	0.12	0.04	0.13	0.07	0.05	0.13	0.02
s, saturation flow rate [veh/h]	1810	1900	1825	1810	1900	1848	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	208	981	942	97	864	840	91	603	269	115	651	291
d1, Uniform Delay [s]	34.59	10.15	10.16	37.37	13.52	13.53	37.53	32.02	29.74	36.90	30.80	27.52
k, delay calibration	0.21	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	14.16	0.33	0.35	11.88	0.75	0.78	12.70	2.45	0.95	10.58	1.40	0.19
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	0.82	0.15	0.15	0.77	0.27	0.27	0.77	0.80	0.40	0.78	0.70	0.12
d, Delay for Lane Group [s/veh]	48.76	10.48	10.51	49.25	14.27	14.31	50.23	34.47	30.69	47.48	32.21	27.70
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.86	1.25	1.22	1.67	2.40	2.36	1.60	4.34	1.79	1.95	3.97	0.56
50th-Percentile Queue Length [ft/ln]	96.50	31.36	30.56	41.67	60.10	58.96	39.96	108.61	44.63	48.80	99.30	13.88
95th-Percentile Queue Length [veh/ln]	6.95	2.26	2.20	3.00	4.33	4.25	2.88	7.76	3.21	3.51	7.15	1.00
95th-Percentile Queue Length [ft/ln]	173.70	56.44	55.01	75.01	108.19	106.13	71.93	194.07	80.34	87.83	178.74	24.99

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.76	10.49	10.51	49.25	14.29	14.31	50.23	34.47	30.69	47.48	32.21	27.70
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	24.54			19.20			35.53			34.26		
Approach LOS	C			B			D			C		
d_I, Intersection Delay [s/veh]	29.05											
Intersection LOS	C											
Intersection V/C	0.398											

**Emissions**

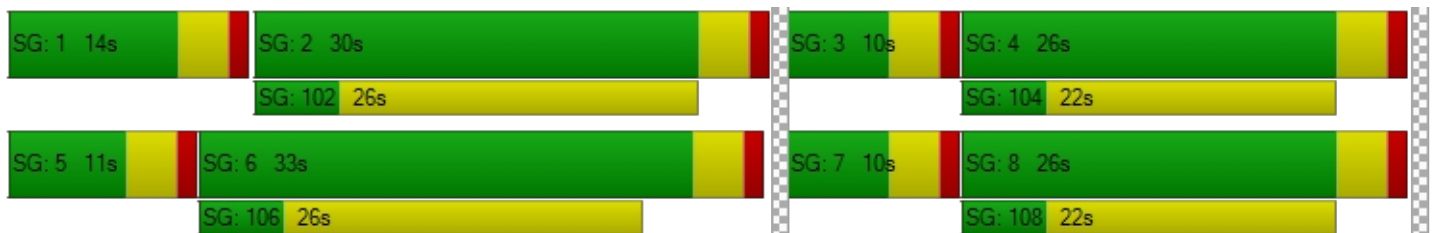
Vehicle Miles Traveled [mph]	85.69	75.01	72.82	37.04	114.63	112.12	35.43	242.94	54.15	14.80	76.15	5.99
Stops [stops/h]	173.70	56.44	55.01	75.01	108.19	106.13	71.93	391.01	80.34	87.83	357.49	24.99
Fuel consumption [US gal/h]	6.79	3.59	3.49	2.94	5.94	5.82	2.82	16.56	3.52	2.46	10.06	0.72
CO [g/h]	474.86	251.10	244.01	205.78	415.18	406.48	197.41	1157.24	246.29	171.89	702.97	50.24
NOx [g/h]	92.39	48.85	47.48	40.04	80.78	79.09	38.41	225.16	47.92	33.44	136.77	9.78
VOC [g/h]	110.05	58.19	56.55	47.69	96.22	94.21	45.75	268.20	57.08	39.84	162.92	11.64

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.636			2.577			2.827			2.753		
Crosswalk LOS	B			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]	725			650			550			550		
d_b, Bicycle Delay [s]	16.26			18.23			21.03			21.03		
I_b,int, Bicycle LOS Score for Intersection	1.951			2.003			2.128			2.049		
Bicycle LOS	A			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 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	39.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.770

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	155	644	137	192	794	31	23	264	190	131	230	96
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	467	0	0	443	2	9	0	12	31	18	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	34	0	0	10	0	0	61	0	0	29
Total Hourly Volume [veh/h]	190	1246	103	232	1404	30	37	319	181	190	296	87
Peak Hour Factor	0.9266	0.9266	0.9266	0.9141	0.9141	0.9141	0.9141	0.9141	0.9141	0.9550	0.9550	0.9550
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]	51	336	28	63	384	8	10	87	50	50	77	23
Total Analysis Volume [veh/h]	205	1345	111	254	1536	33	40	349	198	199	310	91
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	39	0	14	42	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	26	30	0	28	32	0	20	30	0	22	32	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	14	46	46	17	49	49	4	16	16	14	27	27
g / C, Green / Cycle	0.13	0.42	0.42	0.16	0.45	0.45	0.03	0.15	0.15	0.13	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.11	0.26	0.07	0.14	0.42	0.02	0.02	0.10	0.12	0.11	0.09	0.06
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	238	2175	679	287	1618	722	61	536	239	231	874	390
d1, Uniform Delay [s]	46.76	24.98	19.85	45.27	29.21	17.16	52.50	44.18	45.50	47.04	34.59	33.51
k, delay calibration	0.12	0.50	0.50	0.18	0.50	0.50	0.11	0.11	0.11	0.19	0.11	0.11
l, 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]	9.85	1.33	0.52	13.71	13.21	0.12	11.17	1.35	7.17	15.00	0.24	0.30
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	0.86	0.62	0.16	0.88	0.95	0.05	0.65	0.65	0.83	0.86	0.35	0.23
d, Delay for Lane Group [s/veh]	56.60	26.31	20.37	58.98	42.42	17.28	63.67	45.53	52.67	62.04	34.83	33.82
Lane Group LOS	E	C	C	E	D	B	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.96	8.83	1.78	7.64	20.72	0.47	1.25	4.44	5.55	6.28	3.47	1.99
50th-Percentile Queue Length [ft/ln]	149.08	220.70	44.55	190.94	518.09	11.80	31.32	111.03	138.71	156.96	86.66	49.70
95th-Percentile Queue Length [veh/ln]	9.97	13.70	3.21	12.17	28.19	0.85	2.26	7.90	9.41	10.39	6.24	3.58
95th-Percentile Queue Length [ft/ln]	249.20	342.52	80.19	304.25	704.74	21.24	56.38	197.43	235.29	259.69	155.99	89.45

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	56.60	26.31	20.37	58.98	42.42	17.28	63.67	45.53	52.67	62.04	34.83	33.82
Movement LOS	E	C	C	E	D	B	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	29.65			44.27			49.18			43.70		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	39.62											
Intersection LOS	D											
Intersection V/C	0.770											

**Emissions**

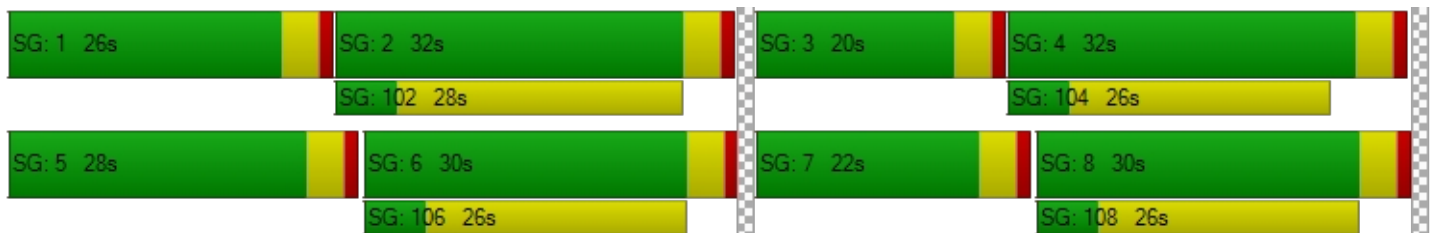
Vehicle Miles Traveled [mph]	10.97	71.99	5.94	111.92	676.80	14.54	3.86	33.69	19.11	100.72	156.90	46.06
Stops [stops/h]	195.16	866.76	58.32	249.95	1356.47	15.45	41.00	290.69	181.59	205.47	226.90	65.06
Fuel consumption [US gal/h]	5.16	20.45	1.39	9.99	53.32	0.81	1.16	8.00	5.04	7.79	9.91	2.88
CO [g/h]	360.94	1429.22	97.09	698.48	3727.22	56.38	81.11	559.37	351.95	544.78	692.70	201.43
NOx [g/h]	70.23	278.07	18.89	135.90	725.18	10.97	15.78	108.83	68.48	105.99	134.77	39.19
VOC [g/h]	83.65	331.23	22.50	161.88	863.82	13.07	18.80	129.64	81.57	126.26	160.54	46.68

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.459			3.317			2.845			2.729		
Crosswalk LOS	C			C			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	473			509			473			509		
d_b, Bicycle Delay [s]	32.07			30.56			32.07			30.56		
I_b,int, Bicycle LOS Score for Intersection	2.492			3.072			2.094			2.079		
Bicycle LOS	B			C			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 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.109

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	26	0	17	20	339	0	0	231	14
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	22	0	0	0	8
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]	0	0	0	31	0	21	24	432	0	0	280	25
Peak Hour Factor	1.0000	1.0000	1.0000	0.8077	1.0000	0.8077	0.8800	0.8800	0.8800	0.8277	0.8277	0.8277
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]	0	0	0	10	0	6	7	123	0	0	85	8
Total Analysis Volume [veh/h]	0	0	0	38	0	26	27	491	0	0	338	30
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.11	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.79	18.37	9.73	16.58	0.00	9.46	8.06	0.00	0.00	8.32	0.00	0.00
Movement LOS	C	C	A	C		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.36	0.00	0.10	0.07	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	9.09	0.00	2.41	1.72	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.96			13.69			0.42			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.15											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

**Intersection Setup**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	0	0	0	1	0	0	0	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	Indian Ave			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	41	59	138	82	0	1	172	1	101	79	65
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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	22	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]	0	50	71	189	99	0	1	208	1	122	96	79
Peak Hour Factor	0.9950	0.9950	0.9950	0.7801	0.7801	0.7801	0.8788	0.8788	0.8788	0.8652	0.8652	0.8652
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]	0	13	18	61	32	0	0	59	0	35	28	23
Total Analysis Volume [veh/h]	0	50	71	242	127	0	1	237	1	141	111	91
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	538	506	544	474	508	508	480	516	575
Degree of Utilization, x	0.22	0.48	0.23	0.00	0.23	0.23	0.29	0.22	0.16

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.86	2.55	0.90	0.01	0.90	0.90	1.21	0.81	0.56
95th-Percentile Queue Length [ft]	21.40	63.72	22.45	0.16	22.57	22.54	30.30	20.25	13.98
Approach Delay [s/veh]	11.62	14.48		11.95			11.90		
Approach LOS	B	B		B			B		
Intersection Delay [s/veh]	12.77								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	90	2	170	118	4	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
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]	109	2	206	143	5	92
Peak Hour Factor	0.8214	0.8214	0.8944	0.8944	0.7950	0.7950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	1	58	40	2	29
Total Analysis Volume [veh/h]	133	2	230	160	6	116
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	0.02	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.92	0.00	16.07	9.12
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.56	0.00	0.06	0.40
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.95	0.00	1.38	9.92
d_A, Approach Delay [s/veh]	0.00		4.67		9.46	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.60					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.565

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	39	189	37	81	247	77	50	146	59	13	101	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	58	0	0	25	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]	53	287	37	98	324	93	61	177	71	16	122	61
Peak Hour Factor	0.8588	0.8588	0.8588	0.8821	0.8821	0.8821	0.8231	0.8231	0.8231	0.8039	0.8039	0.8039
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	84	11	28	92	26	19	54	22	5	38	19
Total Analysis Volume [veh/h]	62	334	43	111	367	105	74	215	86	20	152	76
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	453	482	492	463	494	514	488	533	464	492	538
Degree of Utilization, x	0.14	0.39	0.38	0.24	0.48	0.46	0.15	0.56	0.04	0.31	0.14





**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.47	1.83	1.78	0.93	2.55	2.38	0.53	3.47	0.13	1.30	0.49
95th-Percentile Queue Length [ft]	11.77	45.87	44.49	23.17	63.73	59.49	13.25	86.83	3.37	32.52	12.25
Approach Delay [s/veh]	14.29			15.41			16.57			12.21	
Approach LOS	B			C			C			B	
Intersection Delay [s/veh]	14.89										
Intersection LOS	B										

**Intersection Level Of Service Report  
Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.651

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	55	804	189	49	941	29	45	25	54	207	15	41
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	444	0	0	459	2	1	0	8	0	6	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	57	0	0	9	0	0	18	0	0	13
Total Hourly Volume [veh/h]	75	1417	172	59	1598	28	55	30	55	250	24	37
Peak Hour Factor	0.9319	0.9319	0.9319	0.8802	0.8802	0.8802	0.8576	0.8576	0.8576	0.8506	0.8506	0.8506
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]	20	380	46	17	454	8	16	9	16	73	7	11
Total Analysis Volume [veh/h]	80	1520	185	67	1816	32	64	35	64	294	28	43
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	43	0	0	33	0	0	10	0	0	35	0
Amber [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	21	37	0	0	16	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	0	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall	No	No			No			No			No	
Maximum Recall	No	No			No			No			No	
Pedestrian Recall	No	No			No			No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated 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	2.00	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	51	51	41	41	41	10	17	17	17
g / C, Green / Cycle	0.06	0.56	0.56	0.46	0.46	0.46	0.12	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.04	0.31	0.32	0.23	0.35	0.02	0.09	0.16	0.01	0.03
s, saturation flow rate [veh/h]	1810	3618	1797	292	5176	1615	1745	1810	1900	1615
c, Capacity [veh/h]	106	2035	1011	146	2379	742	201	342	359	305
d1, Uniform Delay [s]	41.73	12.56	12.58	34.90	20.24	13.41	38.88	35.33	30.03	30.40
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, 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]	10.36	1.12	2.25	10.00	2.39	0.11	7.70	6.31	0.09	0.21
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	0.76	0.56	0.56	0.46	0.76	0.04	0.81	0.86	0.08	0.14
d, Delay for Lane Group [s/veh]	52.09	13.68	14.83	44.91	22.63	13.52	46.57	41.64	30.12	30.61
Lane Group LOS	D	B	B	D	C	B	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.03	7.00	7.29	1.78	9.79	0.35	3.93	6.78	0.51	0.80
50th-Percentile Queue Length [ft/ln]	50.86	174.93	182.35	44.39	244.65	8.67	98.22	169.62	12.75	19.90
95th-Percentile Queue Length [veh/ln]	3.66	11.34	11.72	3.20	14.92	0.62	7.07	11.06	0.92	1.43
95th-Percentile Queue Length [ft/ln]	91.54	283.38	293.08	79.91	372.91	15.60	176.80	276.42	22.94	35.82

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.09	13.97	14.83	44.91	22.63	13.52	46.57	46.57	46.57	41.64	30.12	30.61
Movement LOS	D	B	B	D	C	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	15.76			23.26			46.57			39.46		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	22.39											
Intersection LOS	C											
Intersection V/C	0.651											

**Emissions**

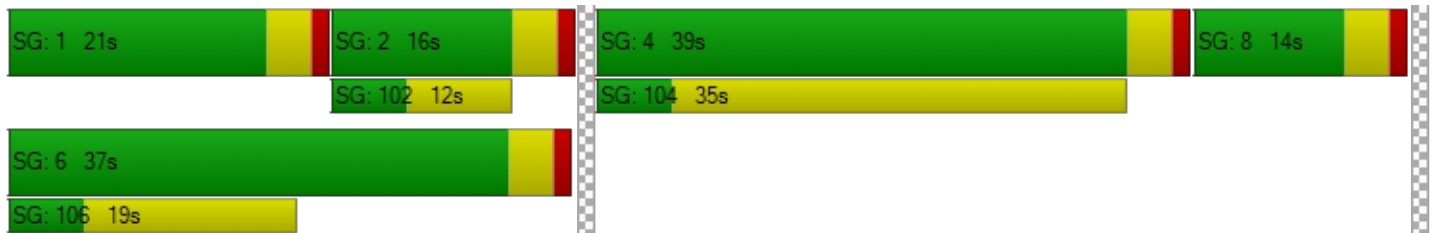
Vehicle Miles Traveled [mph]	39.93	568.06	282.87	6.48	175.71	3.10	13.00	148.53	14.15	21.72
Stops [stops/h]	81.37	559.77	291.75	71.03	1174.34	13.87	157.15	271.39	20.39	31.84
Fuel consumption [US gal/h]	2.94	29.65	14.97	1.72	28.99	0.37	2.73	10.21	0.89	1.37
CO [g/h]	205.59	2072.26	1046.17	120.06	2026.27	25.62	190.98	713.78	61.93	95.54
NOx [g/h]	40.00	403.19	203.55	23.36	394.24	4.99	37.16	138.88	12.05	18.59
VOC [g/h]	47.65	480.27	242.46	27.83	469.61	5.94	44.26	165.42	14.35	22.14

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.443	1.876	2.393
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	733	267	222	778
d_b, Bicycle Delay [s]	18.05	33.80	35.56	16.81
I_b,int, Bicycle LOS Score for Intersection	2.573	2.618	1.858	2.183
Bicycle LOS	B	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	32.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	36	105	148	41	53	58	45	554	14	158	543	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	8	8	0	0	0	111	0	8	111	8
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	47	0	0	18	0	0	4	0	0	14
Total Hourly Volume [veh/h]	44	127	140	58	64	52	54	781	13	199	768	42
Peak Hour Factor	0.8780	0.8780	0.8780	0.8608	0.8608	0.8608	0.8955	0.8955	0.8955	0.7629	0.7629	0.7629
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]	13	36	40	17	19	15	15	218	4	65	252	14
Total Analysis Volume [veh/h]	50	145	159	67	74	60	60	872	15	261	1007	55
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	21	0	12	28	0	13	26	0	15	28	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	20	0	21	32	0	20	27	0	22	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	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	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
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
g_i, Effective Green Time [s]	4	31	4	32	32	4	24	24	15	35	35
g / C, Green / Cycle	0.04	0.34	0.05	0.35	0.35	0.04	0.27	0.27	0.16	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.04	0.04	0.04	0.03	0.24	0.01	0.14	0.28	0.03
s, saturation flow rate [veh/h]	1810	1739	1810	1900	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	72	594	91	668	568	82	961	429	299	1394	622
d1, Uniform Delay [s]	42.66	23.66	42.15	19.68	19.64	42.43	31.98	24.50	36.65	23.56	17.60
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.22	0.11	0.11
l, 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
d2, Incremental Delay [s]	11.24	3.14	10.94	0.34	0.37	11.84	3.66	0.03	14.85	0.72	0.06
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
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
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

**Lane Group Results**

X, volume / capacity	0.69	0.51	0.74	0.11	0.11	0.73	0.91	0.03	0.87	0.72	0.09
d, Delay for Lane Group [s/veh]	53.90	26.80	53.09	20.01	20.02	54.27	35.65	24.54	51.51	24.28	17.66
Lane Group LOS	D	C	D	C	C	D	D	C	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.32	5.60	1.75	1.11	0.90	1.50	8.72	0.22	6.37	8.04	0.65
50th-Percentile Queue Length [ft/ln]	33.07	139.90	43.63	27.63	22.58	37.57	218.12	5.52	159.33	200.90	16.37
95th-Percentile Queue Length [veh/ln]	2.38	9.48	3.14	1.99	1.63	2.70	13.57	0.40	10.51	12.69	1.18
95th-Percentile Queue Length [ft/ln]	59.53	236.89	78.53	49.74	40.64	67.62	339.22	9.94	262.84	317.13	29.47

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.90	26.80	26.80	53.09	20.01	20.02	54.27	35.65	24.54	51.51	24.28	17.66
Movement LOS	D	C	C	D	C	C	D	D	C	D	C	B
d_A, Approach Delay [s/veh]	30.62			31.04			36.65			29.38		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	32.09											
Intersection LOS	C											
Intersection V/C	0.597											

**Emissions**

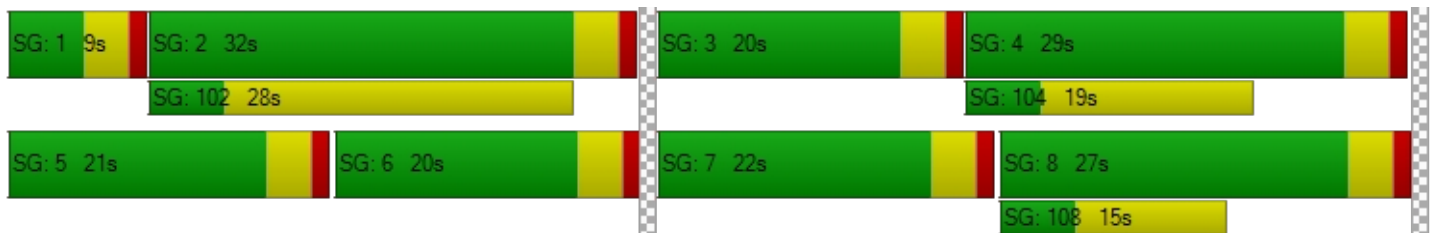
Vehicle Miles Traveled [mph]	7.01	42.64	9.33	10.30	8.35	30.03	436.38	7.51	68.18	263.06	14.37
Stops [stops/h]	52.92	223.84	69.80	44.21	36.13	60.11	697.98	8.84	254.93	642.89	26.20
Fuel consumption [US gal/h]	1.07	4.43	1.41	0.93	0.76	2.78	33.89	0.49	9.75	25.72	1.16
CO [g/h]	74.57	309.94	98.62	65.30	53.02	194.56	2368.75	34.26	681.63	1797.59	81.42
NOx [g/h]	14.51	60.30	19.19	12.71	10.32	37.86	460.87	6.67	132.62	349.75	15.84
VOC [g/h]	17.28	71.83	22.86	15.13	12.29	45.09	548.98	7.94	157.98	416.61	18.87

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.213	2.258	3.082	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	356	622	511	556
d_b, Bicycle Delay [s]	30.42	21.36	24.94	23.47
I_b,int, Bicycle LOS Score for Intersection	2.221	1.921	2.344	2.663
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 25: Nuevo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.602

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	104	233	129	20	246	55	56	632	107	129	565	27
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	25	0	55	111	0	0	111	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	39	0	0	17	0	0	32	0	0	8
Total Hourly Volume [veh/h]	126	291	117	24	323	50	123	876	97	156	795	25
Peak Hour Factor	0.8158	0.8158	0.8158	0.9249	0.9249	0.9249	0.9147	0.9147	0.9147	0.8738	0.8738	0.8738
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]	39	89	36	6	87	14	34	239	27	45	227	7
Total Analysis Volume [veh/h]	154	357	143	26	349	54	134	958	106	179	910	29
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	25	0	0	25	0	12	25	0	8	21	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	26	0	0	26	0	28	28	0	16	16	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	28	28	28	28	7	22	22	9	23	23
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.10	0.31	0.31	0.12	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.09	0.24	0.07	0.26	0.07	0.10	0.25	0.02
s, saturation flow rate [veh/h]	998	1900	1615	1799	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	264	754	641	768	179	1118	499	223	1205	538
d1, Uniform Delay [s]	22.93	15.69	13.98	16.56	30.70	22.74	17.89	29.87	20.80	15.85
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.05	2.13	0.81	2.92	6.16	2.03	0.21	6.67	0.99	0.04
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	0.58	0.47	0.22	0.56	0.75	0.86	0.21	0.80	0.76	0.05
d, Delay for Lane Group [s/veh]	31.98	17.82	14.78	19.49	36.85	24.76	18.10	36.55	21.79	15.89
Lane Group LOS	C	B	B	B	D	C	B	D	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.78	4.03	1.42	5.18	2.36	6.89	1.17	3.14	6.01	0.29
50th-Percentile Queue Length [ft/ln]	69.50	100.87	35.61	129.42	59.06	172.35	29.37	78.44	150.14	7.25
95th-Percentile Queue Length [veh/ln]	5.00	7.26	2.56	8.91	4.25	11.20	2.11	5.65	10.02	0.52
95th-Percentile Queue Length [ft/ln]	125.10	181.57	64.09	222.70	106.31	280.00	52.86	141.20	250.62	13.04

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	31.98	17.82	14.78	19.49	19.49	19.49	36.85	24.76	18.10	36.55	21.79	15.89
Movement LOS	C	B	B	B	B	B	D	C	B	D	C	B
d_A, Approach Delay [s/veh]	20.49			19.49			25.53			24.00		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	23.29											
Intersection LOS	C											
Intersection V/C	0.602											

**Emissions**

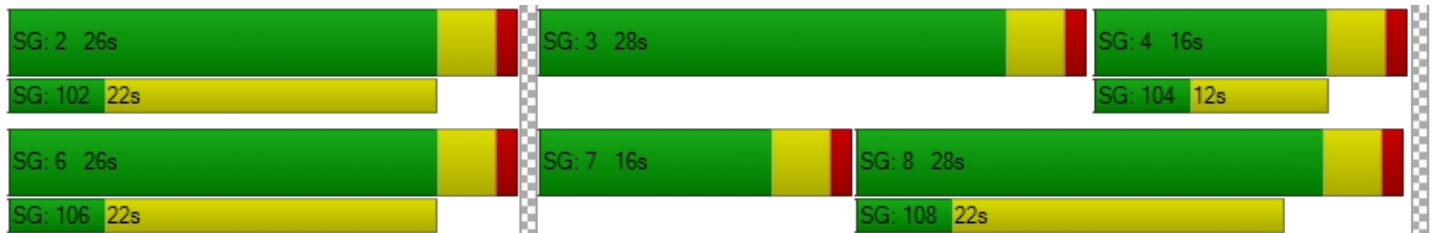
Vehicle Miles Traveled [mph]	58.19	134.89	54.03	215.54	67.79	484.66	53.63	89.58	455.40	14.51
Stops [stops/h]	142.98	207.51	73.25	266.23	121.50	709.08	60.42	161.37	617.73	14.91
Fuel consumption [US gal/h]	4.77	8.50	3.19	12.40	4.63	29.15	2.90	6.13	26.42	0.76
CO [g/h]	333.73	594.04	223.19	866.72	323.42	2037.88	203.05	428.15	1846.46	53.13
NOx [g/h]	64.93	115.58	43.43	168.63	62.92	396.50	39.51	83.30	359.25	10.34
VOC [g/h]	77.35	137.67	51.73	200.87	74.95	472.30	47.06	99.23	427.93	12.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersectio	2.742	2.440	3.219	2.987
Crosswalk LOS	B	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]	629	629	686	343
d_b, Bicycle Delay [s]	16.46	16.46	15.11	24.03
I_b,int, Bicycle LOS Score for Intersection	2.703	2.296	2.574	2.489
Bicycle LOS	B	B	B	B

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	44.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	134	475	120	226	549	220	288	554	165	207	451	181
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	384	2	1	359	107	66	163	2	2	107	2
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	37	0	0	93	0	0	51	0	0	55
Total Hourly Volume [veh/h]	164	959	110	274	1023	280	414	833	151	252	653	166
Peak Hour Factor	0.9406	0.9406	0.9406	0.9342	0.9342	0.9342	0.8402	0.8402	0.8402	0.8991	0.8991	0.8991
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]	44	255	29	73	274	75	123	248	45	70	182	46
Total Analysis Volume [veh/h]	174	1020	117	293	1095	300	493	991	180	280	726	185
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	12	35	0	12	35	18	18	47	0	10	39	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	20	40	0	16	36	21	21	49	0	15	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	5	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	

**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	R	L	C	R	L	C	R
C, Calculated 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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	45	45	12	43	64	17	36	36	11	30	30
g / C, Green / Cycle	0.11	0.37	0.37	0.10	0.36	0.53	0.14	0.30	0.30	0.09	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.10	0.28	0.07	0.08	0.30	0.10	0.14	0.27	0.11	0.08	0.20	0.11
s, saturation flow rate [veh/h]	1810	3618	1615	3514	3618	2859	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	203	1346	601	347	1298	1526	498	1100	491	322	919	410
d1, Uniform Delay [s]	52.35	32.95	25.50	53.16	35.37	14.56	51.42	40.02	32.70	53.79	41.76	37.70
k, delay calibration	0.22	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	18.32	4.03	0.72	5.61	6.81	0.29	16.60	3.01	0.46	7.15	1.56	0.78
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	0.86	0.76	0.19	0.84	0.84	0.20	0.99	0.90	0.37	0.87	0.79	0.45
d, Delay for Lane Group [s/veh]	70.66	36.98	26.23	58.77	42.17	14.85	68.02	43.02	33.16	60.95	43.32	38.47
Lane Group LOS	E	D	C	E	D	B	E	D	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.04	13.08	2.31	4.50	15.20	2.07	8.39	14.02	4.09	4.42	9.98	4.59
50th-Percentile Queue Length [ft/ln]	151.11	327.08	57.76	112.55	379.92	51.63	209.86	350.40	102.16	110.46	249.45	114.68
95th-Percentile Queue Length [veh/ln]	10.08	19.02	4.16	7.98	21.59	3.72	13.15	20.16	7.36	7.87	15.16	8.10
95th-Percentile Queue Length [ft/ln]	251.91	475.38	103.96	199.54	539.75	92.93	328.65	503.90	183.89	196.64	378.95	202.49

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	70.66	36.98	26.23	58.77	42.17	14.85	68.02	43.02	33.16	60.95	43.32	38.47
Movement LOS	E	D	C	E	D	B	E	D	C	E	D	D
d_A, Approach Delay [s/veh]	40.49			40.20			49.36			46.71		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	44.19											
Intersection LOS	D											
Intersection V/C	0.752											

**Emissions**

Vehicle Miles Traveled [mph]	65.51	384.00	44.05	146.23	546.49	149.72	109.81	220.72	40.09	141.65	367.29	93.59
Stops [stops/h]	181.33	785.00	69.31	270.12	911.81	123.91	503.67	840.96	122.60	265.10	598.67	137.61
Fuel consumption [US gal/h]	7.00	30.60	3.00	11.87	39.47	7.58	15.70	24.84	3.85	11.15	25.44	6.15
CO [g/h]	489.43	2138.83	209.42	830.05	2758.68	529.81	1097.74	1736.58	269.46	779.42	1778.11	430.08
NOx [g/h]	95.22	416.14	40.75	161.50	536.74	103.08	213.58	337.88	52.43	151.65	345.96	83.68
VOC [g/h]	113.43	495.69	48.54	192.37	639.35	122.79	254.41	402.47	62.45	180.64	412.09	99.67

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.241			3.571			3.302			3.186		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			533			750			650		
d_b, Bicycle Delay [s]	29.40			32.27			23.44			27.34		
l_b,int, Bicycle LOS Score for Intersection	2.672			3.029			2.974			2.588		
Bicycle LOS	B			C			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	39.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.194

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	196	0	1091	946	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.2100	1.0000	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	466	458	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]	0	237	0	1786	1603	41
Peak Hour Factor	1.0000	0.8099	1.0000	0.9633	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	73	0	463	438	11
Total Analysis Volume [veh/h]	0	293	0	1854	1752	45
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	1.19	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	39.26	0.00	0.00	0.00	0.00
Movement LOS		F		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	3.47	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	86.71	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	39.26		0.00		0.00	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	2.92					
Intersection LOS	F					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	63	4	409	0	0	0	54	686	0	0	750	383
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.0000	1.0000	1.0000	1.2100	1.2100	1.0000	1.0000	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	62	0	232	0	0	0	95	234	0	0	230	228
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	182	0	0	0	0	0	0	0	0	173
Total Hourly Volume [veh/h]	138	5	545	0	0	0	160	1064	0	0	1138	518
Peak Hour Factor	0.9006	0.9006	0.9006	1.0000	1.0000	1.0000	0.8783	0.8783	1.0000	1.0000	0.9261	0.9261
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]	38	1	151	0	0	0	46	303	0	0	307	140
Total Analysis Volume [veh/h]	153	6	605	0	0	0	182	1211	0	0	1229	559
Presence of On-Street Parking	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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	33	0	0	0	0	12	69	0	0	53	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	0	0	14	60	0	0	46	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	32	32		10	50	36	36
g / C, Green / Cycle	0.36	0.36		0.11	0.55	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21		0.10	0.33	0.24	0.35
s, saturation flow rate [veh/h]	1813	2859		1810	3618	5176	1615
c, Capacity [veh/h]	646	1018		201	2007	2066	645
d1, Uniform Delay [s]	20.44	23.65		39.53	13.41	21.30	24.84
k, delay calibration	0.50	0.50		0.22	0.11	0.11	0.16
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.91	2.55		24.29	0.29	0.28	5.35
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.25	0.59		0.91	0.60	0.59	0.87
d, Delay for Lane Group [s/veh]	21.35	26.20		63.82	13.70	21.57	30.18
Lane Group LOS	C	C		E	B	C	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.38	5.25		5.18	7.18	6.33	10.95
50th-Percentile Queue Length [ft/ln]	59.60	131.28		129.45	179.57	158.33	273.79
95th-Percentile Queue Length [veh/ln]	4.29	9.01		8.91	11.58	10.46	16.38
95th-Percentile Queue Length [ft/ln]	107.29	225.24		222.74	289.45	261.51	409.47

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	21.35	21.35	26.20	0.00	0.00	0.00	63.82	13.70	0.00	0.00	21.57	30.18
Movement LOS	C	C	C				E	B			C	C
d_A, Approach Delay [s/veh]	25.19			0.00			20.25			24.26		
Approach LOS	C			A			C			C		
d_I, Intersection Delay [s/veh]	23.03											
Intersection LOS	C											
Intersection V/C	0.658											

**Emissions**

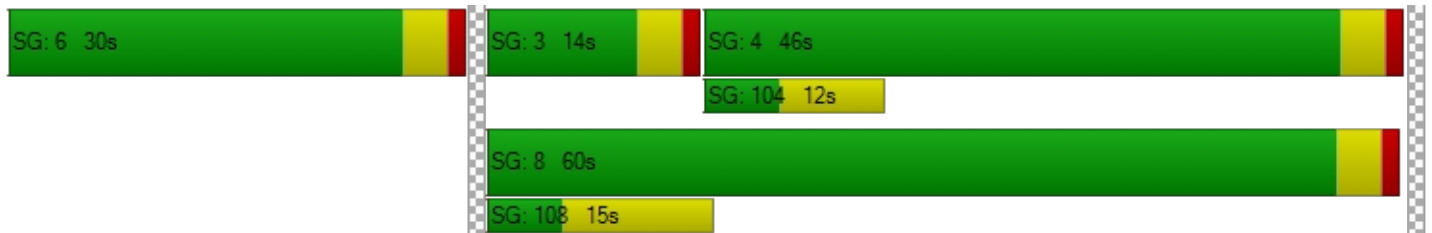
Vehicle Miles Traveled [mph]	27.64	105.16		15.08	100.33	67.55	30.72
Stops [stops/h]	95.37	420.10		207.11	574.62	759.99	438.06
Fuel consumption [US gal/h]	2.62	11.12		4.94	12.62	15.28	8.84
CO [g/h]	182.97	777.27		345.18	881.81	1068.14	617.72
NOx [g/h]	35.60	151.23		67.16	171.57	207.82	120.19
VOC [g/h]	42.40	180.14		80.00	204.37	247.55	143.16

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.611	2.165	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	0	1244	933
d_b, Bicycle Delay [s]	22.76	45.00	6.42	12.80
I_b,int, Bicycle LOS Score for Intersection	3.121	4.132	2.709	2.638
Bicycle LOS	C	D	B	B

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

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):	0.730

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	487	1	83	0	272	77	486	335	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.2100	1.2100	1.2100	1.0000	1.2100	1.2100	1.2100	1.2100	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	232	0	62	0	97	95	228	63	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	41	0	0	47	0	0	0
Total Hourly Volume [veh/h]	0	0	0	821	1	121	0	426	141	816	468	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8912	0.8912	0.8912	1.0000	0.7591	0.7591	0.8880	0.8880	1.0000
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]	0	0	0	230	0	34	0	140	46	230	132	0
Total Analysis Volume [veh/h]	0	0	0	921	1	136	0	561	186	919	527	0
Presence of On-Street Parking				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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	36	0	0	29	0	33	66	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	35	0	0	22	0	23	45	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	C	L	C
C, Calculated Cycle Length [s]		80	80	80	80	80	80	80
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]		23	23	23	20	20	25	49
g / C, Green / Cycle		0.29	0.29	0.29	0.25	0.25	0.31	0.61
(v / s)_i Volume / Saturation Flow Rate		0.25	0.25	0.08	0.20	0.21	0.26	0.15
s, saturation flow rate [veh/h]		1810	1810	1615	1900	1747	3514	3618
c, Capacity [veh/h]		530	530	473	477	438	1077	2197
d1, Uniform Delay [s]		26.86	26.85	21.85	27.94	28.56	26.05	7.22
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		17.56	17.55	1.53	2.87	4.79	2.04	0.06
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		0.87	0.87	0.29	0.78	0.85	0.85	0.24
d, Delay for Lane Group [s/veh]		44.42	44.41	23.39	30.81	33.34	28.09	7.27
Lane Group LOS		D	D	C	C	C	C	A
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		10.26	10.26	2.04	6.56	6.90	7.80	1.67
50th-Percentile Queue Length [ft/ln]		256.47	256.43	51.09	164.12	172.57	195.12	41.77
95th-Percentile Queue Length [veh/ln]		15.51	15.51	3.68	10.77	11.21	12.39	3.01
95th-Percentile Queue Length [ft/ln]		387.79	387.74	91.96	269.17	280.29	309.66	75.18

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	44.41	44.41	23.39	0.00	31.66	33.34	28.09	7.27	0.00
Movement LOS				D	D	C		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			41.71			32.08			20.50		
Approach LOS	A			D			C			C		
d_I, Intersection Delay [s/veh]	30.06											
Intersection LOS	C											
Intersection V/C	0.730											

**Emissions**

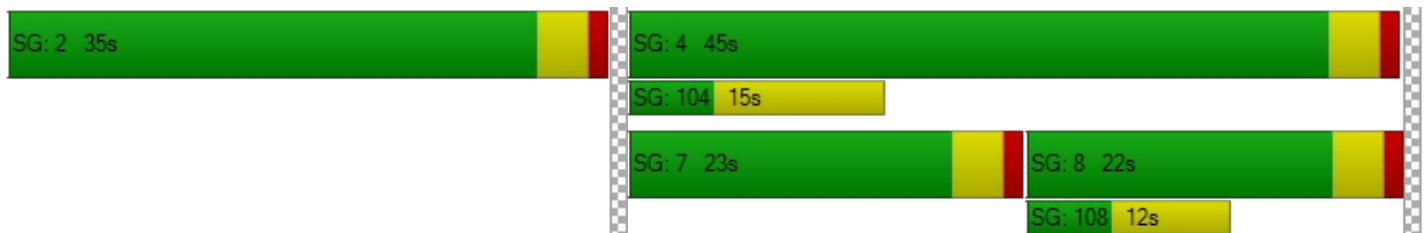
Vehicle Miles Traveled [mph]		39.86	39.86	11.76	98.99	98.99	76.14	43.66
Stops [stops/h]		461.64	461.57	91.96	295.41	310.63	702.42	150.36
Fuel consumption [US gal/h]		10.13	10.13	1.97	8.79	9.13	14.88	3.82
CO [g/h]		708.08	707.95	137.83	614.40	638.29	1040.14	267.11
NOx [g/h]		137.77	137.74	26.82	119.54	124.19	202.37	51.97
VOC [g/h]		164.10	164.07	31.94	142.39	147.93	241.06	61.90

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.273	2.470	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	775	450	1025
d_b, Bicycle Delay [s]	40.00	15.01	24.03	9.51
I_b,int, Bicycle LOS Score for Intersection	4.132	3.373	2.215	2.753
Bicycle LOS	D	C	B	C

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	38	410	9	32	381	24	31	16	43	5	13	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	25	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]	46	505	11	39	486	29	38	19	52	6	16	29
Peak Hour Factor	0.7862	0.7862	0.7862	0.7814	0.7814	0.7814	0.7336	0.7336	0.7336	0.7685	0.7685	0.7685
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	161	3	12	155	9	13	6	18	2	5	9
Total Analysis Volume [veh/h]	59	642	14	50	622	37	52	26	71	8	21	38
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	531	574	577	531	574	581	510	504
Degree of Utilization, x	0.11	0.57	0.57	0.09	0.57	0.57	0.29	0.13

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.37	3.58	3.55	0.31	3.62	3.54	1.20	0.46
95th-Percentile Queue Length [ft]	9.31	89.48	88.67	7.76	90.55	88.40	30.12	11.40
Approach Delay [s/veh]	16.36			16.44			12.93	11.23
Approach LOS	C			C			B	B
Intersection Delay [s/veh]	15.88							
Intersection LOS	C							

**Intersection Level Of Service Report  
Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	724	68	88	781	53	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	388	0	0	362	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
Right Turn on Red Volume [veh/h]	0	21	0	0	0	19
Total Hourly Volume [veh/h]	1264	61	106	1307	64	58
Peak Hour Factor	0.8868	0.8868	0.9123	0.9123	0.7565	0.7565
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	356	17	29	358	21	19
Total Analysis Volume [veh/h]	1425	69	116	1433	85	77
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	15	0	21	40	22	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	19	0	25	44	26	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	6	57	5	5
g / C, Green / Cycle	0.67	0.67	0.08	0.81	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.39	0.40	0.06	0.40	0.05	0.05
s, saturation flow rate [veh/h]	1900	1870	1810	3618	1810	1615
c, Capacity [veh/h]	1266	1245	154	2924	140	125
d1, Uniform Delay [s]	6.43	6.49	31.31	2.13	31.27	31.29
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.03	2.14	7.26	0.59	4.20	4.87
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.59	0.60	0.75	0.49	0.61	0.62
d, Delay for Lane Group [s/veh]	8.45	8.64	38.56	2.72	35.47	36.16
Lane Group LOS	A	A	D	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.28	4.35	2.07	0.41	1.53	1.41
50th-Percentile Queue Length [ft/ln]	107.06	108.73	51.87	10.34	38.19	35.15
95th-Percentile Queue Length [veh/ln]	7.68	7.77	3.73	0.74	2.75	2.53
95th-Percentile Queue Length [ft/ln]	191.91	194.23	93.37	18.62	68.74	63.26

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	8.54	8.64	38.56	2.72	35.47	36.16
Movement LOS	A	A	D	A	D	D
d_A, Approach Delay [s/veh]	8.54		5.40		35.80	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	8.40					
Intersection LOS	A					
Intersection V/C	0.511					

**Emissions**

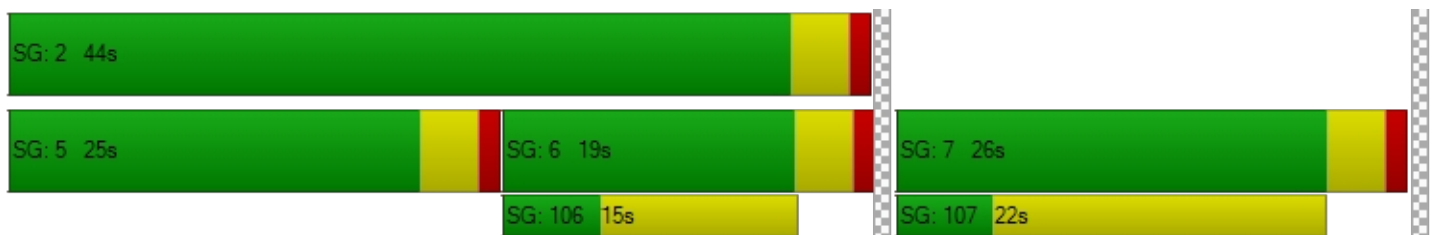
Vehicle Miles Traveled [mph]	324.34	324.34	43.67	539.49	42.67	38.65
Stops [stops/h]	220.25	223.66	106.70	42.55	78.57	72.30
Fuel consumption [US gal/h]	15.14	15.21	3.73	19.81	2.83	2.58
CO [g/h]	1058.34	1063.27	261.00	1384.98	198.07	180.49
NOx [g/h]	205.92	206.87	50.78	269.47	38.54	35.12
VOC [g/h]	245.28	246.42	60.49	320.98	45.90	41.83

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		26.58		26.58	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.187		2.061	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	429		1143		629	
d_b, Bicycle Delay [s]	21.61		6.43		16.46	
I_b,int, Bicycle LOS Score for Intersection	2.809		2.838		1.560	
Bicycle LOS	C		C		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	66	519	5	69	513	196	110	58	79	3	82	101
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	372	0	24	339	0	0	0	0	0	0	15
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	2	0	0	59	0	0	24	0	0	34
Total Hourly Volume [veh/h]	80	1000	4	107	960	178	133	70	72	4	99	103
Peak Hour Factor	0.8932	0.8932	0.8932	0.8568	0.8568	0.8568	0.8129	0.8129	0.8129	0.7283	0.7283	0.7283
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]	22	280	1	31	280	52	41	22	22	1	34	35
Total Analysis Volume [veh/h]	90	1120	4	125	1120	208	164	86	89	5	136	141
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	7	19	0	10	22	0	9	26	0	9	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	24	0	11	26	0	15	30	0	15	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	38	38	7	40	40	9	18	18	1	10	10
g / C, Green / Cycle	0.06	0.48	0.48	0.09	0.50	0.50	0.11	0.23	0.23	0.01	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.05	0.31	0.00	0.07	0.31	0.13	0.09	0.05	0.06	0.00	0.07	0.09
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1615	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	113	1719	768	157	1808	807	202	437	372	14	240	204
d1, Uniform Delay [s]	37.00	15.95	11.04	35.82	14.50	11.49	34.73	24.83	25.09	39.50	32.89	33.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.15	0.11	0.11	0.11	0.11	0.11
l, 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]	11.87	1.93	0.01	8.71	1.61	0.77	10.58	0.22	0.33	15.36	2.10	4.15
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	0.80	0.65	0.01	0.79	0.62	0.26	0.81	0.20	0.24	0.36	0.57	0.69
d, Delay for Lane Group [s/veh]	48.86	17.89	11.05	44.53	16.10	12.26	45.31	25.05	25.42	54.86	34.99	37.60
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.01	7.01	0.04	2.63	6.51	1.97	3.51	1.25	1.31	0.15	2.46	2.69
50th-Percentile Queue Length [ft/ln]	50.21	175.32	0.88	65.66	162.83	49.29	87.78	31.17	32.76	3.78	61.61	67.16
95th-Percentile Queue Length [veh/ln]	3.61	11.36	0.06	4.73	10.70	3.55	6.32	2.24	2.36	0.27	4.44	4.84
95th-Percentile Queue Length [ft/ln]	90.37	283.90	1.58	118.20	267.47	88.72	158.00	56.11	58.96	6.81	110.89	120.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	48.86	17.89	11.05	44.53	16.10	12.26	45.31	25.05	25.42	54.86	34.99	37.60
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	20.16			18.00			34.95			36.65		
Approach LOS	C			B			C			D		
d_I, Intersection Delay [s/veh]	22.14											
Intersection LOS	C											
Intersection V/C	0.557											

**Emissions**

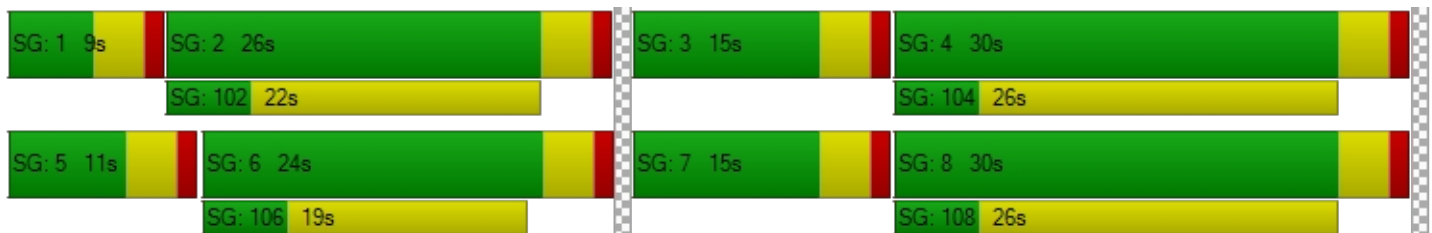
Vehicle Miles Traveled [mph]	26.03	323.90	1.16	24.00	215.07	39.94	18.48	9.69	10.03	0.63	17.17	17.80
Stops [stops/h]	90.37	631.16	1.58	118.20	586.20	88.72	158.00	56.11	58.96	6.81	110.89	120.88
Fuel consumption [US gal/h]	2.91	23.03	0.07	3.43	18.33	2.99	4.11	1.47	1.54	0.16	2.94	3.19
CO [g/h]	203.46	1609.56	4.77	239.41	1281.36	209.09	287.30	102.63	107.46	11.33	205.19	223.12
NOx [g/h]	39.59	313.16	0.93	46.58	249.31	40.68	55.90	19.97	20.91	2.21	39.92	43.41
VOC [g/h]	47.15	373.03	1.11	55.49	296.97	48.46	66.58	23.79	24.90	2.63	47.56	51.71

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	3.050			3.257			2.580			2.370		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	500			550			650			650		
d_b, Bicycle Delay [s]	22.50			21.03			18.23			18.23		
I_b,int, Bicycle LOS Score for Intersection	2.563			2.807			2.159			1.820		
Bicycle LOS	B			C			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 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	42.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	78	120	63	70	212	142	98	1376	115	114	969	40
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	29	0	0	2	5	302	0	20	247	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	26	0	0	44	0	0	35	0	0	12
Total Hourly Volume [veh/h]	94	145	79	85	257	130	124	1967	104	158	1419	36
Peak Hour Factor	0.7647	0.7647	0.7647	0.8573	0.8573	0.8573	0.9297	0.9297	0.9297	0.9590	0.9590	0.9590
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]	31	47	26	25	75	38	33	529	28	41	370	9
Total Analysis Volume [veh/h]	123	190	103	99	300	152	133	2116	112	165	1480	38
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	10	35	0	7	32	0	21	50	0	12	41	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	12	36	0	25	52	0	17	44	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	10	35	35	8	33	33	11	48	48	13	50	50
g / C, Green / Cycle	0.08	0.29	0.29	0.07	0.28	0.28	0.09	0.40	0.40	0.11	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.08	0.05	0.08	0.09	0.07	0.41	0.07	0.09	0.29	0.02
s, saturation flow rate [veh/h]	1810	1900	1682	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	149	555	491	121	999	446	163	2081	649	192	2164	675
d1, Uniform Delay [s]	54.20	32.72	32.83	55.29	34.29	34.71	53.62	35.87	23.05	52.76	28.46	20.81
k, delay calibration	0.21	0.50	0.50	0.23	0.50	0.50	0.11	0.11	0.11	0.29	0.11	0.11
l, 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]	18.97	1.23	1.46	24.23	0.77	2.07	9.49	13.74	0.12	24.04	0.39	0.03
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	0.82	0.28	0.29	0.82	0.30	0.34	0.82	1.02	0.17	0.86	0.68	0.06
d, Delay for Lane Group [s/veh]	73.17	33.94	34.29	79.52	35.06	36.79	63.11	49.61	23.17	76.80	28.84	20.84
Lane Group LOS	E	C	C	E	D	D	E	F	C	E	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.35	3.51	3.27	3.70	3.47	3.71	4.21	21.10	1.94	5.96	10.69	0.60
50th-Percentile Queue Length [ft/ln]	108.81	87.87	81.73	92.42	86.78	92.70	105.22	527.58	48.42	149.03	267.24	15.10
95th-Percentile Queue Length [veh/ln]	7.77	6.33	5.88	6.65	6.25	6.67	7.57	28.98	3.49	9.97	16.05	1.09
95th-Percentile Queue Length [ft/ln]	194.35	158.17	147.12	166.36	156.20	166.86	189.33	724.59	87.15	249.13	401.29	27.19

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	73.17	34.01	34.29	79.52	35.06	36.79	63.11	49.61	23.17	76.80	28.84	20.84
Movement LOS	E	C	C	E	D	D	E	F	C	E	C	C
d_A, Approach Delay [s/veh]	45.66			43.53			49.12			33.37		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	42.92											
Intersection LOS	D											
Intersection V/C	0.662											

**Emissions**

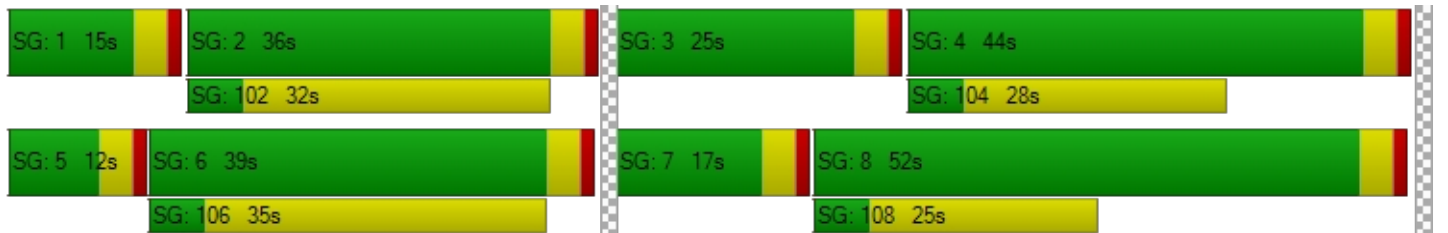
Vehicle Miles Traveled [mph]	71.43	88.62	81.53	17.33	52.53	26.61	15.08	239.97	12.70	41.24	369.88	9.50
Stops [stops/h]	130.58	105.45	98.08	110.91	208.27	111.24	126.26	1899.28	58.10	178.84	962.06	18.12
Fuel consumption [US gal/h]	5.90	5.40	4.99	3.58	6.53	3.43	4.56	64.67	2.03	7.28	38.93	0.82
CO [g/h]	412.63	377.67	349.05	249.90	456.48	239.98	318.58	4520.16	142.05	508.85	2721.20	57.00
NOx [g/h]	80.28	73.48	67.91	48.62	88.81	46.69	61.98	879.46	27.64	99.00	529.45	11.09
VOC [g/h]	95.63	87.53	80.90	57.92	105.79	55.62	73.83	1047.59	32.92	117.93	630.66	13.21

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.660			2.767			3.747			3.660		
Crosswalk LOS	B			C			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			800			667		
d_b, Bicycle Delay [s]	30.10			32.27			21.60			26.67		
I_b,int, Bicycle LOS Score for Intersection	1.924			2.050			2.877			2.492		
Bicycle LOS	A			B			C			B		

**Sequence**





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



**Intersection Level Of Service Report  
Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.236

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	49.21
Speed [mph]	45.00			45.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	57	149	13	10	307	26	13	24	54	18	23	18
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	20	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	4	0	0	8	0	0	16	0	0	6
Total Hourly Volume [veh/h]	69	209	12	12	391	23	16	29	49	22	28	16
Peak Hour Factor	0.7432	0.7432	0.7432	0.8693	0.8693	0.8693	0.7109	0.7109	0.7109	0.7770	0.7770	0.7770
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]	23	70	4	3	112	7	6	10	17	7	9	5
Total Analysis Volume [veh/h]	93	281	16	14	450	26	23	41	69	28	36	21
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	12	26	0	8	22	0	5	23	0	7	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	30	0	12	26	0	9	26	0	12	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	51	51	1	47	47	2	9	9	2	10	10
g / C, Green / Cycle	0.07	0.64	0.64	0.02	0.59	0.59	0.03	0.11	0.11	0.03	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.05	0.08	0.08	0.01	0.13	0.13	0.01	0.02	0.04	0.02	0.02	0.02
s, saturation flow rate [veh/h]	1810	1900	1864	1810	1900	1864	1810	1900	1615	1810	1900	1679
c, Capacity [veh/h]	122	1212	1189	31	1117	1096	46	219	186	53	227	201
d1, Uniform Delay [s]	36.69	5.70	5.70	38.92	7.77	7.78	38.49	31.99	32.70	38.27	31.48	31.53
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.54	0.21	0.21	9.58	0.44	0.45	8.27	0.41	1.22	7.75	0.25	0.32
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	0.76	0.12	0.12	0.45	0.21	0.22	0.50	0.19	0.37	0.52	0.13	0.14
d, Delay for Lane Group [s/veh]	46.23	5.91	5.92	48.51	8.21	8.23	46.76	32.40	33.92	46.02	31.73	31.85
Lane Group LOS	D	A	A	D	A	A	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.01	0.79	0.79	0.34	1.66	1.64	0.54	0.72	1.26	0.64	0.50	0.49
50th-Percentile Queue Length [ft/ln]	50.13	19.83	19.64	8.54	41.60	41.09	13.43	17.97	31.42	16.00	12.44	12.25
95th-Percentile Queue Length [veh/ln]	3.61	1.43	1.41	0.61	3.00	2.96	0.97	1.29	2.26	1.15	0.90	0.88
95th-Percentile Queue Length [ft/ln]	90.24	35.69	35.34	15.37	74.88	73.97	24.18	32.35	56.56	28.80	22.39	22.04

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	46.23	5.91	5.92	48.51	8.22	8.23	46.76	32.40	33.92	46.02	31.75	31.85
Movement LOS	D	A	A	D	A	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	15.52			9.37			35.67			36.47		
Approach LOS	B			A			D			D		
d_I, Intersection Delay [s/veh]	16.84											
Intersection LOS	B											
Intersection V/C	0.236											

**Emissions**

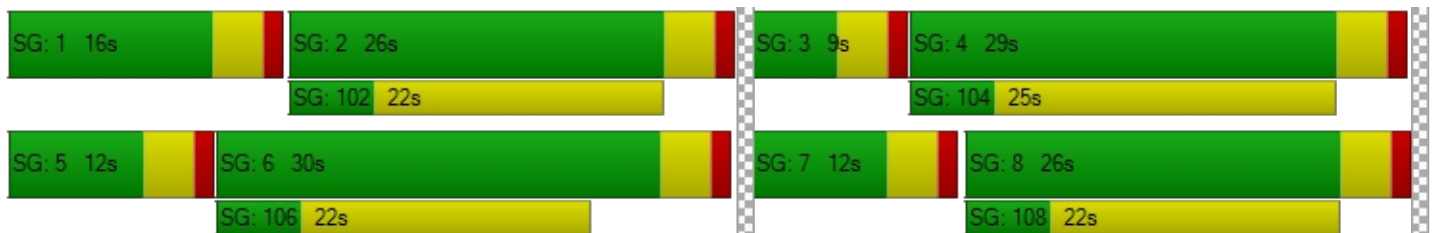
Vehicle Miles Traveled [mph]	46.22	74.25	73.35	8.13	139.22	137.21	1.01	1.81	3.04	14.04	14.45	14.14
Stops [stops/h]	90.24	35.69	35.34	15.37	74.88	73.97	24.18	32.35	56.56	28.80	22.39	22.04
Fuel consumption [US gal/h]	3.58	3.17	3.13	0.61	6.10	6.02	0.44	0.58	1.02	1.01	0.91	0.89
CO [g/h]	250.32	221.48	218.89	42.50	426.66	420.71	30.71	40.71	71.12	70.88	63.27	62.03
NOx [g/h]	48.70	43.09	42.59	8.27	83.01	81.85	5.97	7.92	13.84	13.79	12.31	12.07
VOC [g/h]	58.01	51.33	50.73	9.85	98.88	97.50	7.12	9.44	16.48	16.43	14.66	14.38

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.581			2.549			2.389			2.342		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	650			550			550			625		
d_b, Bicycle Delay [s]	18.23			21.03			21.03			18.91		
I_b,int, Bicycle LOS Score for Intersection	1.885			1.970			1.683			1.635		
Bicycle LOS	A			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.348

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	250.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	8	80	63	52	242	19	12	111	25	79	48	28
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	10	0	20	0	0	0	0	213	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	22	0	0	6	0	0	8	0	0	9
Total Hourly Volume [veh/h]	10	126	64	63	313	17	15	134	22	309	58	25
Peak Hour Factor	0.9406	0.9406	0.9406	0.8054	0.8054	0.8054	0.9545	0.9545	0.9545	0.8708	0.8708	0.8708
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]	3	33	17	20	97	5	4	35	6	89	17	7
Total Analysis Volume [veh/h]	11	134	68	78	389	21	16	140	23	355	67	29
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	26	0	6	26	0	26	22	0	30	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	30	0	10	30	0	20	26	0	24	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	1	40	40	5	44	44	2	10	10	19	28	28
g / C, Green / Cycle	0.01	0.44	0.44	0.06	0.48	0.48	0.02	0.11	0.11	0.21	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.06	0.04	0.11	0.01	0.01	0.04	0.01	0.20	0.02	0.02
s, saturation flow rate [veh/h]	1810	1900	1694	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	25	839	748	101	1749	781	35	399	178	389	1105	493
d1, Uniform Delay [s]	44.04	14.84	14.90	41.94	13.46	12.17	43.64	37.06	36.14	34.52	22.12	22.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.15	0.11	0.11
l, 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]	11.78	0.30	0.37	11.89	0.29	0.06	8.75	0.53	0.32	11.27	0.02	0.05
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	0.44	0.12	0.13	0.77	0.22	0.03	0.45	0.35	0.13	0.91	0.06	0.06
d, Delay for Lane Group [s/veh]	55.81	15.14	15.27	53.83	13.75	12.23	52.40	37.58	36.46	45.79	22.14	22.15
Lane Group LOS	E	B	B	D	B	B	D	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.32	1.28	1.23	1.97	2.11	0.21	0.42	1.39	0.45	8.31	0.47	0.41
50th-Percentile Queue Length [ft/ln]	8.06	31.98	30.87	49.16	52.63	5.31	10.61	34.76	11.30	207.80	11.86	10.35
95th-Percentile Queue Length [veh/ln]	0.58	2.30	2.22	3.54	3.79	0.38	0.76	2.50	0.81	13.04	0.85	0.75
95th-Percentile Queue Length [ft/ln]	14.51	57.56	55.57	88.50	94.73	9.56	19.10	62.56	20.35	326.01	21.35	18.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	55.81	15.17	15.27	53.83	13.75	12.23	52.40	37.58	36.46	45.79	22.14	22.15
Movement LOS	E	B	B	D	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	17.30			20.09			38.76			40.76		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	29.16											
Intersection LOS	C											
Intersection V/C	0.348											

**Emissions**

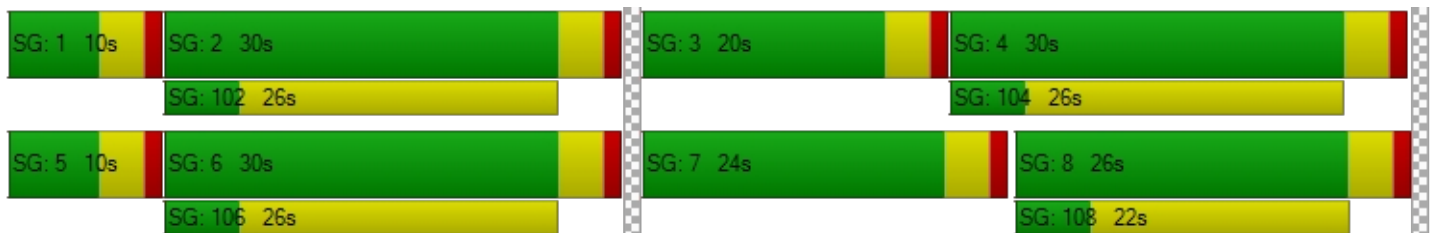
Vehicle Miles Traveled [mph]	5.52	51.89	49.54	38.76	193.32	10.44	2.67	23.37	3.84	152.81	28.84	12.48
Stops [stops/h]	12.90	51.17	49.40	78.66	168.41	8.49	16.98	111.22	18.08	332.49	37.95	16.57
Fuel consumption [US gal/h]	0.42	2.74	2.62	3.16	9.81	0.52	0.47	3.25	0.53	12.68	1.76	0.76
CO [g/h]	29.61	191.35	183.07	220.97	685.66	36.04	33.08	227.48	36.84	886.32	123.18	53.45
NOx [g/h]	5.76	37.23	35.62	42.99	133.40	7.01	6.44	44.26	7.17	172.45	23.97	10.40
VOC [g/h]	6.86	44.35	42.43	51.21	158.91	8.35	7.67	52.72	8.54	205.41	28.55	12.39

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.530			2.629			2.537			2.654		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			578			489			578		
d_b, Bicycle Delay [s]	22.76			22.76			25.69			22.76		
I_b,int, Bicycle LOS Score for Intersection	1.753			1.967			1.714			1.939		
Bicycle LOS	A			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	63.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.894

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	52	266	49	92	354	167	236	690	36	73	460	49
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100	1.2100
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	369	0	2	335	2	2	0	0	0	0	2
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	15	0	0	51	0	0	11	0	0	15
Total Hourly Volume [veh/h]	63	691	44	113	763	153	288	835	33	88	557	46
Peak Hour Factor	0.8368	0.8368	0.8368	0.8264	0.8264	0.8264	0.8504	0.8504	0.8504	0.8966	0.8966	0.8966
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]	19	206	13	34	231	46	85	245	10	25	155	13
Total Analysis Volume [veh/h]	75	826	53	137	923	185	339	982	39	98	621	51
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	36	0	17	48	0	19	35	0	6	22	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	44	0	16	51	0	24	39	0	11	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	5	42	42	10	47	47	20	35	35	7	22	22
g / C, Green / Cycle	0.05	0.39	0.39	0.09	0.43	0.43	0.18	0.31	0.31	0.06	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.04	0.23	0.23	0.08	0.49	0.11	0.19	0.27	0.27	0.05	0.18	0.18
s, saturation flow rate [veh/h]	1810	1900	1860	1810	1900	1615	1810	1900	1875	1810	1900	1850
c, Capacity [veh/h]	82	731	716	167	820	697	329	596	588	115	372	362
d1, Uniform Delay [s]	52.28	27.17	27.17	49.02	31.26	20.06	45.00	35.49	35.52	50.98	43.36	43.37
k, delay calibration	0.23	0.50	0.50	0.11	0.50	0.50	0.45	0.35	0.35	0.23	0.36	0.36
l, 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]	46.98	3.73	3.81	9.47	71.85	0.93	55.12	11.01	11.31	29.23	23.42	24.06
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	0.91	0.61	0.61	0.82	1.13	0.27	1.03	0.86	0.86	0.85	0.92	0.92
d, Delay for Lane Group [s/veh]	99.26	30.90	30.98	58.49	103.11	20.99	100.12	46.51	46.83	80.21	66.77	67.43
Lane Group LOS	F	C	C	E	F	C	F	D	D	F	E	E
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.08	9.58	9.39	4.02	36.28	3.06	13.84	14.39	14.28	3.58	11.32	11.10
50th-Percentile Queue Length [ft/ln]	76.91	239.49	234.84	100.60	907.11	76.57	346.00	359.71	357.01	89.43	282.95	277.40
95th-Percentile Queue Length [veh/ln]	5.54	14.66	14.42	7.24	50.28	5.51	20.26	20.61	20.48	6.44	16.84	16.56
95th-Percentile Queue Length [ft/ln]	138.44	366.39	360.50	181.07	1257.06	137.83	506.38	515.23	511.95	160.97	420.88	413.98

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	99.26	30.94	30.98	58.49	103.11	20.99	100.12	46.66	46.83	80.21	67.07	67.43
Movement LOS	F	C	C	E	F	C	F	D	D	F	E	E
d_A, Approach Delay [s/veh]	36.31			86.00			59.99			68.76		
Approach LOS	D			F			E			E		
d_I, Intersection Delay [s/veh]	63.81											
Intersection LOS	E											
Intersection V/C	0.894											

**Emissions**

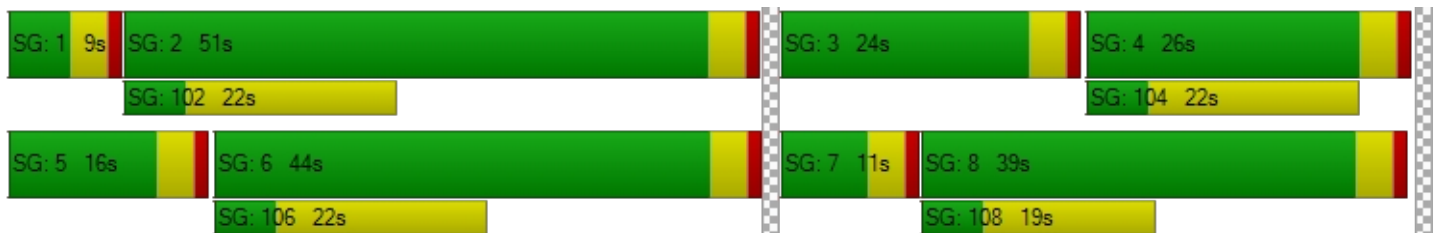
Vehicle Miles Traveled [mph]	5.37	31.82	31.15	39.62	266.93	53.50	31.42	47.59	47.05	11.62	40.36	39.34
Stops [stops/h]	100.68	313.52	307.43	131.69	1187.49	100.24	452.94	470.89	467.36	117.07	370.41	363.14
Fuel consumption [US gal/h]	2.95	7.78	7.63	4.63	43.28	3.87	11.51	10.21	10.15	2.92	8.95	8.78
CO [g/h]	206.26	543.96	533.44	323.35	3025.19	270.55	804.58	713.94	709.17	204.31	625.44	613.83
NOx [g/h]	40.13	105.83	103.79	62.91	588.59	52.64	156.54	138.91	137.98	39.75	121.69	119.43
VOC [g/h]	47.80	126.07	123.63	74.94	701.12	62.70	186.47	165.46	164.36	47.35	144.95	142.26

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.909			3.123			2.851			2.781		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	727			855			636			400		
d_b, Bicycle Delay [s]	22.27			18.04			25.57			35.20		
I_b,int, Bicycle LOS Score for Intersection	2.359			3.698			2.691			2.207		
Bicycle LOS	B			D			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 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.089

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	←		→		←→→	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	1	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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	445	461	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	446	462	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	112	116	0	0	0
Total Analysis Volume [veh/h]	0	446	462	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	86	77	0	26	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.09	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.67	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.04	0.04	0.00	0.00	0.00	0.00
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	0.00	0.09	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.42	0.46	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.76	0.83	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.34		0.71		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	A					
Intersection V/C	0.089					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	68.68	29.70	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.53	1.65	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.40	1.11	0.00	0.00	0.00	0.00
CO [g/h]	0.00	168.03	77.30	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	32.69	15.04	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	38.94	17.92	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.799		2.907		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.805		1.814		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↶↷		↶↷	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	108	3	83	201	54	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1800	1.1800	1.1800	1.1800	1.1800	1.1800
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]	127	4	98	237	64	73
Peak Hour Factor	0.7370	0.7370	0.7820	0.7820	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	31	76	18	21
Total Analysis Volume [veh/h]	172	5	125	303	73	83
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.18	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	7.80	0.00	15.55	9.09
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.29	0.00	0.63	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.28	0.00	15.82	7.06
d_A, Approach Delay [s/veh]	0.00		2.28		12.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.76					
Intersection LOS	C					

**Intersection Level Of Service Report**

**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↗	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	445	461	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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↑		↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration					R	
Turning Movement	Left	Thru	Thru	Right	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	0	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	445	461	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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	0	14	0	1	0	0	0	0	0	0	16
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	445	0	0	461	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]	0	445	14	0	462	0	0	0	0	0	0	16
Peak Hour 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
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]	0	111	4	0	116	0	0	0	0	0	0	4
Total Analysis Volume [veh/h]	0	445	14	0	462	0	0	0	0	0	0	16
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	10.05	0.00	0.00	10.03	0.00	0.00	0.00	0.00	10.44	13.72	18.22	10.56
Movement LOS	B	A	A	B	A	A			B	B	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.85
d_A, Approach Delay [s/veh]	0.00			0.00			10.44			10.56		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.18											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	45.9
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	160.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	95	26	27	490	394	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1800	1.1800	1.1800	1.1800	1.1800	1.1800
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	8	22	0	0	22
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]	133	39	54	578	465	61
Peak Hour Factor	1.0000	1.0000	0.9141	0.9141	0.8277	0.8277
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	10	15	158	140	18
Total Analysis Volume [veh/h]	133	39	59	632	562	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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.61	0.06	0.06	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	45.88	34.59	9.01	0.00	0.00	0.00
Movement LOS	E	D	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.31	4.31	0.20	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	107.83	107.83	4.92	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	43.32		0.77		0.00	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	5.33					
Intersection LOS	E					

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Orange Ave	Orange Ave
Approach	Eastbound	Westbound
Lane Configuration	↑↑	↑↑
Turning Movement	Thru	Thru
Lane Width [ft]	12.00	12.00
No. of Lanes in Entry Pocket	1	0
Entry Pocket Length [ft]	100.00	100.00
No. of Lanes in Exit Pocket	0	0
Exit Pocket Length [ft]	0.00	0.00
Speed [mph]	45.00	45.00
Grade [%]	0.00	0.00
Crosswalk	No	No

**Volumes**

Name	Orange Ave	Orange Ave
Base Volume Input [veh/h]	326	420
Base Volume Adjustment Factor	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00
Growth Factor	1.1800	1.1800
In-Process Volume [veh/h]	0	0
Site-Generated Trips [veh/h]	22	8
Diverted Trips [veh/h]	0	0
Pass-by Trips [veh/h]	0	0
Existing Site Adjustment Volume [veh/h]	0	0
Other Volume [veh/h]	0	0
Total Hourly Volume [veh/h]	407	504
Peak Hour Factor	0.9141	0.8277
Other Adjustment Factor	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	152
Total Analysis Volume [veh/h]	445	609
Pedestrian Volume [ped/h]	0	0

**Intersection Settings**

Priority Scheme	Free	Free
Flared Lane		
Storage Area [veh]	0	0
Two-Stage Gap Acceptance		
Number of Storage Spaces in Median	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00
Movement LOS	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00
d_A, Approach Delay [s/veh]	0.00	0.00
Approach LOS	A	A
d_I, Intersection Delay [s/veh]		0.00
Intersection LOS		A

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	22	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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.61	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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	22	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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name			Frontage Rd			
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	0	2	0	4
Auxiliary Signal Groups						
Maximum Green [s]	27	0	0	27	0	25
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	5	0	0	5	0	5
Pedestrian Clearance [s]	14	0	0	10	0	20
Delayed Vehicle Green [s]	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	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	10	0	0	10	0	5
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A
Critical Lane Group	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					
Intersection V/C	0.000					

**Emissions**

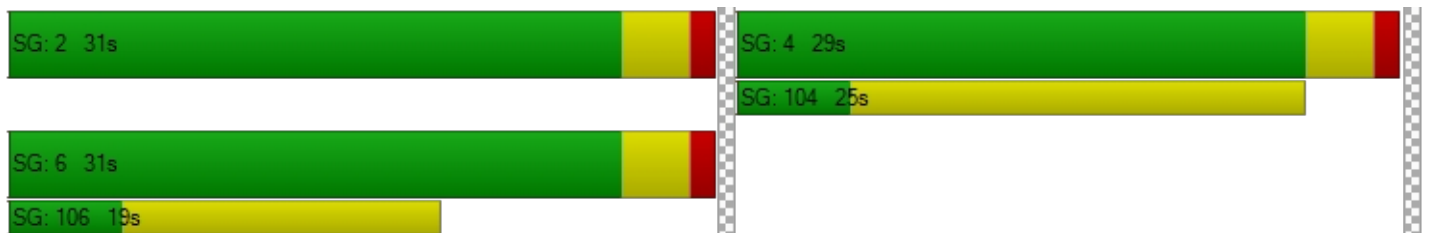
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.112	2.281	1.921
Crosswalk LOS	B	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21
I_b,int, Bicycle LOS Score for Intersection	1.560	1.560	1.560
Bicycle LOS	A	A	A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	45.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

**Intersection Setup**

Name	Barrett Ave		Barrett Ave			
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	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave			
Base Volume Input [veh/h]	0	94	0	0	91	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.1800	1.0000	1.0000	1.1800	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]	0	111	0	0	107	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	28	0	0	27	0
Total Analysis Volume [veh/h]	0	111	0	0	107	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.41	0.00	9.23	9.01
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.38	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	9.40	9.40
d_A, Approach Delay [s/veh]	0.00		3.71		9.23	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.53					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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Harvest Landing

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Scenario 1 GP AM  
10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	WB Left	1.554	350.3	F
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	SB Left	1.371	317.5	F
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.799	39.5	D
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	NB Left	1.138	133.0	F
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	NB Thru	1.001	101.9	F
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	EB Left	0.775	30.9	C
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	SB Left	0.647	43.8	D
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.638	32.7	C
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	WB Left	0.661	31.5	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	NB Right	1.449	109.6	F
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	NB Left	0.718	37.1	D
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	EB Thru	1.058	53.6	F
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	EB Left	0.706	50.6	D
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.676	27.4	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	WB Right	0.362	21.8	C
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	WB Left	0.291	16.1	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.756	45.4	D

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	WB Left	0.672	35.9	D
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.719	49.2	E
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	WB Right	0.808	21.8	C
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.006	15.5	C
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	EB Left	1.003	40.4	E
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Right	0.790	45.8	D
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	SB Left	0.762	46.5	D
25	Nuevo Rd/Redlands Ave	Signalized	HCM 7th Edition	WB Thru	0.746	53.0	D
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.805	47.7	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.593	21.9	C
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	WB Right	1.074	85.2	F
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	EB Right	0.471	17.5	B
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	1.004	44.0	E
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.594	11.3	B
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	SB Left	1.063	117.6	F
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.667	48.8	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.320	26.5	C
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	EB Left	0.342	23.1	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	SB Left	0.800	49.5	D
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.094	0.5	A
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.175	13.4	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Right	0.010	10.3	B
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.137	20.3	C
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.005	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.059	8.9	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	350.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.554

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	1192	1825	403	274	2268	300	50	415	116	452	1336	175
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	101	0	0	75	0	0	29	0	0	44
Total Hourly Volume [veh/h]	1192	1825	302	274	2268	225	50	415	87	452	1336	131
Peak Hour 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
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]	298	456	76	69	567	56	13	104	22	113	334	33
Total Analysis Volume [veh/h]	1192	1825	302	274	2268	225	50	415	87	452	1336	131
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	22	0	14	25	0	5	35	0	13	43	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	36	47	0	18	29	0	9	39	0	16	46	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	32	43	43	14	25	25	4	35	35	12	43	43
g / C, Green / Cycle	0.27	0.36	0.36	0.12	0.21	0.21	0.04	0.29	0.29	0.10	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.66	0.35	0.19	0.15	0.45	0.47	0.03	0.14	0.14	0.25	0.39	0.40
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1816	1810	1900	1788	1810	1900	1842
c, Capacity [veh/h]	483	1862	581	211	759	381	65	551	519	181	673	652
d1, Uniform Delay [s]	44.00	37.99	30.25	53.00	47.41	47.41	57.33	34.96	35.02	54.00	38.75	38.75
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.50	0.50	0.50
l, 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]	667.83	16.64	3.30	164.35	526.56	566.57	16.80	0.62	0.67	690.25	62.14	74.38
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	2.47	0.98	0.52	1.30	2.16	2.24	0.77	0.47	0.47	2.50	1.09	1.12
d, Delay for Lane Group [s/veh]	711.83	54.63	33.55	217.35	573.98	613.99	74.13	35.58	35.69	744.25	100.89	113.13
Lane Group LOS	F	D	C	F	F	F	E	D	D	F	F	F
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	103.25	19.59	7.14	15.82	66.45	70.93	1.77	6.07	5.79	40.01	30.30	31.59
50th-Percentile Queue Length [ft/ln]	2581.34	489.73	178.57	395.57	1661.30	1773.30	44.35	151.68	144.74	1000.25	757.55	789.81
95th-Percentile Queue Length [veh/ln]	162.64	26.85	11.53	24.71	103.98	110.95	3.19	10.11	9.74	62.40	41.75	44.13
95th-Percentile Queue Length [ft/ln]	4065.91	671.20	288.14	617.71	2599.59	2773.78	79.82	252.67	243.39	1559.89	1043.81	1103.28

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	711.83	54.63	33.55	217.35	585.06	613.99	74.13	35.62	35.69	744.25	106.40	113.13
Movement LOS	F	D	C	F	F	F	E	D	D	F	F	F
d_A, Approach Delay [s/veh]	288.74			551.00			39.12			257.10		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	350.35											
Intersection LOS	F											
Intersection V/C	1.554											

**Emissions**

Vehicle Miles Traveled [mph]	597.25	914.41	151.32	17.07	102.15	53.16	3.49	17.96	17.09	29.73	48.28	48.20
Stops [stops/h]	3097.61	1763.04	214.28	474.69	3987.12	2127.96	53.22	182.02	173.68	1200.30	909.05	947.78
Fuel consumption [US gal/h]	231.61	73.55	9.91	18.60	244.55	134.88	1.54	4.74	4.52	84.38	28.03	30.31
CO [g/h]	16189.7	5141.14	692.90	1300.42	17094.0	9427.77	107.33	331.40	316.15	5898.42	1959.15	2118.34
NOx [g/h]	3149.94	1000.28	134.81	253.02	3325.87	1834.30	20.88	64.48	61.51	1147.62	381.18	412.15
VOC [g/h]	3752.13	1191.51	160.59	301.39	3961.70	2184.98	24.88	76.81	73.27	1367.02	454.05	490.95

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	4.028			3.738			3.353			3.271		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	717			417			583			700		
d_b, Bicycle Delay [s]	24.70			37.60			30.10			25.35		
I_b,int, Bicycle LOS Score for Intersection	3.441			3.123			2.039			3.179		
Bicycle LOS	C			C			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	317.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.371

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	114	2201	215	160	2612	32	1188	879	978	310	199	272
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	54	0	0	8	0	0	245	0	0	68
Total Hourly Volume [veh/h]	114	2201	161	160	2612	24	1188	879	733	310	199	204
Peak Hour 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
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]	29	550	40	40	653	6	297	220	183	78	50	51
Total Analysis Volume [veh/h]	114	2201	161	160	2612	24	1188	879	733	310	199	204
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	14	22	0	11	19	0	0	29	0	0	32	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	35	0	10	36	0	0	42	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated 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]	5	31	31	6	32	32	44	44	44	23	23	23
g / C, Green / Cycle	0.04	0.26	0.26	0.05	0.27	0.27	0.36	0.36	0.36	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.06	0.43	0.44	0.09	0.48	0.48	0.66	0.46	0.45	0.17	0.10	0.13
s, saturation flow rate [veh/h]	1810	3618	1835	1810	3618	1891	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	75	938	476	90	968	506	659	692	588	350	367	312
d1, Uniform Delay [s]	57.50	44.44	44.44	57.00	43.94	43.94	38.16	38.16	38.16	47.12	43.61	44.69
k, delay calibration	0.11	0.50	0.50	0.36	0.50	0.50	0.50	0.50	0.50	0.19	0.11	0.11
l, 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]	244.74	302.15	319.00	375.78	357.54	364.38	367.66	133.11	124.86	12.28	1.24	2.31
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	1.51	1.66	1.69	1.77	1.79	1.79	1.80	1.27	1.25	0.89	0.54	0.65
d, Delay for Lane Group [s/veh]	302.24	346.58	363.44	432.78	401.48	408.32	405.82	171.27	163.02	59.40	44.86	47.00
Lane Group LOS	F	F	F	F	F	F	F	F	F	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.36	52.76	55.76	12.12	61.88	65.66	85.75	44.98	36.88	10.00	5.36	5.70
50th-Percentile Queue Length [ft/ln]	183.96	1318.99	1393.89	303.01	1546.98	1641.46	2143.78	1124.45	922.09	250.10	134.05	142.50
95th-Percentile Queue Length [veh/ln]	12.92	81.41	86.04	20.22	96.20	101.76	134.14	65.09	53.80	15.19	9.16	9.62
95th-Percentile Queue Length [ft/ln]	323.09	2035.18	2150.92	505.55	2405.06	2544.02	3353.50	1627.23	1345.09	379.78	229.00	240.39

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	302.24	351.51	363.44	432.78	403.79	408.32	405.82	171.27	163.02	59.40	44.86	47.00
Movement LOS	F	F	F	F	F	F	F	F	F	E	D	D
d_A, Approach Delay [s/veh]	350.01			405.49			268.63			51.79		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	317.53											
Intersection LOS	F											
Intersection V/C	1.371											

**Emissions**

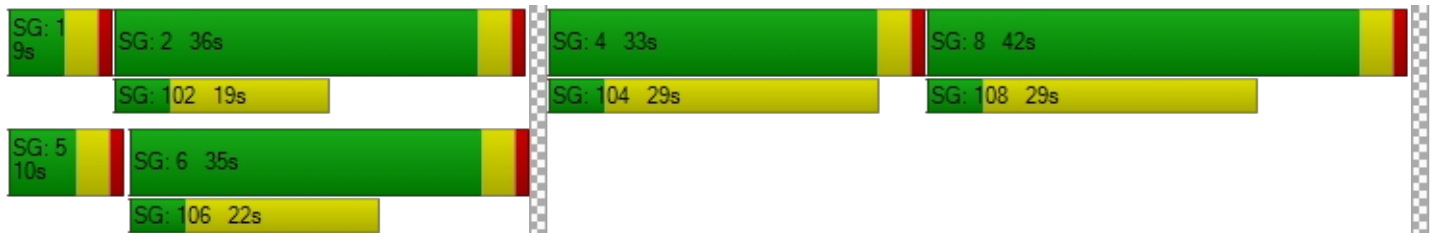
Vehicle Miles Traveled [mph]	187.55	2563.52	1322.32	80.17	866.18	454.58	99.24	73.43	61.23	36.86	23.66	24.26
Stops [stops/h]	220.75	3165.58	1672.67	363.62	3712.75	1969.75	2572.53	1349.34	1106.50	300.12	160.87	171.00
Fuel consumption [US gal/h]	16.18	237.11	125.56	21.36	217.06	115.44	126.91	46.52	37.37	8.02	4.24	4.50
CO [g/h]	1131.23	16573.8	8776.38	1492.86	15172.5	8069.47	8871.33	3251.46	2612.51	560.28	296.67	314.54
NOx [g/h]	220.10	3224.67	1707.56	290.46	2952.04	1570.03	1726.04	632.62	508.30	109.01	57.72	61.20
VOC [g/h]	262.17	3841.15	2034.01	345.98	3516.39	1870.18	2056.02	753.56	605.47	129.85	68.76	72.90

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	4.029		3.971		3.597		2.941	
Crosswalk LOS	D		D		D		C	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	517		533		633		483	
d_b, Bicycle Delay [s]	33.00		32.27		28.02		34.50	
I_b,int, Bicycle LOS Score for Intersection	2.951		3.102		6.584		2.848	
Bicycle LOS	C		C		F		C	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	39.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	181	2251	0	137	2070	366	305	153	74	0	276	336
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	92	0	0	19	0	0	84
Total Hourly Volume [veh/h]	181	2251	0	137	2070	274	305	153	55	0	276	252
Peak Hour 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
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]	45	563	0	34	518	69	76	38	14	0	69	63
Total Analysis Volume [veh/h]	181	2251	0	137	2070	274	305	153	55	0	276	252
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	5	35	0	15	48	0	5	38	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	9	39	0	21	52	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	6	52	52	5	51	51	17	37	37	0	20	20
g / C, Green / Cycle	0.05	0.47	0.47	0.05	0.46	0.46	0.15	0.34	0.34	0.00	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.43	0.00	0.04	0.40	0.17	0.17	0.04	0.03	0.00	0.05	0.16
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	192	2445	763	160	2398	748	280	1215	542	2	942	294
d1, Uniform Delay [s]	51.83	27.08	0.00	52.15	26.39	19.07	46.50	25.33	25.11	0.00	38.87	43.60
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.48	0.11	0.11	0.11	0.11	0.11
l, 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]	19.39	7.11	0.00	12.31	4.41	1.38	79.17	0.05	0.08	0.00	0.17	7.14
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	0.94	0.92	0.00	0.86	0.86	0.37	1.09	0.13	0.10	0.00	0.29	0.86
d, Delay for Lane Group [s/veh]	71.23	34.19	0.00	64.45	30.81	20.45	125.67	25.38	25.19	0.00	39.04	50.74
Lane Group LOS	E	C	A	E	C	C	F	C	C	A	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.93	18.26	0.00	2.10	15.72	4.52	13.52	1.34	0.96	0.00	2.10	6.99
50th-Percentile Queue Length [ft/ln]	73.31	456.55	0.00	52.45	393.01	112.93	337.90	33.60	24.12	0.00	52.46	174.63
95th-Percentile Queue Length [veh/ln]	5.28	25.27	0.00	3.78	22.22	8.00	20.36	2.42	1.74	0.00	3.78	11.32
95th-Percentile Queue Length [ft/ln]	131.96	631.76	0.00	94.41	555.57	200.07	509.07	60.48	43.41	0.00	94.43	282.99

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.23	34.19	0.00	64.45	30.81	20.45	125.67	25.38	25.19	0.00	39.04	50.74
Movement LOS	E	C	A	E	C	C	F	C	C	A	D	D
d_A, Approach Delay [s/veh]	36.95			31.52			84.99			44.63		
Approach LOS	D			C			F			D		
d_I, Intersection Delay [s/veh]	39.51											
Intersection LOS	D											
Intersection V/C	0.799											

**Emissions**

Vehicle Miles Traveled [mph]	67.52	839.72	0.00	225.39	3405.46	450.77	45.63	22.89	8.23	0.00	33.53	30.61
Stops [stops/h]	191.95	1792.98	0.00	137.32	1543.47	147.84	442.34	87.97	31.57	0.00	206.04	228.60
Fuel consumption [US gal/h]	7.32	66.74	0.00	11.23	148.90	18.43	14.86	2.67	0.96	0.00	5.90	6.49
CO [g/h]	511.96	4665.05	0.00	784.96	10408.0	1288.26	1038.91	186.52	66.86	0.00	412.66	453.90
NOx [g/h]	99.61	907.65	0.00	152.72	2025.02	250.65	202.14	36.29	13.01	0.00	80.29	88.31
VOC [g/h]	118.65	1081.17	0.00	181.92	2412.15	298.57	240.78	43.23	15.50	0.00	95.64	105.20

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.604			3.879			2.915			3.126		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	655			636			873			655		
d_b, Bicycle Delay [s]	24.89			25.57			17.47			24.89		
I_b,int, Bicycle LOS Score for Intersection	2.897			2.975			1.999			1.896		
Bicycle LOS	C			C			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 4: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	133.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.138

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	862	2475	56	45	2097	797	136	36	253	16	97	9
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	14	0	0	199	0	0	63	0	0	2
Total Hourly Volume [veh/h]	862	2475	42	45	2097	598	136	36	190	16	97	7
Peak Hour 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
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]	216	619	11	11	524	150	34	9	48	4	24	2
Total Analysis Volume [veh/h]	862	2475	42	45	2097	598	136	36	190	16	97	7
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		

Version 2024 (SP 0-6)

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	22	0	8	22	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	44	40	0	35	31	0	12	36	0	9	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	40	82	82	4	46	46	8	16	16	2	10	10
g / C, Green / Cycle	0.33	0.68	0.68	0.03	0.38	0.38	0.07	0.14	0.14	0.02	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.48	0.68	0.03	0.02	0.49	0.54	0.08	0.02	0.12	0.01	0.03	0.03
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1703	1810	1900	1615	1810	1900	1856
c, Capacity [veh/h]	603	2459	1098	60	1374	647	121	259	220	31	165	161
d1, Uniform Delay [s]	40.00	19.22	6.32	57.50	37.22	37.22	56.00	45.63	50.73	58.46	51.43	51.46
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.42	0.11	0.11	0.11	0.11	0.11
l, 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]	202.57	19.73	0.07	16.52	139.50	193.80	113.67	0.24	9.65	12.26	1.08	1.14
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	1.43	1.01	0.04	0.75	1.30	1.41	1.13	0.14	0.86	0.51	0.32	0.32
d, Delay for Lane Group [s/veh]	242.57	38.95	6.38	74.02	176.72	231.02	169.67	45.87	60.38	70.72	52.52	52.60
Lane Group LOS	F	F	A	E	F	F	F	D	E	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	50.82	33.96	0.33	1.60	45.56	52.65	7.43	0.96	6.12	0.59	1.51	1.51
50th-Percentile Queue Length [ft/ln]	1270.52	849.08	8.14	40.00	1138.99	1316.20	185.70	24.00	153.01	14.63	37.87	37.73
95th-Percentile Queue Length [veh/ln]	76.28	43.78	0.59	2.88	66.67	79.02	12.36	1.73	10.18	1.05	2.73	2.72
95th-Percentile Queue Length [ft/ln]	1906.94	1094.55	14.66	72.00	1666.67	1975.49	308.99	43.20	254.44	26.34	68.17	67.91

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	242.57	38.95	6.38	74.02	184.85	231.02	169.67	45.87	60.38	70.72	52.55	52.60
Movement LOS	F	F	A	E	F	F	F	D	E	E	D	D
d_A, Approach Delay [s/veh]	90.49			193.11			99.99			54.98		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	132.96											
Intersection LOS	F											
Intersection V/C	1.138											

**Emissions**

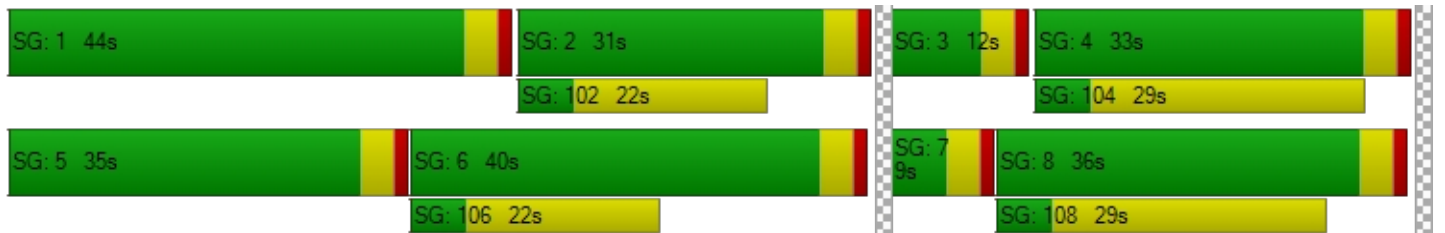
Vehicle Miles Traveled [mph]	433.96	1245.99	21.14	16.79	665.10	340.25	7.49	1.98	10.46	1.06	3.47	3.45
Stops [stops/h]	1524.62	2037.80	9.77	48.00	2733.58	1579.44	222.84	28.80	183.61	17.56	45.45	45.27
Fuel consumption [US gal/h]	76.37	87.66	0.90	1.85	120.89	74.17	6.66	0.63	4.11	0.40	1.03	1.03
CO [g/h]	5338.52	6127.56	62.97	129.31	8450.25	5184.65	465.27	43.91	287.57	28.16	72.07	71.78
NOx [g/h]	1038.68	1192.20	12.25	25.16	1644.11	1008.74	90.53	8.54	55.95	5.48	14.02	13.97
VOC [g/h]	1237.25	1420.12	14.59	29.97	1958.43	1201.59	107.83	10.18	66.65	6.53	16.70	16.63

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.832			4.054			2.901			2.377		
Crosswalk LOS	D			D			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			450			533			483		
d_b, Bicycle Delay [s]	29.40			36.04			32.27			34.50		
I_b,int, Bicycle LOS Score for Intersection	4.359			3.176			1.910			1.660		
Bicycle LOS	E			C			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	101.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.001

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	320	1646	127	190	1283	822	759	828	84	116	1365	176
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	32	0	0	206	0	0	21	0	0	44
Total Hourly Volume [veh/h]	320	1646	95	190	1283	616	759	828	63	116	1365	132
Peak Hour 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
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]	80	412	24	48	321	154	190	207	16	29	341	33
Total Analysis Volume [veh/h]	320	1646	95	190	1283	616	759	828	63	116	1365	132
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	38	0	6	39	0	8	34	0	6	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	47	0	11	44	0	26	52	0	10	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	10	43	43	7	40	40	22	48	48	6	32	32
g / C, Green / Cycle	0.08	0.36	0.36	0.06	0.33	0.33	0.18	0.40	0.40	0.05	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.09	0.45	0.06	0.05	0.35	0.38	0.22	0.16	0.04	0.03	0.28	0.28
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1815
c, Capacity [veh/h]	293	1296	579	205	1206	538	644	2078	648	171	965	484
d1, Uniform Delay [s]	55.00	38.50	26.25	56.25	40.00	40.00	49.00	25.59	22.37	56.17	44.00	44.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.14	0.11	0.11	0.11	0.11	0.48
l, 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]	53.86	127.61	0.61	16.14	44.75	85.14	85.01	0.12	0.06	4.68	23.03	48.94
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	1.09	1.27	0.16	0.93	1.06	1.14	1.18	0.40	0.10	0.68	1.03	1.03
d, Delay for Lane Group [s/veh]	108.86	166.11	26.86	72.38	84.75	125.14	134.01	25.72	22.44	60.84	67.03	92.94
Lane Group LOS	F	F	C	E	F	F	F	C	C	E	F	F
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.50	40.98	1.90	3.25	24.37	27.80	16.76	5.26	1.06	1.77	16.52	20.07
50th-Percentile Queue Length [ft/ln]	162.55	1024.48	47.43	81.34	609.22	694.95	418.95	131.40	26.39	44.31	412.97	501.63
95th-Percentile Queue Length [veh/ln]	11.01	59.71	3.41	5.86	33.84	39.72	25.41	9.02	1.90	3.19	23.65	27.98
95th-Percentile Queue Length [ft/ln]	275.28	1492.65	85.37	146.42	846.02	993.01	635.25	225.40	47.50	79.76	591.16	699.52

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	108.86	166.11	26.86	72.38	84.75	125.14	134.01	25.72	22.44	60.84	74.02	92.94
Movement LOS	F	F	C	E	F	F	F	C	C	E	E	F
d_A, Approach Delay [s/veh]	150.80			95.54			75.40			74.62		
Approach LOS	F			F			E			E		
d_I, Intersection Delay [s/veh]	101.87											
Intersection LOS	F											
Intersection V/C	1.001											

**Emissions**

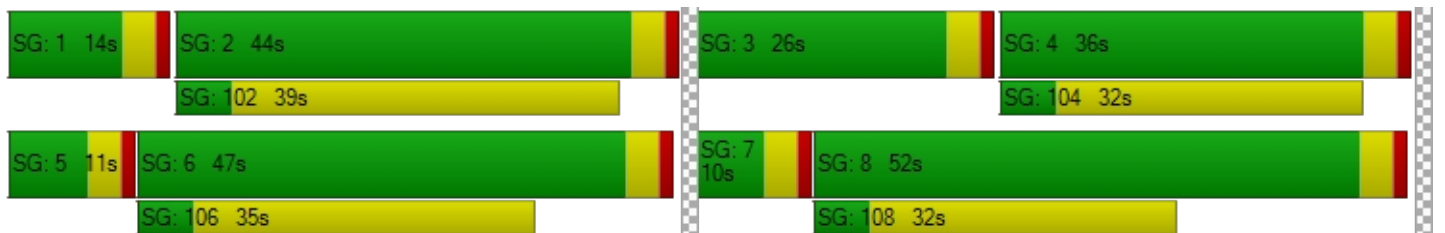
Vehicle Miles Traveled [mph]	158.98	817.75	47.20	95.65	645.90	310.11	189.69	206.93	15.74	12.60	108.23	54.34
Stops [stops/h]	390.11	2458.75	56.91	195.23	1462.13	833.93	1005.48	473.05	31.67	106.34	991.13	601.95
Fuel consumption [US gal/h]	17.39	114.23	2.84	8.50	62.44	36.68	45.72	20.04	1.40	3.83	35.62	22.46
CO [g/h]	1215.39	7984.77	198.84	594.45	4364.88	2564.18	3195.57	1400.93	98.04	267.91	2489.99	1570.08
NOx [g/h]	236.47	1553.55	38.69	115.66	849.25	498.90	621.74	272.57	19.07	52.13	484.46	305.48
VOC [g/h]	281.68	1850.55	46.08	137.77	1011.60	594.27	740.60	324.68	22.72	62.09	577.08	363.88

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.440			3.925			3.724			3.429		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	717			667			800			533		
d_b, Bicycle Delay [s]	24.70			26.67			21.60			32.27		
I_b,int, Bicycle LOS Score for Intersection	3.286			3.453			2.479			2.471		
Bicycle LOS	C			C			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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	30.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.775

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	1	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	351	1962	8	15	1565	307	128	151	104	18	147	21
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	2	0	0	77	0	0	26	0	0	5
Total Hourly Volume [veh/h]	351	1962	6	15	1565	230	128	151	78	18	147	16
Peak Hour 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
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]	88	491	2	4	391	58	32	38	20	5	37	4
Total Analysis Volume [veh/h]	351	1962	6	15	1565	230	128	151	78	18	147	16
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	26	0	11	26	0	5	32	0	5	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	27	62	0	9	44	0	13	36	0	13	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	23	82	82	2	61	61	9	18	18	2	11	11
g / C, Green / Cycle	0.19	0.68	0.68	0.02	0.50	0.50	0.08	0.15	0.15	0.02	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.19	0.36	0.36	0.01	0.43	0.14	0.07	0.04	0.05	0.01	0.08	0.01
s, saturation flow rate [veh/h]	1810	3618	1897	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	347	2459	1289	30	1825	815	136	547	244	35	181	154
d1, Uniform Delay [s]	48.50	9.57	9.58	58.51	25.96	17.17	55.25	45.11	45.42	58.29	53.21	49.58
k, delay calibration	0.45	0.50	0.50	0.11	0.50	0.50	0.32	0.11	0.11	0.11	0.11	0.11
l, 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]	48.70	0.81	1.53	12.26	5.46	0.87	48.67	0.27	0.75	11.37	8.36	0.29
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	1.01	0.52	0.53	0.50	0.86	0.28	0.94	0.28	0.32	0.52	0.81	0.10
d, Delay for Lane Group [s/veh]	97.20	10.38	11.11	70.78	31.42	18.04	103.92	45.38	46.17	69.66	61.57	49.88
Lane Group LOS	F	B	B	E	C	B	F	D	D	E	E	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	14.72	7.40	8.02	0.55	20.17	3.85	5.65	2.01	2.11	0.65	4.73	0.45
50th-Percentile Queue Length [ft/ln]	368.08	184.92	200.61	13.86	504.13	96.20	141.34	50.13	52.87	16.20	118.29	11.24
95th-Percentile Queue Length [veh/ln]	21.15	11.86	12.67	1.00	27.53	6.93	9.55	3.61	3.81	1.17	8.30	0.81
95th-Percentile Queue Length [ft/ln]	528.83	296.42	316.75	24.95	688.24	173.17	238.82	90.23	95.17	29.15	207.47	20.24

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	97.20	10.63	11.11	70.78	31.42	18.04	103.92	45.38	46.17	69.66	61.57	49.88
Movement LOS	F	B	B	E	C	B	F	D	D	E	E	D
d_A, Approach Delay [s/veh]	23.74			30.05			66.54			61.34		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	30.92											
Intersection LOS	C											
Intersection V/C	0.775											

**Emissions**

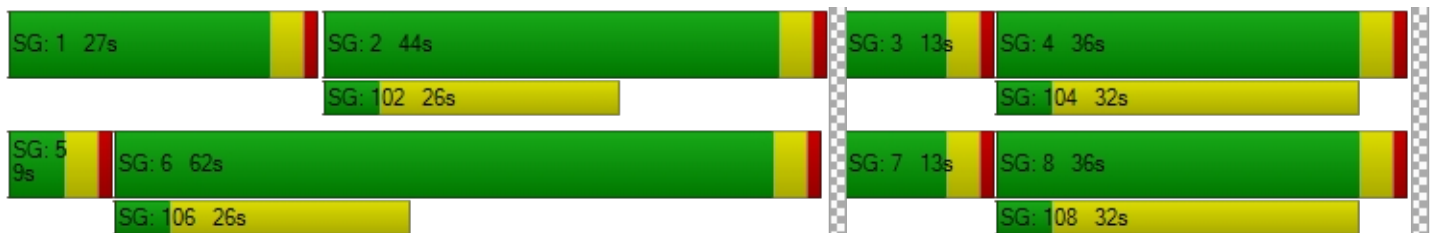
Vehicle Miles Traveled [mph]	68.92	253.44	132.98	7.45	777.51	114.27	64.20	75.73	39.12	4.83	39.42	4.29
Stops [stops/h]	441.70	443.80	240.73	16.64	1209.91	115.45	169.60	120.31	63.45	19.44	141.95	13.49
Fuel consumption [US gal/h]	14.80	16.93	9.08	0.61	48.70	6.19	6.43	5.19	2.70	0.59	4.41	0.43
CO [g/h]	1034.26	1183.57	634.88	42.97	3404.03	432.41	449.38	362.48	188.80	40.91	308.38	29.87
NOx [g/h]	201.23	230.28	123.52	8.36	662.30	84.13	87.43	70.53	36.73	7.96	60.00	5.81
VOC [g/h]	239.70	274.30	147.14	9.96	788.92	100.22	104.15	84.01	43.76	9.48	71.47	6.92

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.449			3.276			2.730			2.543		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	967			667			533			533		
d_b, Bicycle Delay [s]	16.02			26.67			32.27			32.27		
I_b,int, Bicycle LOS Score for Intersection	2.836			3.116			1.876			1.867		
Bicycle LOS	C			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	113	579	40	145	584	280	166	600	62	161	929	402
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	10	0	0	70	0	0	16	0	0	101
Total Hourly Volume [veh/h]	113	579	30	145	584	210	166	600	46	161	929	301
Peak Hour 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
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]	28	145	8	36	146	53	42	150	12	40	232	75
Total Analysis Volume [veh/h]	113	579	30	145	584	210	166	600	46	161	929	301
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	14	26	0	16	28	0	18	59	0	19	60	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated 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]	9	36	36	11	38	38	13	45	45	13	44	44
g / C, Green / Cycle	0.08	0.30	0.30	0.09	0.31	0.31	0.11	0.37	0.37	0.10	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.06	0.11	0.11	0.08	0.15	0.15	0.09	0.17	0.17	0.09	0.34	0.34
s, saturation flow rate [veh/h]	1810	3618	1853	1810	3618	1657	1810	1900	1853	1810	1900	1744
c, Capacity [veh/h]	139	1069	547	172	1135	520	194	705	687	190	701	643
d1, Uniform Delay [s]	54.54	33.50	33.53	53.41	33.23	33.33	52.66	28.68	28.68	52.74	35.94	36.22
k, delay calibration	0.21	0.50	0.50	0.25	0.50	0.50	0.26	0.11	0.11	0.21	0.25	0.26
l, 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]	18.92	1.01	1.99	21.79	1.44	3.22	21.20	0.48	0.49	17.34	10.19	12.60
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	0.81	0.38	0.38	0.84	0.48	0.49	0.86	0.46	0.46	0.85	0.91	0.92
d, Delay for Lane Group [s/veh]	73.47	34.51	35.52	75.20	34.67	36.55	73.86	29.16	29.17	70.07	46.13	48.82
Lane Group LOS	E	C	D	E	C	D	E	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.04	4.70	5.00	5.27	6.44	6.27	5.93	6.97	6.80	5.56	18.72	17.97
50th-Percentile Queue Length [ft/ln]	100.95	117.49	124.89	131.77	161.10	156.75	148.28	174.16	170.04	139.01	468.06	449.32
95th-Percentile Queue Length [veh/ln]	7.27	8.25	8.66	9.04	10.61	10.38	9.93	11.30	11.08	9.43	25.82	24.93
95th-Percentile Queue Length [ft/ln]	181.70	206.37	216.52	225.90	265.18	259.42	248.13	282.38	276.97	235.69	645.46	623.13

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	73.47	34.82	35.52	75.20	34.81	36.55	73.86	29.16	29.17	70.07	46.98	48.82
Movement LOS	E	C	D	E	C	D	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	40.90			41.43			38.30			50.05		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	43.78											
Intersection LOS	D											
Intersection V/C	0.647											

**Emissions**

Vehicle Miles Traveled [mph]	17.10	60.81	31.34	16.67	62.30	29.00	100.29	197.53	192.76	29.91	118.29	110.24
Stops [stops/h]	121.14	281.97	149.86	158.12	386.65	188.10	177.94	208.99	204.05	166.81	561.67	539.18
Fuel consumption [US gal/h]	3.49	7.77	4.09	4.37	9.85	4.76	8.14	11.31	11.04	5.40	17.01	16.38
CO [g/h]	244.07	543.16	286.02	305.41	688.67	332.89	569.32	790.51	771.58	377.11	1189.31	1144.75
NOx [g/h]	47.49	105.68	55.65	59.42	133.99	64.77	110.77	153.80	150.12	73.37	231.40	222.73
VOC [g/h]	56.56	125.88	66.29	70.78	159.61	77.15	131.94	183.21	178.82	87.40	275.63	265.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	2.909			3.109			2.967			3.125		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	367			400			917			933		
d_b, Bicycle Delay [s]	40.02			38.40			17.60			17.07		
l_b,int, Bicycle LOS Score for Intersection	1.962			2.115			2.243			2.791		
Bicycle LOS	A			B			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	32.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	83	804	250	78	329	70	60	453	25	243	778	371
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	63	0	0	18	0	0	6	0	0	93
Total Hourly Volume [veh/h]	83	804	187	78	329	52	60	453	19	243	778	278
Peak Hour 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
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]	21	201	47	20	82	13	15	113	5	61	195	70
Total Analysis Volume [veh/h]	83	804	187	78	329	52	60	453	19	243	778	278
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	5	22	0	5	19	0	18	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	26	0	10	26	0	16	34	0	20	38	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	5	31	31	5	31	31	4	24	24	14	34	34
g / C, Green / Cycle	0.06	0.35	0.35	0.06	0.35	0.35	0.04	0.26	0.26	0.15	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.12	0.04	0.17	0.03	0.03	0.24	0.01	0.13	0.29	0.29
s, saturation flow rate [veh/h]	1810	3618	1615	1810	1900	1615	1810	1900	1615	1810	1900	1732
c, Capacity [veh/h]	107	1264	564	101	658	559	81	499	424	280	708	645
d1, Uniform Delay [s]	41.75	24.48	21.53	41.93	23.27	19.88	42.49	32.15	24.77	37.15	24.94	25.04
k, delay calibration	0.12	0.50	0.50	0.11	0.50	0.50	0.11	0.21	0.11	0.19	0.18	0.19
l, 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]	12.53	2.45	1.57	11.82	2.71	0.33	12.63	11.72	0.04	13.22	3.12	3.65
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	0.78	0.64	0.33	0.77	0.50	0.09	0.74	0.91	0.04	0.87	0.78	0.78
d, Delay for Lane Group [s/veh]	54.29	26.93	23.10	53.76	25.97	20.21	55.12	43.86	24.82	50.37	28.06	28.69
Lane Group LOS	D	C	C	D	C	C	E	D	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.15	7.22	3.03	2.00	5.76	0.76	1.55	10.47	0.29	5.96	9.98	9.32
50th-Percentile Queue Length [ft/ln]	53.70	180.61	75.66	50.05	143.97	19.05	38.63	261.78	7.28	148.99	249.56	232.91
95th-Percentile Queue Length [veh/ln]	3.87	11.63	5.45	3.60	9.69	1.37	2.78	15.78	0.52	9.96	15.16	14.32
95th-Percentile Queue Length [ft/ln]	96.66	290.82	136.19	90.09	242.36	34.29	69.53	394.46	13.10	249.08	379.10	358.06

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.29	26.93	23.10	53.76	25.97	20.21	55.12	43.86	24.82	50.37	28.25	28.69
Movement LOS	D	C	C	D	C	C	E	D	C	D	C	C
d_A, Approach Delay [s/veh]	28.38			30.04			44.45			32.48		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	32.73											
Intersection LOS	C											
Intersection V/C	0.638											

**Emissions**

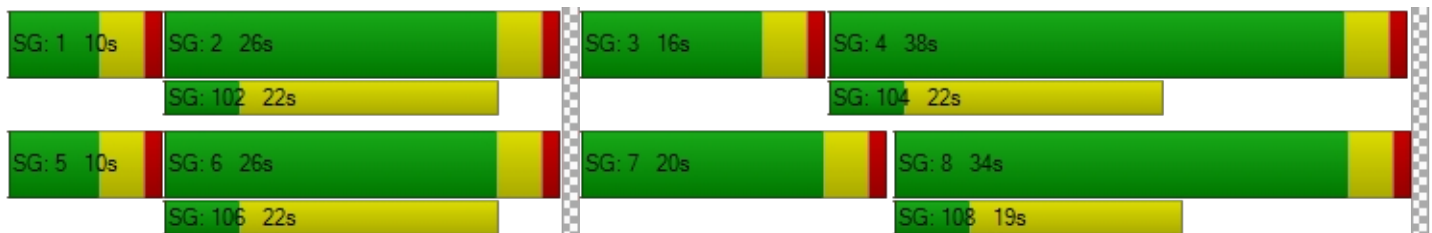
Vehicle Miles Traveled [mph]	36.48	353.38	82.19	6.14	25.90	4.09	3.97	29.96	1.26	35.41	80.11	73.76
Stops [stops/h]	85.92	577.96	121.06	80.08	230.35	30.48	61.80	418.85	11.64	238.38	399.30	372.66
Fuel consumption [US gal/h]	2.95	22.22	4.92	1.69	4.46	0.60	1.58	10.28	0.28	6.67	10.85	10.12
CO [g/h]	206.46	1553.35	344.09	118.10	311.66	41.88	110.26	718.44	19.84	466.11	758.42	707.23
NOx [g/h]	40.17	302.23	66.95	22.98	60.64	8.15	21.45	139.78	3.86	90.69	147.56	137.60
VOC [g/h]	47.85	360.00	79.75	27.37	72.23	9.71	25.55	166.51	4.60	108.03	175.77	163.91

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.873			2.716			2.740			3.069		
Crosswalk LOS	C			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	489			489			667			756		
d_b, Bicycle Delay [s]	25.69			25.69			20.00			17.42		
I_b,int, Bicycle LOS Score for Intersection	2.498			2.347			2.447			2.708		
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 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	31.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	102	1762	167	259	984	76	34	116	39	173	358	343
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	42	0	0	19	0	0	10	0	0	86
Total Hourly Volume [veh/h]	102	1762	125	259	984	57	34	116	29	173	358	257
Peak Hour 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
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]	26	441	31	65	246	14	9	29	7	43	90	64
Total Analysis Volume [veh/h]	102	1762	125	259	984	57	34	116	29	173	358	257
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	7	28	0	6	32	0	9	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	21	30	0	35	44	0	9	36	0	19	46	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	8	59	59	19	70	70	3	12	12	13	22	22
g / C, Green / Cycle	0.07	0.49	0.49	0.16	0.58	0.58	0.03	0.10	0.10	0.11	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.34	0.08	0.14	0.19	0.04	0.02	0.03	0.02	0.10	0.10	0.16
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	128	2558	798	291	3023	943	51	365	163	201	663	296
d1, Uniform Delay [s]	54.88	23.28	16.64	49.31	12.82	10.76	57.73	50.12	49.40	52.45	44.42	47.60
k, delay calibration	0.11	0.50	0.50	0.12	0.50	0.50	0.11	0.11	0.11	0.25	0.11	0.11
l, 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]	10.51	1.54	0.42	10.26	0.29	0.12	13.66	0.50	0.52	20.66	0.69	7.67
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	0.79	0.69	0.16	0.89	0.33	0.06	0.66	0.32	0.18	0.86	0.54	0.87
d, Delay for Lane Group [s/veh]	65.39	24.82	17.06	59.57	13.10	10.88	71.39	50.62	49.92	73.10	45.10	55.26
Lane Group LOS	E	C	B	E	B	B	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.34	12.19	1.89	8.21	4.25	0.64	1.19	1.61	0.80	6.14	4.76	7.86
50th-Percentile Queue Length [ft/ln]	83.44	304.86	47.31	205.20	106.14	16.00	29.84	40.20	20.09	153.47	119.11	196.58
95th-Percentile Queue Length [veh/ln]	6.01	17.92	3.41	12.91	7.62	1.15	2.15	2.89	1.45	10.20	8.34	12.46
95th-Percentile Queue Length [ft/ln]	150.19	448.03	85.16	322.67	190.62	28.79	53.71	72.36	36.16	255.05	208.61	311.55

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	65.39	24.82	17.06	59.57	13.10	10.88	71.39	50.62	49.92	73.10	45.10	55.26
Movement LOS	E	C	B	E	B	B	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	26.41			22.26			54.45			54.56		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.54											
Intersection LOS	C											
Intersection V/C	0.661											

**Emissions**

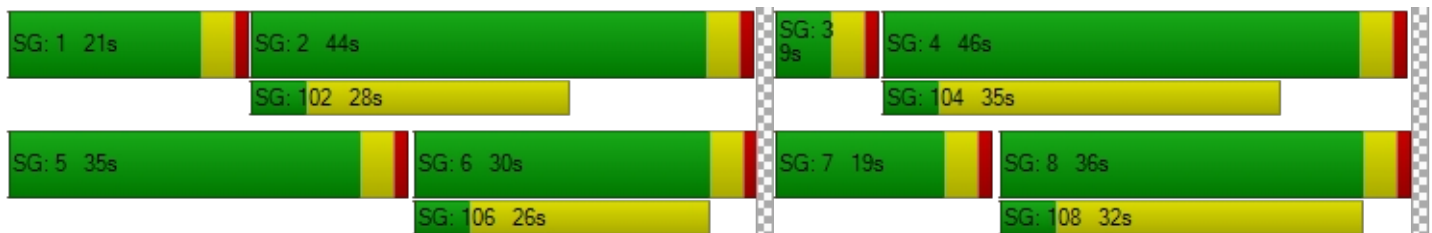
Vehicle Miles Traveled [mph]	42.34	731.34	51.88	77.36	293.90	17.02	2.40	8.20	2.05	31.84	65.89	47.30
Stops [stops/h]	100.13	1097.48	56.78	246.25	382.11	19.19	35.80	96.49	24.10	184.16	285.87	235.90
Fuel consumption [US gal/h]	4.05	47.61	2.92	8.85	17.45	0.95	1.02	2.68	0.66	5.95	9.10	7.44
CO [g/h]	283.32	3328.15	203.99	618.80	1219.69	66.30	71.40	187.03	46.45	416.22	635.98	520.35
NOx [g/h]	55.12	647.54	39.69	120.40	237.31	12.90	13.89	36.39	9.04	80.98	123.74	101.24
VOC [g/h]	65.66	771.33	47.28	143.41	282.68	15.36	16.55	43.35	10.77	96.46	147.40	120.60

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.390			3.400			2.659			2.936		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	433			667			533			700		
d_b, Bicycle Delay [s]	36.82			26.67			32.27			25.35		
I_b,int, Bicycle LOS Score for Intersection	2.677			2.285			1.716			2.281		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	109.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.449

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	137	485	1161	807	280	81	147	477	72	368	274	825
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	137	485	1161	807	280	81	147	477	72	368	274	825
Peak Hour 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
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]	34	121	290	202	70	20	37	119	18	92	69	206
Total Analysis Volume [veh/h]	137	485	1161	807	280	81	147	477	72	368	274	825
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	716	749	1161	807	648	648	691	471	491	491	521	568	595	595	825
Degree of Utilization, x	0.19	0.65	1.45	1.30	0.22	0.22	0.12	0.31	0.49	0.49	0.14	0.65	0.23	0.23	1.30

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.70	4.81	53.18	32.56	0.82	0.82	0.40	1.32	2.62	2.62	0.48	4.65	0.88	0.88	33.04
95th-Percentile Queue Length [ft]	17.57	120.20	1329.62	813.9	20.40	20.40	9.91	32.92	65.39	65.39	11.91	116.2	22.12	22.12	826.0
Approach Delay [s/veh]	150.22			116.96			15.50			99.08					
Approach LOS	F			F			C			F					
Intersection Delay [s/veh]	109.62														
Intersection LOS	F														

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	37.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	1
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	160	1521	22	37	1099	142	447	306	103	30	410	118
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	6	0	0	36	0	0	26	0	0	30
Total Hourly Volume [veh/h]	160	1521	16	37	1099	106	447	306	77	30	410	88
Peak Hour 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
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]	40	380	4	9	275	27	112	77	19	8	103	22
Total Analysis Volume [veh/h]	160	1521	16	37	1099	106	447	306	77	30	410	88
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	32	0	5	29	0	11	26	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	9	33	0	32	30	0	32	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	11	51	51	3	43	43	28	37	37	3	12	12
g / C, Green / Cycle	0.10	0.46	0.46	0.03	0.39	0.39	0.25	0.33	0.33	0.03	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.09	0.29	0.01	0.02	0.30	0.07	0.25	0.08	0.05	0.02	0.08	0.05
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	181	2394	747	56	1423	635	461	1201	536	53	551	172
d1, Uniform Delay [s]	48.87	22.49	16.04	52.73	29.06	21.65	40.59	26.81	25.77	52.72	47.69	46.44
k, delay calibration	0.30	0.50	0.50	0.11	0.50	0.50	0.43	0.11	0.11	0.11	0.11	0.11
l, 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]	29.39	1.30	0.05	12.58	4.12	0.57	32.07	0.11	0.12	9.37	2.01	2.34
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	0.64	0.02	0.66	0.77	0.17	0.97	0.25	0.14	0.57	0.74	0.51
d, Delay for Lane Group [s/veh]	78.26	23.79	16.10	65.31	33.18	22.22	72.66	26.92	25.89	62.10	49.70	48.78
Lane Group LOS	E	C	B	E	C	C	E	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.68	9.51	0.22	1.18	12.62	1.80	15.64	2.87	1.40	0.94	3.66	2.34
50th-Percentile Queue Length [ft/ln]	141.96	237.77	5.46	29.48	315.50	44.92	391.08	71.73	34.93	23.52	91.52	58.58
95th-Percentile Queue Length [veh/ln]	9.59	14.57	0.39	2.12	18.45	3.23	22.13	5.16	2.51	1.69	6.59	4.22
95th-Percentile Queue Length [ft/ln]	239.66	364.21	9.83	53.06	461.15	80.86	553.24	129.11	62.87	42.34	164.74	105.44

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	78.26	23.79	16.10	65.31	33.18	22.22	72.66	26.92	25.89	62.10	49.70	48.78
Movement LOS	E	C	B	E	C	C	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	28.86			33.20			51.46			50.25		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.11											
Intersection LOS	D											
Intersection V/C	0.718											

**Emissions**

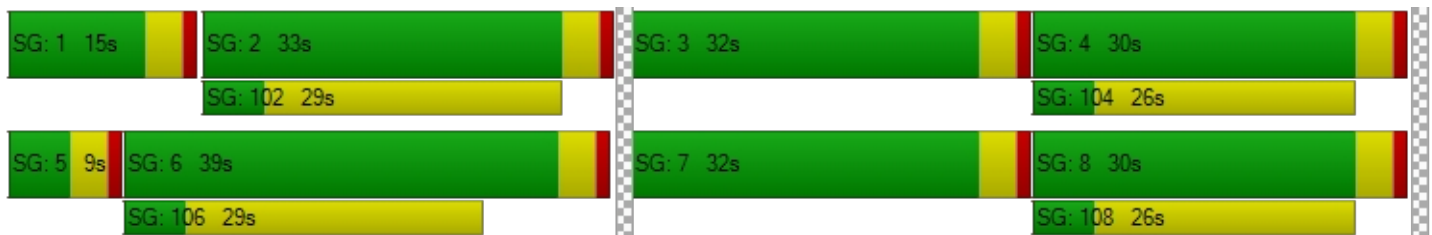
Vehicle Miles Traveled [mph]	10.42	99.09	1.04	2.93	87.05	8.40	48.71	33.34	8.39	15.12	206.58	44.34
Stops [stops/h]	185.84	933.77	7.15	38.59	826.04	58.81	511.96	187.79	45.72	30.80	359.43	76.68
Fuel consumption [US gal/h]	5.22	22.37	0.18	1.07	20.67	1.50	13.38	4.72	1.16	1.22	15.08	3.22
CO [g/h]	364.59	1563.76	12.38	74.93	1445.12	104.73	935.43	329.61	80.76	85.49	1053.86	224.73
NOx [g/h]	70.94	304.25	2.41	14.58	281.17	20.38	182.00	64.13	15.71	16.63	205.04	43.72
VOC [g/h]	84.50	362.42	2.87	17.37	334.92	24.27	216.80	76.39	18.72	19.81	244.24	52.08

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.282			3.359			2.933			2.929		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	636			527			473			473		
d_b, Bicycle Delay [s]	25.57			29.82			32.07			32.07		
I_b,int, Bicycle LOS Score for Intersection	2.496			2.614			2.266			1.867		
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 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	53.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.058

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	65	30	131	12	12	12	89	1431	86	190	999	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	65	30	131	12	12	12	89	1431	86	190	999	17
Peak Hour 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
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]	16	8	33	3	3	3	22	358	22	48	250	4
Total Analysis Volume [veh/h]	65	30	131	12	12	12	89	1431	86	190	999	17
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	433	390	448	506	506	506	432	460	460	462
Degree of Utilization, x	0.52	0.09	0.20	1.06	1.06	1.04	0.44	0.74	0.74	0.73

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	2.94	0.30	0.73	15.62	15.62	15.08	2.20	6.01	6.01	5.95
95th-Percentile Queue Length [ft]	73.41	7.59	18.33	390.5	390.5	376.9	54.88	150.2	150.2	148.8
Approach Delay [s/veh]	20.01	13.19	78.90				27.44			
Approach LOS	C	B	F				D			
Intersection Delay [s/veh]	53.61									
Intersection LOS	F									

**Intersection Level Of Service Report**  
**Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	50.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.706

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	79	181	98	25	162	264	485	1296	159	422	793	677
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	0	0	66	0	0	40	0	0	169
Total Hourly Volume [veh/h]	79	181	73	25	162	198	485	1296	119	422	793	508
Peak Hour 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
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]	20	45	18	6	41	50	121	324	30	106	198	127
Total Analysis Volume [veh/h]	79	181	73	25	162	198	485	1296	119	422	793	508
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	5	32	0	5	32	0	22	31	31	6	15	15
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	14	14	0	10	10
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	36	0	12	36	0	41	33	33	39	31	31
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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, Calculated 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	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	33	33	8	34	34	34	33	44	30	29	41
g / C, Green / Cycle	0.06	0.28	0.28	0.07	0.28	0.28	0.28	0.27	0.37	0.25	0.24	0.34
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.05	0.01	0.09	0.12	0.27	0.25	0.07	0.23	0.22	0.31
s, saturation flow rate [veh/h]	1810	3618	1615	1810	1900	1615	1810	5176	1615	1810	3618	1615
c, Capacity [veh/h]	113	1006	449	121	536	456	513	1408	594	452	863	547
d1, Uniform Delay [s]	55.13	32.92	32.76	53.00	33.80	35.24	42.10	42.41	25.87	44.03	44.54	38.29
k, delay calibration	0.13	0.50	0.50	0.11	0.50	0.50	0.36	0.11	0.41	0.31	0.11	0.50
l, 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]	8.74	0.39	0.78	0.84	1.45	3.00	22.94	2.94	0.62	20.47	4.52	24.38
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	0.70	0.18	0.16	0.21	0.30	0.43	0.95	0.92	0.20	0.93	0.92	0.93
d, Delay for Lane Group [s/veh]	63.88	33.32	33.53	53.84	35.25	38.24	65.04	45.35	26.49	64.50	49.06	62.67
Lane Group LOS	E	C	C	D	D	D	E	D	C	E	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.62	2.07	1.72	0.73	3.82	4.98	16.73	12.30	2.35	14.37	11.61	17.39
50th-Percentile Queue Length [ft/ln]	65.46	51.85	42.94	18.16	95.59	124.43	418.36	307.51	58.72	359.32	290.26	434.69
95th-Percentile Queue Length [veh/ln]	4.71	3.73	3.09	1.31	6.88	8.64	23.44	18.05	4.23	20.59	17.20	24.23
95th-Percentile Queue Length [ft/ln]	117.84	93.34	77.29	32.69	172.06	215.90	586.08	451.30	105.70	514.76	429.96	605.65

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	63.88	33.32	33.53	53.84	35.25	38.24	65.04	45.35	26.49	64.50	49.06	62.67
Movement LOS	E	C	C	D	D	D	E	D	C	E	D	E
d_A, Approach Delay [s/veh]	40.61			38.00			49.19			56.86		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	50.58											
Intersection LOS	D											
Intersection V/C	0.706											

**Emissions**

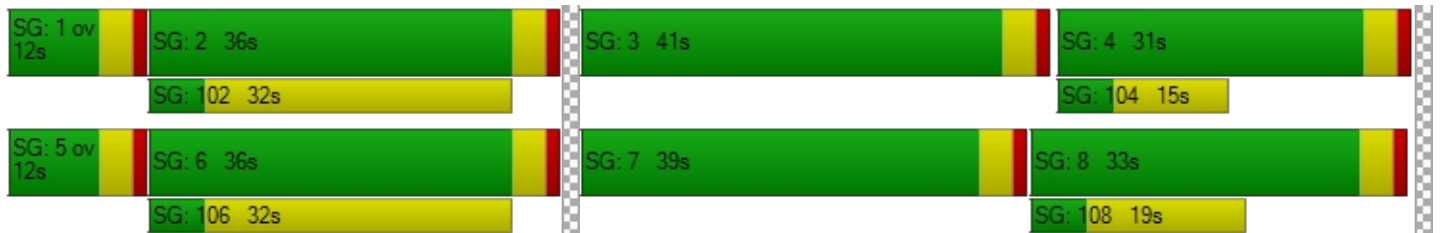
Vehicle Miles Traveled [mph]	24.74	56.68	22.86	12.50	80.98	98.97	44.09	117.81	10.82	105.09	197.47	126.50
Stops [stops/h]	78.56	124.45	51.53	21.79	114.71	149.32	502.03	1107.03	70.47	431.19	696.61	521.62
Fuel consumption [US gal/h]	2.48	4.25	1.72	0.97	5.36	6.79	14.17	29.76	1.89	14.50	23.35	17.30
CO [g/h]	173.30	296.94	120.50	68.03	374.94	474.62	990.57	2080.37	132.00	1013.68	1631.97	1209.26
NOx [g/h]	33.72	57.77	23.45	13.24	72.95	92.34	192.73	404.77	25.68	197.22	317.52	235.28
VOC [g/h]	40.16	68.82	27.93	15.77	86.90	110.00	229.57	482.15	30.59	234.93	378.22	280.26

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.683			2.999			3.360			3.541		
Crosswalk LOS	B			C			C			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	533			533			483			450		
d_b, Bicycle Delay [s]	32.27			32.27			34.50			36.04		
I_b,int, Bicycle LOS Score for Intersection	1.855			1.932			2.627			3.121		
Bicycle LOS	A			A			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	177	226	17	10	40	106	453	1837	176	6	1492	17
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	4	0	0	27	0	0	44	0	0	4
Total Hourly Volume [veh/h]	177	226	13	10	40	79	453	1837	132	6	1492	13
Peak Hour 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
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]	44	57	3	3	10	20	113	459	33	2	373	3
Total Analysis Volume [veh/h]	177	226	13	10	40	79	453	1837	132	6	1492	13
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	17	27	0	5	15	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	30	0	0	30	0	61	70	0	10	19	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
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]	31	31	31	31	30	66	66	1	37	37
g / C, Green / Cycle	0.29	0.29	0.29	0.29	0.27	0.60	0.60	0.01	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.14	0.13	0.01	0.07	0.25	0.35	0.08	0.00	0.29	0.01
s, saturation flow rate [veh/h]	1293	1882	1159	1701	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	350	538	263	487	491	3090	964	14	1725	538
d1, Uniform Delay [s]	38.75	32.11	38.15	30.14	38.94	13.85	9.73	54.33	34.35	24.64
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	5.14	2.64	0.27	1.19	7.69	0.18	0.06	19.00	1.41	0.02
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	0.51	0.44	0.04	0.24	0.92	0.59	0.14	0.43	0.86	0.02
d, Delay for Lane Group [s/veh]	43.89	34.75	38.42	31.33	46.63	14.03	9.79	73.32	35.76	24.66
Lane Group LOS	D	C	D	C	D	B	A	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.70	5.46	0.24	2.53	12.35	8.34	1.27	0.24	11.96	0.22
50th-Percentile Queue Length [ft/ln]	117.62	136.43	6.05	63.18	308.67	208.50	31.80	5.89	298.92	5.57
95th-Percentile Queue Length [veh/ln]	8.26	9.29	0.44	4.55	18.11	13.08	2.29	0.42	17.63	0.40
95th-Percentile Queue Length [ft/ln]	206.56	232.21	10.88	113.73	452.73	326.90	57.24	10.60	440.70	10.02

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	43.89	34.75	34.75	38.42	31.33	31.33	46.63	14.03	9.79	73.32	35.76	24.66
Movement LOS	D	C	C	D	C	C	D	B	A	E	D	C
d_A, Approach Delay [s/veh]	38.64			31.88			19.90			35.81		
Approach LOS	D			C			B			D		
d_I, Intersection Delay [s/veh]	27.35											
Intersection LOS	C											
Intersection V/C	0.676											

**Emissions**

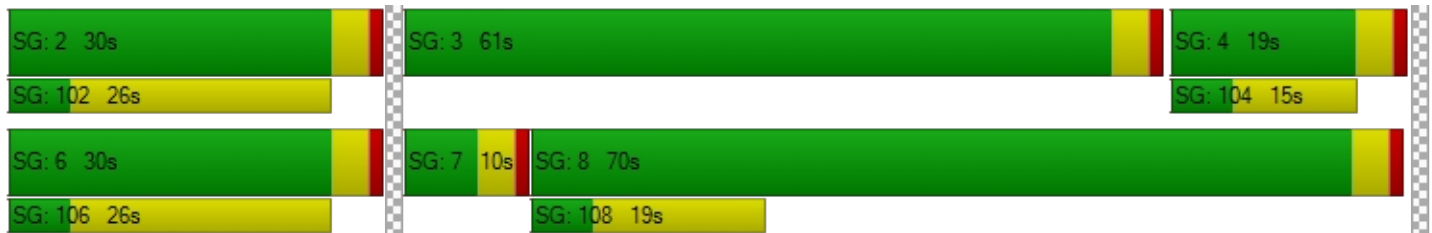
Vehicle Miles Traveled [mph]	60.13	81.19	2.42	28.76	53.05	215.13	15.46	0.49	122.27	1.07
Stops [stops/h]	153.98	178.60	7.91	82.71	404.08	818.82	41.63	7.71	1173.96	7.29
Fuel consumption [US gal/h]	5.25	6.35	0.24	2.60	11.14	22.80	1.31	0.20	29.64	0.19
CO [g/h]	366.77	444.04	16.95	181.84	778.72	1593.77	91.61	14.13	2072.11	13.45
NOx [g/h]	71.36	86.39	3.30	35.38	151.51	310.09	17.82	2.75	403.16	2.62
VOC [g/h]	85.00	102.91	3.93	42.14	180.48	369.37	21.23	3.28	480.23	3.12

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	46.37
I_p,int, Pedestrian LOS Score for Intersectio	2.357	2.359	3.826	3.374
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	473	473	1200	273
d_b, Bicycle Delay [s]	32.07	32.07	8.80	41.02
I_b,int, Bicycle LOS Score for Intersection	2.253	1.817	2.916	2.393
Bicycle LOS	B	A	C	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	21.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	287	40	1205	0	0	0	120	885	0	0	673	478
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	301	0	0	0	0	0	0	0	0	120
Total Hourly Volume [veh/h]	287	40	904	0	0	0	120	885	0	0	673	358
Peak Hour 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
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]	72	10	226	0	0	0	30	221	0	0	168	90
Total Analysis Volume [veh/h]	287	40	904	0	0	0	120	885	0	0	673	358
Presence of On-Street Parking	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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	22	0	0	0	0	5	30	0	0	21	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	48	0	0	0	0	9	32	0	0	23	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	80	80	80		80	80	80	80
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]	44	44	44		5	28	19	19
g / C, Green / Cycle	0.55	0.55	0.55		0.06	0.35	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.09	0.09	0.11		0.03	0.17	0.13	0.22
s, saturation flow rate [veh/h]	1810	1831	8500		3514	5176	5176	1615
c, Capacity [veh/h]	999	1011	4693		208	1800	1235	385
d1, Uniform Delay [s]	8.82	8.81	8.98		36.65	20.52	26.66	29.79
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.32
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.34	0.09		2.51	0.21	0.38	22.86
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	0.16	0.16	0.19		0.58	0.49	0.55	0.93
d, Delay for Lane Group [s/veh]	9.17	9.15	9.07		39.16	20.73	27.03	52.66
Lane Group LOS	A	A	A		D	C	C	D
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.37	1.37	7.28		1.15	3.92	3.66	8.89
50th-Percentile Queue Length [ft/ln]	34.26	34.19	182.02		28.76	97.98	91.41	222.30
95th-Percentile Queue Length [veh/ln]	2.47	2.46	11.71		2.07	7.05	6.58	13.78
95th-Percentile Queue Length [ft/ln]	61.66	61.53	292.65		51.77	176.36	164.53	344.56

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	9.17	9.15	9.07	0.00	0.00	0.00	39.16	20.73	0.00	0.00	27.03	52.66
Movement LOS	A	A	A				D	C			C	D
d_A, Approach Delay [s/veh]	9.09			0.00			22.93			35.93		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	21.82											
Intersection LOS	C											
Intersection V/C	0.362											

**Emissions**

Vehicle Miles Traveled [mph]	14.85	14.85	82.12		17.25	127.20	78.81	41.92
Stops [stops/h]	61.66	61.53	327.64		103.55	529.07	493.59	400.14
Fuel consumption [US gal/h]	1.26	1.26	6.86		2.83	14.67	9.67	7.77
CO [g/h]	87.88	87.79	479.45		198.16	1025.58	676.20	543.30
NOx [g/h]	17.10	17.08	93.28		38.56	199.54	131.56	105.71
VOC [g/h]	20.37	20.35	111.12		45.93	237.69	156.72	125.91

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		0.0		0.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		31.51		0.00		0.00	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		2.143		0.000		0.000	
Crosswalk LOS	F		B		F		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1100		0		700		475	
d_b, Bicycle Delay [s]	8.10		40.00		16.90		23.26	
I_b,int, Bicycle LOS Score for Intersection	4.087		4.132		2.112		2.193	
Bicycle LOS	D		D		B		B	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.291

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	506	5	145	0	347	85	291	523	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	36	0	0	21	0	0	0
Total Hourly Volume [veh/h]	0	0	0	506	5	109	0	347	64	291	523	0
Peak Hour 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
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]	0	0	0	127	1	27	0	87	16	73	131	0
Total Analysis Volume [veh/h]	0	0	0	506	5	109	0	347	64	291	523	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	10	0	28	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	14	0	32	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	R	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		30	30	30	10	10	8	22
g / C, Green / Cycle		0.51	0.51	0.51	0.17	0.17	0.13	0.36
(v / s)_i Volume / Saturation Flow Rate		0.14	0.14	0.01	0.07	0.04	0.08	0.10
s, saturation flow rate [veh/h]		1810	1811	8500	5176	1615	3514	5176
c, Capacity [veh/h]		915	916	4298	862	269	449	1869
d1, Uniform Delay [s]		8.54	8.54	7.43	22.34	21.70	24.88	13.62
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.76	0.76	0.01	0.30	0.45	1.57	0.08
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		0.28	0.28	0.03	0.40	0.24	0.65	0.28
d, Delay for Lane Group [s/veh]		9.30	9.30	7.44	22.64	22.15	26.45	13.70
Lane Group LOS		A	A	A	C	C	C	B
Critical Lane Group		Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.64	1.64	0.55	1.30	0.72	1.84	1.39
50th-Percentile Queue Length [ft/ln]		41.07	41.10	13.78	32.61	18.05	46.07	34.83
95th-Percentile Queue Length [veh/ln]		2.96	2.96	0.99	2.35	1.30	3.32	2.51
95th-Percentile Queue Length [ft/ln]		73.92	73.98	24.81	58.70	32.48	82.93	62.69

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.30	9.30	7.44	0.00	22.64	22.15	26.45	13.70	0.00
Movement LOS				A	A	A		C	C	C	B	
d_A, Approach Delay [s/veh]	0.00			8.97			22.57			18.26		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	16.10											
Intersection LOS	B											
Intersection V/C	0.291											

**Emissions**

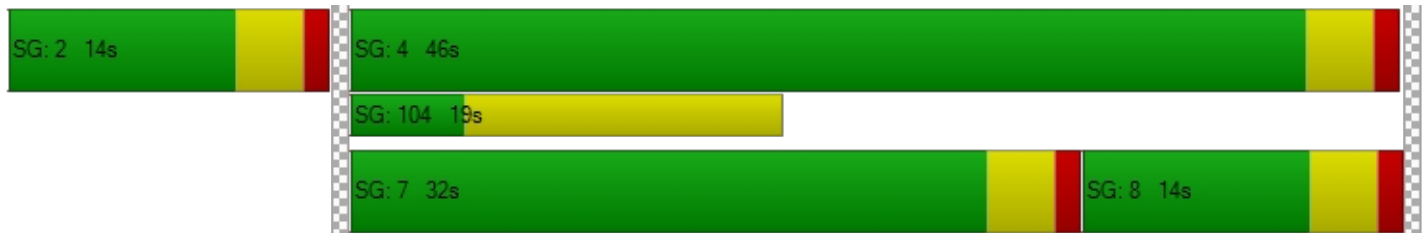
Vehicle Miles Traveled [mph]		17.12	17.14	7.31	39.50	7.29	41.83	75.17
Stops [stops/h]		98.56	98.63	33.08	234.82	43.31	221.14	250.76
Fuel consumption [US gal/h]		2.06	2.07	0.75	5.87	1.08	5.75	7.15
CO [g/h]		144.33	144.44	52.54	410.50	75.27	401.89	500.01
NOx [g/h]		28.08	28.10	10.22	79.87	14.64	78.19	97.28
VOC [g/h]		33.45	33.48	12.18	95.14	17.44	93.14	115.88

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.256	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	333	1400
d_b, Bicycle Delay [s]	30.00	20.83	20.83	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.642	1.797	2.007
Bicycle LOS	D	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	45.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	325	456	137	76	251	218	71	269	110	112	1514	197
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	34	0	0	55	0	0	28	0	0	49
Total Hourly Volume [veh/h]	325	456	103	76	251	163	71	269	82	112	1514	148
Peak Hour 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
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]	81	114	26	19	63	41	18	67	21	28	379	37
Total Analysis Volume [veh/h]	325	456	103	76	251	163	71	269	82	112	1514	148
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	26	38	0	18	30	0	9	42	0	22	55	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated 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]	22	41	41	7	26	26	5	47	47	9	51	51
g / C, Green / Cycle	0.18	0.35	0.35	0.05	0.22	0.22	0.04	0.39	0.39	0.08	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.18	0.15	0.15	0.04	0.11	0.12	0.04	0.07	0.05	0.06	0.42	0.09
s, saturation flow rate [veh/h]	1810	1900	1780	1810	1900	1657	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	332	656	615	99	412	359	75	1408	629	140	1537	686
d1, Uniform Delay [s]	48.78	30.33	30.33	55.96	41.58	41.76	57.35	24.18	23.58	54.43	34.11	21.84
k, delay calibration	0.42	0.50	0.50	0.11	0.50	0.50	0.24	0.11	0.11	0.11	0.11	0.11
l, 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]	40.49	2.14	2.28	11.66	4.81	5.87	58.27	0.07	0.09	9.93	7.69	0.16
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	0.98	0.44	0.44	0.77	0.53	0.55	0.94	0.19	0.13	0.80	0.98	0.22
d, Delay for Lane Group [s/veh]	89.26	32.46	32.61	67.62	46.39	47.63	115.62	24.25	23.68	64.36	41.81	21.99
Lane Group LOS	F	C	C	E	D	D	F	C	C	E	D	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	13.10	6.60	6.21	2.54	6.10	5.60	3.32	2.45	1.47	3.63	21.95	2.57
50th-Percentile Queue Length [ft/ln]	327.56	164.90	155.22	63.47	152.42	140.05	82.94	61.28	36.65	90.85	548.84	64.29
95th-Percentile Queue Length [veh/ln]	19.04	10.81	10.30	4.57	10.15	9.48	5.97	4.41	2.64	6.54	29.64	4.63
95th-Percentile Queue Length [ft/ln]	475.97	270.20	257.38	114.24	253.66	237.09	149.29	110.30	65.97	163.53	740.95	115.73

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	89.26	32.52	32.61	67.62	46.55	47.63	115.62	24.25	23.68	64.36	41.81	21.99
Movement LOS	F	C	C	E	D	D	F	C	C	E	D	C
d_A, Approach Delay [s/veh]	53.39			50.18			39.51			41.58		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	45.44											
Intersection LOS	D											
Intersection V/C	0.756											

**Emissions**

Vehicle Miles Traveled [mph]	162.86	144.58	135.54	38.04	109.04	98.19	35.80	135.65	41.35	18.62	251.73	24.61
Stops [stops/h]	393.08	197.88	186.26	76.16	182.91	168.06	99.53	147.07	43.98	109.02	1317.22	77.15
Fuel consumption [US gal/h]	16.37	9.32	8.76	3.30	8.07	7.36	4.14	7.81	2.36	3.46	37.89	2.47
CO [g/h]	1144.44	651.59	612.10	230.43	563.96	514.22	289.04	545.63	164.91	241.90	2648.31	172.31
NOx [g/h]	222.67	126.78	119.09	44.83	109.73	100.05	56.24	106.16	32.09	47.06	515.26	33.53
VOC [g/h]	265.24	151.01	141.86	53.40	130.70	119.17	66.99	126.45	38.22	56.06	613.77	39.94

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.770			2.765			3.119			3.100		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	567			433			633			850		
d_b, Bicycle Delay [s]	30.82			36.82			28.02			19.84		
I_b,int, Bicycle LOS Score for Intersection	2.317			2.009			1.931			3.064		
Bicycle LOS	B			B			A			C		

**Sequence**





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



**Intersection Level Of Service Report**  
**Intersection 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.672

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	145	1497	135	96	1234	27	35	318	170	437	807	444
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	34	0	0	7	0	0	43	0	0	111
Total Hourly Volume [veh/h]	145	1497	101	96	1234	20	35	318	127	437	807	333
Peak Hour 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
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]	36	374	25	24	309	5	9	80	32	109	202	83
Total Analysis Volume [veh/h]	145	1497	101	96	1234	20	35	318	127	437	807	333
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	7	28	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	34	0	14	32	0	9	30	0	32	53	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	11	46	46	7	43	43	3	12	12	28	37	37
g / C, Green / Cycle	0.10	0.42	0.42	0.07	0.39	0.39	0.03	0.11	0.11	0.25	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.08	0.29	0.06	0.05	0.24	0.01	0.02	0.09	0.08	0.24	0.22	0.21
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	174	2174	678	122	2024	632	54	408	182	461	1220	544
d1, Uniform Delay [s]	48.84	26.02	19.73	50.53	26.78	20.65	52.76	47.48	47.00	40.29	31.11	30.44
k, delay calibration	0.21	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.41	0.11	0.11
l, 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]	17.52	1.81	0.46	10.74	1.38	0.09	11.95	3.28	4.77	27.22	0.62	1.12
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	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	0.83	0.69	0.15	0.79	0.61	0.03	0.64	0.78	0.70	0.95	0.66	0.61
d, Delay for Lane Group [s/veh]	66.36	27.83	20.19	61.27	28.15	20.74	64.71	50.75	51.77	67.52	31.73	31.56
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.64	10.29	1.61	2.89	8.37	0.32	1.11	4.29	3.49	14.94	9.13	7.46
50th-Percentile Queue Length [ft/ln]	115.96	257.15	40.25	72.28	209.27	8.01	27.79	107.33	87.23	373.61	228.34	186.54
95th-Percentile Queue Length [veh/ln]	8.17	15.55	2.90	5.20	13.12	0.58	2.00	7.69	6.28	21.28	14.09	11.94
95th-Percentile Queue Length [ft/ln]	204.27	388.64	72.45	130.11	327.90	14.42	50.01	192.29	157.02	532.11	352.26	298.54

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.36	27.83	20.19	61.27	28.15	20.74	64.71	50.75	51.77	67.52	31.73	31.56
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	30.59			30.40			52.04			41.61		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	35.91											
Intersection LOS	D											
Intersection V/C	0.672											

**Emissions**

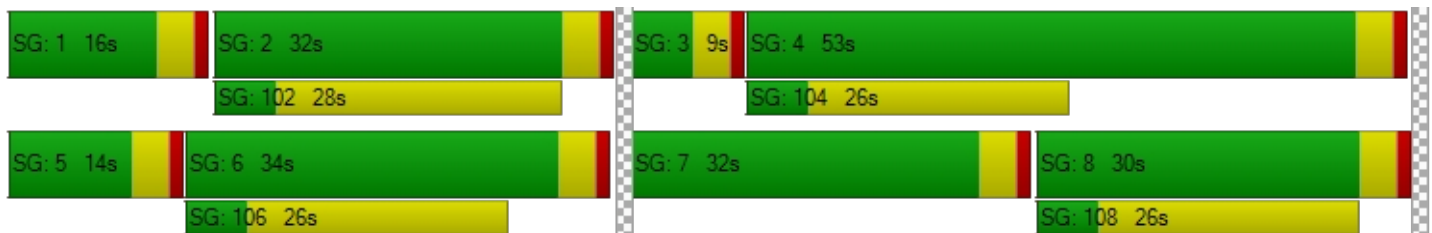
Vehicle Miles Traveled [mph]	7.57	78.11	5.27	42.36	544.48	8.82	3.44	31.29	12.49	220.37	406.96	167.93
Stops [stops/h]	151.81	1009.88	52.69	94.63	821.87	10.49	36.37	281.02	114.19	489.09	597.85	244.20
Fuel consumption [US gal/h]	4.10	23.71	1.25	3.83	35.95	0.52	1.03	7.85	3.19	17.78	25.27	10.40
CO [g/h]	286.91	1657.50	87.43	267.39	2513.04	36.16	72.08	548.75	222.69	1242.66	1766.09	727.01
NOx [g/h]	55.82	322.49	17.01	52.02	488.95	7.04	14.02	106.77	43.33	241.78	343.62	141.45
VOC [g/h]	66.50	384.14	20.26	61.97	582.42	8.38	16.70	127.18	51.61	288.00	409.31	168.49

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.446			3.356			2.891			2.985		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	545			509			473			891		
d_b, Bicycle Delay [s]	29.09			30.56			32.07			16.91		
I_b,int, Bicycle LOS Score for Intersection	2.537			2.306			1.991			2.952		
Bicycle LOS	B			B			A			C		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	49.2
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	180	0	16	13	385	0	0	614	51
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	180	0	16	13	385	0	0	614	51
Peak Hour 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
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]	0	0	0	45	0	4	3	96	0	0	154	13
Total Analysis Volume [veh/h]	0	0	0	180	0	16	13	385	0	0	614	51
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.72	0.00	0.02	0.01	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.68	21.51	9.38	49.18	0.00	10.51	8.91	0.00	0.00	8.04	0.00	0.00
Movement LOS	C	C	A	E		B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	4.92	0.00	0.07	0.04	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	123.08	0.00	1.84	1.06	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.86			46.03			0.29			0.00		
Approach LOS	C			E			A			A		
d_I, Intersection Delay [s/veh]	7.26											
Intersection LOS	E											

**Intersection Level Of Service Report**  
**Intersection 20: Orange Ave/Indian Ave**

Control Type:	All-way stop	Delay (sec / veh):	21.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.808

**Intersection Setup**

Name	Northbound			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	0	0	0	1	0	0	0	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Northbound			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	82	29	321	225	11	1	121	2	89	125	435
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	82	29	321	225	11	1	121	2	89	125	435
Peak Hour 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
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]	0	21	7	80	56	3	0	30	1	22	31	109
Total Analysis Volume [veh/h]	0	82	29	321	225	11	1	121	2	89	125	435
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	452	469	504	401	424	426	459	486	538
Degree of Utilization, x	0.25	0.68	0.47	0.00	0.14	0.14	0.23	0.22	0.81




**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.96	5.09	2.46	0.01	0.50	0.50	0.89	0.83	7.85
95th-Percentile Queue Length [ft]	23.88	127.34	61.60	0.19	12.57	12.53	22.32	20.81	196.36
Approach Delay [s/veh]	13.54	21.41		12.59			25.42		
Approach LOS	B	C		B			D		
Intersection Delay [s/veh]	21.85								
Intersection LOS	C								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	310	7	160	83	2	175
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	310	7	160	83	2	175
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	2	40	21	1	44
Total Analysis Volume [veh/h]	310	7	160	83	2	175
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.01	0.20
d_M, Delay for Movement [s/veh]	0.00	0.00	8.29	0.00	15.53	10.18
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.44	0.00	0.02	0.75
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.93	0.00	0.44	18.74
d_A, Approach Delay [s/veh]	0.00		5.46		10.24	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.26					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	40.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.003

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	284	378	24	77	294	296	453	128	317	52	210	89
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	284	378	24	77	294	296	453	128	317	52	210	89
Peak Hour 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
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]	71	95	6	19	74	74	113	32	79	13	53	22
Total Analysis Volume [veh/h]	284	378	24	77	294	296	453	128	317	52	210	89
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	352	369	372	354	372	398	453	499	342	357	380
Degree of Utilization, x	0.81	0.55	0.54	0.22	0.79	0.74	1.00	0.89	0.15	0.59	0.23

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	6.93	3.13	3.09	0.81	6.71	5.93	13.13	9.98	0.53	3.59	0.90
95th-Percentile Queue Length [ft]	173.36	78.30	77.23	20.32	167.87	148.28	328.18	249.46	13.26	89.75	22.38
Approach Delay [s/veh]	32.17			34.67			58.15			21.76	
Approach LOS	D			D			F			C	
Intersection Delay [s/veh]	40.37										
Intersection LOS	E										

**Intersection Level Of Service Report**  
**Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	45.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.790

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	50	1224	781	269	1302	18	28	7	34	442	12	280
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	195	0	0	5	0	0	9	0	0	70
Total Hourly Volume [veh/h]	50	1224	586	269	1302	13	28	7	25	442	12	210
Peak Hour 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
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]	13	306	147	67	326	3	7	2	6	111	3	53
Total Analysis Volume [veh/h]	50	1224	586	269	1302	13	28	7	25	442	12	210
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	16	32	0	17	33	0	0	10	0	0	35	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	51	39	0	28	16	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	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
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	44	44	20	59	59	9	31	31	31
g / C, Green / Cycle	0.04	0.37	0.37	0.16	0.50	0.50	0.07	0.26	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.03	0.34	0.36	0.15	0.25	0.01	0.03	0.24	0.01	0.13
s, saturation flow rate [veh/h]	1810	3618	1615	1810	5176	1615	1732	1810	1900	1615
c, Capacity [veh/h]	68	1329	593	298	2560	799	125	475	499	424
d1, Uniform Delay [s]	57.16	36.28	37.68	49.17	20.48	15.45	53.51	43.19	32.85	37.52
k, delay calibration	0.11	0.50	0.50	0.25	0.50	0.50	0.11	0.34	0.11	0.11
l, 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]	14.24	11.82	34.01	19.62	0.73	0.04	2.84	20.67	0.02	0.90
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	0.74	0.92	0.99	0.90	0.51	0.02	0.48	0.93	0.02	0.50
d, Delay for Lane Group [s/veh]	71.40	48.11	71.69	68.79	21.20	15.49	56.36	63.87	32.87	38.42
Lane Group LOS	E	D	E	E	C	B	E	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.77	19.02	22.34	9.30	7.86	0.18	1.86	15.55	0.27	5.40
50th-Percentile Queue Length [ft/ln]	44.28	475.42	558.61	232.38	196.53	4.55	46.40	388.79	6.69	134.97
95th-Percentile Queue Length [veh/ln]	3.19	26.17	30.10	14.30	12.46	0.33	3.34	22.02	0.48	9.21
95th-Percentile Queue Length [ft/ln]	79.70	654.21	752.42	357.38	311.49	8.19	83.52	550.48	12.04	230.24

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.40	48.11	71.69	68.79	21.20	15.49	56.36	56.36	56.36	63.87	32.87	38.42
Movement LOS	E	D	E	E	C	B	E	E	E	E	C	D
d_A, Approach Delay [s/veh]	56.16			29.24			56.36			55.26		
Approach LOS	E			C			E			E		
d_I, Intersection Delay [s/veh]	45.79											
Intersection LOS	D											
Intersection V/C	0.790											

**Emissions**

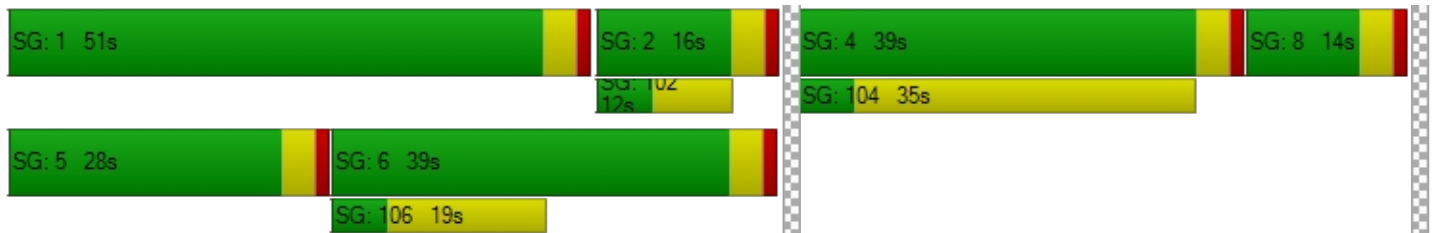
Vehicle Miles Traveled [mph]	24.95	610.87	292.46	26.03	125.98	1.26	4.78	223.30	6.06	106.09
Stops [stops/h]	53.13	1141.00	670.34	278.86	707.51	5.46	55.68	466.55	8.02	161.97
Fuel consumption [US gal/h]	2.05	43.43	24.29	8.12	18.73	0.15	1.12	17.58	0.38	7.03
CO [g/h]	143.10	3035.98	1697.94	567.89	1309.40	10.62	78.06	1228.50	26.82	491.67
NOx [g/h]	27.84	590.69	330.36	110.49	254.76	2.07	15.19	239.02	5.22	95.66
VOC [g/h]	33.16	703.62	393.51	131.62	303.47	2.46	18.09	284.72	6.22	113.95

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	51.34	51.34
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.318	1.803	2.610
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	200	167	583
d_b, Bicycle Delay [s]	30.10	48.60	50.42	30.10
I_b,int, Bicycle LOS Score for Intersection	2.690	2.434	1.673	2.771
Bicycle LOS	B	B	A	C

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	46.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	141	161	339	203	193	384	189	790	76	368	1097	296
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	85	0	0	96	0	0	19	0	0	74
Total Hourly Volume [veh/h]	141	161	254	203	193	288	189	790	57	368	1097	222
Peak Hour 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
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]	35	40	64	51	48	72	47	198	14	92	274	56
Total Analysis Volume [veh/h]	141	161	254	203	193	288	189	790	57	368	1097	222
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	21	0	12	28	0	7	15	0	16	24	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	18	29	0	21	32	0	21	19	0	31	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
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
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
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
g_i, Effective Green Time [s]	10	29	13	33	33	12	20	20	22	30	30
g / C, Green / Cycle	0.10	0.29	0.13	0.33	0.33	0.12	0.20	0.20	0.22	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.08	0.24	0.11	0.10	0.18	0.10	0.15	0.04	0.20	0.30	0.14
s, saturation flow rate [veh/h]	1810	1715	1810	1900	1615	1810	5176	1615	1810	3618	1615
c, Capacity [veh/h]	173	497	237	619	526	223	1014	317	403	1069	477
d1, Uniform Delay [s]	44.35	33.24	42.52	25.32	27.68	42.91	38.14	33.50	37.91	35.22	28.77
k, delay calibration	0.11	0.50	0.18	0.50	0.50	0.15	0.11	0.11	0.27	0.11	0.11
l, 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
d2, Incremental Delay [s]	8.94	15.14	13.38	1.31	4.07	11.29	1.33	0.27	17.24	20.10	0.71
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
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
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

**Lane Group Results**

X, volume / capacity	0.81	0.83	0.86	0.31	0.55	0.85	0.78	0.18	0.91	1.03	0.47
d, Delay for Lane Group [s/veh]	53.29	48.38	55.90	26.63	31.75	54.20	39.47	33.77	55.15	55.33	29.48
Lane Group LOS	D	D	E	C	C	D	D	C	E	F	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.86	11.44	5.79	3.68	6.23	4.99	5.81	1.10	10.05	14.77	4.09
50th-Percentile Queue Length [ft/ln]	96.62	286.01	144.82	92.06	155.84	124.77	145.28	27.62	251.16	369.26	102.28
95th-Percentile Queue Length [veh/ln]	6.96	16.99	9.74	6.63	10.33	8.65	9.76	1.99	15.24	21.41	7.36
95th-Percentile Queue Length [ft/ln]	173.92	424.68	243.50	165.71	258.20	216.36	244.12	49.72	381.12	535.33	184.11

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.29	48.38	48.38	55.90	26.63	31.75	54.20	39.47	33.77	55.15	55.33	29.48
Movement LOS	D	D	D	E	C	C	D	D	C	E	F	C
d_A, Approach Delay [s/veh]	49.62			37.47			41.85			51.89		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	46.46											
Intersection LOS	D											
Intersection V/C	0.762											

**Emissions**

Vehicle Miles Traveled [mph]	19.78	58.21	28.26	26.87	40.09	94.58	395.35	28.53	96.13	286.57	57.99
Stops [stops/h]	139.13	411.85	208.54	132.56	224.41	179.66	627.61	39.77	361.68	1063.46	147.28
Fuel consumption [US gal/h]	2.95	8.28	4.38	2.76	4.52	8.59	31.23	2.08	14.06	41.69	6.01
CO [g/h]	206.35	578.99	306.15	193.10	316.24	600.13	2182.85	145.72	983.05	2914.12	419.91
NOx [g/h]	40.15	112.65	59.57	37.57	61.53	116.76	424.70	28.35	191.27	566.98	81.70
VOC [g/h]	47.82	134.19	70.95	44.75	73.29	139.09	505.90	33.77	227.83	675.38	97.32

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.414	2.564	3.311	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	560	300	500
d_b, Bicycle Delay [s]	28.13	25.92	36.13	28.13
I_b,int, Bicycle LOS Score for Intersection	2.617	2.847	2.140	3.012
Bicycle LOS	B	C	B	C

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 25: Nuevo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	53.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.746

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	266	330	199	39	399	101	128	609	396	284	1391	157
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	50	0	0	25	0	0	99	0	0	39
Total Hourly Volume [veh/h]	266	330	149	39	399	76	128	609	297	284	1391	118
Peak Hour 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
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]	67	83	37	10	100	19	32	152	74	71	348	30
Total Analysis Volume [veh/h]	266	330	149	39	399	76	128	609	297	284	1391	118
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		

Version 2024 (SP 0-6)

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	27	0	0	27	0	7	22	0	19	34	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	44	0	0	44	0	11	26	0	20	35	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated 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	0.00	2.00	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]	40	40	40	40	7	22	22	16	31	31
g / C, Green / Cycle	0.44	0.44	0.44	0.44	0.08	0.25	0.25	0.18	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.28	0.17	0.09	0.29	0.07	0.17	0.18	0.16	0.38	0.07
s, saturation flow rate [veh/h]	934	1900	1615	1769	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	276	844	718	829	141	891	398	319	1246	556
d1, Uniform Delay [s]	33.05	16.81	15.30	19.25	41.19	30.75	31.33	36.24	29.50	20.86
k, delay calibration	0.50	0.50	0.50	0.50	0.27	0.11	0.25	0.24	0.11	0.11
l, 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]	45.34	1.36	0.66	3.47	36.62	0.94	6.44	16.80	55.18	0.19
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	0.96	0.39	0.21	0.62	0.91	0.68	0.75	0.89	1.12	0.21
d, Delay for Lane Group [s/veh]	78.39	18.17	15.96	22.72	77.80	31.69	37.77	53.04	84.68	21.05
Lane Group LOS	E	B	B	C	E	C	D	D	F	C
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	9.05	4.44	1.83	8.14	4.15	5.79	6.35	7.30	21.95	1.69
50th-Percentile Queue Length [ft/ln]	226.30	111.05	45.63	203.60	103.69	144.81	158.82	182.58	548.85	42.26
95th-Percentile Queue Length [veh/ln]	13.99	7.90	3.29	12.82	7.47	9.74	10.49	11.74	31.80	3.04
95th-Percentile Queue Length [ft/ln]	349.66	197.47	82.14	320.61	186.64	243.48	262.16	293.38	795.10	76.07

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	78.39	18.17	15.96	22.72	22.72	22.72	77.80	31.69	37.77	53.04	84.68	21.05
Movement LOS	E	B	B	C	C	C	E	C	D	D	F	C
d_A, Approach Delay [s/veh]	39.23			22.72			39.14			75.48		
Approach LOS	D			C			D			E		
d_I, Intersection Delay [s/veh]	53.04											
Intersection LOS	D											
Intersection V/C	0.746											

**Emissions**

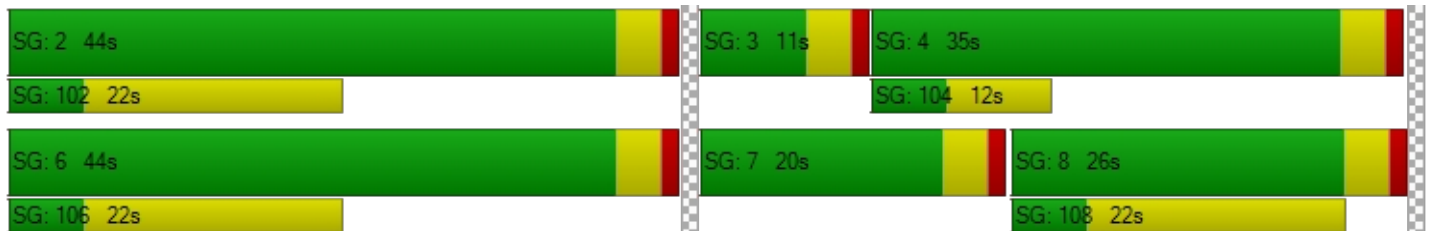
Vehicle Miles Traveled [mph]	100.50	124.68	56.30	258.24	64.76	308.10	150.25	142.12	696.11	59.05
Stops [stops/h]	362.09	177.68	73.01	325.76	165.90	463.39	254.11	292.13	1756.32	67.62
Fuel consumption [US gal/h]	12.19	7.70	3.32	15.28	5.98	19.52	10.16	11.03	66.16	3.29
CO [g/h]	852.09	538.46	232.16	1067.98	417.71	1364.12	710.27	770.71	4624.35	229.63
NOx [g/h]	165.79	104.76	45.17	207.79	81.27	265.41	138.19	149.95	899.73	44.68
VOC [g/h]	197.48	124.79	53.81	247.51	96.81	316.15	164.61	178.62	1071.74	53.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersectio	2.921	2.596	3.652	3.204
Crosswalk LOS	C	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	889	889	489	689
d_b, Bicycle Delay [s]	13.89	13.89	25.69	19.34
l_b,int, Bicycle LOS Score for Intersection	2.871	2.449	2.494	3.071
Bicycle LOS	C	B	B	C

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	47.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.805

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	281	1154	586	275	1035	342	413	806	143	496	946	401
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	147	0	0	86	0	0	36	0	0	100
Total Hourly Volume [veh/h]	281	1154	439	275	1035	256	413	806	107	496	946	301
Peak Hour 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
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]	70	289	110	69	259	64	103	202	27	124	237	75
Total Analysis Volume [veh/h]	281	1154	439	275	1035	256	413	806	107	496	946	301
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	14	38	0	8	32	0	9	32	0	16	39	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	23	44	0	15	36	0	18	39	0	22	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	19	45	45	11	37	37	14	30	30	18	34	34
g / C, Green / Cycle	0.16	0.38	0.38	0.09	0.31	0.31	0.12	0.25	0.25	0.15	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.16	0.22	0.27	0.08	0.29	0.09	0.12	0.22	0.07	0.14	0.18	0.19
s, saturation flow rate [veh/h]	1810	5176	1615	3514	3618	2859	3514	3618	1615	3514	5176	1615
c, Capacity [veh/h]	287	1955	610	322	1125	889	410	895	399	527	1453	453
d1, Uniform Delay [s]	50.32	29.90	31.91	53.71	39.90	31.28	53.00	43.74	36.40	50.47	37.99	38.16
k, delay calibration	0.41	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.14
l, 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]	43.65	1.32	7.17	6.42	13.39	0.82	22.46	3.65	0.36	8.83	0.50	2.22
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	0.98	0.59	0.72	0.85	0.92	0.29	1.01	0.90	0.27	0.94	0.65	0.66
d, Delay for Lane Group [s/veh]	93.97	31.22	39.08	60.13	53.29	32.10	75.46	47.39	36.76	59.30	38.49	40.38
Lane Group LOS	F	C	D	E	D	C	F	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	11.62	8.73	11.56	4.27	16.14	2.83	7.34	11.74	2.53	7.86	8.04	7.92
50th-Percentile Queue Length [ft/ln]	290.53	218.34	289.01	106.80	403.58	70.65	183.44	293.56	63.35	196.60	200.97	198.07
95th-Percentile Queue Length [veh/ln]	17.21	13.58	17.14	7.66	22.73	5.09	11.82	17.36	4.56	12.46	12.69	12.54
95th-Percentile Queue Length [ft/ln]	430.29	339.51	428.41	191.54	568.31	127.16	295.39	434.05	114.04	311.57	317.21	313.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	93.97	31.22	39.08	60.13	53.29	32.10	75.46	47.39	36.76	59.30	38.49	40.38
Movement LOS	F	C	D	E	D	C	F	D	D	E	D	D
d_A, Approach Delay [s/veh]	42.47			51.03			55.27			44.74		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	47.75											
Intersection LOS	D											
Intersection V/C	0.805											

**Emissions**

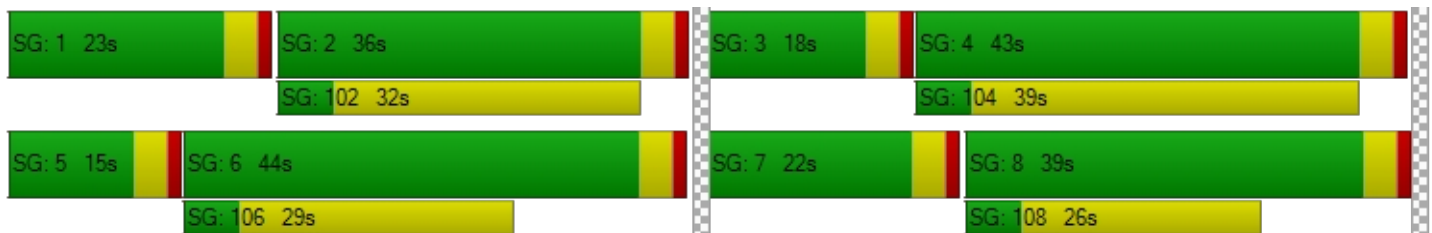
Vehicle Miles Traveled [mph]	105.79	434.45	165.27	137.25	516.54	127.76	91.99	179.52	23.83	250.93	478.59	152.28
Stops [stops/h]	348.63	786.03	346.81	256.32	968.59	169.55	440.24	704.53	76.03	471.84	723.47	237.69
Fuel consumption [US gal/h]	13.33	32.00	13.47	11.26	40.97	8.16	13.96	21.12	2.40	19.61	31.66	10.26
CO [g/h]	932.02	2236.57	941.44	786.79	2863.92	570.36	975.89	1476.53	167.82	1370.64	2213.02	717.39
NOx [g/h]	181.34	435.16	183.17	153.08	557.21	110.97	189.87	287.28	32.65	266.68	430.57	139.58
VOC [g/h]	216.01	518.35	218.19	182.35	663.74	132.19	226.17	342.20	38.89	317.66	512.89	166.26

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.625			3.575			3.339			3.453		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	667			533			583			650		
d_b, Bicycle Delay [s]	26.67			32.27			30.10			27.34		
I_b,int, Bicycle LOS Score for Intersection	2.671			2.923			2.683			2.573		
Bicycle LOS	B			C			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 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	21.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	179	0	1676	1437	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	179	0	1676	1437	86
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	45	0	419	359	22
Total Analysis Volume [veh/h]	0	179	0	1676	1437	86
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.59	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	21.87	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.21	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	30.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.87		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.16					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	85.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.074

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	361	0	765	0	0	0	1014	1124	0	0	1147	673
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	191	0	0	0	0	0	0	0	0	168
Total Hourly Volume [veh/h]	361	0	574	0	0	0	1014	1124	0	0	1147	505
Peak Hour 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
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]	90	0	144	0	0	0	254	281	0	0	287	126
Total Analysis Volume [veh/h]	361	0	574	0	0	0	1014	1124	0	0	1147	505
Presence of On-Street Parking	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		

Version 2024 (SP 0-6)

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	0	0	5	42	0	0	33	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	25	0	0	0	0	59	95	0	0	36	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	21	21		55	91	32	32
g / C, Green / Cycle	0.18	0.18		0.46	0.76	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20		0.56	0.22	0.22	0.31
s, saturation flow rate [veh/h]	1810	2859		1810	5176	5176	1615
c, Capacity [veh/h]	317	500		829	3925	1380	431
d1, Uniform Delay [s]	49.50	49.50		32.50	4.48	41.45	44.00
k, delay calibration	0.50	0.50		0.50	0.11	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	94.02	87.56		110.94	0.04	1.36	99.77
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	1.14	1.15		1.22	0.29	0.83	1.17
d, Delay for Lane Group [s/veh]	143.52	137.06		143.44	4.52	42.82	143.77
Lane Group LOS	F	F		F	A	D	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	17.54	13.41		48.09	2.27	10.54	24.33
50th-Percentile Queue Length [ft/ln]	438.61	335.23		1202.35	56.81	263.54	608.28
95th-Percentile Queue Length [veh/ln]	26.04	20.72		68.49	4.09	15.87	35.52
95th-Percentile Queue Length [ft/ln]	651.06	517.91		1712.33	102.26	396.65	888.09

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	143.52	143.52	137.06	0.00	0.00	0.00	143.44	4.52	0.00	0.00	42.82	143.77
Movement LOS	F	F	F				F	A			D	F
d_A, Approach Delay [s/veh]	139.55			0.00			70.41			73.68		
Approach LOS	F			A			E			E		
d_I, Intersection Delay [s/veh]	85.23											
Intersection LOS	F											
Intersection V/C	1.074											

**Emissions**

Vehicle Miles Traveled [mph]	62.75	99.77		84.01	93.12	63.04	27.76
Stops [stops/h]	526.33	804.56		1442.82	204.52	948.73	729.94
Fuel consumption [US gal/h]	17.96	27.49		46.78	6.38	21.57	22.94
CO [g/h]	1255.37	1921.20		3269.70	445.81	1507.81	1603.34
NOx [g/h]	244.25	373.80		636.16	86.74	293.37	311.95
VOC [g/h]	290.94	445.26		757.78	103.32	349.45	371.59

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.715	2.553	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	350	0	1517	533
d_b, Bicycle Delay [s]	40.84	60.00	3.50	32.27
I_b,int, Bicycle LOS Score for Intersection	3.418	4.132	2.736	2.561
Bicycle LOS	C	D	B	B

**Sequence**




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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.471

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	502	1	182	0	696	277	541	798	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	46	0	0	69	0	0	0
Total Hourly Volume [veh/h]	0	0	0	502	1	136	0	696	208	541	798	0
Peak Hour 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
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]	0	0	0	126	0	34	0	174	52	135	200	0
Total Analysis Volume [veh/h]	0	0	0	502	1	136	0	696	208	541	798	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	33	0	5	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	14	0	0	26	0	20	46	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	C	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		22	22	22	14	14	12	30
g / C, Green / Cycle		0.36	0.36	0.36	0.24	0.24	0.20	0.51
(v / s)_i Volume / Saturation Flow Rate		0.14	0.14	0.08	0.17	0.18	0.15	0.15
s, saturation flow rate [veh/h]		1810	1810	1615	3618	1694	3514	5176
c, Capacity [veh/h]		649	649	579	857	401	718	2628
d1, Uniform Delay [s]		14.32	14.32	13.47	20.96	21.25	22.45	8.59
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.74	1.74	0.95	1.07	2.85	1.63	0.06
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		0.39	0.39	0.23	0.70	0.75	0.75	0.30
d, Delay for Lane Group [s/veh]		16.07	16.07	14.42	22.03	24.10	24.08	8.66
Lane Group LOS		B	B	B	C	C	C	A
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		2.45	2.46	1.24	3.52	3.76	3.34	1.55
50th-Percentile Queue Length [ft/ln]		61.37	61.38	31.03	88.08	94.02	83.45	38.79
95th-Percentile Queue Length [veh/ln]		4.42	4.42	2.23	6.34	6.77	6.01	2.79
95th-Percentile Queue Length [ft/ln]		110.46	110.48	55.86	158.54	169.23	150.21	69.83

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	16.07	16.07	14.42	0.00	22.31	24.10	24.08	8.66	0.00
Movement LOS				B	B	B		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			15.71			22.72			14.89		
Approach LOS	A			B			C			B		
d_I, Intersection Delay [s/veh]	17.53											
Intersection LOS	B											
Intersection V/C	0.471											

**Emissions**

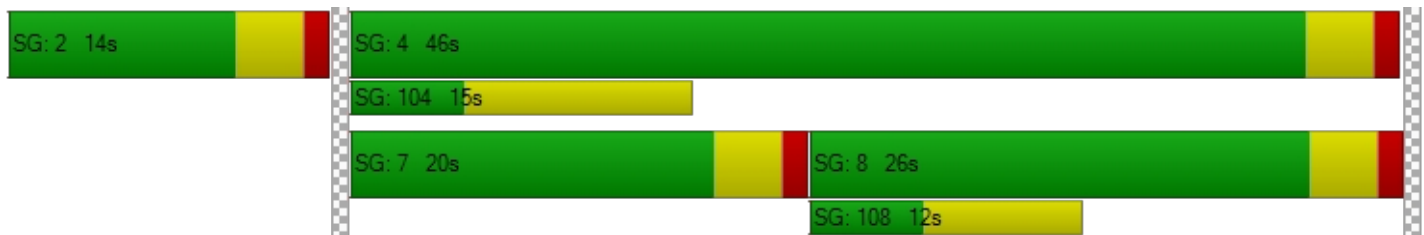
Vehicle Miles Traveled [mph]		21.74	21.75	11.76	159.73	79.86	44.82	66.11
Stops [stops/h]		147.29	147.31	74.48	422.78	225.64	400.56	279.30
Fuel consumption [US gal/h]		3.05	3.05	1.55	12.58	6.56	8.19	6.52
CO [g/h]		213.06	213.09	108.48	879.10	458.22	572.62	455.59
NOx [g/h]		41.45	41.46	21.11	171.04	89.15	111.41	88.64
VOC [g/h]		49.38	49.39	25.14	203.74	106.20	132.71	105.59

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.095	2.283	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	333	733	1400
d_b, Bicycle Delay [s]	30.00	20.83	12.03	2.70
I_b,int, Bicycle LOS Score for Intersection	4.132	2.690	2.095	2.296
Bicycle LOS	D	B	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	44.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.004

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	99	692	14	41	882	63	89	33	86	19	78	53
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	99	692	14	41	882	63	89	33	86	19	78	53
Peak Hour 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
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]	25	173	4	10	221	16	22	8	22	5	20	13
Total Analysis Volume [veh/h]	99	692	14	41	882	63	89	33	86	19	78	53
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	439	467	469	441	473	477	415	408
Degree of Utilization, x	0.23	0.76	0.75	0.09	1.00	0.99	0.50	0.37

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.86	6.42	6.37	0.31	13.44	13.07	2.73	1.66
95th-Percentile Queue Length [ft]	21.46	160.45	159.21	7.65	336.05	326.68	68.18	41.53
Approach Delay [s/veh]	28.37			65.98			20.08	16.89
Approach LOS	D			F			C	C
Intersection Delay [s/veh]	44.02							
Intersection LOS	E							

**Intersection Level Of Service Report**  
**Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.594

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	2083	296	68	1489	238	190
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	74	0	0	0	48
Total Hourly Volume [veh/h]	2083	222	68	1489	238	142
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	521	56	17	372	60	36
Total Analysis Volume [veh/h]	2083	222	68	1489	238	142
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	16	0	5	25	27	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	19	0	25	44	26	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	43	43	4	50	12	12
g / C, Green / Cycle	0.61	0.61	0.05	0.72	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.42	0.43	0.04	0.29	0.13	0.09
s, saturation flow rate [veh/h]	3618	1808	1810	5176	1810	1615
c, Capacity [veh/h]	2200	1100	98	3725	300	268
d1, Uniform Delay [s]	9.34	9.34	32.52	3.86	28.03	26.69
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.87	3.70	8.37	0.32	4.70	1.62
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.70	0.70	0.69	0.40	0.79	0.53
d, Delay for Lane Group [s/veh]	11.21	13.04	40.90	4.18	32.73	28.31
Lane Group LOS	B	B	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.95	6.51	1.28	1.42	4.11	2.23
50th-Percentile Queue Length [ft/ln]	148.82	162.82	31.93	35.53	102.73	55.81
95th-Percentile Queue Length [veh/ln]	9.95	10.70	2.30	2.56	7.40	4.02
95th-Percentile Queue Length [ft/ln]	248.86	267.46	57.48	63.96	184.91	100.45

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	11.69	13.04	40.90	4.18	32.73	28.31
Movement LOS	B	B	D	A	C	C
d_A, Approach Delay [s/veh]	11.82		5.79		31.08	
Approach LOS	B		A		C	
d_I, Intersection Delay [s/veh]	11.33					
Intersection LOS	B					
Intersection V/C	0.594					

**Emissions**

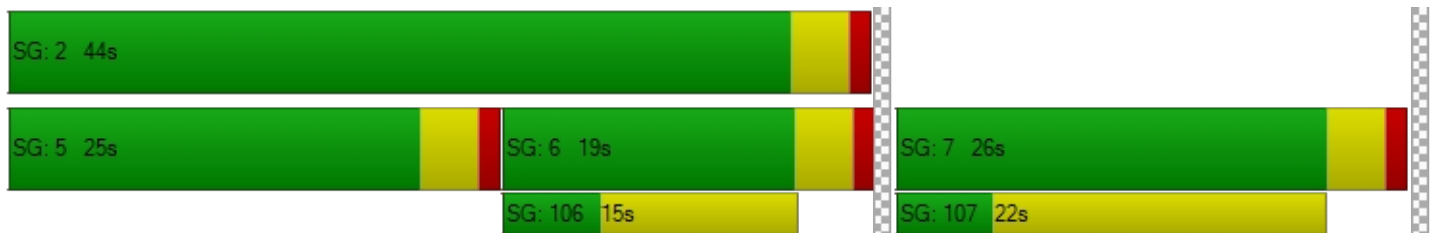
Vehicle Miles Traveled [mph]	667.20	333.60	25.60	560.57	119.47	71.28
Stops [stops/h]	612.29	334.95	65.69	219.29	211.33	114.80
Fuel consumption [US gal/h]	33.99	17.64	2.26	23.21	7.77	4.46
CO [g/h]	2375.74	1232.92	157.99	1622.28	543.01	312.02
NOx [g/h]	462.23	239.88	30.74	315.64	105.65	60.71
VOC [g/h]	550.60	285.74	36.61	375.98	125.85	72.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		26.58		26.58	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.383		2.212	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	429		1143		629	
d_b, Bicycle Delay [s]	21.61		6.43		16.46	
I_b,int, Bicycle LOS Score for Intersection	2.868		2.416		1.560	
Bicycle LOS	C		B		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	117.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.063

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	95	1536	13	458	1400	356	562	100	85	155	614	178
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	3	0	0	89	0	0	21	0	0	45
Total Hourly Volume [veh/h]	95	1536	10	458	1400	267	562	100	64	155	614	133
Peak Hour 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
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]	24	384	3	115	350	67	141	25	16	39	154	33
Total Analysis Volume [veh/h]	95	1536	10	458	1400	267	562	100	64	155	614	133
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	23	0	17	28	0	20	30	0	20	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	6	24	24	13	31	31	16	27	27	10	21	21
g / C, Green / Cycle	0.07	0.27	0.27	0.14	0.35	0.35	0.18	0.30	0.30	0.11	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.05	0.30	0.01	0.25	0.27	0.17	0.31	0.05	0.04	0.09	0.20	0.20
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	1900	1615	1810	1900	1784
c, Capacity [veh/h]	123	1391	434	261	1788	558	322	574	488	193	439	413
d1, Uniform Delay [s]	41.28	32.91	24.21	38.50	26.43	23.10	37.00	23.13	22.82	39.25	33.36	33.36
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.23	0.23
l, 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]	9.95	58.03	0.10	353.87	3.51	2.92	348.77	0.14	0.12	7.47	11.02	11.66
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	0.77	1.10	0.02	1.75	0.78	0.48	1.75	0.17	0.13	0.80	0.88	0.88
d, Delay for Lane Group [s/veh]	51.22	90.93	24.31	392.37	29.94	26.02	385.77	23.28	22.94	46.73	44.37	45.02
Lane Group LOS	D	F	C	F	C	C	F	C	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.32	16.80	0.16	31.14	8.76	4.54	37.81	1.49	0.94	3.59	8.91	8.44
50th-Percentile Queue Length [ft/ln]	57.97	419.97	3.99	778.44	218.97	113.57	945.32	37.17	23.52	89.64	222.77	211.10
95th-Percentile Queue Length [veh/ln]	4.17	24.91	0.29	48.93	13.61	8.04	59.10	2.68	1.69	6.45	13.81	13.21
95th-Percentile Queue Length [ft/ln]	104.35	622.65	7.19	1223.27	340.32	200.96	1477.57	66.91	42.33	161.35	345.16	330.25

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	51.22	90.93	24.31	392.37	29.94	26.02	385.77	23.28	22.94	46.73	44.61	45.02
Movement LOS	D	F	C	F	C	C	F	C	C	D	D	D
d_A, Approach Delay [s/veh]	88.23			107.56			303.85			45.04		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	117.64											
Intersection LOS	F											
Intersection V/C	1.063											

**Emissions**

Vehicle Miles Traveled [mph]	27.47	444.20	2.89	87.95	268.83	51.27	63.34	11.27	7.21	19.57	48.63	45.68
Stops [stops/h]	92.75	2015.84	6.39	1245.50	1051.08	181.71	1512.52	59.48	37.63	143.42	356.44	337.77
Fuel consumption [US gal/h]	3.09	68.71	0.23	55.06	30.81	5.43	65.09	1.60	1.01	3.93	9.58	9.08
CO [g/h]	215.65	4802.80	15.94	3848.87	2153.79	379.61	4549.56	111.81	70.87	274.55	669.41	634.68
NOx [g/h]	41.96	934.45	3.10	748.85	419.05	73.86	885.18	21.75	13.79	53.42	130.24	123.49
VOC [g/h]	49.98	1113.10	3.69	892.01	499.16	87.98	1054.40	25.91	16.42	63.63	155.14	147.09

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.332			3.674			2.861			2.752		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	422			533			578			578		
d_b, Bicycle Delay [s]	28.01			24.20			22.76			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.464			2.777			2.792			2.341		
Bicycle LOS	B			C			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	48.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	66	257	128	21	75	55	200	1454	75	146	2310	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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	32	0	0	14	0	0	19	0	0	36
Total Hourly Volume [veh/h]	66	257	96	21	75	41	200	1454	56	146	2310	109
Peak Hour 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
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]	17	64	24	5	19	10	50	364	14	37	578	27
Total Analysis Volume [veh/h]	66	257	96	21	75	41	200	1454	56	146	2310	109
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	35	0	5	32	0	6	29	0	5	28	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	39	0	9	36	0	17	48	0	24	55	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	6	37	37	3	34	34	13	52	52	12	51	51
g / C, Green / Cycle	0.05	0.31	0.31	0.02	0.29	0.29	0.11	0.44	0.44	0.10	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.10	0.01	0.02	0.03	0.11	0.28	0.03	0.08	0.45	0.07
s, saturation flow rate [veh/h]	1810	1900	1729	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	86	592	539	39	1034	462	196	2253	703	177	2200	686
d1, Uniform Delay [s]	56.49	31.44	31.54	58.11	31.25	31.40	53.50	26.61	19.82	53.10	34.50	21.27
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.41	0.11	0.11	0.11	0.11	0.11
l, 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]	13.27	1.34	1.54	10.94	0.14	0.38	63.47	0.31	0.05	9.15	25.82	0.11
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	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	0.77	0.31	0.32	0.54	0.07	0.09	1.02	0.65	0.08	0.82	1.05	0.16
d, Delay for Lane Group [s/veh]	69.76	32.78	33.08	69.05	31.39	31.78	116.97	26.92	19.87	62.25	60.32	21.38
Lane Group LOS	E	C	C	E	C	C	F	C	B	E	F	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.25	4.12	3.90	0.74	0.79	0.90	9.11	10.03	0.87	4.59	24.57	1.79
50th-Percentile Queue Length [ft/ln]	56.20	103.12	97.52	18.41	19.86	22.50	227.66	250.63	21.66	114.79	614.28	44.77
95th-Percentile Queue Length [veh/ln]	4.05	7.42	7.02	1.33	1.43	1.62	14.17	15.22	1.56	8.11	33.90	3.22
95th-Percentile Queue Length [ft/ln]	101.16	185.62	175.54	33.13	35.74	40.49	354.32	380.45	39.00	202.64	847.39	80.59

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	69.76	32.87	33.08	69.05	31.39	31.78	116.97	26.92	19.87	62.25	60.32	21.38
Movement LOS	E	C	C	E	C	C	F	C	B	E	F	C
d_A, Approach Delay [s/veh]	38.73			37.28			37.22			58.77		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	48.80											
Intersection LOS	D											
Intersection V/C	0.667											

**Emissions**

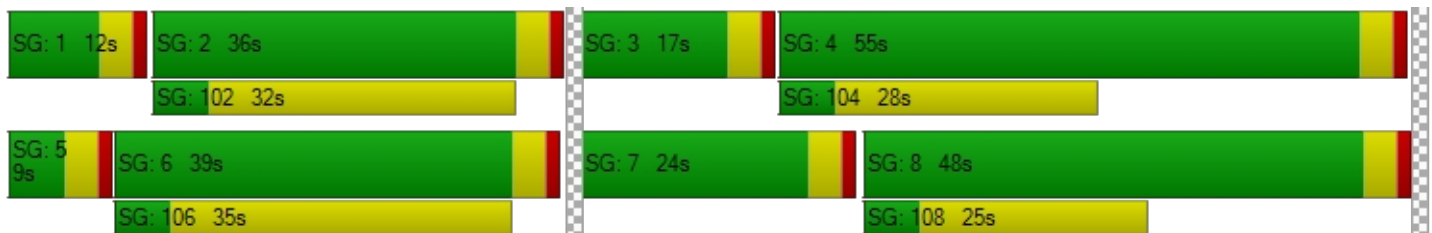
Vehicle Miles Traveled [mph]	38.33	105.82	99.17	3.68	13.13	7.18	22.68	164.90	6.35	36.49	577.31	27.24
Stops [stops/h]	67.44	123.74	117.03	22.09	47.66	26.99	273.20	902.27	26.00	137.74	2211.41	53.72
Fuel consumption [US gal/h]	3.09	6.38	6.00	0.70	1.52	0.85	10.59	30.24	0.92	5.63	88.74	2.38
CO [g/h]	215.93	446.07	419.69	48.63	106.37	59.19	740.47	2113.81	64.43	393.43	6202.82	166.60
NOx [g/h]	42.01	86.79	81.66	9.46	20.70	11.52	144.07	411.27	12.54	76.55	1206.84	32.41
VOC [g/h]	50.04	103.38	97.27	11.27	24.65	13.72	171.61	489.90	14.93	91.18	1437.56	38.61

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	2.579			2.672			3.718			3.731		
Crosswalk LOS	B			B			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			733			850		
d_b, Bicycle Delay [s]	30.10			32.27			24.07			19.84		
I_b,int, Bicycle LOS Score for Intersection	1.932			1.684			2.511			2.990		
Bicycle LOS	A			A			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.320

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	93	612	138	55	213	35	25	192	84	21	298	18
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	35	0	0	9	0	0	21	0	0	5
Total Hourly Volume [veh/h]	93	612	103	55	213	26	25	192	63	21	298	13
Peak Hour 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
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]	23	153	26	14	53	7	6	48	16	5	75	3
Total Analysis Volume [veh/h]	93	612	103	55	213	26	25	192	63	21	298	13
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	27	33	0	21	27	0	9	37	0	9	37	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	7	67	67	4	64	64	3	11	11	2	11	11
g / C, Green / Cycle	0.07	0.67	0.67	0.04	0.64	0.64	0.03	0.11	0.11	0.02	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.05	0.19	0.19	0.03	0.06	0.06	0.01	0.07	0.07	0.01	0.08	0.08
s, saturation flow rate [veh/h]	1810	1900	1806	1810	1900	1829	1810	1900	1745	1810	1900	1872
c, Capacity [veh/h]	121	1268	1205	73	1217	1172	45	210	192	40	204	201
d1, Uniform Delay [s]	45.89	6.85	6.85	47.52	6.90	6.91	48.18	42.49	42.62	48.37	43.40	43.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	9.73	0.58	0.61	14.81	0.16	0.17	9.95	2.99	3.64	10.12	5.88	6.12
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	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	0.77	0.29	0.29	0.76	0.10	0.10	0.55	0.62	0.65	0.52	0.77	0.77
d, Delay for Lane Group [s/veh]	55.62	7.43	7.46	62.33	7.06	7.08	58.14	45.48	46.27	58.48	49.29	49.55
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.52	2.77	2.65	1.61	0.88	0.87	0.73	3.20	3.10	0.62	4.02	4.00
50th-Percentile Queue Length [ft/ln]	62.98	69.28	66.22	40.23	22.01	21.66	18.33	79.89	77.46	15.60	100.60	100.08
95th-Percentile Queue Length [veh/ln]	4.53	4.99	4.77	2.90	1.58	1.56	1.32	5.75	5.58	1.12	7.24	7.21
95th-Percentile Queue Length [ft/ln]	113.37	124.71	119.19	72.41	39.62	38.99	33.00	143.81	139.42	28.08	181.07	180.15

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	55.62	7.44	7.46	62.33	7.07	7.08	58.14	45.73	46.27	58.48	49.41	49.55
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	12.99			17.41			46.96			49.99		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	26.46											
Intersection LOS	C											
Intersection V/C	0.320											

**Emissions**

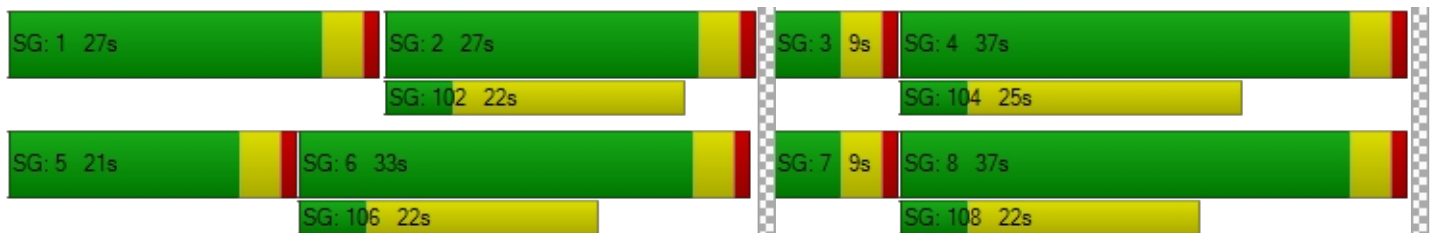
Vehicle Miles Traveled [mph]	46.22	182.06	173.28	31.94	70.08	68.71	1.10	5.74	5.50	10.53	78.31	77.66
Stops [stops/h]	90.70	99.76	95.35	57.93	31.69	31.19	26.40	115.04	111.54	22.46	144.86	144.12
Fuel consumption [US gal/h]	3.76	8.03	7.65	2.51	2.97	2.91	0.54	2.29	2.22	0.82	5.64	5.61
CO [g/h]	263.13	561.62	535.07	175.63	207.58	203.66	37.49	160.02	155.38	57.34	394.27	391.81
NOx [g/h]	51.20	109.27	104.10	34.17	40.39	39.63	7.29	31.13	30.23	11.16	76.71	76.23
VOC [g/h]	60.98	130.16	124.01	40.70	48.11	47.20	8.69	37.09	36.01	13.29	91.38	90.81

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	2.696			2.599			2.502			2.478		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			460			660			660		
d_b, Bicycle Delay [s]	25.21			29.65			22.45			22.45		
I_b,int, Bicycle LOS Score for Intersection	2.255			1.810			1.808			1.838		
Bicycle LOS	B			A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	23.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.342

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	100.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	44	656	100	26	99	18	7	77	32	199	177	134
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	25	0	0	5	0	0	8	0	0	34
Total Hourly Volume [veh/h]	44	656	75	26	99	13	7	77	24	199	177	100
Peak Hour 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
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]	11	164	19	7	25	3	2	19	6	50	44	25
Total Analysis Volume [veh/h]	44	656	75	26	99	13	7	77	24	199	177	100
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	9	30	0	21	26	0	25	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	3	50	50	2	50	50	1	9	9	12	20	20
g / C, Green / Cycle	0.04	0.56	0.56	0.03	0.55	0.55	0.01	0.10	0.10	0.13	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.20	0.20	0.01	0.03	0.01	0.00	0.02	0.01	0.11	0.05	0.06
s, saturation flow rate [veh/h]	1810	1900	1832	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	67	1064	1026	48	1988	888	19	374	167	239	814	363
d1, Uniform Delay [s]	42.75	10.83	10.83	43.24	9.38	9.20	44.25	36.97	36.73	38.09	28.42	28.81
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.22	0.91	0.94	8.91	0.05	0.03	11.96	0.27	0.39	7.38	0.13	0.41
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	0.65	0.35	0.35	0.54	0.05	0.01	0.37	0.21	0.14	0.83	0.22	0.28
d, Delay for Lane Group [s/veh]	52.98	11.73	11.77	52.15	9.43	9.23	56.21	37.24	37.12	45.47	28.55	29.21
Lane Group LOS	D	B	B	D	A	A	E	D	D	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.15	4.01	3.88	0.67	0.40	0.11	0.21	0.76	0.48	4.55	1.49	1.73
50th-Percentile Queue Length [ft/ln]	28.67	100.23	97.09	16.69	10.09	2.70	5.28	18.90	11.94	113.64	37.15	43.16
95th-Percentile Queue Length [veh/ln]	2.06	7.22	6.99	1.20	0.73	0.19	0.38	1.36	0.86	8.04	2.68	3.11
95th-Percentile Queue Length [ft/ln]	51.60	180.42	174.75	30.05	18.16	4.86	9.50	34.03	21.50	201.06	66.88	77.68

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.98	11.75	11.77	52.15	9.43	9.23	56.21	37.24	37.12	45.47	28.55	29.21
Movement LOS	D	B	B	D	A	A	E	D	D	D	C	C
d_A, Approach Delay [s/veh]	14.09			17.46			38.44			35.76		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.05											
Intersection LOS	C											
Intersection V/C	0.342											

**Emissions**

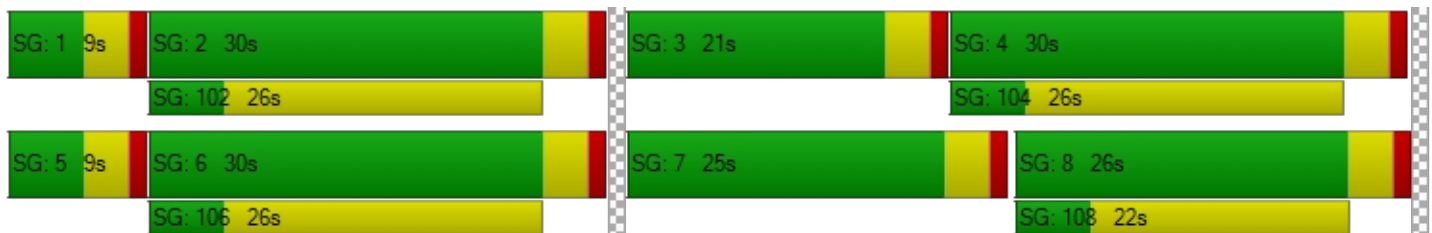
Vehicle Miles Traveled [mph]	21.99	185.87	179.53	12.92	49.20	6.46	1.17	12.85	4.01	85.66	76.19	43.05
Stops [stops/h]	45.87	160.37	155.34	26.71	32.29	4.32	8.44	60.49	19.11	181.83	118.89	69.05
Fuel consumption [US gal/h]	1.63	9.43	9.11	1.05	2.28	0.30	0.23	1.78	0.56	7.04	5.12	2.93
CO [g/h]	114.16	658.85	636.75	73.46	159.23	20.94	15.73	124.15	38.88	491.99	357.76	204.71
NOx [g/h]	22.21	128.19	123.89	14.29	30.98	4.07	3.06	24.15	7.56	95.72	69.61	39.83
VOC [g/h]	26.46	152.70	147.57	17.03	36.90	4.85	3.65	28.77	9.01	114.02	82.91	47.44

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.557			2.799			2.552			2.677		
Crosswalk LOS	B			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			578			489			578		
d_b, Bicycle Delay [s]	22.76			22.76			25.69			22.76		
I_b,int, Bicycle LOS Score for Intersection	2.220			1.678			1.655			1.980		
Bicycle LOS	B			A			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 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	49.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.800

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	180	1031	61	182	870	288	446	884	120	61	757	61
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	15	0	0	72	0	0	30	0	0	15
Total Hourly Volume [veh/h]	180	1031	46	182	870	216	446	884	90	61	757	46
Peak Hour 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
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]	45	258	12	46	218	54	112	221	23	15	189	12
Total Analysis Volume [veh/h]	180	1031	46	182	870	216	446	884	90	61	757	46
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	26	0	13	26	0	25	41	0	10	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	9	23	23	9	23	23	21	38	38	4	21	21
g / C, Green / Cycle	0.10	0.25	0.25	0.10	0.25	0.25	0.23	0.42	0.42	0.04	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.10	0.20	0.20	0.10	0.24	0.13	0.25	0.26	0.26	0.03	0.21	0.21
s, saturation flow rate [veh/h]	1810	3618	1859	1810	3618	1615	1810	1900	1839	1810	1900	1862
c, Capacity [veh/h]	181	920	473	181	920	411	422	803	778	81	445	437
d1, Uniform Delay [s]	40.48	31.14	31.14	40.50	32.94	28.88	34.50	20.24	20.29	42.48	33.53	33.53
k, delay calibration	0.35	0.50	0.50	0.36	0.50	0.50	0.47	0.16	0.17	0.11	0.34	0.34
l, 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]	54.98	6.27	11.65	58.35	19.04	4.75	58.21	1.17	1.25	12.91	19.11	19.44
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	0.99	0.77	0.77	1.01	0.95	0.53	1.06	0.61	0.62	0.75	0.91	0.91
d, Delay for Lane Group [s/veh]	95.46	37.41	42.79	98.85	51.98	33.63	92.71	21.41	21.54	55.39	52.64	52.97
Lane Group LOS	F	D	D	F	D	C	F	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.55	7.47	8.39	6.74	11.07	4.30	15.67	7.79	7.63	1.60	10.63	10.46
50th-Percentile Queue Length [ft/ln]	163.71	186.84	209.74	168.49	276.63	107.50	391.75	194.77	190.67	40.09	265.75	261.50
95th-Percentile Queue Length [veh/ln]	10.75	11.96	13.14	11.02	16.52	7.70	22.86	12.37	12.16	2.89	15.98	15.76
95th-Percentile Queue Length [ft/ln]	268.63	298.93	328.50	275.55	413.02	192.51	571.49	309.22	303.89	72.15	399.43	394.10

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	95.46	39.07	42.79	98.85	51.98	33.63	92.71	21.47	21.54	55.39	52.80	52.97
Movement LOS	F	D	D	F	D	C	F	C	C	E	D	D
d_A, Approach Delay [s/veh]	47.28			55.58			43.85			52.99		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	49.48											
Intersection LOS	D											
Intersection V/C	0.800											

**Emissions**

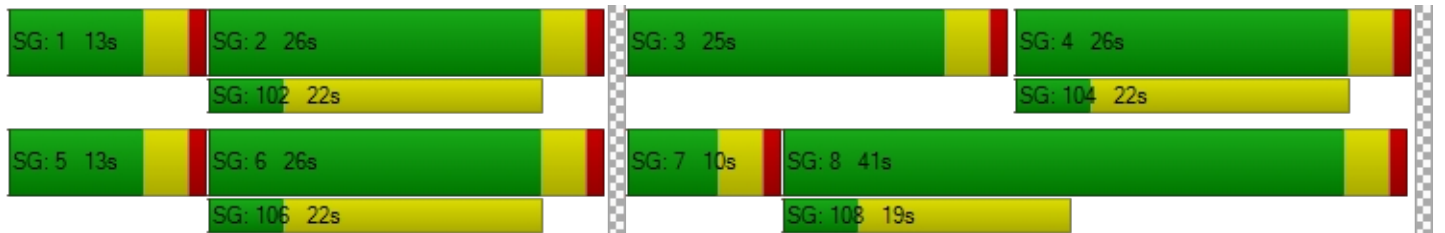
Vehicle Miles Traveled [mph]	12.90	50.96	26.20	52.63	251.60	62.47	41.34	45.72	44.56	7.23	48.09	47.14
Stops [stops/h]	261.94	597.89	335.59	269.59	885.23	171.99	626.80	311.64	305.06	64.14	425.20	418.40
Fuel consumption [US gal/h]	7.20	14.60	8.25	8.82	28.83	5.76	14.70	6.24	6.10	1.45	9.37	9.23
CO [g/h]	502.94	1020.23	576.96	616.28	2015.35	402.46	1027.77	435.88	426.40	101.05	655.29	645.06
NOx [g/h]	97.85	198.50	112.25	119.91	392.11	78.30	199.97	84.81	82.96	19.66	127.50	125.50
VOC [g/h]	116.56	236.45	133.72	142.83	467.08	93.27	238.20	101.02	98.82	23.42	151.87	149.50

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.042			3.299			2.953			2.779		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	489			489			822			489		
d_b, Bicycle Delay [s]	25.69			25.69			15.61			25.69		
I_b,int, Bicycle LOS Score for Intersection	2.259			2.665			2.756			2.285		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↵		↵		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	403	487	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	10	10	0	5	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.68	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.03	0.05	0.00	0.00	0.00	0.00
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	0.00	0.08	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.38	0.49	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.68	0.88	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.33	0.72	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.33		0.72		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.54					
Intersection LOS	A					
Intersection V/C	0.094					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	62.06	31.31	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.37	1.75	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.17	1.17	0.00	0.00	0.00	0.00
CO [g/h]	0.00	151.78	81.54	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	29.53	15.86	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	35.18	18.90	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.795		2.795		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.781		1.827		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↶↷		↶↷	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.175

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	165	10	91	174	91	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	165	10	91	174	91	57
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	3	23	44	23	14
Total Analysis Volume [veh/h]	165	10	91	174	91	57
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.00	0.18	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	7.72	0.00	13.39	8.96
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.21	0.00	0.63	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.15	0.00	15.74	4.69
d_A, Approach Delay [s/veh]	0.00		2.65		11.68	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.14					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↗	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	403	487	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↑		↶	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	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	0	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	403	487	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	403	487	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	101	122	0	0	0
Total Analysis Volume [veh/h]	0	403	487	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.54
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	403	14	0	487	0	0	0	0	0	0	7
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	403	14	0	487	0	0	0	0	0	0	7
Peak Hour 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
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]	0	101	4	0	122	0	0	0	0	0	0	2
Total Analysis Volume [veh/h]	0	403	14	0	487	0	0	0	0	0	0	7
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	10.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.54	0.00	0.00	10.32
Movement LOS	B	A	A		A	A			B			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
d_A, Approach Delay [s/veh]	0.00			0.00			10.54			10.32		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.08											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	20.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.137

**Intersection Setup**

Name	Northbound			Southbound			Orange Ave Eastbound			Orange Ave Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
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	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Northbound			Southbound			Orange Ave Eastbound			Orange Ave Westbound		
Base Volume Input [veh/h]	0	0	0	37	0	7	30	388	0	1	523	43
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	37	0	7	30	388	0	1	523	43
Peak Hour 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
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]	0	0	0	9	0	2	8	97	0	0	131	11
Total Analysis Volume [veh/h]	0	0	0	37	0	7	30	388	0	1	523	43
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.14	0.00	0.01	0.03	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.58	20.48	9.38	20.34	22.08	12.04	8.65	0.00	0.00	8.05	0.00	0.00
Movement LOS	C	C	A	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.51	0.51	0.51	0.09	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	12.66	12.66	12.66	2.28	0.00	0.00	0.06	0.00	0.00
d_A, Approach Delay [s/veh]	15.48			19.02			0.62			0.01		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	1.07											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	70.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	370	0	0	530
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	370	0	0	530
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	93	0	0	133
Total Analysis Volume [veh/h]	0	0	370	0	0	530
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	13.67	9.33	0.00	0.00	8.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.50		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	21	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.60	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱↲		↱↲	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	21	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	21	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	5	0	0	0
Total Analysis Volume [veh/h]	0	0	21	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound			Frontage Rd		Westbound	
Approach	Northbound			Southbound		Westbound	
Lane Configuration							
Turning Movement	U-turn	Thru	Right	Left	Thru	Left	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	0	1	0	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]	45.00			30.00		30.00	
Grade [%]	0.00			0.00		0.00	
Curb Present	No			No		No	
Crosswalk	Yes			Yes		Yes	

**Volumes**

Name				Frontage Rd			
Base Volume Input [veh/h]	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0
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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	0	6	0	0	2	0	4
Auxiliary Signal Groups							
Maximum Green [s]	0	27	0	0	27	0	25
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	0	5	0	0	5	0	5
Pedestrian Clearance [s]	0	14	0	0	10	0	20
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]	0.0	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0
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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	5
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		No			No		No
Maximum Recall		No			No		No
Pedestrian Recall		No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	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
g_i, Effective Green Time [s]	52	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1440	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1299	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A
Critical Lane Group	No	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00			0.00			0.00
Approach LOS	A			A			A
d_I, Intersection Delay [s/veh]	0.00						
Intersection LOS	A						
Intersection V/C	0.000						

**Emissions**

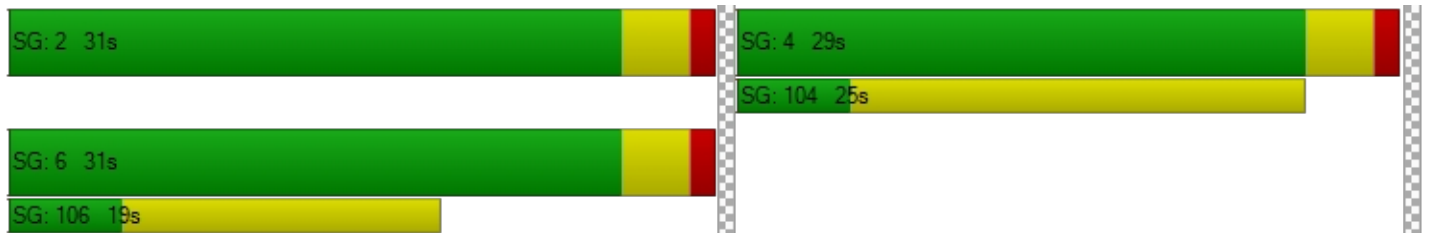
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00
d_p, Pedestrian Delay [s]	21.68			21.68			21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.281			2.281			1.921
Crosswalk LOS	B			B			A
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000
c_b, Capacity of the bicycle lane [bicycles/h]	900			900			833
d_b, Bicycle Delay [s]	9.08			9.08			10.21
I_b,int, Bicycle LOS Score for Intersection	1.560			1.560			1.560
Bicycle LOS	A			A			A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↻	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
Approach	Northbound		Southbound			
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			+		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	47	0	0	0	0	0	0	59	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	47	0	0	0	0	0	0	59	0	0
Peak Hour 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
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]	0	0	12	0	0	0	0	0	0	15	0	0
Total Analysis Volume [veh/h]	0	0	47	0	0	0	0	0	0	59	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.29	0.00	0.00	8.62	0.00	8.30	8.85	9.35	8.63
Movement LOS	A	A	A	A	A	A	A		A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.73	4.73	4.73
d_A, Approach Delay [s/veh]	0.00			2.43			8.46			8.85		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	4.93											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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Harvest Landing

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Report File: C:\...\GP PM.pdf

Scenario 2 GP PM  
10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	NB Left	1.043	131.8	F
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	SB Left	1.066	207.5	F
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	1.376	238.0	F
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	EB Left	0.881	57.4	E
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.917	66.5	E
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	WB Left	0.587	16.8	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	EB Left	0.542	32.3	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	WB Left	0.772	42.9	D
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	NB Left	0.596	31.8	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Left	3.305	390.6	F
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	NB Left	1.243	209.6	F
12	Placentia Ave/Barrett Ave	All-way stop	HCM 7th Edition	NB Right	1.307	69.2	F
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	SB Left	0.683	31.6	C
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	EB Left	0.713	29.0	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	WB Right	0.483	16.2	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	EB Right	0.557	19.9	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	EB Left	0.497	34.1	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	WB Left	0.811	51.4	D
19	Orange Ave/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.442	24.9	C
20	Orange Ave/Indian Ave	All-way stop	HCM 7th Edition	SB Left	0.511	15.1	C
21	Orange Ave/Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.018	16.1	C
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	EB Right	1.114	54.4	F
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	SB Left	0.857	59.5	E
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	EB Left	0.557	32.7	C
25	Nuevo Rd/Redlands Ave	Signalized	HCM 7th Edition	NB Left	0.639	26.1	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.799	47.1	D
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	1.351	50.5	F
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.658	16.1	B
29	Nuevo Rd/I-215 SB	Signalized	HCM 7th Edition	SB Left	0.826	41.3	D
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	NB Thru	0.604	16.5	C
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.386	6.9	A
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	EB Left	1.042	103.0	F
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	NB Left	0.707	47.7	D
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	NB Left	0.483	27.2	C
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	WB Left	0.427	31.9	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	NB Left	0.727	39.8	D
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	SB Thru	0.089	0.5	A
38	Barrett Ave/Harvest Landing Way	All-way stop	HCM 7th Edition	NB Thru	0.000	0.0	A

39	Barrett Ave/I-215 Frontage Road	Two-way stop	HCM 7th Edition	WB Left	0.176	15.5	C
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition		0.000	0.0	
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	SB Thru	0.005	0.0	A
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	WB Right	0.024	10.6	B
46	Commercial Driveway 9/Orange Ave	Two-way stop	HCM 7th Edition	SB Left	0.566	40.4	E
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	WB Thru	0.005	0.0	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	EB Thru	0.000	0.0	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition		0.000	0.0	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.113	9.3	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition		0.000	0.0	
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition		0.000	0.0	

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	131.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.043

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	457	2194	524	244	1754	83	119	765	267	354	706	140
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	131	0	0	21	0	0	67	0	0	35
Total Hourly Volume [veh/h]	457	2194	393	244	1754	62	119	765	200	354	706	105
Peak Hour 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
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]	114	549	98	61	439	16	30	191	50	89	177	26
Total Analysis Volume [veh/h]	457	2194	393	244	1754	62	119	765	200	354	706	105
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	22	0	14	25	0	5	35	0	13	43	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	17	34	0	12	29	0	17	39	0	15	37	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	13	36	36	8	31	31	8	29	29	11	32	32
g / C, Green / Cycle	0.13	0.36	0.36	0.08	0.31	0.31	0.08	0.29	0.29	0.11	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.25	0.42	0.24	0.13	0.33	0.33	0.07	0.26	0.26	0.20	0.22	0.22
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1867	1810	1900	1766	1810	1900	1815
c, Capacity [veh/h]	235	1857	579	145	1117	577	151	553	514	199	604	577
d1, Uniform Delay [s]	43.50	32.06	27.17	46.00	34.56	34.56	44.97	34.09	34.10	44.50	29.75	29.77
k, delay calibration	0.50	0.50	0.50	0.38	0.50	0.50	0.11	0.27	0.27	0.50	0.11	0.11
l, 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]	439.44	87.55	6.28	330.02	48.15	59.02	8.84	12.86	13.75	369.88	1.39	1.47
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	1.94	1.18	0.68	1.69	1.07	1.07	0.79	0.90	0.90	1.78	0.69	0.69
d, Delay for Lane Group [s/veh]	482.94	119.61	33.44	376.02	82.71	93.58	53.81	46.95	47.85	414.38	31.15	31.23
Lane Group LOS	F	F	C	F	F	F	D	D	D	F	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	34.29	28.80	8.41	16.73	20.10	22.49	3.16	12.92	12.15	25.18	8.38	8.04
50th-Percentile Queue Length [ft/ln]	857.13	720.04	210.17	418.27	502.54	562.22	79.04	322.97	303.68	629.57	209.53	200.90
95th-Percentile Queue Length [veh/ln]	53.91	41.83	13.16	27.10	28.68	31.69	5.69	18.81	17.86	39.89	13.13	12.68
95th-Percentile Queue Length [ft/ln]	1347.75	1045.67	329.05	677.60	716.94	792.27	142.27	470.34	446.58	997.35	328.22	317.12

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	482.94	119.61	33.44	376.02	86.17	93.58	53.81	47.26	47.85	414.38	31.18	31.23
Movement LOS	F	F	C	F	F	F	D	D	D	F	C	C
d_A, Approach Delay [s/veh]	163.03			120.72			48.09			147.63		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	131.79											
Intersection LOS	F											
Intersection V/C	1.043											

**Emissions**

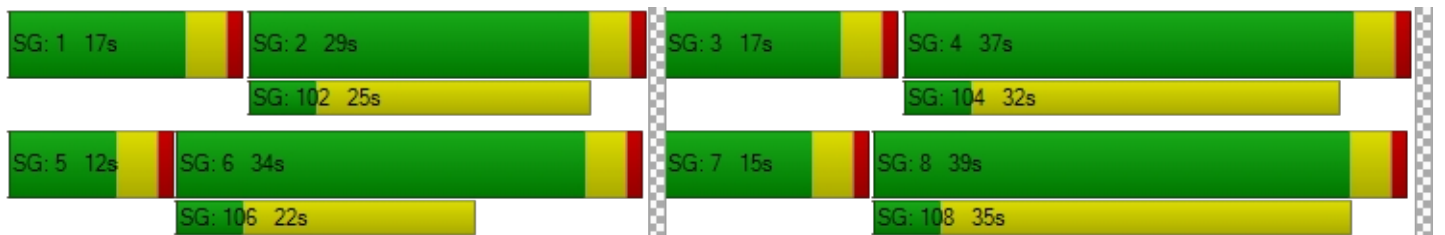
Vehicle Miles Traveled [mph]	228.98	1099.30	196.91	15.20	74.55	38.59	8.31	34.91	32.47	23.28	27.25	26.08
Stops [stops/h]	1234.27	3110.57	302.64	602.31	1447.33	809.60	113.81	465.08	437.30	906.58	301.72	289.29
Fuel consumption [US gal/h]	68.10	129.75	13.19	26.68	40.69	23.18	3.00	11.76	11.08	41.91	7.31	7.01
CO [g/h]	4760.09	9069.60	921.78	1864.70	2844.22	1620.45	209.90	821.69	774.41	2929.84	511.13	490.12
NOx [g/h]	926.14	1764.61	179.34	362.80	553.38	315.28	40.84	159.87	150.67	570.04	99.45	95.36
VOC [g/h]	1103.20	2101.97	213.63	432.16	659.17	375.56	48.65	190.43	179.48	679.02	118.46	113.59

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	41.41		41.41		41.41		41.41	
I_p,int, Pedestrian LOS Score for Intersectio	3.933		3.578		3.103		3.156	
Crosswalk LOS	D		D		C		C	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	600		500		700		660	
d_b, Bicycle Delay [s]	24.50		28.13		21.13		22.45	
I_b,int, Bicycle LOS Score for Intersection	3.306		2.704		2.509		2.550	
Bicycle LOS	C		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 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	207.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.066

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	195	2599	305	189	2056	54	55	402	197	359	411	208
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	76	0	0	14	0	0	49	0	0	52
Total Hourly Volume [veh/h]	195	2599	229	189	2056	40	55	402	148	359	411	156
Peak Hour 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
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]	49	650	57	47	514	10	14	101	37	90	103	39
Total Analysis Volume [veh/h]	195	2599	229	189	2056	40	55	402	148	359	411	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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	14	22	0	11	19	0	0	29	0	0	32	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	20	42	0	12	34	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated 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]	15	41	41	8	34	34	27	27	27	28	28	28
g / C, Green / Cycle	0.12	0.34	0.34	0.07	0.28	0.28	0.23	0.23	0.23	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.11	0.51	0.53	0.10	0.38	0.38	0.03	0.21	0.09	0.20	0.22	0.10
s, saturation flow rate [veh/h]	1810	3618	1824	1810	3618	1882	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	223	1224	617	121	1019	530	414	434	369	422	443	376
d1, Uniform Delay [s]	51.69	39.70	39.70	56.00	43.10	43.10	36.82	45.28	39.30	44.03	45.03	39.07
k, delay calibration	0.28	0.50	0.50	0.47	0.50	0.50	0.11	0.34	0.11	0.26	0.31	0.11
l, 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]	22.42	236.06	267.84	289.33	164.82	172.23	0.14	21.26	0.70	11.11	20.30	0.73
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	0.87	1.52	1.58	1.57	1.35	1.36	0.13	0.93	0.40	0.85	0.93	0.41
d, Delay for Lane Group [s/veh]	74.11	275.77	307.55	345.33	207.92	215.33	36.96	66.53	40.00	55.13	65.34	39.80
Lane Group LOS	E	F	F	F	F	F	D	E	D	E	E	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.00	57.21	63.15	13.26	37.77	40.38	1.29	13.97	3.72	11.26	14.16	3.92
50th-Percentile Queue Length [ft/ln]	174.97	1430.37	1578.82	331.40	944.20	1009.44	32.15	349.37	92.95	281.44	353.91	97.88
95th-Percentile Queue Length [veh/ln]	11.34	87.01	96.64	21.71	56.34	59.95	2.31	20.11	6.69	16.76	20.33	7.05
95th-Percentile Queue Length [ft/ln]	283.44	2175.21	2415.93	542.79	1408.42	1498.76	57.86	502.64	167.31	419.00	508.17	176.19

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	74.11	284.87	307.55	345.33	210.36	215.33	36.96	66.53	40.00	55.13	65.34	39.80
Movement LOS	E	F	F	F	F	F	D	E	D	E	E	D
d_A, Approach Delay [s/veh]	273.00			221.61			57.36			57.08		
Approach LOS	F			F			E			E		
d_I, Intersection Delay [s/veh]	207.52											
Intersection LOS	F											
Intersection V/C	1.066											

**Emissions**

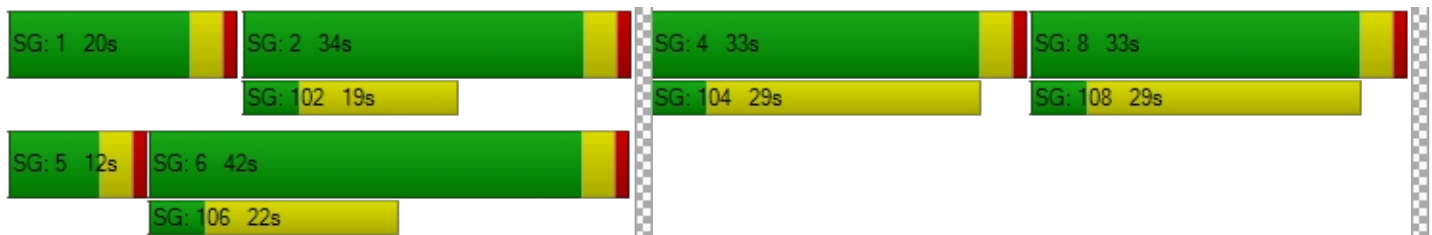
Vehicle Miles Traveled [mph]	320.80	3050.38	1602.09	94.70	690.13	360.06	4.59	33.58	12.36	42.69	48.87	18.55
Stops [stops/h]	209.96	3432.90	1894.58	397.68	2266.08	1211.33	38.58	419.25	111.54	337.73	424.69	117.46
Fuel consumption [US gal/h]	16.55	251.27	139.41	21.47	110.10	58.89	0.96	10.76	2.74	8.87	11.39	3.08
CO [g/h]	1156.67	17564.0	9744.52	1500.73	7695.86	4116.14	66.91	752.39	191.75	620.31	795.92	215.40
NOx [g/h]	225.05	3417.33	1895.93	291.99	1497.34	800.85	13.02	146.39	37.31	120.69	154.86	41.91
VOC [g/h]	268.07	4070.64	2258.39	347.81	1783.59	953.95	15.51	174.37	44.44	143.76	184.46	49.92

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.910			3.707			2.643			2.876		
Crosswalk LOS	D			D			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	633			500			483			483		
d_b, Bicycle Delay [s]	28.02			33.75			34.50			34.50		
I_b,int, Bicycle LOS Score for Intersection	3.264			2.824			2.639			3.173		
Bicycle LOS	C			C			B			C		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	238.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.376

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	51	2190	103	218	2379	398	349	532	86	1194	459	1504
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	26	0	0	100	0	0	22	0	0	376
Total Hourly Volume [veh/h]	51	2190	77	218	2379	298	349	532	64	1194	459	1128
Peak Hour 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
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]	13	548	19	55	595	75	87	133	16	299	115	282
Total Analysis Volume [veh/h]	51	2190	77	218	2379	298	349	532	64	1194	459	1128
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	5	35	0	15	48	0	5	38	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	40	0	9	37	0	18	40	0	31	53	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	4	36	36	5	37	37	14	36	36	27	49	49
g / C, Green / Cycle	0.03	0.30	0.30	0.04	0.31	0.31	0.12	0.30	0.30	0.23	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.01	0.42	0.05	0.06	0.46	0.18	0.19	0.15	0.04	0.34	0.09	0.70
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	123	1553	485	146	1587	495	211	1085	485	791	2113	659
d1, Uniform Delay [s]	56.69	42.00	30.87	57.50	41.60	35.38	53.00	34.47	30.61	46.50	23.05	35.50
k, delay calibration	0.11	0.50	0.50	0.13	0.50	0.50	0.50	0.11	0.11	0.27	0.11	0.50
l, 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]	2.21	188.61	0.70	229.53	228.02	5.34	314.11	0.34	0.12	233.10	0.05	326.16
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	0.41	1.41	0.16	1.49	1.50	0.60	1.65	0.49	0.13	1.51	0.22	1.71
d, Delay for Lane Group [s/veh]	58.90	230.61	31.57	287.03	269.62	40.71	367.11	34.81	30.74	279.60	23.10	361.66
Lane Group LOS	E	F	C	F	F	D	F	C	C	F	C	F
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.78	41.73	1.69	6.84	48.40	7.87	24.61	6.22	1.33	36.96	2.72	77.76
50th-Percentile Queue Length [ft/ln]	19.46	1043.30	42.32	170.89	1210.00	196.78	615.13	155.42	33.35	923.92	68.06	1943.90
95th-Percentile Queue Length [veh/ln]	1.40	62.94	3.05	12.13	73.80	12.47	38.71	10.31	2.40	56.69	4.90	121.87
95th-Percentile Queue Length [ft/ln]	35.02	1573.46	76.17	303.32	1844.96	311.81	967.65	257.65	60.02	1417.17	122.52	3046.73

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.90	230.61	31.57	287.03	269.62	40.71	367.11	34.81	30.74	279.60	23.10	361.66
Movement LOS	E	F	C	F	F	D	F	C	C	F	C	F
d_A, Approach Delay [s/veh]	220.22			247.37			157.26			270.55		
Approach LOS	F			F			F			F		
d_I, Intersection Delay [s/veh]	238.01											
Intersection LOS	F											
Intersection V/C	1.376											

**Emissions**

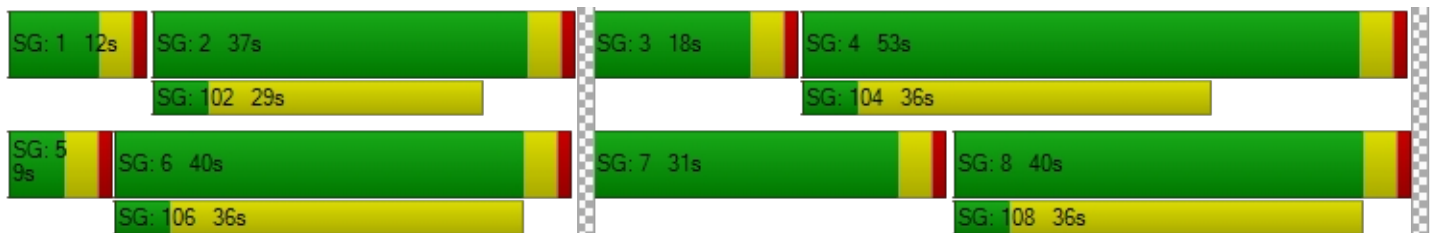
Vehicle Miles Traveled [mph]	19.03	816.96	28.72	358.64	3913.81	490.25	52.21	79.59	9.57	145.04	55.76	137.02
Stops [stops/h]	46.70	3755.87	50.78	410.14	4356.01	236.14	738.16	373.01	40.01	2217.40	245.03	2332.68
Fuel consumption [US gal/h]	1.84	177.46	2.11	30.12	318.82	22.21	37.03	11.13	1.23	100.46	7.12	116.70
CO [g/h]	128.89	12404.1	147.54	2105.63	22285.4	1552.45	2588.73	778.31	85.70	7022.35	497.36	8157.38
NOx [g/h]	25.08	2413.40	28.71	409.68	4335.94	302.05	503.67	151.43	16.67	1366.29	96.77	1587.13
VOC [g/h]	29.87	2874.79	34.19	488.00	5164.87	359.79	599.96	180.38	19.86	1627.50	115.27	1890.55

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.877			4.150			3.032			4.051		
Crosswalk LOS	D			D			C			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	600			550			600			817		
d_b, Bicycle Delay [s]	29.40			31.54			29.40			21.00		
I_b,int, Bicycle LOS Score for Intersection	2.849			3.207			2.357			3.296		
Bicycle LOS	C			C			B			C		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 4: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	57.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.881

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
Base Volume Input [veh/h]	75	1989	19	12	2435	150	325	91	514	24	506	48
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	5	0	0	38	0	0	129	0	0	12
Total Hourly Volume [veh/h]	75	1989	14	12	2435	112	325	91	385	24	506	36
Peak Hour 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
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]	19	497	4	3	609	28	81	23	96	6	127	9
Total Analysis Volume [veh/h]	75	1989	14	12	2435	112	325	91	385	24	506	36
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	22	0	8	22	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	54	0	9	54	0	24	48	0	9	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	5	62	62	2	59	59	20	37	37	3	20	20
g / C, Green / Cycle	0.04	0.52	0.52	0.01	0.49	0.49	0.17	0.31	0.31	0.02	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.04	0.55	0.01	0.01	0.46	0.47	0.18	0.05	0.24	0.01	0.14	0.14
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1858	1810	1900	1615	1810	1900	1856
c, Capacity [veh/h]	75	1880	839	26	1780	914	302	588	500	42	316	309
d1, Uniform Delay [s]	57.49	28.82	13.97	58.70	28.83	29.15	50.00	30.03	37.55	58.01	48.73	48.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.48	0.11	0.18	0.11	0.15	0.15
l, 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]	46.88	38.12	0.04	12.66	11.33	20.37	73.21	0.12	4.20	11.60	9.74	10.28
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	0.99	1.06	0.02	0.47	0.94	0.95	1.08	0.15	0.77	0.57	0.87	0.87
d, Delay for Lane Group [s/veh]	104.37	66.94	14.00	71.37	40.16	49.52	123.21	30.15	41.75	69.62	58.47	59.04
Lane Group LOS	F	F	B	E	D	D	F	C	D	E	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.20	34.28	0.18	0.44	23.64	27.10	15.06	1.92	10.65	0.85	8.75	8.63
50th-Percentile Queue Length [ft/ln]	80.06	856.91	4.60	11.11	591.12	677.43	376.50	48.05	266.13	21.30	218.66	215.68
95th-Percentile Queue Length [veh/ln]	5.76	45.93	0.33	0.80	31.62	35.63	22.23	3.46	16.00	1.53	13.60	13.44
95th-Percentile Queue Length [ft/ln]	144.11	1148.16	8.28	19.99	790.48	890.86	555.87	86.50	399.91	38.33	339.92	336.10

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	104.37	66.94	14.00	71.37	43.08	49.52	123.21	30.15	41.75	69.62	58.73	59.04
Movement LOS	F	F	B	E	D	D	F	C	D	E	E	E
d_A, Approach Delay [s/veh]	67.94			43.49			73.48			59.21		
Approach LOS	E			D			E			E		
d_I, Intersection Delay [s/veh]	57.44											
Intersection LOS	E											
Intersection V/C	0.881											

**Emissions**

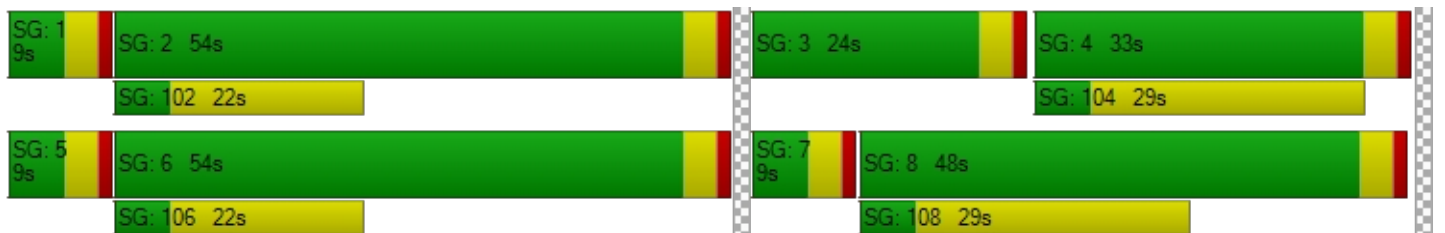
Vehicle Miles Traveled [mph]	37.76	1001.32	7.05	4.48	625.05	325.09	17.90	5.01	21.20	1.60	18.19	17.84
Stops [stops/h]	96.07	2056.58	5.52	13.33	1418.68	812.92	451.80	57.66	319.36	25.56	262.39	258.82
Fuel consumption [US gal/h]	4.08	86.99	0.35	0.49	52.76	30.03	12.23	1.18	6.48	0.59	5.92	5.85
CO [g/h]	285.29	6080.34	24.48	34.49	3687.66	2099.30	854.70	82.70	452.99	41.45	413.93	408.95
NOx [g/h]	55.51	1183.01	4.76	6.71	717.48	408.45	166.29	16.09	88.14	8.06	80.54	79.57
VOC [g/h]	66.12	1409.18	5.67	7.99	854.65	486.53	198.08	19.17	104.99	9.61	95.93	94.78

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.673			3.699			2.876			2.491		
Crosswalk LOS	D			D			C			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	833			833			733			483		
d_b, Bicycle Delay [s]	20.42			20.42			24.07			34.50		
l_b,int, Bicycle LOS Score for Intersection	3.278			2.988			2.327			2.036		
Bicycle LOS	C			C			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	66.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.917

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	183	1324	184	492	1351	610	764	1392	184	187	955	129
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	46	0	0	153	0	0	46	0	0	32
Total Hourly Volume [veh/h]	183	1324	138	492	1351	457	764	1392	138	187	955	97
Peak Hour 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
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]	46	331	35	123	338	114	191	348	35	47	239	24
Total Analysis Volume [veh/h]	183	1324	138	492	1351	457	764	1392	138	187	955	97
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	38	0	6	39	0	8	34	0	6	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	39	0	19	47	0	26	50	0	12	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	7	41	41	15	49	49	22	40	40	8	26	26
g / C, Green / Cycle	0.06	0.34	0.34	0.13	0.40	0.40	0.18	0.34	0.34	0.07	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.05	0.37	0.09	0.14	0.37	0.28	0.22	0.27	0.09	0.05	0.19	0.19
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1812
c, Capacity [veh/h]	205	1221	545	439	1463	653	644	1746	545	234	798	400
d1, Uniform Delay [s]	56.13	39.74	28.78	52.50	33.98	29.70	49.00	36.04	28.80	55.20	45.19	45.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.14	0.11	0.11	0.11	0.11	0.25
l, 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]	12.53	51.72	1.11	61.31	11.23	6.15	88.44	0.87	0.24	6.15	3.29	13.24
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	0.89	1.08	0.25	1.12	0.92	0.70	1.19	0.80	0.25	0.80	0.88	0.88
d, Delay for Lane Group [s/veh]	68.66	91.46	29.90	113.81	45.22	35.85	137.44	36.90	29.05	61.35	48.48	58.44
Lane Group LOS	E	F	C	F	D	D	F	D	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.04	25.82	2.96	10.17	19.82	11.48	17.06	11.62	2.77	2.88	9.92	11.05
50th-Percentile Queue Length [ft/ln]	76.07	645.53	73.98	254.16	495.55	287.12	426.62	290.54	69.15	71.89	247.88	276.20
95th-Percentile Queue Length [veh/ln]	5.48	36.04	5.33	16.13	27.12	17.04	25.88	17.21	4.98	5.18	15.08	16.50
95th-Percentile Queue Length [ft/ln]	136.92	901.06	133.16	403.34	678.09	426.06	647.11	430.31	124.48	129.39	376.98	412.48

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	68.66	91.46	29.90	113.81	45.22	35.85	137.44	36.90	29.05	61.35	51.13	58.44
Movement LOS	E	F	C	F	D	D	F	D	C	E	D	E
d_A, Approach Delay [s/veh]	83.76			58.03			69.91			53.25		
Approach LOS	F			E			E			D		
d_I, Intersection Delay [s/veh]	66.54											
Intersection LOS	E											
Intersection V/C	0.917											

**Emissions**

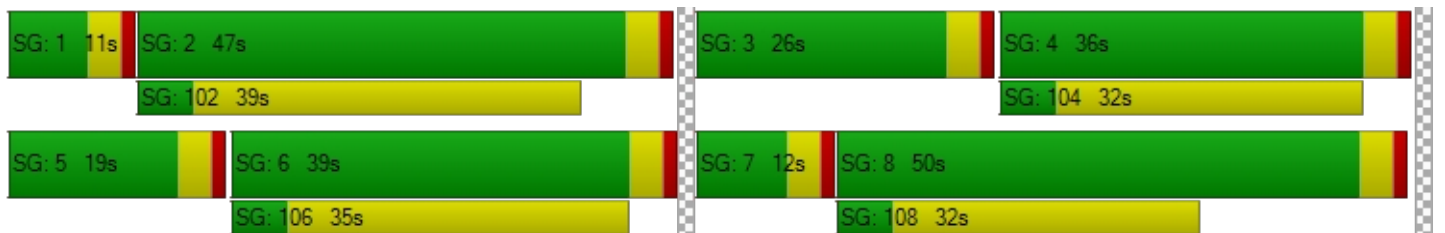
Vehicle Miles Traveled [mph]	90.92	657.78	68.56	247.69	680.13	230.07	190.94	347.89	34.49	20.31	76.10	38.15
Stops [stops/h]	182.56	1549.27	88.77	609.98	1189.31	344.54	1023.89	1045.95	82.99	172.53	594.91	331.44
Fuel consumption [US gal/h]	7.94	66.45	4.29	27.47	50.53	15.50	46.77	41.52	3.51	6.22	20.51	11.61
CO [g/h]	555.21	4644.78	300.11	1919.94	3532.12	1083.70	3269.18	2902.12	245.40	434.67	1433.56	811.52
NOx [g/h]	108.02	903.71	58.39	373.55	687.22	210.85	636.06	564.65	47.75	84.57	278.92	157.89
VOC [g/h]	128.67	1076.47	69.55	444.97	818.60	251.16	757.66	672.59	56.87	100.74	332.24	188.08

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.430			3.812			3.742			3.532		
Crosswalk LOS	C			D			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			717			767			533		
d_b, Bicycle Delay [s]	30.10			24.70			22.82			32.27		
I_b,int, Bicycle LOS Score for Intersection	2.955			3.583			2.847			2.259		
Bicycle LOS	C			D			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	1	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	82	1499	21	24	1680	55	109	28	50	45	33	28
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	5	0	0	14	0	0	13	0	0	7
Total Hourly Volume [veh/h]	82	1499	16	24	1680	41	109	28	37	45	33	21
Peak Hour 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
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]	21	375	4	6	420	10	27	7	9	11	8	5
Total Analysis Volume [veh/h]	82	1499	16	24	1680	41	109	28	37	45	33	21
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	11	26	0	11	26	0	5	32	0	5	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	33	0	10	30	0	41	37	0	40	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	7	84	84	3	80	80	9	14	14	4	8	8
g / C, Green / Cycle	0.06	0.70	0.70	0.02	0.66	0.66	0.08	0.11	0.11	0.03	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.05	0.28	0.28	0.01	0.46	0.03	0.06	0.01	0.02	0.02	0.02	0.01
s, saturation flow rate [veh/h]	1810	3618	1890	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	104	2522	1317	42	2397	1070	138	409	182	61	134	114
d1, Uniform Delay [s]	55.82	7.59	7.59	58.04	12.76	7.01	54.49	47.58	48.32	57.47	52.77	52.54
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	12.22	0.46	0.89	11.90	1.74	0.07	9.66	0.07	0.54	16.14	0.95	0.78
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	0.79	0.39	0.39	0.58	0.70	0.04	0.79	0.07	0.20	0.74	0.25	0.18
d, Delay for Lane Group [s/veh]	68.03	8.06	8.48	69.93	14.49	7.08	64.15	47.65	48.86	73.61	53.73	53.32
Lane Group LOS	E	A	A	E	B	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.75	4.63	4.99	0.86	13.66	0.37	3.58	0.38	1.03	1.62	0.97	0.62
50th-Percentile Queue Length [ft/ln]	68.64	115.73	124.79	21.49	341.49	9.27	89.55	9.43	25.74	40.40	24.30	15.45
95th-Percentile Queue Length [veh/ln]	4.94	8.16	8.66	1.55	19.72	0.67	6.45	0.68	1.85	2.91	1.75	1.11
95th-Percentile Queue Length [ft/ln]	123.56	203.95	216.39	38.69	493.02	16.69	161.19	16.98	46.33	72.72	43.74	27.80

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	68.03	8.20	8.48	69.93	14.49	7.08	64.15	47.65	48.86	73.61	53.73	53.32
Movement LOS	E	A	A	E	B	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	11.28			15.08			58.24			62.68		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	16.78											
Intersection LOS	B											
Intersection V/C	0.587											

**Emissions**

Vehicle Miles Traveled [mph]	16.10	195.40	102.08	11.92	834.64	20.37	54.67	14.04	18.56	12.07	8.85	5.63
Stops [stops/h]	82.37	277.76	149.75	25.79	819.57	11.12	107.46	22.64	30.89	48.48	29.16	18.54
Fuel consumption [US gal/h]	2.71	11.78	6.26	0.97	43.84	0.96	4.31	0.98	1.31	1.50	0.92	0.58
CO [g/h]	189.51	823.66	437.45	68.14	3064.60	67.04	301.59	68.29	91.39	104.75	64.12	40.67
NOx [g/h]	36.87	160.25	85.11	13.26	596.26	13.04	58.68	13.29	17.78	20.38	12.48	7.91
VOC [g/h]	43.92	190.89	101.38	15.79	710.25	15.54	69.90	15.83	21.18	24.28	14.86	9.43

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.322			3.102			2.554			2.512		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	483			433			550			533		
d_b, Bicycle Delay [s]	34.50			36.82			31.54			32.27		
I_b,int, Bicycle LOS Score for Intersection	2.441			3.011			1.714			1.735		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	32.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.542

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	131	675	26	83	578	199	224	543	107	100	641	168
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	7	0	0	50	0	0	27	0	0	42
Total Hourly Volume [veh/h]	131	675	19	83	578	149	224	543	80	100	641	126
Peak Hour 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
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]	33	169	5	21	145	37	56	136	20	25	160	32
Total Analysis Volume [veh/h]	131	675	19	83	578	149	224	543	80	100	641	126
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	28	0	11	26	0	18	37	0	14	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	8	34	34	5	32	32	13	28	28	6	21	21
g / C, Green / Cycle	0.09	0.38	0.38	0.06	0.35	0.35	0.14	0.31	0.31	0.07	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.07	0.13	0.13	0.05	0.14	0.14	0.12	0.17	0.17	0.06	0.21	0.21
s, saturation flow rate [veh/h]	1810	3618	1874	1810	3618	1710	1810	1900	1816	1810	1900	1793
c, Capacity [veh/h]	163	1375	712	108	1265	598	260	591	564	130	454	429
d1, Uniform Delay [s]	40.16	19.79	19.80	41.71	22.03	22.10	37.67	25.67	25.68	41.05	32.89	32.89
k, delay calibration	0.18	0.50	0.50	0.11	0.50	0.50	0.26	0.11	0.11	0.11	0.17	0.17
l, 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]	14.06	0.65	1.26	10.93	0.90	1.96	17.68	0.77	0.80	9.25	7.99	8.46
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	0.80	0.33	0.33	0.77	0.39	0.40	0.86	0.54	0.54	0.77	0.87	0.87
d, Delay for Lane Group [s/veh]	54.22	20.44	21.06	52.65	22.92	24.05	55.35	26.44	26.48	50.29	40.88	41.36
Lane Group LOS	D	C	C	D	C	C	E	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.38	3.30	3.55	2.08	3.82	3.87	5.84	5.35	5.13	2.41	8.71	8.28
50th-Percentile Queue Length [ft/ln]	84.45	82.45	88.66	52.07	95.50	96.71	145.97	133.81	128.14	60.34	217.73	207.02
95th-Percentile Queue Length [veh/ln]	6.08	5.94	6.38	3.75	6.88	6.96	9.80	9.15	8.84	4.34	13.55	13.00
95th-Percentile Queue Length [ft/ln]	152.01	148.42	159.58	93.72	171.91	174.08	245.04	228.67	220.96	108.62	338.73	325.01

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.22	20.64	21.06	52.65	23.10	24.05	55.35	26.46	26.48	50.29	41.06	41.36
Movement LOS	D	C	C	D	C	C	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	25.98			26.30			34.10			42.17		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	32.30											
Intersection LOS	C											
Intersection V/C	0.542											

**Emissions**

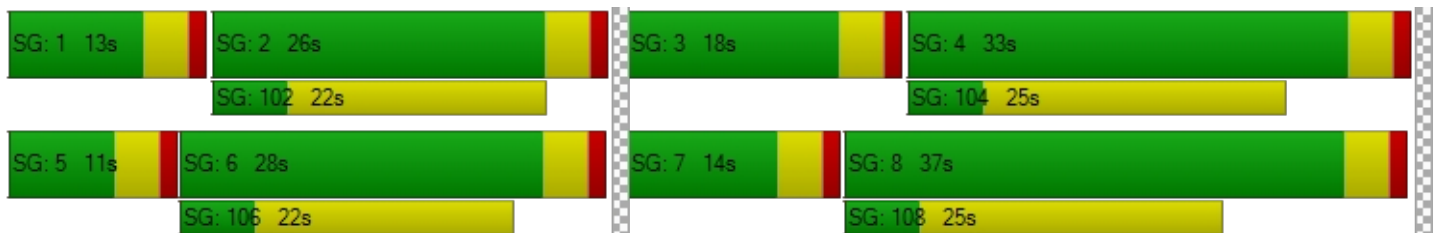
Vehicle Miles Traveled [mph]	19.82	69.12	35.89	9.54	56.40	27.20	135.33	192.39	184.00	18.58	73.29	69.21
Stops [stops/h]	135.12	263.85	141.85	83.31	305.62	154.73	233.55	214.10	205.02	96.55	348.37	331.24
Fuel consumption [US gal/h]	3.48	6.97	3.70	2.05	7.31	3.65	10.07	10.97	10.50	2.86	10.13	9.63
CO [g/h]	243.44	487.08	258.32	143.25	511.02	255.28	703.59	766.81	733.78	199.97	707.76	672.83
NOx [g/h]	47.37	94.77	50.26	27.87	99.43	49.67	136.89	149.19	142.77	38.91	137.70	130.91
VOC [g/h]	56.42	112.89	59.87	33.20	118.43	59.16	163.06	177.72	170.06	46.34	164.03	155.94

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.906			3.024			2.879			2.818		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	533			489			733			644		
d_b, Bicycle Delay [s]	24.20			25.69			18.05			20.67		
I_b,int, Bicycle LOS Score for Intersection	2.017			2.033			2.281			2.310		
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 8: Rider St/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	42.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
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]	150.00	100.00	150.00	95.00	100.00	100.00	200.00	100.00	100.00	120.00	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]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Rider St			Rider St		
Base Volume Input [veh/h]	45	585	145	95	475	44	152	740	93	195	620	290
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	36	0	0	11	0	0	23	0	0	73
Total Hourly Volume [veh/h]	45	585	109	95	475	33	152	740	70	195	620	217
Peak Hour 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
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]	11	146	27	24	119	8	38	185	18	49	155	54
Total Analysis Volume [veh/h]	45	585	109	95	475	33	152	740	70	195	620	217
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	22	0	5	22	0	5	19	0	18	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	27	0	15	33	0	34	51	0	17	34	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	4	29	29	7	33	33	11	45	45	13	46	46
g / C, Green / Cycle	0.03	0.26	0.26	0.07	0.30	0.30	0.10	0.41	0.41	0.12	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.02	0.16	0.07	0.05	0.25	0.02	0.08	0.39	0.04	0.11	0.23	0.23
s, saturation flow rate [veh/h]	1810	3618	1615	1810	1900	1615	1810	1900	1615	1810	1900	1734
c, Capacity [veh/h]	62	955	427	121	564	479	187	770	655	214	798	728
d1, Uniform Delay [s]	52.62	35.53	31.94	50.55	36.26	27.76	48.25	31.85	20.33	47.93	24.04	24.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.40	0.11	0.18	0.11	0.11
l, 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]	15.03	2.93	1.44	10.62	14.20	0.28	8.13	20.98	0.07	20.68	0.60	0.66
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	0.73	0.61	0.26	0.79	0.84	0.07	0.81	0.96	0.11	0.91	0.55	0.55
d, Delay for Lane Group [s/veh]	67.65	38.45	33.38	61.16	50.47	28.04	56.38	52.83	20.40	68.62	24.64	24.70
Lane Group LOS	E	D	C	E	D	C	E	D	C	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.48	7.15	2.43	2.90	13.86	0.66	4.38	22.19	1.08	6.34	8.17	7.47
50th-Percentile Queue Length [ft/ln]	36.91	178.66	60.87	72.61	346.53	16.40	109.52	554.70	27.04	158.45	204.17	186.68
95th-Percentile Queue Length [veh/ln]	2.66	11.53	4.38	5.23	19.97	1.18	7.81	29.91	1.95	10.47	12.85	11.95
95th-Percentile Queue Length [ft/ln]	66.44	288.26	109.57	130.69	499.18	29.52	195.34	747.83	48.67	261.67	321.34	298.72

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	67.65	38.45	33.38	61.16	50.47	28.04	56.38	52.83	20.40	68.62	24.65	24.70
Movement LOS	E	D	C	E	D	C	E	D	C	E	C	C
d_A, Approach Delay [s/veh]	39.48			50.92			51.03			32.97		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	42.87											
Intersection LOS	D											
Intersection V/C	0.772											

**Emissions**

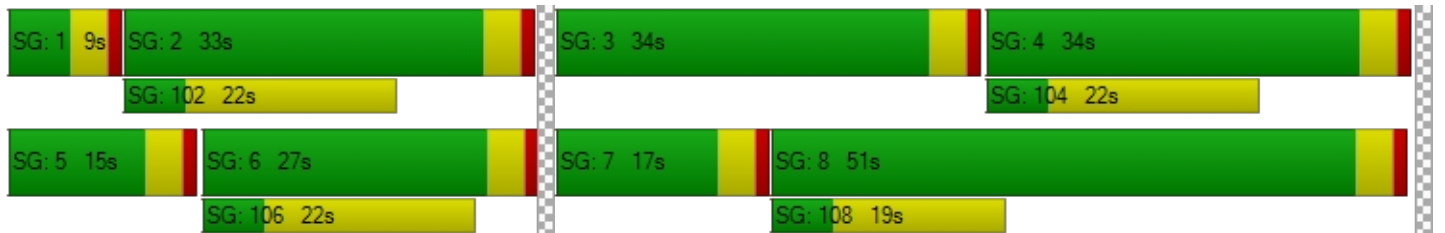
Vehicle Miles Traveled [mph]	19.78	257.13	47.91	7.48	37.40	2.60	10.05	48.95	4.63	28.41	63.76	58.20
Stops [stops/h]	48.32	467.76	79.68	95.05	453.64	21.47	143.38	726.16	35.39	207.43	267.28	244.39
Fuel consumption [US gal/h]	1.74	17.90	3.17	2.18	9.71	0.45	3.87	18.66	0.89	6.28	7.70	7.04
CO [g/h]	121.40	1250.95	221.29	152.54	679.07	31.37	270.58	1304.38	62.16	438.66	538.41	492.17
NOx [g/h]	23.62	243.39	43.06	29.68	132.12	6.10	52.65	253.79	12.09	85.35	104.76	95.76
VOC [g/h]	28.14	289.92	51.29	35.35	157.38	7.27	62.71	302.30	14.41	101.66	124.78	114.07

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	2.807			2.700			2.839			3.025		
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]	418			527			855			545		
d_b, Bicycle Delay [s]	34.40			29.82			18.04			29.09		
I_b,int, Bicycle LOS Score for Intersection	2.199			2.573			3.185			2.471		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 9: Perris Blvd/Rider St**

Control Type:	Signalized	Delay (sec / veh):	31.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	170.00	100.00	170.00	210.00	100.00	170.00	200.00	100.00	250.00	150.00	100.00	200.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Rider St			Rider St		
Base Volume Input [veh/h]	52	1236	281	236	1448	166	43	234	154	281	269	280
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	70	0	0	42	0	0	39	0	0	70
Total Hourly Volume [veh/h]	52	1236	211	236	1448	124	43	234	115	281	269	210
Peak Hour 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
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]	13	309	53	59	362	31	11	59	29	70	67	53
Total Analysis Volume [veh/h]	52	1236	211	236	1448	124	43	234	115	281	269	210
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	7	28	0	6	32	0	9	35	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	27	0	0	30	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	30	0	23	43	0	28	36	0	31	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	4	55	55	17	68	68	4	11	11	21	28	28
g / C, Green / Cycle	0.04	0.46	0.46	0.15	0.56	0.56	0.03	0.09	0.09	0.17	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.24	0.13	0.13	0.28	0.08	0.02	0.06	0.07	0.16	0.07	0.13
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	67	2360	736	263	2920	911	60	337	150	311	840	375
d1, Uniform Delay [s]	57.26	23.34	20.43	50.37	15.82	12.34	57.47	52.75	53.13	48.69	38.22	40.66
k, delay calibration	0.11	0.50	0.50	0.30	0.50	0.50	0.11	0.11	0.11	0.22	0.11	0.11
l, 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]	16.69	0.84	0.98	23.53	0.60	0.31	14.90	2.57	7.81	16.97	0.22	1.31
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	0.77	0.52	0.29	0.90	0.50	0.14	0.72	0.69	0.76	0.90	0.32	0.56
d, Delay for Lane Group [s/veh]	73.95	24.17	21.41	73.90	16.43	12.66	72.36	55.33	60.94	65.66	38.43	41.97
Lane Group LOS	E	C	C	E	B	B	E	E	E	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.84	8.06	3.73	8.48	7.50	1.55	1.51	3.46	3.63	9.46	3.23	5.45
50th-Percentile Queue Length [ft/ln]	46.00	201.51	93.32	212.09	187.45	38.72	37.78	86.44	90.74	236.58	80.64	136.32
95th-Percentile Queue Length [veh/ln]	3.31	12.72	6.72	13.26	11.99	2.79	2.72	6.22	6.53	14.51	5.81	9.28
95th-Percentile Queue Length [ft/ln]	82.80	317.92	167.98	331.51	299.72	69.69	68.00	155.59	163.33	362.70	145.15	232.06

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	73.95	24.17	21.41	73.90	16.43	12.66	72.36	55.33	60.94	65.66	38.43	41.97
Movement LOS	E	C	C	E	B	B	E	E	E	E	D	D
d_A, Approach Delay [s/veh]	25.51			23.67			58.84			49.48		
Approach LOS	C			C			E			D		
d_I, Intersection Delay [s/veh]	31.78											
Intersection LOS	C											
Intersection V/C	0.596											

**Emissions**

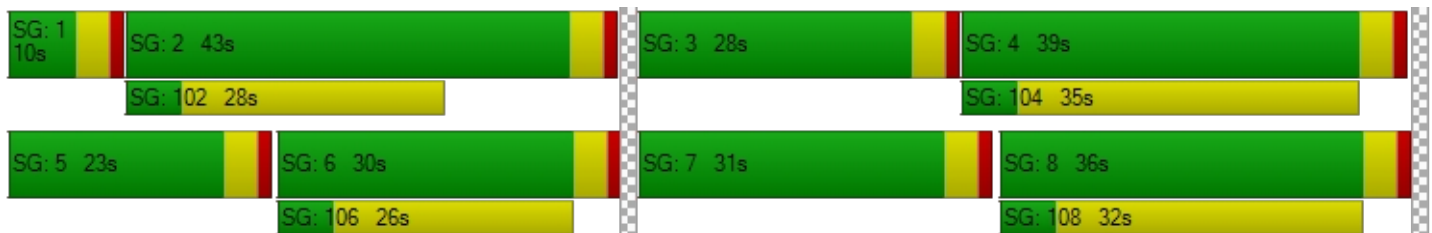
Vehicle Miles Traveled [mph]	21.58	513.01	87.58	70.49	432.48	37.04	3.04	16.55	8.13	51.72	49.51	38.65
Stops [stops/h]	55.20	725.45	111.98	254.51	674.82	46.46	45.33	207.46	108.89	283.89	193.54	163.59
Fuel consumption [US gal/h]	2.21	32.68	5.31	9.13	28.06	2.17	1.30	5.78	3.06	9.06	6.21	5.15
CO [g/h]	154.38	2284.65	371.43	638.13	1961.10	151.44	90.94	404.10	213.80	633.07	433.88	360.15
NOx [g/h]	30.04	444.51	72.27	124.16	381.56	29.46	17.69	78.62	41.60	123.17	84.42	70.07
VOC [g/h]	35.78	529.49	86.08	147.89	454.50	35.10	21.08	93.65	49.55	146.72	100.56	83.47

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.471			3.424			2.747			2.953		
Crosswalk LOS	C			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	433			650			533			583		
d_b, Bicycle Delay [s]	36.82			27.34			32.27			30.10		
l_b,int, Bicycle LOS Score for Intersection	2.423			2.577			1.915			2.244		
Bicycle LOS	B			B			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 10: Placentia Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	390.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.305

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	145.00	100.00	100.00	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	77	201	967	1872	373	131	93	316	167	566	286	414
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	77	201	967	1872	373	131	93	316	167	566	286	414
Peak Hour 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
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]	19	50	242	468	93	33	23	79	42	142	72	104
Total Analysis Volume [veh/h]	77	201	967	1872	373	131	93	316	167	566	286	414
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	731	769	967	1872	595	595	639	517	539	539	575	584	613	613	660
Degree of Utilization, x	0.11	0.26	1.17	3.31	0.31	0.31	0.20	0.18	0.29	0.29	0.29	0.97	0.23	0.23	0.63

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.35	1.05	29.69	167.3	1.34	1.34	0.76	0.65	1.21	1.21	1.20	13.50	0.90	0.90	4.43
95th-Percentile Queue Length [ft]	8.79	26.19	742.30	4184.	33.40	33.40	19.10	16.25	30.30	30.30	30.05	337.6	22.48	22.48	110.7
Approach Delay [s/veh]	84.46			833.86				11.79				32.18			
Approach LOS	F			F				B				D			
Intersection Delay [s/veh]	390.62														
Intersection LOS	F														

**Intersection Level Of Service Report**  
**Intersection 11: Perris Blvd/Placentia Ave**

Control Type:	Signalized	Delay (sec / veh):	209.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.243

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
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	1
Entry Pocket Length [ft]	175.00	100.00	100.00	230.00	100.00	100.00	100.00	100.00	100.00	180.00	100.00	180.00
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			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	281	1291	83	98	1587	361	941	361	1328	58	331	53
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	21	0	0	90	0	0	332	0	0	13
Total Hourly Volume [veh/h]	281	1291	62	98	1587	271	941	361	996	58	331	40
Peak Hour 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
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]	70	323	16	25	397	68	235	90	249	15	83	10
Total Analysis Volume [veh/h]	281	1291	62	98	1587	271	941	361	996	58	331	40
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	32	0	5	29	0	11	26	0	11	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	39	0	11	35	0	40	60	0	10	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	11	35	35	7	31	31	36	57	57	5	26	26
g / C, Green / Cycle	0.09	0.29	0.29	0.06	0.26	0.26	0.30	0.47	0.47	0.04	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.16	0.25	0.04	0.05	0.44	0.17	0.52	0.10	0.62	0.03	0.06	0.02
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1615	1810	3618	1615	1810	5176	1615
c, Capacity [veh/h]	166	1516	473	106	939	419	543	1714	765	75	1115	348
d1, Uniform Delay [s]	54.50	39.96	31.19	56.25	44.42	39.52	42.00	18.46	31.58	56.93	39.46	37.88
k, delay calibration	0.50	0.50	0.50	0.28	0.50	0.50	0.50	0.11	0.50	0.11	0.11	0.11
l, 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]	336.89	6.22	0.57	49.31	314.96	7.49	337.70	0.06	145.33	15.05	0.15	0.15
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	1.69	0.85	0.13	0.93	1.69	0.65	1.73	0.21	1.30	0.77	0.30	0.12
d, Delay for Lane Group [s/veh]	391.39	46.18	31.76	105.56	359.38	47.01	379.70	18.52	176.91	71.98	39.61	38.02
Lane Group LOS	F	D	C	F	F	D	F	B	F	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	20.40	12.35	1.37	4.33	54.49	7.75	66.43	2.86	51.50	2.03	2.70	0.95
50th-Percentile Queue Length [ft/ln]	510.01	308.81	34.15	108.22	1362.28	193.85	1660.74	71.46	1287.56	50.74	67.56	23.73
95th-Percentile Queue Length [veh/ln]	32.51	18.12	2.46	7.74	84.24	12.32	103.00	5.14	75.60	3.65	4.86	1.71
95th-Percentile Queue Length [ft/ln]	812.72	452.91	61.47	193.52	2105.96	308.01	2575.12	128.62	1890.07	91.33	121.62	42.71

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	391.39	46.18	31.76	105.56	359.38	47.01	379.70	18.52	176.91	71.98	39.61	38.02
Movement LOS	F	D	C	F	F	D	F	B	F	E	D	D
d_A, Approach Delay [s/veh]	105.00			303.38			235.07			43.84		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	209.59											
Intersection LOS	F											
Intersection V/C	1.243											

**Emissions**

Vehicle Miles Traveled [mph]	18.31	84.10	4.04	7.76	125.70	21.46	102.54	39.34	108.53	29.22	166.77	20.15
Stops [stops/h]	612.01	1111.71	40.98	129.86	3269.48	232.62	1992.89	171.50	1545.07	60.89	243.23	28.47
Fuel consumption [US gal/h]	30.61	28.84	1.05	3.99	161.00	6.22	95.94	4.45	54.92	2.49	11.03	1.31
CO [g/h]	2139.83	2015.77	73.31	278.60	11253.6	434.80	6706.46	311.37	3838.56	174.36	771.08	91.65
NOx [g/h]	416.33	392.20	14.26	54.21	2189.55	84.60	1304.83	60.58	746.85	33.92	150.02	17.83
VOC [g/h]	495.93	467.17	16.99	64.57	2608.14	100.77	1554.29	72.16	889.62	40.41	178.71	21.24

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.617			3.642			3.751			2.919		
Crosswalk LOS	D			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			517			933			433		
d_b, Bicycle Delay [s]	30.10			33.00			17.07			36.82		
I_b,int, Bicycle LOS Score for Intersection	2.470			3.248			3.729			1.803		
Bicycle LOS	B			C			D			A		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 12: Placentia Ave/Barrett Ave**

Control Type:	All-way stop	Delay (sec / veh):	69.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.307

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↵ ↑ ↑			↵ ↑ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	165.00	100.00	100.00	155.00	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			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	70	25	503	19	20	24	13	1017	61	87	1060	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	70	25	503	19	20	24	13	1017	61	87	1060	15
Peak Hour 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
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]	18	6	126	5	5	6	3	254	15	22	265	4
Total Analysis Volume [veh/h]	70	25	503	19	20	24	13	1017	61	87	1060	15
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	598	405	398	422	422	427	400	423	423	425
Degree of Utilization, x	1.31	0.16	0.03	0.85	0.85	0.84	0.22	0.85	0.85	0.84

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	26.15	0.55	0.10	8.37	8.37	8.13	0.82	8.23	8.23	8.17
95th-Percentile Queue Length [ft]	653.66	13.66	2.52	209.2	209.2	203.2	20.40	205.7	205.7	204.2
Approach Delay [s/veh]	177.01	13.53	43.28				40.97			
Approach LOS	F	B	E				E			
Intersection Delay [s/veh]	69.16									
Intersection LOS	F									

**Intersection Level Of Service Report**  
**Intersection 13: Placentia Ave/Indian Ave**

Control Type:	Signalized	Delay (sec / veh):	31.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.683

**Intersection Setup**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
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	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	100.00	215.00	100.00	215.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	73	147	17	45	360	559	186	1103	199	12	1013	18
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	4	0	0	140	0	0	50	0	0	5
Total Hourly Volume [veh/h]	73	147	13	45	360	419	186	1103	149	12	1013	13
Peak Hour 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
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]	18	37	3	11	90	105	47	276	37	3	253	3
Total Analysis Volume [veh/h]	73	147	13	45	360	419	186	1103	149	12	1013	13
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Overlap
Signal Group	1	6	0	5	2	0	3	8	8	7	4	4
Auxiliary Signal Groups									1,8			4,5
Maximum Green [s]	5	32	0	5	32	0	22	31	31	6	15	15
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Walk [s]	0	5	0	0	5	0	0	5	5	0	5	5
Pedestrian Clearance [s]	0	27	0	0	27	0	0	14	14	0	10	10
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	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	36	0	13	39	0	16	40	40	11	35	35
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	10	5	10	10
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Recall	No	No		No	No		No	No	No	No	No	No
Maximum Recall	No	No		No	No		No	No	No	No	No	No
Pedestrian Recall	No	No		No	No		No	No	No	No	No	No

**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, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	38	38	4	36	36	12	40	50	2	30	38
g / C, Green / Cycle	0.06	0.38	0.38	0.04	0.36	0.36	0.12	0.40	0.50	0.02	0.30	0.38
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.01	0.02	0.19	0.26	0.10	0.21	0.09	0.01	0.28	0.01
s, saturation flow rate [veh/h]	1810	3618	1615	1810	1900	1615	1810	5176	1615	1810	3618	1615
c, Capacity [veh/h]	109	1385	618	68	685	582	217	2090	814	29	1084	609
d1, Uniform Delay [s]	46.04	19.84	19.19	47.51	25.24	27.63	43.16	22.59	13.56	48.74	34.06	19.56
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
l, 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]	7.23	0.15	0.06	10.68	2.88	7.51	9.34	0.21	0.50	9.31	4.44	0.01
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	0.67	0.11	0.02	0.67	0.53	0.72	0.86	0.53	0.18	0.42	0.93	0.02
d, Delay for Lane Group [s/veh]	53.26	20.00	19.25	58.19	28.12	35.13	52.50	22.80	14.06	58.06	38.51	19.58
Lane Group LOS	D	B	B	E	C	D	D	C	B	E	D	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.98	1.12	0.20	1.27	6.86	9.25	4.89	6.10	1.79	0.36	11.85	0.18
50th-Percentile Queue Length [ft/ln]	49.62	28.00	4.93	31.78	171.38	231.22	122.30	152.56	44.64	9.05	296.19	4.57
95th-Percentile Queue Length [veh/ln]	3.57	2.02	0.36	2.29	11.15	14.24	8.52	10.15	3.21	0.65	17.49	0.33
95th-Percentile Queue Length [ft/ln]	89.31	50.40	8.88	57.20	278.72	355.91	212.99	253.85	80.36	16.29	437.31	8.22

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.26	20.00	19.25	58.19	28.12	35.13	52.50	22.80	14.06	58.06	38.51	19.58
Movement LOS	D	B	B	E	C	D	D	C	B	E	D	B
d_A, Approach Delay [s/veh]	30.38			33.33			25.73			38.49		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	31.56											
Intersection LOS	C											
Intersection V/C	0.683											

**Emissions**

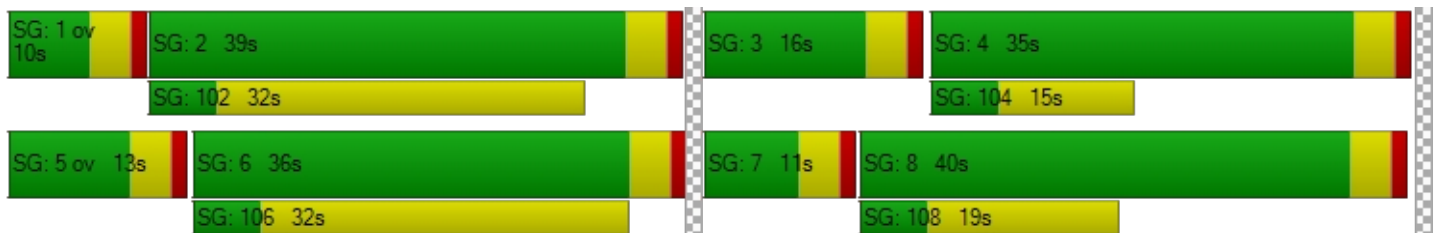
Vehicle Miles Traveled [mph]	22.86	46.03	4.07	22.49	179.95	209.44	16.91	100.26	13.54	2.99	252.26	3.24
Stops [stops/h]	71.45	80.64	7.10	45.76	246.78	332.96	176.12	659.07	64.29	13.03	853.02	6.58
Fuel consumption [US gal/h]	2.13	2.94	0.26	1.87	11.30	14.31	4.76	16.75	1.69	0.41	27.19	0.24
CO [g/h]	148.68	205.42	18.02	130.91	789.63	1000.59	332.46	1170.72	118.12	28.39	1900.59	17.09
NOx [g/h]	28.93	39.97	3.51	25.47	153.63	194.68	64.69	227.78	22.98	5.52	369.79	3.33
VOC [g/h]	34.46	47.61	4.18	30.34	183.00	231.90	77.05	271.33	27.38	6.58	440.48	3.96

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	2.596			2.979			3.376			3.069		
Crosswalk LOS	B			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	640			700			720			620		
d_b, Bicycle Delay [s]	23.12			21.13			20.48			23.81		
I_b,int, Bicycle LOS Score for Intersection	1.755			2.355			2.378			2.420		
Bicycle LOS	A			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 14: Placentia Ave/Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.713

**Intersection Setup**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
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	0	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	115.00	100.00	100.00	260.00	100.00	215.00	245.00	100.00	245.00
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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Frontage Rd			Frontage Rd			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	171	41	11	24	104	477	45	1349	299	11	2132	6
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	3	0	0	119	0	0	75	0	0	2
Total Hourly Volume [veh/h]	171	41	8	24	104	358	45	1349	224	11	2132	4
Peak Hour 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
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]	43	10	2	6	26	90	11	337	56	3	533	1
Total Analysis Volume [veh/h]	171	41	8	24	104	358	45	1349	224	11	2132	4
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	26	0	0	26	0	17	27	0	5	15	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	14	0	0	10	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	49	0	0	49	0	11	52	0	9	50	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**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	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
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]	45	45	45	45	4	51	51	1	49	49
g / C, Green / Cycle	0.41	0.41	0.41	0.41	0.03	0.47	0.47	0.01	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.18	0.03	0.02	0.28	0.02	0.26	0.14	0.01	0.41	0.00
s, saturation flow rate [veh/h]	945	1847	1378	1671	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	227	759	587	687	62	2414	753	24	2306	720
d1, Uniform Delay [s]	46.10	19.59	21.61	26.35	52.61	21.17	18.18	53.88	28.75	16.95
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	20.39	0.16	0.13	5.19	14.94	0.20	0.22	13.11	1.96	0.00
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	0.75	0.06	0.04	0.67	0.73	0.56	0.30	0.46	0.92	0.01
d, Delay for Lane Group [s/veh]	66.48	19.75	21.74	31.54	67.55	21.38	18.39	66.99	30.71	16.95
Lane Group LOS	E	B	C	C	E	C	B	E	C	B
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.88	0.77	0.40	10.36	1.45	7.78	3.35	0.38	16.55	0.05
50th-Percentile Queue Length [ft/ln]	147.03	19.33	10.10	258.99	36.36	194.43	83.80	9.54	413.87	1.35
95th-Percentile Queue Length [veh/ln]	9.86	1.39	0.73	15.64	2.62	12.35	6.03	0.69	23.23	0.10
95th-Percentile Queue Length [ft/ln]	246.46	34.79	18.18	390.95	65.44	308.77	150.83	17.16	580.69	2.44

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.48	19.75	19.75	21.74	31.54	31.54	67.55	21.38	18.39	66.99	30.71	16.95
Movement LOS	E	B	B	C	C	C	E	C	B	E	C	B
d_A, Approach Delay [s/veh]	56.07			31.06			22.25			30.87		
Approach LOS	E			C			C			C		
d_I, Intersection Delay [s/veh]	29.01											
Intersection LOS	C											
Intersection V/C	0.713											

**Emissions**

Vehicle Miles Traveled [mph]	58.09	16.64	5.80	111.66	5.27	157.98	26.23	0.90	174.72	0.33
Stops [stops/h]	192.48	25.30	13.22	339.04	47.60	763.58	109.70	12.48	1625.40	1.77
Fuel consumption [US gal/h]	6.28	1.04	0.44	10.30	1.39	20.78	3.10	0.34	39.52	0.05
CO [g/h]	439.31	72.82	31.03	719.66	97.23	1452.36	216.80	23.49	2762.56	3.29
NOx [g/h]	85.47	14.17	6.04	140.02	18.92	282.58	42.18	4.57	537.49	0.64
VOC [g/h]	101.81	16.88	7.19	166.79	22.53	336.60	50.25	5.44	640.25	0.76

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	46.37
I_p,int, Pedestrian LOS Score for Intersectio	2.354	2.423	3.904	3.419
Crosswalk LOS	B	B	D	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	818	818	873	836
d_b, Bicycle Delay [s]	19.20	19.20	17.47	18.62
I_b,int, Bicycle LOS Score for Intersection	1.928	2.558	2.491	2.742
Bicycle LOS	A	B	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 15: Placentia Ave/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

**Intersection Setup**

Name	I-215 NB						Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	2	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	350.00
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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name	I-215 NB						Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	128	5	563	0	0	0	181	1093	0	0	1103	821
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	141	0	0	0	0	0	0	0	0	205
Total Hourly Volume [veh/h]	128	5	422	0	0	0	181	1093	0	0	1103	616
Peak Hour 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
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]	32	1	106	0	0	0	45	273	0	0	276	154
Total Analysis Volume [veh/h]	128	5	422	0	0	0	181	1093	0	0	1103	616
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	22	0	0	0	0	5	30	0	0	21	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	22	0	0	0	0	9	38	0	0	29	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**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	R
C, Calculated Cycle Length [s]	60	60	60		60	60	60	60
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]	18	18	18		5	34	25	25
g / C, Green / Cycle	0.31	0.31	0.31		0.08	0.56	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.05		0.05	0.21	0.21	0.38
s, saturation flow rate [veh/h]	1810	1816	8500		3514	5176	5176	1615
c, Capacity [veh/h]	557	559	2615		282	2893	2133	665
d1, Uniform Delay [s]	14.93	14.93	15.13		26.75	7.40	13.18	16.76
k, delay calibration	0.50	0.50	0.50		0.11	0.11	0.11	0.38
l, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	0.44	0.13		2.43	0.08	0.20	16.90
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	0.12	0.12	0.16		0.64	0.38	0.52	0.93
d, Delay for Lane Group [s/veh]	15.36	15.36	15.26		29.19	7.48	13.37	33.66
Lane Group LOS	B	B	B		C	A	B	C
Critical Lane Group	No	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.66	0.67	3.94		1.22	1.77	3.27	10.01
50th-Percentile Queue Length [ft/ln]	16.59	16.64	98.39		30.46	44.35	81.74	250.24
95th-Percentile Queue Length [veh/ln]	1.19	1.20	7.08		2.19	3.19	5.88	15.20
95th-Percentile Queue Length [ft/ln]	29.85	29.95	177.10		54.83	79.83	147.12	379.95

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	15.36	15.36	15.26	0.00	0.00	0.00	29.19	7.48	0.00	0.00	13.37	33.66
Movement LOS	B	B	B				C	A			B	C
d_A, Approach Delay [s/veh]	15.29			0.00			10.56			20.64		
Approach LOS	B			A			B			C		
d_I, Intersection Delay [s/veh]	16.19											
Intersection LOS	B											
Intersection V/C	0.483											

**Emissions**

Vehicle Miles Traveled [mph]	6.03	6.05	38.33		26.02	157.10	129.17	72.14
Stops [stops/h]	39.81	39.93	236.13		146.22	319.31	588.50	600.57
Fuel consumption [US gal/h]	0.68	0.68	4.19		3.78	11.02	11.57	10.51
CO [g/h]	47.23	47.39	293.13		264.56	770.20	808.83	734.48
NOx [g/h]	9.19	9.22	57.03		51.47	149.85	157.37	142.90
VOC [g/h]	10.95	10.98	67.93		61.31	178.50	187.45	170.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		0.0		0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00
d_p, Pedestrian Delay [s]	0.00		21.68		0.00		0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000		2.248		0.000		0.000
Crosswalk LOS	F		B		F		F
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000
c_b, Capacity of the bicycle lane [bicycles/h]	600		0		1133		833
d_b, Bicycle Delay [s]	14.70		30.00		5.63		10.21
I_b,int, Bicycle LOS Score for Intersection	2.708		4.132		2.260		2.618
Bicycle LOS	B		D		B		B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 16: Placentia Ave/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

**Intersection Setup**

Name	Northbound			I-215 SB			Placentia Ave			Placentia Ave		
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	0	0	0	0	0	0	0	0	1	2	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	300.00	270.00	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			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

**Volumes**

Name				I-215 SB			Placentia Ave			Placentia Ave		
Base Volume Input [veh/h]	0	0	0	766	1	122	0	498	232	834	345	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	31	0	0	58	0	0	0
Total Hourly Volume [veh/h]	0	0	0	766	1	91	0	498	174	834	345	0
Peak Hour 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
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]	0	0	0	192	0	23	0	125	44	209	86	0
Total Analysis Volume [veh/h]	0	0	0	766	1	91	0	498	174	834	345	0
Presence of On-Street Parking				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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	10	0	28	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	14	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	20	0	0	17	0	23	40	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	R	L	C
C, Calculated Cycle Length [s]		60	60	60	60	60	60	60
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]		20	20	20	10	10	18	32
g / C, Green / Cycle		0.34	0.34	0.34	0.17	0.17	0.30	0.53
(v / s)_i Volume / Saturation Flow Rate		0.21	0.21	0.01	0.10	0.11	0.24	0.07
s, saturation flow rate [veh/h]		1810	1810	8500	5176	1615	3514	5176
c, Capacity [veh/h]		608	608	2857	871	272	1039	2746
d1, Uniform Delay [s]		16.78	16.78	13.37	22.97	23.26	19.51	7.08
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		4.91	4.91	0.02	0.60	2.51	1.50	0.02
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		0.63	0.63	0.03	0.57	0.64	0.80	0.13
d, Delay for Lane Group [s/veh]		21.69	21.69	13.39	23.56	25.77	21.01	7.10
Lane Group LOS		C	C	B	C	C	C	A
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		4.58	4.58	0.73	1.94	2.20	4.69	0.53
50th-Percentile Queue Length [ft/ln]		114.57	114.57	18.15	48.54	55.01	117.13	13.29
95th-Percentile Queue Length [veh/ln]		8.09	8.09	1.31	3.50	3.96	8.24	0.96
95th-Percentile Queue Length [ft/ln]		202.34	202.34	32.67	87.38	99.01	205.88	23.92

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	21.69	21.69	13.39	0.00	23.56	25.77	21.01	7.10	0.00
Movement LOS				C	C	B		C	C	C	A	
d_A, Approach Delay [s/veh]	0.00			20.81			24.13			16.94		
Approach LOS	A			C			C			B		
d_I, Intersection Delay [s/veh]	19.95											
Intersection LOS	B											
Intersection V/C	0.557											

**Emissions**

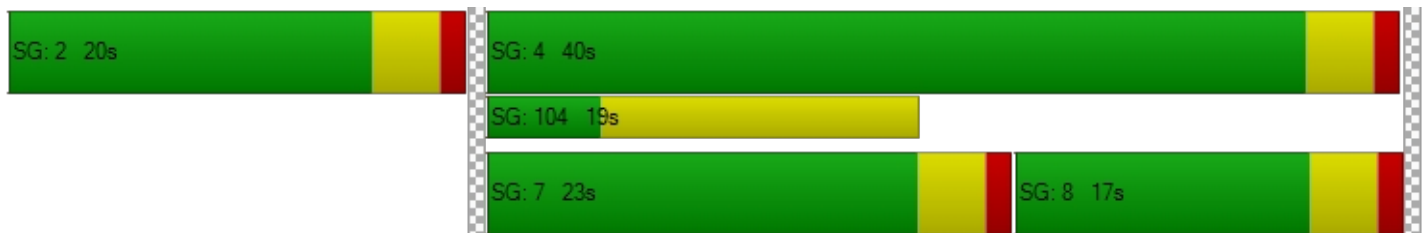
Vehicle Miles Traveled [mph]		25.71	25.71	6.10	56.69	19.81	119.87	49.59
Stops [stops/h]		274.97	274.97	43.56	349.52	132.01	562.23	95.68
Fuel consumption [US gal/h]		5.31	5.31	0.89	8.68	3.23	14.66	3.39
CO [g/h]		371.51	371.51	62.52	606.51	225.98	1025.08	236.83
NOx [g/h]		72.28	72.28	12.16	118.00	43.97	199.44	46.08
VOC [g/h]		86.10	86.10	14.49	140.56	52.37	237.57	54.89

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	2.350	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	533	433	1200
d_b, Bicycle Delay [s]	30.00	16.13	18.41	4.80
I_b,int, Bicycle LOS Score for Intersection	4.132	3.026	1.961	2.208
Bicycle LOS	D	C	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 17: Orange Ave/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	34.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.497

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	1650.00	100.00	100.00	930.00
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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	171	261	46	74	417	116	250	509	395	89	458	47
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	12	0	0	29	0	0	99	0	0	12
Total Hourly Volume [veh/h]	171	261	34	74	417	87	250	509	296	89	458	35
Peak Hour 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
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]	43	65	9	19	104	22	63	127	74	22	115	9
Total Analysis Volume [veh/h]	171	261	34	74	417	87	250	509	296	89	458	35
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	35	0	10	30	0	19	34	0	11	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	10	41	41	5	36	36	14	22	22	6	14	14
g / C, Green / Cycle	0.11	0.46	0.46	0.05	0.40	0.40	0.16	0.25	0.25	0.06	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.09	0.08	0.08	0.04	0.14	0.14	0.14	0.14	0.18	0.05	0.13	0.02
s, saturation flow rate [veh/h]	1810	1900	1825	1810	1900	1788	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	206	866	832	96	752	707	285	903	403	115	562	251
d1, Uniform Delay [s]	39.05	14.46	14.47	42.06	19.03	19.06	37.04	29.49	31.03	41.51	36.75	32.81
k, delay calibration	0.23	0.50	0.50	0.11	0.50	0.50	0.29	0.11	0.11	0.11	0.11	0.11
l, 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]	16.33	0.43	0.46	12.08	1.25	1.35	19.21	0.55	2.61	10.54	2.94	0.25
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	0.83	0.17	0.17	0.77	0.34	0.35	0.88	0.56	0.73	0.77	0.81	0.14
d, Delay for Lane Group [s/veh]	55.38	14.89	14.93	54.14	20.28	20.41	56.25	30.04	33.63	52.05	39.69	33.06
Lane Group LOS	E	B	B	D	C	C	E	C	C	D	D	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.44	1.73	1.69	1.87	3.71	3.55	6.60	4.57	5.80	2.19	4.84	0.65
50th-Percentile Queue Length [ft/ln]	111.11	43.27	42.16	46.86	92.69	88.63	164.93	114.36	145.12	54.87	120.89	16.15
95th-Percentile Queue Length [veh/ln]	7.90	3.12	3.04	3.37	6.67	6.38	10.81	8.08	9.76	3.95	8.44	1.16
95th-Percentile Queue Length [ft/ln]	197.55	77.89	75.88	84.34	166.84	159.54	270.23	202.05	243.90	98.76	211.05	29.07

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	55.38	14.91	14.93	54.14	20.33	20.41	56.25	30.04	33.63	52.05	39.69	33.06
Movement LOS	E	B	B	D	C	C	E	C	C	D	D	C
d_A, Approach Delay [s/veh]	29.76			24.67			37.26			41.18		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.09											
Intersection LOS	C											
Intersection V/C	0.497											

**Emissions**

Vehicle Miles Traveled [mph]	85.69	75.01	72.82	37.04	129.35	122.93	126.07	256.68	149.27	14.80	76.15	5.82
Stops [stops/h]	177.78	69.24	67.45	74.97	148.30	141.81	263.88	365.96	232.19	87.79	386.86	25.84
Fuel consumption [US gal/h]	7.07	3.89	3.78	3.02	7.34	7.00	10.46	16.46	10.03	2.54	11.12	0.76
CO [g/h]	494.51	271.60	263.95	210.89	513.36	489.08	731.43	1150.58	701.06	177.64	777.25	52.86
NOx [g/h]	96.21	52.84	51.36	41.03	99.88	95.16	142.31	223.86	136.40	34.56	151.22	10.28
VOC [g/h]	114.61	62.95	61.17	48.88	118.98	113.35	169.51	266.66	162.48	41.17	180.13	12.25

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.722			2.683			3.058			2.770		
Crosswalk LOS	B			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]	689			578			667			489		
d_b, Bicycle Delay [s]	19.34			22.76			20.00			25.69		
I_b,int, Bicycle LOS Score for Intersection	1.954			2.060			2.512			2.050		
Bicycle LOS	A			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 18: Orange Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	51.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.811

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	30.00	250.00	100.00	230.00	170.00	100.00	100.00	165.00	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			45.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	204	1345	413	301	1536	44	40	405	263	475	607	275
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	103	0	0	11	0	0	66	0	0	69
Total Hourly Volume [veh/h]	204	1345	310	301	1536	33	40	405	197	475	607	206
Peak Hour 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
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]	51	336	78	75	384	8	10	101	49	119	152	52
Total Analysis Volume [veh/h]	204	1345	310	301	1536	33	40	405	197	475	607	206
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	7	28	0	5	35	0	5	26	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	23	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	23	30	0	25	32	0	14	30	0	35	51	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	15	35	35	21	40	40	4	17	17	31	45	45
g / C, Green / Cycle	0.13	0.29	0.29	0.18	0.33	0.33	0.03	0.14	0.14	0.26	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.11	0.26	0.19	0.17	0.30	0.02	0.02	0.11	0.12	0.26	0.17	0.13
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	233	1492	466	317	1731	540	57	525	234	467	1345	601
d1, Uniform Delay [s]	51.33	41.07	37.61	48.99	37.78	27.13	57.55	49.38	49.95	44.50	28.44	27.13
k, delay calibration	0.22	0.50	0.50	0.40	0.50	0.50	0.11	0.11	0.11	0.46	0.11	0.11
l, 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]	18.18	9.15	7.35	34.16	7.16	0.22	14.48	2.45	7.90	44.23	0.24	0.34
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	0.90	0.67	0.95	0.89	0.06	0.70	0.77	0.84	1.02	0.45	0.34
d, Delay for Lane Group [s/veh]	69.51	50.22	44.96	83.15	44.95	27.34	72.03	51.83	57.84	88.73	28.68	27.47
Lane Group LOS	E	D	D	F	D	C	E	D	E	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.03	13.47	8.68	11.65	14.69	0.66	1.40	5.87	6.11	19.51	6.63	4.32
50th-Percentile Queue Length [ft/ln]	175.87	336.77	217.02	291.17	367.34	16.48	35.11	146.64	152.75	487.68	165.66	107.94
95th-Percentile Queue Length [veh/ln]	11.38	19.49	13.51	17.24	20.98	1.19	2.53	9.84	10.16	27.02	10.85	7.73
95th-Percentile Queue Length [ft/ln]	284.61	487.25	337.82	431.10	524.50	29.67	63.20	245.94	254.10	675.46	271.20	193.14

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	69.51	50.22	44.96	83.15	44.95	27.34	72.03	51.83	57.84	88.73	28.68	27.47
Movement LOS	E	D	D	F	D	C	E	D	E	F	C	C
d_A, Approach Delay [s/veh]	51.46			50.79			54.93			50.63		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	51.44											
Intersection LOS	D											
Intersection V/C	0.811											

**Emissions**

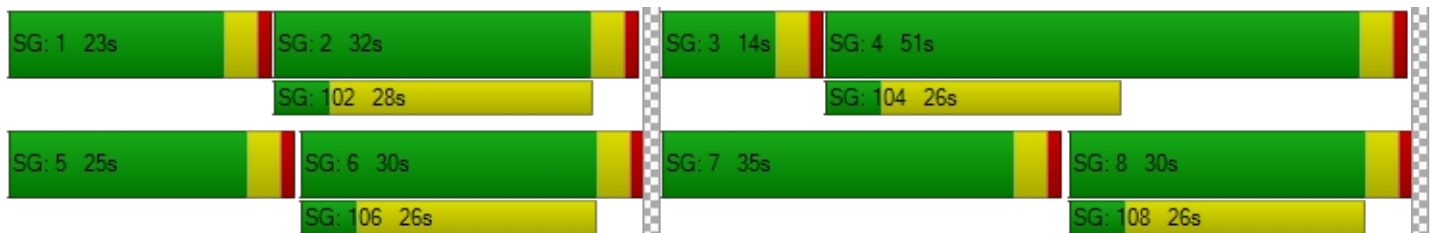
Vehicle Miles Traveled [mph]	10.64	70.18	16.18	132.81	677.73	14.56	3.94	39.85	19.38	239.53	306.10	103.88
Stops [stops/h]	211.04	1212.38	260.42	349.41	1322.42	19.78	42.14	351.94	183.30	585.22	397.57	129.53
Fuel consumption [US gal/h]	5.87	31.22	6.63	13.99	53.72	0.93	1.25	10.01	5.26	21.67	18.34	6.14
CO [g/h]	410.60	2182.58	463.34	977.85	3755.13	64.91	87.03	699.90	367.82	1514.71	1281.97	429.44
NOx [g/h]	79.89	424.65	90.15	190.25	730.61	12.63	16.93	136.17	71.56	294.71	249.43	83.55
VOC [g/h]	95.16	505.83	107.38	226.63	870.29	15.04	20.17	162.21	85.25	351.05	297.11	99.53

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.662			3.404			2.943			2.969		
Crosswalk LOS	D			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	433			467			433			783		
d_b, Bicycle Delay [s]	36.82			35.27			36.82			22.20		
I_b,int, Bicycle LOS Score for Intersection	2.639			2.594			2.144			2.679		
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 19: Orange Ave/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	24.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

**Intersection Setup**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			⇄			⇄⇄			⇄⇄		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	16.00	16.00	16.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	250.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

**Volumes**

Name	Barrett Ave			Barrett Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	0	0	141	0	27	27	567	0	0	346	45
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	141	0	27	27	567	0	0	346	45
Peak Hour 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
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]	0	0	0	35	0	7	7	142	0	0	87	11
Total Analysis Volume [veh/h]	0	0	0	141	0	27	27	567	0	0	346	45
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	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	0.00	0.00	0.00	0.44	0.00	0.03	0.02	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.50	20.28	10.00	24.91	0.00	9.54	8.13	0.00	0.00	8.55	0.00	0.00
Movement LOS	C	C	B	C		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	2.16	0.00	0.10	0.07	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	54.11	0.00	2.55	1.76	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.26			22.44			0.37			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	3.46											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 20: Orange Ave/Indian Ave**

Control Type: All-way stop  
Analysis Method: HCM 7th Edition  
Analysis Period: 15 minutes

Delay (sec / veh): 15.1  
Level Of Service: C  
Volume to Capacity (v/c): 0.511

**Intersection Setup**

Name	Northbound			Indian Ave			Orange Ave			Orange Ave		
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	0	0	0	0	0	0	1	0	0	0	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			35.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Northbound			Indian Ave			Orange Ave			Orange Ave		
Base Volume Input [veh/h]	0	109	71	242	253	0	1	237	1	141	111	126
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	109	71	242	253	0	1	237	1	141	111	126
Peak Hour 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
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]	0	27	18	61	63	0	0	59	0	35	28	32
Total Analysis Volume [veh/h]	0	109	71	242	253	0	1	237	1	141	111	126
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	494	473	506	426	453	453	434	463	510
Degree of Utilization, x	0.36	0.51	0.50	0.00	0.26	0.26	0.33	0.24	0.25

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.65	2.86	2.76	0.01	1.04	1.04	1.39	0.93	0.97
95th-Percentile Queue Length [ft]	41.32	71.38	68.92	0.18	26.11	26.08	34.83	23.20	24.13
Approach Delay [s/veh]	14.42	17.33		13.46			13.40		
Approach LOS	B	C		B			B		
Intersection Delay [s/veh]	15.06								
Intersection LOS	C								

**Intersection Level Of Service Report**  
**Intersection 21: Orange Ave/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Orange Ave	
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	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Frontage Rd		Frontage Rd		Orange Ave	
Base Volume Input [veh/h]	133	2	230	160	6	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	133	2	230	160	6	116
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	1	58	40	2	29
Total Analysis Volume [veh/h]	133	2	230	160	6	116
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	0.02	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.92	0.00	16.07	9.12
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.56	0.00	0.06	0.40
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.95	0.00	1.38	9.92
d_A, Approach Delay [s/veh]	0.00		4.67		9.46	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.60					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 22: Citrus Ave/Redlands Ave**

Control Type:	All-way stop	Delay (sec / veh):	54.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.114

**Intersection Setup**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T			T T T		
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]	95.00	100.00	1300.00	50.00	100.00	100.00	50.00	100.00	100.00	160.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Jade Ave			Redlands Ave			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	216	334	41	111	367	463	272	215	270	20	152	76
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	216	334	41	111	367	463	272	215	270	20	152	76
Peak Hour 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
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]	54	84	10	28	92	116	68	54	68	5	38	19
Total Analysis Volume [veh/h]	216	334	41	111	367	463	272	215	270	20	152	76
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	346	362	367	392	411	463	401	485	340	353	375
Degree of Utilization, x	0.62	0.52	0.51	0.28	0.89	1.05	0.68	1.11	0.06	0.43	0.20





**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	4.00	2.85	2.79	1.15	9.28	14.58	4.86	16.93	0.19	2.09	0.75
95th-Percentile Queue Length [ft]	100.08	71.36	69.73	28.66	231.97	364.55	121.52	423.13	4.68	52.31	18.71
Approach Delay [s/veh]	24.92			63.48			78.03			18.13	
Approach LOS	C			F			F			C	
Intersection Delay [s/veh]	54.41										
Intersection LOS	F										

**Intersection Level Of Service Report**  
**Intersection 23: Citrus Ave/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	59.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.857

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
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	1	0	1
Entry Pocket Length [ft]	220.00	100.00	100.00	120.00	100.00	250.00	100.00	100.00	100.00	315.00	100.00	35.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Citrus Ave			Citrus Ave		
Base Volume Input [veh/h]	80	1520	614	235	1816	42	64	35	85	463	28	141
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	154	0	0	11	0	0	21	0	0	35
Total Hourly Volume [veh/h]	80	1520	460	235	1816	31	64	35	64	463	28	106
Peak Hour 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
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]	20	380	115	59	454	8	16	9	16	116	7	27
Total Analysis Volume [veh/h]	80	1520	460	235	1816	31	64	35	64	463	28	106
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	19	43	0	15	39	0	0	11	0	0	35	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	10	0	0	30	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	25	47	0	20	42	0	0	14	0	0	39	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	C	L	C	R
C, Calculated Cycle Length [s]	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
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]	7	43	43	16	52	52	12	33	33	33
g / C, Green / Cycle	0.06	0.36	0.36	0.13	0.43	0.43	0.10	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.04	0.37	0.38	0.13	0.35	0.02	0.09	0.26	0.01	0.07
s, saturation flow rate [veh/h]	1810	3618	1685	1810	5176	1615	1745	1810	1900	1615
c, Capacity [veh/h]	106	1301	606	241	2249	702	178	492	517	439
d1, Uniform Delay [s]	55.67	38.43	38.43	51.79	29.55	19.56	53.38	42.75	32.29	34.05
k, delay calibration	0.11	0.50	0.50	0.39	0.50	0.50	0.33	0.37	0.11	0.11
l, 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]	10.53	33.58	51.05	45.30	3.24	0.12	36.75	22.98	0.04	0.28
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	0.76	1.03	1.05	0.97	0.81	0.04	0.92	0.94	0.05	0.24
d, Delay for Lane Group [s/veh]	66.19	72.01	89.48	97.09	32.79	19.68	90.12	65.73	32.33	34.33
Lane Group LOS	E	F	F	F	C	B	F	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.70	24.84	26.08	9.88	14.92	0.51	6.72	16.59	0.62	2.49
50th-Percentile Queue Length [ft/ln]	67.41	620.88	652.03	246.88	373.03	12.65	167.91	414.72	15.51	62.16
95th-Percentile Queue Length [veh/ln]	4.85	33.75	35.70	15.03	21.26	0.91	10.97	23.27	1.12	4.48
95th-Percentile Queue Length [ft/ln]	121.35	843.80	892.57	375.73	531.40	22.77	274.17	581.71	27.92	111.89

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	66.19	74.05	89.48	97.09	32.79	19.68	90.12	90.12	90.12	65.73	32.33	34.33
Movement LOS	E	E	F	F	C	B	F	F	F	E	C	C
d_A, Approach Delay [s/veh]	77.19			39.85			90.12			58.59		
Approach LOS	E			D			F			E		
d_I, Intersection Delay [s/veh]	59.50											
Intersection LOS	E											
Intersection V/C	0.857											

**Emissions**

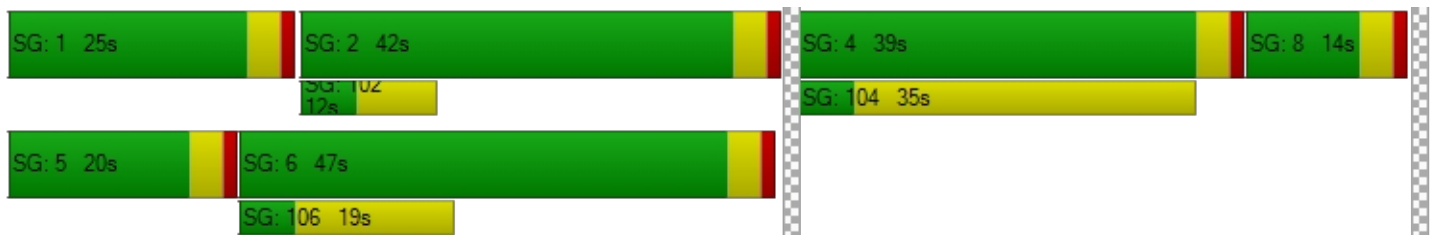
Vehicle Miles Traveled [mph]	39.93	669.96	318.21	22.74	175.71	3.00	13.00	233.90	14.15	53.55
Stops [stops/h]	80.90	1490.11	782.43	296.26	1342.90	15.18	201.49	497.67	18.61	74.59
Fuel consumption [US gal/h]	3.17	55.48	29.03	9.11	34.84	0.42	4.35	18.62	0.89	3.43
CO [g/h]	221.45	3878.20	2029.28	636.48	2435.12	29.06	303.82	1301.56	62.33	240.09
NOx [g/h]	43.09	754.56	394.82	123.84	473.79	5.65	59.11	253.24	12.13	46.71
VOC [g/h]	51.32	898.81	470.30	147.51	564.36	6.73	70.41	301.65	14.45	55.64

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	51.34	51.34
I_p,int, Pedestrian LOS Score for Intersectio	0.000	3.454	1.896	2.504
Crosswalk LOS	F	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	717	633	167	583
d_b, Bicycle Delay [s]	24.70	28.02	50.42	30.10
I_b,int, Bicycle LOS Score for Intersection	2.777	2.711	1.863	2.602
Bicycle LOS	C	B	A	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 24: Nuevo Rd/Murrieta Rd**

Control Type:	Signalized	Delay (sec / veh):	32.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

**Intersection Setup**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
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	1	0	1	1	0	0
Entry Pocket Length [ft]	63.00	100.00	100.00	100.00	100.00	100.00	200.00	100.00	290.00	150.00	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]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

**Volumes**

Name	Murrieta Rd			Murrieta Rd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	50	187	235	67	74	81	60	872	19	261	1007	82
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	59	0	0	20	0	0	5	0	0	21
Total Hourly Volume [veh/h]	50	187	176	67	74	61	60	872	14	261	1007	61
Peak Hour 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
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]	13	47	44	17	19	15	15	218	4	65	252	15
Total Analysis Volume [veh/h]	50	187	176	67	74	61	60	872	14	261	1007	61
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	21	0	12	28	0	7	15	0	16	24	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	23	0	0	10	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	14	0	27	32	0	10	19	0	30	39	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	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	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
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
g_i, Effective Green Time [s]	4	36	4	37	37	4	19	19	15	30	30
g / C, Green / Cycle	0.04	0.40	0.05	0.41	0.41	0.04	0.21	0.21	0.17	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.04	0.04	0.04	0.03	0.17	0.01	0.14	0.28	0.04
s, saturation flow rate [veh/h]	1810	1750	1810	1900	1615	1810	5176	1615	1810	3618	1615
c, Capacity [veh/h]	72	699	90	778	661	78	1064	332	303	1193	533
d1, Uniform Delay [s]	42.67	20.50	42.18	16.34	16.32	42.60	34.15	28.64	36.44	28.01	21.01
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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
d2, Incremental Delay [s]	11.37	2.75	11.23	0.24	0.28	14.23	1.62	0.05	7.14	1.72	0.09
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
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
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

**Lane Group Results**

X, volume / capacity	0.69	0.52	0.74	0.10	0.09	0.77	0.82	0.04	0.86	0.84	0.11
d, Delay for Lane Group [s/veh]	54.04	23.25	53.41	16.58	16.59	56.82	35.77	28.70	43.59	29.73	21.10
Lane Group LOS	D	C	D	B	B	E	D	C	D	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.33	6.19	1.75	0.98	0.82	1.54	5.69	0.23	5.72	9.17	0.82
50th-Percentile Queue Length [ft/ln]	33.13	154.73	43.77	24.62	20.46	38.62	142.37	5.71	143.10	229.20	20.53
95th-Percentile Queue Length [veh/ln]	2.39	10.27	3.15	1.77	1.47	2.78	9.61	0.41	9.65	14.13	1.48
95th-Percentile Queue Length [ft/ln]	59.63	256.73	78.79	44.32	36.83	69.52	240.21	10.28	241.19	353.35	36.95

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.04	23.25	23.25	53.41	16.58	16.59	56.82	35.77	28.70	43.59	29.73	21.10
Movement LOS	D	C	C	D	B	B	E	D	C	D	C	C
d_A, Approach Delay [s/veh]	26.98			28.80			37.00			32.06		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	32.72											
Intersection LOS	C											
Intersection V/C	0.557											

**Emissions**

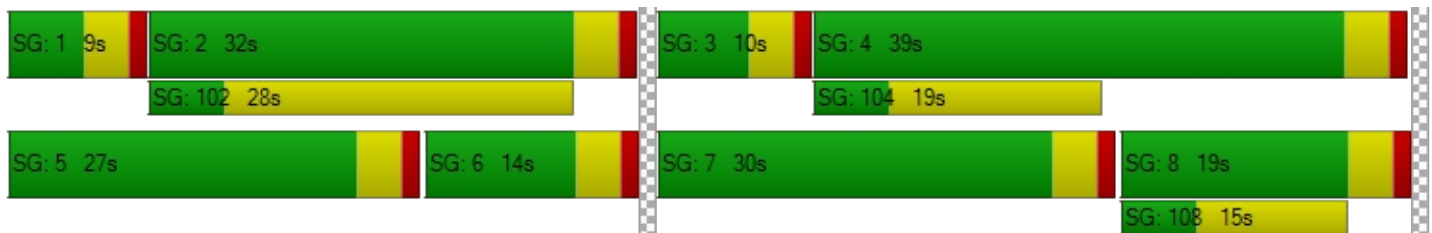
Vehicle Miles Traveled [mph]	7.01	50.92	9.33	10.30	8.49	30.03	436.38	7.01	68.18	263.06	15.94
Stops [stops/h]	53.00	247.56	70.03	39.39	32.74	61.79	683.38	9.13	228.95	733.45	32.84
Fuel consumption [US gal/h]	1.07	4.96	1.42	0.86	0.71	2.85	33.64	0.49	8.85	28.52	1.41
CO [g/h]	74.69	346.50	98.99	60.39	49.87	198.93	2351.37	33.96	618.50	1993.28	98.21
NOx [g/h]	14.53	67.42	19.26	11.75	9.70	38.71	457.49	6.61	120.34	387.82	19.11
VOC [g/h]	17.31	80.30	22.94	14.00	11.56	46.10	544.95	7.87	143.34	461.96	22.76

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.249	2.273	3.136	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	222	622	333	778
d_b, Bicycle Delay [s]	35.56	21.36	31.25	16.81
l_b,int, Bicycle LOS Score for Intersection	2.338	1.926	2.083	2.673
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 25: Nuevo Rd/Redlands Ave**

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

**Intersection Setup**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
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	0	0	0	1	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]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Jade Ave			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	272	357	191	36	360	72	134	958	321	179	910	88
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	48	0	0	18	0	0	80	0	0	22
Total Hourly Volume [veh/h]	272	357	143	36	360	54	134	958	241	179	910	66
Peak Hour 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
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]	68	89	36	9	90	14	34	240	60	45	228	17
Total Analysis Volume [veh/h]	272	357	143	36	360	54	134	958	241	179	910	66
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]	70
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	0	27	0	0	27	0	7	22	0	19	34	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	7	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	32	0	0	32	0	15	26	0	12	23	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	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
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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	0.00	2.00	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]	29	29	29	29	7	21	21	8	22	22
g / C, Green / Cycle	0.42	0.42	0.42	0.42	0.10	0.30	0.30	0.11	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.28	0.19	0.09	0.25	0.07	0.26	0.15	0.10	0.25	0.04
s, saturation flow rate [veh/h]	988	1900	1615	1778	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	302	794	675	798	174	1073	479	207	1139	509
d1, Uniform Delay [s]	25.25	14.61	13.02	15.66	30.89	23.55	20.35	30.47	21.95	17.13
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	31.79	1.84	0.72	2.87	7.07	2.85	0.82	10.34	1.34	0.11
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	0.90	0.45	0.21	0.56	0.77	0.89	0.50	0.87	0.80	0.13
d, Delay for Lane Group [s/veh]	57.04	16.46	13.74	18.53	37.96	26.40	21.17	40.81	23.28	17.24
Lane Group LOS	E	B	B	B	D	C	C	D	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.73	3.82	1.35	5.24	2.40	7.16	3.04	3.35	6.27	0.70
50th-Percentile Queue Length [ft/ln]	168.21	95.38	33.78	131.01	60.10	179.06	75.96	83.80	156.83	17.56
95th-Percentile Queue Length [veh/ln]	10.98	6.87	2.43	8.99	4.33	11.55	5.47	6.03	10.38	1.26
95th-Percentile Queue Length [ft/ln]	274.56	171.69	60.80	224.86	108.18	288.79	136.72	150.85	259.52	31.60

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	57.04	16.46	13.74	18.53	18.53	18.53	37.96	26.40	21.17	40.81	23.28	17.24
Movement LOS	E	B	B	B	B	B	D	C	C	D	C	B
d_A, Approach Delay [s/veh]	30.25			18.53			26.62			25.65		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	26.09											
Intersection LOS	C											
Intersection V/C	0.639											

**Emissions**

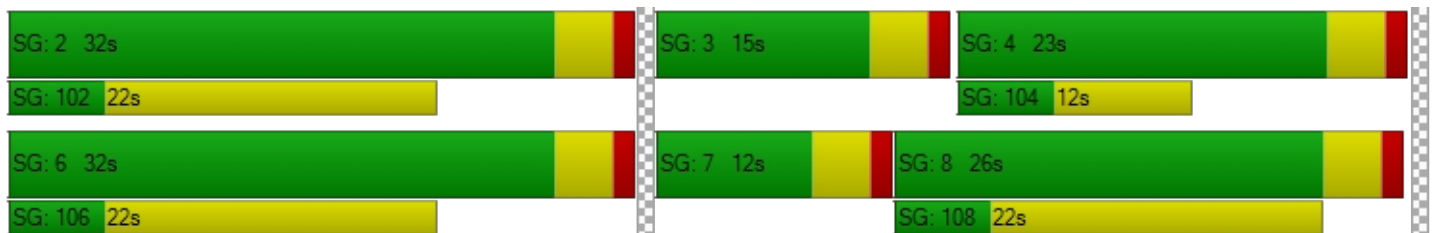
Vehicle Miles Traveled [mph]	102.77	134.89	54.03	226.09			67.79	484.66	121.92	89.58	455.40	33.03
Stops [stops/h]	346.04	196.22	69.49	269.50			123.64	736.70	156.26	172.40	645.23	36.12
Fuel consumption [US gal/h]	10.98	8.26	3.12	12.80			4.68	29.75	6.94	6.39	26.96	1.77
CO [g/h]	767.68	577.29	217.79	894.53			327.00	2079.22	485.16	446.58	1884.73	123.69
NOx [g/h]	149.36	112.32	42.37	174.04			63.62	404.54	94.40	86.89	366.70	24.07
VOC [g/h]	177.92	133.79	50.48	207.32			75.79	481.88	112.44	103.50	436.80	28.67

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	26.58			26.58			26.58			26.58		
I_p,int, Pedestrian LOS Score for Intersectio	2.848			2.495			3.579			3.104		
Crosswalk LOS	C			B			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			800			629			543		
d_b, Bicycle Delay [s]	12.60			12.60			16.46			18.58		
I_b,int, Bicycle LOS Score for Intersection	2.913			2.332			2.725			2.531		
Bicycle LOS	C			B			B			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 26: Nuevo Rd/Perris Blvd**

Control Type:	Signalized	Delay (sec / veh):	47.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
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	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	185.00	100.00	105.00	145.00	100.00	145.00	175.00	100.00	1000.00	140.00	100.00	175.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Nuevo Rd			Nuevo Rd		
Base Volume Input [veh/h]	174	1020	265	420	1095	399	493	991	240	445	726	396
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	66	0	0	100	0	0	60	0	0	99
Total Hourly Volume [veh/h]	174	1020	199	420	1095	299	493	991	180	445	726	297
Peak Hour 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
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]	44	255	50	105	274	75	123	248	45	111	182	74
Total Analysis Volume [veh/h]	174	1020	199	420	1095	299	493	991	180	445	726	297
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	14	38	0	8	32	0	9	32	0	16	39	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	27	0	0	21	0	0	34	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	16	35	0	21	40	0	21	44	0	20	43	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated 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]	12	36	36	16	40	40	17	36	36	16	35	35
g / C, Green / Cycle	0.10	0.30	0.30	0.14	0.33	0.33	0.14	0.30	0.30	0.13	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.10	0.20	0.12	0.12	0.30	0.10	0.14	0.27	0.11	0.13	0.14	0.18
s, saturation flow rate [veh/h]	1810	5176	1615	3514	3618	2859	3514	3618	1615	3514	5176	1615
c, Capacity [veh/h]	181	1544	482	476	1207	954	498	1084	484	469	1507	470
d1, Uniform Delay [s]	53.77	36.80	33.70	50.93	38.19	29.74	51.42	40.54	33.13	51.60	35.06	36.93
k, delay calibration	0.28	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.14
l, 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]	41.33	2.24	2.60	5.54	11.41	0.86	16.60	3.51	0.48	10.66	0.24	1.79
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	0.96	0.66	0.41	0.88	0.91	0.31	0.99	0.91	0.37	0.95	0.48	0.63
d, Delay for Lane Group [s/veh]	95.10	39.03	36.30	56.47	49.61	30.60	68.02	44.06	33.60	62.26	35.30	38.72
Lane Group LOS	F	D	D	E	D	C	E	D	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.17	8.71	4.84	6.39	16.54	3.22	8.39	14.19	4.12	7.20	5.75	7.62
50th-Percentile Queue Length [ft/ln]	179.16	217.71	121.12	159.75	413.58	80.62	209.86	354.80	102.99	180.08	143.68	190.53
95th-Percentile Queue Length [veh/ln]	11.56	13.55	8.45	10.54	23.21	5.80	13.15	20.37	7.42	11.60	9.68	12.15
95th-Percentile Queue Length [ft/ln]	288.92	338.70	211.36	263.40	580.34	145.11	328.65	509.26	185.39	290.12	241.97	303.71

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	95.10	39.03	36.30	56.47	49.61	30.60	68.02	44.06	33.60	62.26	35.30	38.72
Movement LOS	F	D	D	E	D	C	E	D	C	E	D	D
d_A, Approach Delay [s/veh]	45.65			48.06			50.02			44.16		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	47.14											
Intersection LOS	D											
Intersection V/C	0.799											

**Emissions**

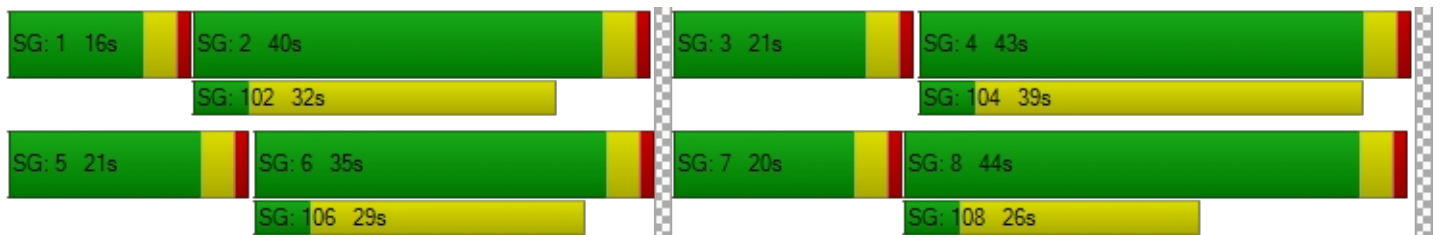
Vehicle Miles Traveled [mph]	65.51	384.00	74.92	209.61	546.49	149.22	109.81	220.72	40.09	225.13	367.29	150.25
Stops [stops/h]	214.99	783.77	145.34	383.41	992.58	193.48	503.67	851.52	123.59	432.19	517.25	228.63
Fuel consumption [US gal/h]	8.29	31.01	5.85	16.78	42.13	9.38	15.70	25.16	3.88	17.95	23.45	9.97
CO [g/h]	579.15	2167.56	408.57	1172.78	2944.66	655.85	1097.74	1758.36	271.28	1254.54	1639.31	696.79
NOx [g/h]	112.68	421.73	79.49	228.18	572.92	127.60	213.58	342.11	52.78	244.09	318.95	135.57
VOC [g/h]	134.22	502.35	94.69	271.80	682.45	152.00	254.41	407.52	62.87	290.75	379.93	161.49

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	3.427			3.628			3.386			3.409		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	517			600			667			650		
d_b, Bicycle Delay [s]	33.00			29.40			26.67			27.34		
l_b,int, Bicycle LOS Score for Intersection	2.362			3.139			2.982			2.421		
Bicycle LOS	B			C			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 27: Nuevo Rd/Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	50.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.351

**Intersection Setup**

Name	Southbound		Eastbound		Nuevo Rd	
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]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Nuevo Rd	
Base Volume Input [veh/h]	0	293	0	1854	1752	208
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	293	0	1854	1752	208
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	73	0	464	438	52
Total Analysis Volume [veh/h]	0	293	0	1854	1752	208
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	1.35	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	50.46	0.00	0.00	0.00	0.00
Movement LOS		F		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	4.22	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	105.52	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	50.46		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	3.60					
Intersection LOS	F					

**Intersection Level Of Service Report**  
**Intersection 28: Nuevo Rd/I-215 NB**

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

**Intersection Setup**

Name	Northbound			Southbound			NuevoRd			Westbound		
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	0	0	2	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	400.00	100.00	100.00	100.00	125.00	100.00	100.00	100.00	100.00	200.00
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]	40.00			30.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name							NuevoRd					
Base Volume Input [veh/h]	153	6	807	0	0	0	182	1211	0	0	1229	746
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	202	0	0	0	0	0	0	0	0	187
Total Hourly Volume [veh/h]	153	6	605	0	0	0	182	1211	0	0	1229	559
Peak Hour 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
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]	38	2	151	0	0	0	46	303	0	0	307	140
Total Analysis Volume [veh/h]	153	6	605	0	0	0	182	1211	0	0	1229	559
Presence of On-Street Parking	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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	0	0	5	42	0	0	33	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	7	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	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	16	0	0	0	0	22	44	0	0	22	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	R		L	C	C	R
C, Calculated Cycle Length [s]	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16		8	36	25	25
g / C, Green / Cycle	0.26	0.26		0.13	0.61	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21		0.10	0.23	0.24	0.35
s, saturation flow rate [veh/h]	1813	2859		1810	5176	5176	1615
c, Capacity [veh/h]	472	744		235	3138	2120	661
d1, Uniform Delay [s]	17.99	20.82		25.24	6.07	13.71	15.99
k, delay calibration	0.50	0.50		0.11	0.11	0.11	0.18
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.92	9.44		5.36	0.08	0.25	5.02
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.34	0.81		0.77	0.39	0.58	0.85
d, Delay for Lane Group [s/veh]	19.91	30.26		30.60	6.15	13.97	21.01
Lane Group LOS	B	C		C	A	B	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.82	4.43		2.61	1.71	3.53	6.46
50th-Percentile Queue Length [ft/ln]	45.54	110.78		65.29	42.85	88.21	161.45
95th-Percentile Queue Length [veh/ln]	3.28	7.88		4.70	3.09	6.35	10.63
95th-Percentile Queue Length [ft/ln]	81.97	197.09		117.52	77.13	158.78	265.64

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	19.91	19.91	30.26	0.00	0.00	0.00	30.60	6.15	0.00	0.00	13.97	21.01
Movement LOS	B	B	C				C	A			B	C
d_A, Approach Delay [s/veh]	28.11			0.00			9.34			16.17		
Approach LOS	C			A			A			B		
d_I, Intersection Delay [s/veh]	16.07											
Intersection LOS	B											
Intersection V/C	0.658											

**Emissions**

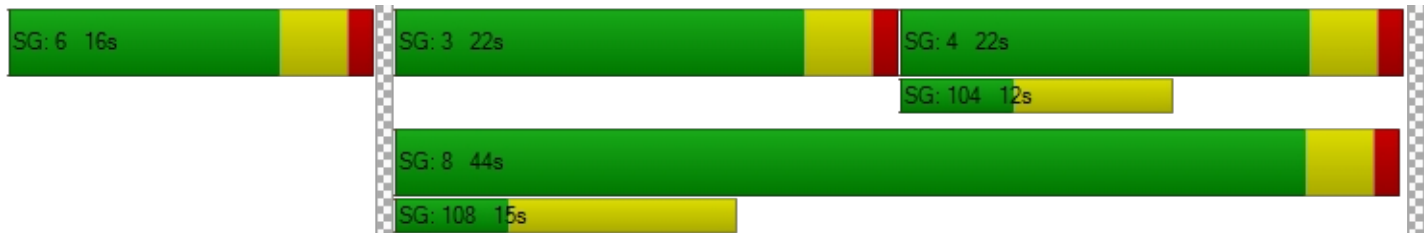
Vehicle Miles Traveled [mph]	27.64	105.16		15.08	100.33	67.55	30.72
Stops [stops/h]	109.30	531.74		156.69	308.50	635.11	387.48
Fuel consumption [US gal/h]	2.71	12.72		3.21	8.14	12.15	7.30
CO [g/h]	189.29	888.86		224.58	568.98	849.45	510.10
NOx [g/h]	36.83	172.94		43.69	110.70	165.27	99.25
VOC [g/h]	43.87	206.00		52.05	131.87	196.87	118.22

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.627	2.151	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	0	1333	600
d_b, Bicycle Delay [s]	19.20	30.00	3.33	14.70
I_b,int, Bicycle LOS Score for Intersection	3.154	4.132	2.326	2.646
Bicycle LOS	C	D	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 29: NuevoRd/I-215 SB**

Control Type:	Signalized	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.826

**Intersection Setup**

Name	Northbound			I-215 SB			NuevoRd			NuevoRd		
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	0	0	0	0	0	1	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	250.00	100.00	100.00	100.00	115.00	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			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name				I-215 SB			NuevoRd			NuevoRd		
Base Volume Input [veh/h]	0	0	0	910	1	179	0	555	679	910	744	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	45	0	0	170	0	0	0
Total Hourly Volume [veh/h]	0	0	0	910	1	134	0	555	509	910	744	0
Peak Hour 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
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]	0	0	0	228	0	34	0	139	127	228	186	0
Total Analysis Volume [veh/h]	0	0	0	910	1	134	0	555	509	910	744	0
Presence of On-Street Parking				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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	0	0	0	10	0	0	33	0	5	42	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	7	0	0	10	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	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	0	0	0	41	0	0	43	0	36	79	0
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group		L	C	R	C	C	L	C
C, Calculated Cycle Length [s]		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
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]		32	32	32	41	41	35	80
g / C, Green / Cycle		0.27	0.27	0.27	0.34	0.34	0.29	0.67
(v / s)_i Volume / Saturation Flow Rate		0.25	0.25	0.08	0.15	0.32	0.26	0.14
s, saturation flow rate [veh/h]		1810	1810	1615	3618	1615	3514	5176
c, Capacity [veh/h]		485	485	433	1240	554	1016	3443
d1, Uniform Delay [s]		42.95	42.95	35.05	30.60	37.83	40.93	7.85
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		28.18	28.16	1.85	0.25	6.74	3.09	0.03
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		0.94	0.94	0.31	0.45	0.92	0.90	0.22
d, Delay for Lane Group [s/veh]		71.13	71.11	36.90	30.86	44.57	44.02	7.88
Lane Group LOS		E	E	D	C	D	D	A
Critical Lane Group		Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		16.63	16.63	3.30	6.13	14.83	12.93	2.27
50th-Percentile Queue Length [ft/ln]		415.82	415.75	82.60	153.17	370.74	323.17	56.68
95th-Percentile Queue Length [veh/ln]		23.32	23.32	5.95	10.19	21.15	18.82	4.08
95th-Percentile Queue Length [ft/ln]		583.03	582.95	148.68	254.65	528.63	470.58	102.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	71.12	71.11	36.90	0.00	30.86	44.57	44.02	7.88	0.00
Movement LOS				E	E	D		C	D	D	A	
d_A, Approach Delay [s/veh]	0.00			66.73			37.42			27.76		
Approach LOS	A			E			D			C		
d_I, Intersection Delay [s/veh]	41.32											
Intersection LOS	D											
Intersection V/C	0.826											

**Emissions**

Vehicle Miles Traveled [mph]		39.39	39.39	11.59	147.09	134.90	75.39	61.64
Stops [stops/h]		498.98	498.91	99.12	367.60	444.89	775.61	204.06
Fuel consumption [US gal/h]		12.91	12.90	2.39	12.37	13.82	18.47	5.41
CO [g/h]		902.09	901.90	167.41	864.31	965.95	1291.11	377.89
NOx [g/h]		175.51	175.48	32.57	168.16	187.94	251.20	73.52
VOC [g/h]		209.07	209.02	38.80	200.31	223.87	299.23	87.58

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.505	2.492	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	617	650	1250
d_b, Bicycle Delay [s]	60.00	28.70	27.34	8.44
I_b,int, Bicycle LOS Score for Intersection	4.132	3.358	2.238	2.469
Bicycle LOS	D	C	B	B

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 30: Redlands Ave/Mildred St**

Control Type:	All-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

**Intersection Setup**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
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	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	Yes			Yes			Yes			Yes		

**Volumes**

Name	Redlands Ave			Redlands Ave			MildredSt			MildredSt		
Base Volume Input [veh/h]	59	678	14	50	622	37	52	26	71	8	21	38
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	59	678	14	50	622	37	52	26	71	8	21	38
Peak Hour 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
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	170	4	13	156	9	13	7	18	2	5	10
Total Analysis Volume [veh/h]	59	678	14	50	622	37	52	26	71	8	21	38
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	531	573	576	527	568	576	506	500
Degree of Utilization, x	0.11	0.60	0.60	0.10	0.58	0.57	0.29	0.13

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.37	4.01	3.97	0.31	3.69	3.60	1.22	0.46
95th-Percentile Queue Length [ft]	9.33	100.25	99.35	7.83	92.16	89.97	30.48	11.52
Approach Delay [s/veh]	17.42			16.72			13.06	11.32
Approach LOS	C			C			B	B
Intersection Delay [s/veh]	16.49							
Intersection LOS	C							

**Intersection Level Of Service Report**  
**Intersection 31: Perris Blvd/Mildred St**

Control Type:	Signalized	Delay (sec / veh):	6.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.386

**Intersection Setup**

Name	PerrisBlvd		Perris Blvd		MildredSt	
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	1	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	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

**Volumes**

Name	PerrisBlvd		Perris Blvd		MildredSt	
Base Volume Input [veh/h]	1425	92	116	1642	85	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	23	0	0	0	26
Total Hourly Volume [veh/h]	1425	69	116	1642	85	76
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	356	17	29	411	21	19
Total Analysis Volume [veh/h]	1425	69	116	1642	85	76
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Maximum Green [s]	16	0	5	25	27	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	17	0
Delayed Vehicle Green [s]	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	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	21	0	33	54	26	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	C	C	L	C	L	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	55	55	7	66	6	6
g / C, Green / Cycle	0.69	0.69	0.08	0.83	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.28	0.27	0.06	0.32	0.05	0.05
s, saturation flow rate [veh/h]	3618	1855	1810	5176	1810	1615
c, Capacity [veh/h]	2506	1285	152	4279	132	118
d1, Uniform Delay [s]	5.21	5.16	35.85	1.76	36.06	36.06
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.47	0.88	7.62	0.26	5.11	5.74
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.40	0.39	0.76	0.38	0.64	0.64
d, Delay for Lane Group [s/veh]	5.69	6.05	43.46	2.02	41.17	41.80
Lane Group LOS	A	A	D	A	D	D
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.40	2.53	2.40	0.33	1.79	1.62
50th-Percentile Queue Length [ft/ln]	59.96	63.21	60.09	8.13	44.71	40.48
95th-Percentile Queue Length [veh/ln]	4.32	4.55	4.33	0.59	3.22	2.91
95th-Percentile Queue Length [ft/ln]	107.92	113.77	108.17	14.63	80.48	72.87

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	5.80	6.05	43.46	2.02	41.17	41.80
Movement LOS	A	A	D	A	D	D
d_A, Approach Delay [s/veh]	5.81		4.75		41.46	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	6.95					
Intersection LOS	A					
Intersection V/C	0.386					

**Emissions**

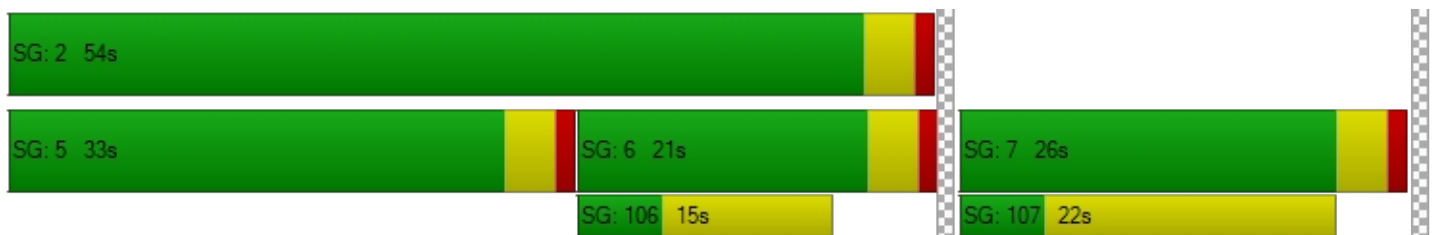
Vehicle Miles Traveled [mph]	432.45	216.22	43.67	618.17	42.67	38.15
Stops [stops/h]	215.84	113.77	108.17	43.89	80.48	72.87
Fuel consumption [US gal/h]	18.66	9.44	3.87	22.41	2.94	2.64
CO [g/h]	1304.30	659.81	270.36	1566.41	205.47	184.64
NOx [g/h]	253.77	128.37	52.60	304.77	39.98	35.92
VOC [g/h]	302.29	152.92	62.66	363.03	47.62	42.79

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		31.51		31.51	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		3.276		2.080	
Crosswalk LOS	F		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	425		1250		550	
d_b, Bicycle Delay [s]	24.81		5.63		21.03	
I_b,int, Bicycle LOS Score for Intersection	2.394		2.527		1.560	
Bicycle LOS	B		B		A	

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 32: Perris Blvd/San Jacinto Ave**

Control Type:	Signalized	Delay (sec / veh):	103.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.042

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
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	1	1	0	0	1	0	0
Entry Pocket Length [ft]	120.00	100.00	110.00	320.00	100.00	200.00	100.00	100.00	100.00	185.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			SanJacintoAve			SanJacintoAve		
Base Volume Input [veh/h]	90	1120	7	600	1120	277	591	162	118	190	470	188
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	2	0	0	69	0	0	30	0	0	47
Total Hourly Volume [veh/h]	90	1120	5	600	1120	208	591	162	88	190	470	141
Peak Hour 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
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]	23	280	1	150	280	52	148	41	22	48	118	35
Total Analysis Volume [veh/h]	90	1120	5	600	1120	208	591	162	88	190	470	141
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	21	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	13	23	0	29	39	0	28	30	0	28	30	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	7	24	24	25	42	42	24	31	31	14	21	21
g / C, Green / Cycle	0.06	0.22	0.22	0.23	0.38	0.38	0.22	0.28	0.28	0.12	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.00	0.33	0.22	0.13	0.33	0.09	0.05	0.11	0.17	0.17
s, saturation flow rate [veh/h]	1810	5176	1615	1810	5176	1615	1810	1900	1615	1810	1900	1751
c, Capacity [veh/h]	115	1134	354	411	1982	618	395	538	457	226	361	333
d1, Uniform Delay [s]	50.76	42.80	33.64	42.50	26.73	24.04	43.00	30.89	29.88	47.06	43.33	43.35
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.23	0.23
l, 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]	10.95	23.88	0.07	219.61	1.17	1.47	236.60	0.31	0.20	8.16	13.50	14.71
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	0.78	0.99	0.01	1.46	0.57	0.34	1.50	0.30	0.19	0.84	0.88	0.88
d, Delay for Lane Group [s/veh]	61.71	66.67	33.71	262.11	27.90	25.51	279.60	31.20	30.09	55.23	56.83	58.06
Lane Group LOS	E	E	C	F	C	C	F	C	C	E	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.72	12.17	0.11	35.76	7.49	3.90	36.21	3.29	1.73	5.44	9.44	8.83
50th-Percentile Queue Length [ft/ln]	68.07	304.30	2.72	893.91	187.32	97.47	905.28	82.26	43.26	135.95	235.88	220.78
95th-Percentile Queue Length [veh/ln]	4.90	17.89	0.20	54.46	11.98	7.02	55.40	5.92	3.12	9.26	14.47	13.70
95th-Percentile Queue Length [ft/ln]	122.53	447.34	4.90	1361.56	299.54	175.45	1385.10	148.08	77.88	231.56	361.81	342.62

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	61.71	66.67	33.71	262.11	27.90	25.51	279.60	31.20	30.09	55.23	57.23	58.06
Movement LOS	E	E	C	F	C	C	F	C	C	E	E	E
d_A, Approach Delay [s/veh]	66.17			100.53			205.65			56.90		
Approach LOS	E			F			F			E		
d_I, Intersection Delay [s/veh]	102.98											
Intersection LOS	F											
Intersection V/C	1.042											

**Emissions**

Vehicle Miles Traveled [mph]	26.03	323.90	1.45	115.21	215.07	39.94	66.61	18.26	9.92	23.99	40.09	37.05
Stops [stops/h]	89.11	1195.06	3.56	1170.22	735.64	127.60	1185.09	107.69	56.64	177.97	308.78	289.02
Fuel consumption [US gal/h]	3.13	41.16	0.13	50.50	22.88	4.04	50.64	2.99	1.58	5.17	8.89	8.33
CO [g/h]	218.80	2876.78	8.96	3529.69	1599.20	282.08	3539.64	209.24	110.65	361.40	621.12	582.30
NOx [g/h]	42.57	559.72	1.74	686.75	311.15	54.88	688.69	40.71	21.53	70.32	120.85	113.29
VOC [g/h]	50.71	666.72	2.08	818.04	370.63	65.37	820.35	48.49	25.64	83.76	143.95	134.95

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.223			3.547			2.853			2.800		
Crosswalk LOS	C			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	345			636			473			473		
d_b, Bicycle Delay [s]	37.64			25.57			32.07			32.07		
I_b,int, Bicycle LOS Score for Intersection	2.229			2.658			2.997			2.259		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 33: Indian Ave/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	47.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

**Intersection Setup**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	200.00	100.00	100.00	185.00	100.00	175.00	185.00	100.00	100.00	275.00	100.00	260.00
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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	204	190	137	99	300	203	133	2116	177	165	1480	50
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	34	0	0	51	0	0	44	0	0	13
Total Hourly Volume [veh/h]	204	190	103	99	300	152	133	2116	133	165	1480	37
Peak Hour 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
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]	51	48	26	25	75	38	33	529	33	41	370	9
Total Analysis Volume [veh/h]	204	190	103	99	300	152	133	2116	133	165	1480	37
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	35	0	5	32	0	6	29	0	5	28	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	27	0	0	20	0	0	23	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	17	39	0	14	36	0	25	52	0	15	42	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated 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]	13	37	37	8	32	32	11	48	48	11	48	48
g / C, Green / Cycle	0.11	0.31	0.31	0.07	0.27	0.27	0.09	0.40	0.40	0.09	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.11	0.08	0.08	0.05	0.08	0.09	0.07	0.41	0.08	0.09	0.29	0.02
s, saturation flow rate [veh/h]	1810	1900	1681	1810	3618	1615	1810	5176	1615	1810	5176	1615
c, Capacity [veh/h]	196	583	516	124	965	431	163	2070	646	166	2078	649
d1, Uniform Delay [s]	53.50	31.38	31.46	55.09	35.18	35.62	53.62	36.00	23.54	54.47	30.09	21.99
k, delay calibration	0.42	0.50	0.50	0.14	0.50	0.50	0.11	0.11	0.11	0.38	0.11	0.11
l, 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]	70.16	1.10	1.29	14.57	0.84	2.26	9.49	15.52	0.16	59.26	0.46	0.04
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	1.04	0.26	0.27	0.80	0.31	0.35	0.82	1.02	0.21	0.99	0.71	0.06
d, Delay for Lane Group [s/veh]	123.66	32.48	32.75	69.66	36.02	37.88	63.11	51.52	23.69	113.73	30.55	22.03
Lane Group LOS	F	C	C	E	D	D	E	F	C	F	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	9.57	3.44	3.16	3.38	3.53	3.77	4.21	21.35	2.34	7.50	11.08	0.61
50th-Percentile Queue Length [ft/ln]	239.27	85.99	79.00	84.50	88.19	94.35	105.22	533.81	58.60	187.44	277.05	15.23
95th-Percentile Queue Length [veh/ln]	14.89	6.19	5.69	6.08	6.35	6.79	7.57	29.39	4.22	11.99	16.54	1.10
95th-Percentile Queue Length [ft/ln]	372.17	154.79	142.20	152.09	158.74	169.83	189.33	734.79	105.48	299.70	413.54	27.41

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	123.66	32.53	32.75	69.66	36.02	37.88	63.11	51.52	23.69	113.73	30.55	22.03
Movement LOS	F	C	C	E	D	D	E	F	C	F	C	C
d_A, Approach Delay [s/veh]	69.98			42.58			50.61			38.52		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	47.65											
Intersection LOS	D											
Intersection V/C	0.707											

**Emissions**

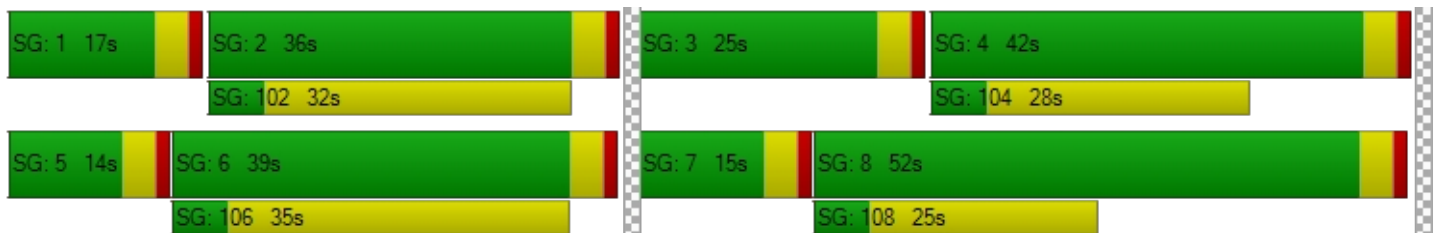
Vehicle Miles Traveled [mph]	118.47	89.09	81.06	17.33	52.53	26.61	15.08	239.97	15.08	41.24	369.88	9.25
Stops [stops/h]	287.12	103.19	94.80	101.40	211.66	113.22	126.26	1921.72	70.32	224.92	997.38	18.27
Fuel consumption [US gal/h]	12.76	5.35	4.89	3.26	6.63	3.49	4.56	65.90	2.45	9.38	40.10	0.81
CO [g/h]	892.16	374.02	341.63	227.75	463.53	244.07	318.58	4606.65	171.39	655.35	2802.99	56.94
NOx [g/h]	173.58	72.77	66.47	44.31	90.19	47.49	61.98	896.29	33.35	127.51	545.36	11.08
VOC [g/h]	206.77	86.68	79.18	52.78	107.43	56.56	73.83	1067.63	39.72	151.88	649.62	13.20

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
l_p,int, Pedestrian LOS Score for Intersectio	2.707			2.778			3.784			3.663		
Crosswalk LOS	B			C			D			D		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	583			533			800			633		
d_b, Bicycle Delay [s]	30.10			32.27			21.60			28.02		
l_b,int, Bicycle LOS Score for Intersection	1.998			2.056			2.894			2.492		
Bicycle LOS	A			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 34: Indian Ave/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	27.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

**Intersection Setup**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
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]	220.00	100.00	100.00	150.00	100.00	100.00	145.00	100.00	100.00	150.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Morgan St			Morgan St		
Base Volume Input [veh/h]	93	281	42	34	744	36	23	41	144	291	53	28
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	11	0	0	9	0	0	36	0	0	7
Total Hourly Volume [veh/h]	93	281	31	34	744	27	23	41	108	291	53	21
Peak Hour 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
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]	23	70	8	9	186	7	6	10	27	73	13	5
Total Analysis Volume [veh/h]	93	281	31	34	744	27	23	41	108	291	53	21
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	26	0	9	26	0	16	26	0	19	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	5	37	37	3	35	35	2	10	10	15	22	22
g / C, Green / Cycle	0.06	0.46	0.46	0.03	0.43	0.43	0.03	0.12	0.12	0.18	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.08	0.08	0.02	0.20	0.20	0.01	0.02	0.07	0.16	0.02	0.02
s, saturation flow rate [veh/h]	1810	1900	1835	1810	1900	1877	1810	1900	1615	1810	1900	1722
c, Capacity [veh/h]	113	880	850	60	824	814	47	231	196	329	528	478
d1, Uniform Delay [s]	37.06	12.58	12.59	38.09	16.11	16.11	38.44	31.54	33.07	31.90	21.30	21.32
k, delay calibration	0.18	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.31	0.11	0.11
l, 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]	20.66	0.45	0.47	7.98	1.92	1.95	7.66	0.36	2.39	18.89	0.06	0.07
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	0.82	0.18	0.18	0.56	0.47	0.47	0.49	0.18	0.55	0.88	0.07	0.08
d, Delay for Lane Group [s/veh]	57.73	13.03	13.06	46.07	18.03	18.06	46.10	31.90	35.46	50.78	21.36	21.38
Lane Group LOS	E	B	B	D	B	B	D	C	D	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.34	1.55	1.52	0.75	4.83	4.78	0.53	0.71	2.03	6.95	0.51	0.48
50th-Percentile Queue Length [ft/ln]	58.55	38.66	37.92	18.87	120.67	119.38	13.30	17.79	50.77	173.81	12.80	12.07
95th-Percentile Queue Length [veh/ln]	4.22	2.78	2.73	1.36	8.43	8.36	0.96	1.28	3.66	11.28	0.92	0.87
95th-Percentile Queue Length [ft/ln]	105.40	69.59	68.25	33.96	210.75	208.98	23.94	32.01	91.39	281.92	23.04	21.73

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	57.73	13.04	13.06	46.07	18.04	18.06	46.10	31.90	35.46	50.78	21.36	21.38
Movement LOS	E	B	B	D	B	B	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	23.30			19.23			36.03			44.82		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	27.17											
Intersection LOS	C											
Intersection V/C	0.483											

**Emissions**

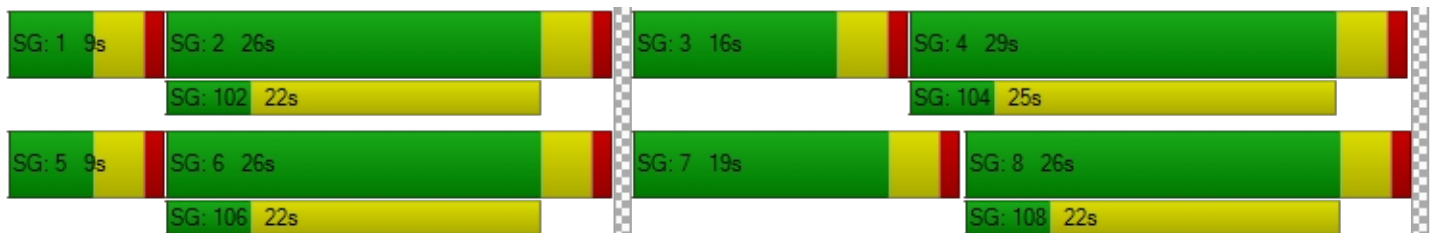
Vehicle Miles Traveled [mph]	46.22	78.42	76.63	19.74	225.21	222.53	1.01	1.81	4.76	145.94	19.12	17.99
Stops [stops/h]	105.40	69.59	68.25	33.96	217.21	214.89	23.94	32.01	91.39	312.86	23.04	21.73
Fuel consumption [US gal/h]	3.99	3.97	3.89	1.42	11.84	11.71	0.43	0.58	1.65	10.92	1.07	1.01
CO [g/h]	278.70	277.63	271.58	99.10	827.87	818.37	30.37	40.25	115.20	763.51	74.65	70.27
NOx [g/h]	54.22	54.02	52.84	19.28	161.07	159.23	5.91	7.83	22.41	148.55	14.52	13.67
VOC [g/h]	64.59	64.34	62.94	22.97	191.87	189.67	7.04	9.33	26.70	176.95	17.30	16.29

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	31.51			31.51			31.51			31.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.778			2.644			2.435			2.417		
Crosswalk LOS	C			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	550			550			550			625		
d_b, Bicycle Delay [s]	21.03			21.03			21.03			18.91		
I_b,int, Bicycle LOS Score for Intersection	1.903			2.231			1.731			1.867		
Bicycle LOS	A			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 35: Indian Ave/Rider St**

Control Type:	Signalized	Delay (sec / veh):	31.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

**Intersection Setup**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
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	1	0	1	1	0	1
Entry Pocket Length [ft]	130.00	100.00	100.00	200.00	100.00	200.00	200.00	100.00	200.00	130.00	100.00	200.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Indian Ave			Indian Ave			Rider St			Rider St		
Base Volume Input [veh/h]	16	225	133	78	389	29	19	140	205	355	67	127
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	33	0	0	7	0	0	51	0	0	32
Total Hourly Volume [veh/h]	16	225	100	78	389	22	19	140	154	355	67	95
Peak Hour 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
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]	4	56	25	20	97	6	5	35	39	89	17	24
Total Analysis Volume [veh/h]	16	225	100	78	389	22	19	140	154	355	67	95
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	21	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	30	0	10	30	0	18	26	0	24	32	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	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	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]	2	39	39	5	42	42	2	11	11	19	28	28
g / C, Green / Cycle	0.02	0.43	0.43	0.06	0.47	0.47	0.02	0.12	0.12	0.21	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.01	0.09	0.09	0.04	0.11	0.01	0.01	0.04	0.10	0.20	0.02	0.06
s, saturation flow rate [veh/h]	1810	1900	1708	1810	3618	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	35	817	735	101	1688	754	42	440	197	389	1134	506
d1, Uniform Delay [s]	43.69	16.03	16.10	41.93	14.34	12.98	43.40	36.11	38.37	34.52	21.62	22.54
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.35	0.11	0.11
l, 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]	9.38	0.57	0.67	11.82	0.32	0.07	7.52	0.41	6.70	21.67	0.02	0.18
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	0.46	0.21	0.21	0.77	0.23	0.03	0.45	0.32	0.78	0.91	0.06	0.19
d, Delay for Lane Group [s/veh]	53.06	16.60	16.77	53.76	14.66	13.05	50.91	36.52	45.07	56.19	21.64	22.72
Lane Group LOS	D	B	B	D	B	B	D	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.44	2.21	2.10	1.96	2.20	0.23	0.49	1.37	3.50	9.44	0.47	1.40
50th-Percentile Queue Length [ft/ln]	10.98	55.37	52.59	49.12	54.96	5.81	12.21	34.14	87.48	235.88	11.68	34.91
95th-Percentile Queue Length [veh/ln]	0.79	3.99	3.79	3.54	3.96	0.42	0.88	2.46	6.30	14.47	0.84	2.51
95th-Percentile Queue Length [ft/ln]	19.77	99.67	94.66	88.42	98.93	10.46	21.97	61.45	157.46	361.82	21.02	62.85

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.06	16.64	16.77	53.76	14.66	13.05	50.91	36.52	45.07	56.19	21.64	22.72
Movement LOS	D	B	B	D	B	B	D	D	D	E	C	C
d_A, Approach Delay [s/veh]	18.39			20.83			41.60			45.56		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	31.95											
Intersection LOS	C											
Intersection V/C	0.427											

**Emissions**

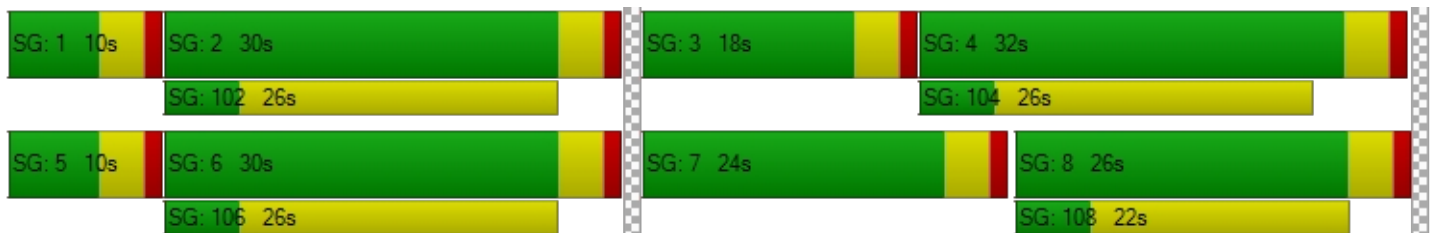
Vehicle Miles Traveled [mph]	8.00	83.78	78.68	38.76	193.32	10.93	3.17	23.37	25.70	152.81	28.84	40.89
Stops [stops/h]	17.57	88.60	84.14	78.60	175.87	9.29	19.53	109.24	139.97	377.41	37.38	55.86
Fuel consumption [US gal/h]	0.60	4.50	4.24	3.16	9.97	0.55	0.55	3.20	4.03	13.99	1.75	2.54
CO [g/h]	41.88	314.87	296.44	220.83	697.19	38.36	38.33	223.65	281.96	977.89	122.21	177.23
NOx [g/h]	8.15	61.26	57.68	42.97	135.65	7.46	7.46	43.51	54.86	190.26	23.78	34.48
VOC [g/h]	9.71	72.97	68.70	51.18	161.58	8.89	8.88	51.83	65.35	226.63	28.32	41.08

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	2.606			2.787			2.643			2.719		
Crosswalk LOS	B			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	578			578			489			622		
d_b, Bicycle Delay [s]	22.76			22.76			25.69			21.36		
I_b,int, Bicycle LOS Score for Intersection	1.868			1.969			1.860			2.013		
Bicycle LOS	A			A			A			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 36: Perris Blvd/4th St**

Control Type:	Signalized	Delay (sec / veh):	39.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

**Intersection Setup**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
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	50.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	PerrisBlvd			PerrisBlvd			4thSt			4thSt		
Base Volume Input [veh/h]	190	826	71	137	923	247	339	982	133	98	621	68
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	18	0	0	62	0	0	33	0	0	17
Total Hourly Volume [veh/h]	190	826	53	137	923	185	339	982	100	98	621	51
Peak Hour 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
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]	48	207	13	34	231	46	85	246	25	25	155	13
Total Analysis Volume [veh/h]	190	826	53	137	923	185	339	982	100	98	621	51
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	14	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	15	26	0	15	26	0	23	37	0	12	26	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	90	90	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	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]	11	28	28	8	26	26	19	31	31	6	18	18
g / C, Green / Cycle	0.12	0.32	0.32	0.09	0.29	0.29	0.21	0.34	0.34	0.07	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.11	0.16	0.16	0.08	0.26	0.11	0.19	0.29	0.29	0.05	0.18	0.18
s, saturation flow rate [veh/h]	1810	3618	1842	1810	3618	1615	1810	1900	1839	1810	1900	1850
c, Capacity [veh/h]	221	1143	582	171	1043	466	373	650	629	126	391	381
d1, Uniform Delay [s]	38.74	25.09	25.10	39.92	30.60	25.74	34.92	27.38	27.45	41.18	34.58	34.59
k, delay calibration	0.29	0.50	0.50	0.13	0.50	0.50	0.35	0.27	0.27	0.11	0.23	0.23
l, 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]	21.25	1.62	3.17	9.72	10.95	2.52	21.88	7.31	7.91	9.82	11.95	12.33
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	0.86	0.51	0.51	0.80	0.88	0.40	0.91	0.84	0.85	0.78	0.87	0.87
d, Delay for Lane Group [s/veh]	59.99	26.71	28.27	49.64	41.55	28.27	56.79	34.69	35.36	51.00	46.53	46.92
Lane Group LOS	E	C	C	D	D	C	E	C	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.21	4.95	5.30	3.29	10.40	3.30	9.25	11.59	11.42	2.43	8.24	8.07
50th-Percentile Queue Length [ft/ln]	130.18	123.64	132.51	82.25	259.94	82.44	231.21	289.77	285.52	60.80	206.04	201.85
95th-Percentile Queue Length [veh/ln]	8.95	8.59	9.08	5.92	15.69	5.94	14.24	17.17	16.96	4.38	12.95	12.73
95th-Percentile Queue Length [ft/ln]	223.75	214.82	226.90	148.04	392.14	148.40	355.89	429.35	424.08	109.44	323.75	318.34

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	59.99	27.17	28.27	49.64	41.55	28.27	56.79	34.99	35.36	51.00	46.70	46.92
Movement LOS	E	C	C	D	D	C	E	C	D	D	D	D
d_A, Approach Delay [s/veh]	33.06			40.47			40.22			47.27		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	39.79											
Intersection LOS	D											
Intersection V/C	0.727											

**Emissions**

Vehicle Miles Traveled [mph]	13.61	41.70	21.28	39.62	266.93	53.50	31.42	50.79	49.50	11.62	40.36	39.34
Stops [stops/h]	208.30	395.66	212.01	131.60	831.80	131.91	369.93	463.63	456.83	97.28	329.67	322.95
Fuel consumption [US gal/h]	5.38	9.51	5.07	4.38	27.30	4.54	7.90	9.29	9.17	2.19	7.24	7.10
CO [g/h]	375.77	664.87	354.67	306.03	1908.01	317.21	552.04	649.42	640.69	153.19	506.06	495.95
NOx [g/h]	73.11	129.36	69.01	59.54	371.23	61.72	107.41	126.35	124.66	29.81	98.46	96.49
VOC [g/h]	87.09	154.09	82.20	70.93	442.20	73.52	127.94	150.51	148.49	35.50	117.28	114.94

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersectio	3.026			3.214			2.920			2.775		
Crosswalk LOS	C			C			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	489			489			733			489		
d_b, Bicycle Delay [s]	25.69			25.69			18.05			25.69		
I_b,int, Bicycle LOS Score for Intersection	2.157			2.638			2.759			2.209		
Bicycle LOS	B			B			C			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 37: Perris Blvd/Harvest Landing Way**

Control Type:	Signalized	Delay (sec / veh):	0.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.089

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↵		↵		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
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		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Daniela Way	
Base Volume Input [veh/h]	0	445	461	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	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]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	5	10	10	0	5	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	5	5	0	5	0
Pedestrian Clearance [s]	0	10	21	0	21	0
Delayed Vehicle Green [s]	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	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	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

**Phasing & Timing: Pattern 1**

Split [s]	9	90	81	0	30	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	10	10	0	5	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	R	L	C	R
C, Calculated Cycle Length [s]	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
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]	0	112	108	108	0	0	0
g / C, Green / Cycle	0.00	0.93	0.90	0.90	0.00	0.00	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.09	0.09	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1810	5176	5176	1615	1810	1900	1615
c, Capacity [veh/h]	0	4826	4653	1452	2	2	1
d1, Uniform Delay [s]	0.00	0.30	0.67	0.00	0.00	0.00	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.04	0.04	0.00	0.00	0.00	0.00
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	0.00	0.09	0.10	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.02	0.02	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.42	0.46	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.76	0.82	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.34	0.71	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.34		0.71		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	A					
Intersection V/C	0.089					

**Emissions**

Vehicle Miles Traveled [mph]	0.00	68.53	29.64	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	1.52	1.65	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	2.40	1.10	0.00	0.00	0.00	0.00
CO [g/h]	0.00	167.66	77.13	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	32.62	15.01	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	38.86	17.88	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0		9.0		9.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	51.34		51.34		51.34	
I_p,int, Pedestrian LOS Score for Intersectio	2.798		2.798		2.315	
Crosswalk LOS	C		C		B	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	1433		1283		433	
d_b, Bicycle Delay [s]	4.82		7.70		36.82	
I_b,int, Bicycle LOS Score for Intersection	1.804		1.813		1.560	
Bicycle LOS	A		A		A	

**Sequence**

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 38: BarrettAve/Harvest Landing Way**

Control Type:	All-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave				Daniela Way	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↶   ↷		↶ ↷	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave				Daniela Way	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	838	800	800	800	800
Degree of Utilization, x	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00
Approach Delay [s/veh]	0.00	0.00		0.00	
Approach LOS	A	A		A	
Intersection Delay [s/veh]	0.00				
Intersection LOS	A				

**Intersection Level Of Service Report**  
**Intersection 39: Barrett Ave/I-215 Frontage Road**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	185.00	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	172	5	125	303	73	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	172	5	125	303	73	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	31	76	18	21
Total Analysis Volume [veh/h]	172	5	125	303	73	83
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.18	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	7.80	0.00	15.55	9.09
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.29	0.00	0.63	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.28	0.00	15.82	7.06
d_A, Approach Delay [s/veh]	0.00		2.28		12.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.76					
Intersection LOS	C					

**Intersection Level Of Service Report**

**Intersection 40: Commercial Driveway 1, 2/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Driveway 2			Driveway 1			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.30	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			A			A		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		8.30		0.00		0.00					
Approach LOS	A		A		A		A					
d_I, Intersection Delay [s/veh]	4.15											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 41: Commercial Driveway 3, 4/Harvest Landing Way**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
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	0	0	0	0	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		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Commercial Driveway 4			Commercial Driveway 3			Daniela Way			Daniela Way		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	9.00	8.30	8.50	9.00	8.30	7.20	0.00	0.00	7.20	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.60			8.60			2.40			2.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.50											
Intersection LOS												

**Intersection Level Of Service Report**  
**Intersection 42: Commercial Driveway 5/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑		↗	
Turning Movement	Left	Thru	Thru	Right	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	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		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 5	
Base Volume Input [veh/h]	0	445	461	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A			B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 43: Commercial Driveway 6/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↑		↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	16.00	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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Barrett Ave		Barrett Ave		Commercial Driveway 6	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 44: Commercial Driveway 7/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	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	0	1	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		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Perris Blvd		Perris Blvd		Commercial Driveway 7	
Base Volume Input [veh/h]	0	445	461	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	445	461	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	115	0	0	0
Total Analysis Volume [veh/h]	0	445	461	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 45: Commercial Driveway 8/N. Perris Blvd**

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
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	0	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			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Commercial Driveway 8					
Base Volume Input [veh/h]	0	445	14	0	461	0	0	0	0	0	0	16
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	445	14	0	461	0	0	0	0	0	0	16
Peak Hour 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
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]	0	111	4	0	115	0	0	0	0	0	0	4
Total Analysis Volume [veh/h]	0	445	14	0	461	0	0	0	0	0	0	16
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	10.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.00	10.56
Movement LOS	B	A	A		A	A				B		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85
d_A, Approach Delay [s/veh]	0.00			0.00			10.44			10.56		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.18											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 46: Commercial Driveway 9/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	40.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

**Intersection Setup**

Name	Northbound			Southbound			Orange Ave Eastbound			Orange Ave Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
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	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	160.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Northbound			Southbound			Orange Ave Eastbound			Orange Ave Westbound		
Base Volume Input [veh/h]	0	0	0	127	0	31	54	584	0	2	465	61
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	127	0	31	54	584	0	2	465	61
Peak Hour 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
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]	0	0	0	32	0	8	14	146	0	1	116	15
Total Analysis Volume [veh/h]	0	0	0	127	0	31	54	584	0	2	465	61
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
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	0.00	0.00	0.00	0.57	0.00	0.04	0.05	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	22.58	25.99	10.07	40.42	44.51	29.23	8.61	0.00	0.00	8.61	0.00	0.00
Movement LOS	C	D	B	E	E	D	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	3.62	3.62	3.62	0.16	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	90.59	90.59	90.59	4.06	0.00	0.00	0.15	0.00	0.00
d_A, Approach Delay [s/veh]	19.55			38.23			0.73			0.03		
Approach LOS	C			E			A			A		
d_I, Intersection Delay [s/veh]	4.93											
Intersection LOS	E											

**Intersection Level Of Service Report**  
**Intersection 47: Commercial Driveway 10/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	70.00	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	407	0	0	496
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	407	0	0	496
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	102	0	0	124
Total Analysis Volume [veh/h]	0	0	407	0	0	496
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.92	9.45	0.00	0.00	8.10	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.68		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 48: Building 1 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↔		↔	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	22	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.61	8.35	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.48		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 49: Building 1 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach			Eastbound		Westbound	
Lane Configuration	↻		↻			
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	22	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	22	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	6	0	0	0
Total Analysis Volume [veh/h]	0	0	22	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.35	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.35		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**

**Intersection 50: Building 1 Truck Driveway/I-215 Frontage Rd**

Control Type:	Signalized	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound			Frontage Rd		Westbound	
Approach	Northbound			Southbound		Westbound	
Lane Configuration							
Turning Movement	U-turn	Thru	Right	Left	Thru	Left	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	0	1	0	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]	45.00			30.00		30.00	
Grade [%]	0.00			0.00		0.00	
Curb Present	No			No		No	
Crosswalk	Yes			Yes		Yes	

**Volumes**

Name				Frontage Rd			
Base Volume Input [veh/h]	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0
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]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	0	6	0	0	2	0	4
Auxiliary Signal Groups							
Maximum Green [s]	0	27	0	0	27	0	25
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0
Walk [s]	0	5	0	0	5	0	5
Pedestrian Clearance [s]	0	14	0	0	10	0	20
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]	0.0	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0
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
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	0	31	0	0	31	0	29
Lead / Lag	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	5
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		No			No		No
Maximum Recall		No			No		No
Pedestrian Recall		No			No		No

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	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
g_i, Effective Green Time [s]	52	52	52	52	52	0
g / C, Green / Cycle	0.87	0.87	0.87	0.87	0.87	0.00
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	1440	1900	1900	1440	3618	1615
c, Capacity [veh/h]	1299	1640	1640	1299	3123	5
d1, Uniform Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.00	0.00	0.00	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00
Lane Group LOS	A	A	A	A	A	A
Critical Lane Group	No	No	No	No	No	No
50th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	A	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.00			0.00			0.00
Approach LOS	A			A			A
d_I, Intersection Delay [s/veh]	0.00						
Intersection LOS	A						
Intersection V/C	0.000						

**Emissions**

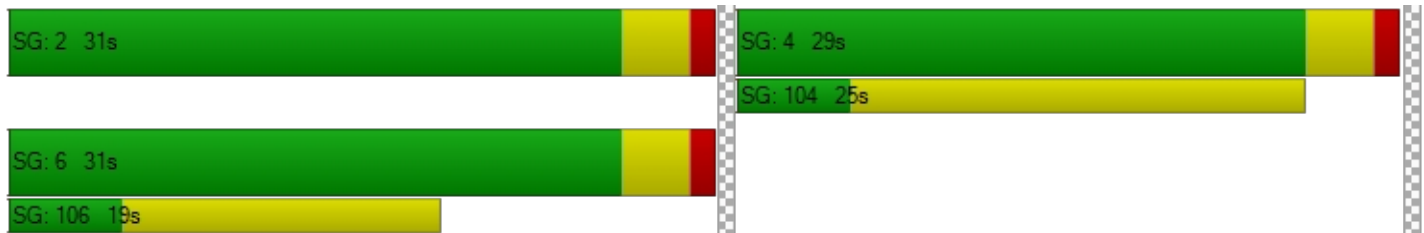
Vehicle Miles Traveled [mph]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stops [stops/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel consumption [US gal/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOx [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOC [g/h]	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00
d_p, Pedestrian Delay [s]	21.68			21.68			21.68
I_p,int, Pedestrian LOS Score for Intersectio	2.281			2.281			1.921
Crosswalk LOS	B			B			A
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000
c_b, Capacity of the bicycle lane [bicycles/h]	900			900			833
d_b, Bicycle Delay [s]	9.08			9.08			10.21
I_b,int, Bicycle LOS Score for Intersection	1.560			1.560			1.560
Bicycle LOS	A			A			A

**Sequence**

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 51: Building 2 Auto Driveway 1/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↻		↻		↻	
Turning Movement	Left	Right	Thru	Right	Left	Thru
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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.30	0.00	0.00	0.00	0.00
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.30		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 52: Building 2 Auto Driveway 2/Orange Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
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	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	50.00	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]	30.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Northbound		Orange Ave Eastbound		Orange Ave Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	0.00	0.00	7.20	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		0.00		3.60	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 53: Building 2 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Frontage Rd		Frontage Rd		Westbound	
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Frontage Rd		Frontage Rd		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 54: Building 3 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 55: Building 3/4 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 56: Building 4/5 Auto Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	8.50	8.30
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.40	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 57: Building 5 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 58: Building 6 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 59: Building 6 Auto Driveway 1 and Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			+		
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	0	0	0	0	0	0	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]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	111	0	0	0	0	0	0	107	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	111	0	0	0	0	0	0	107	0	0
Peak Hour 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
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]	0	0	28	0	0	0	0	0	0	27	0	0
Total Analysis Volume [veh/h]	0	0	111	0	0	0	0	0	0	107	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.41	0.00	0.00	8.80	0.00	8.30	9.28	9.77	9.02
Movement LOS	A	A	A	A	A	A	A		A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.52	9.52	9.52
d_A, Approach Delay [s/veh]	0.00			2.47			8.55			9.28		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	4.56											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 60: Building 6 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Barrett Ave			Barrett Ave								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T			T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	16.00	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	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	160.00	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		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Barrett Ave			Barrett Ave								
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour 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
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]	0	0	0	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.20	0.00	0.00	7.20	0.00	0.00	8.50	0.00	8.30	8.50	0.00	8.30
Movement LOS	A	A	A	A	A	A	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2.40			2.40			8.40			8.40		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.40											
Intersection LOS												

**Intersection Level Of Service Report**

**Intersection 61: Building 7 Truck Driveway/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Northbound		Southbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>
d_M, Delay for Movement [s/veh]	0.00	0.00	7.20	0.00	0.00	8.30
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		3.60		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS						

**Intersection Level Of Service Report**

**Intersection 62: Building 7 Auto Driveway 1/I-215 Frontage Rd**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Northbound		Southbound		Westbound	
Approach						
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	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		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

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

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.30
Movement LOS	A	A		A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		8.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS						

**Intersection Level Of Service Report**  
**Intersection 63: Building 7 Auto Driveway 2/Barrett Ave**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
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]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
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]	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
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	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.00					
Intersection LOS						

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Harvest Landing

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Scenario 3 Opening Year I PP AM

Report File: C:\...\OY I PP AM.pdf

10/14/2025

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Perris Blvd/Iris Ave	Signalized	HCM 7th Edition	WB Left	0.925	65.0	E
2	Perris Blvd/Krameria Ave	Signalized	HCM 7th Edition	NB Left	0.798	48.2	D
3	Perris Blvd/Harley Knox Rd	Signalized	HCM 7th Edition	EB Left	0.692	32.7	C
4	Perris Blvd/Markham St	Signalized	HCM 7th Edition	SB Left	0.707	14.6	B
5	Perris Blvd/Ramona Expy	Signalized	HCM 7th Edition	EB Left	0.934	78.1	E
6	Perris Blvd/Morgan St	Signalized	HCM 7th Edition	EB Left	0.532	11.9	B
7	Rider St/Evans Rd	Signalized	HCM 7th Edition	SB Left	0.585	31.0	C
8	Rider St/Redlands Ave	Signalized	HCM 7th Edition	NB Left	0.595	30.4	C
9	Perris Blvd/Rider St	Signalized	HCM 7th Edition	WB Left	0.637	27.5	C
10	Placentia Ave/Redlands Ave	All-way stop	HCM 7th Edition	SB Thru	0.637	18.6	C
11	Perris Blvd/Placentia Ave	Signalized	HCM 7th Edition	NB Left	0.753	41.0	D
12	Placentia Ave/Barrett Ave	Signalized	HCM 7th Edition	WB Left	0.469	26.9	C
13	Placentia Ave/Indian Ave	Signalized	HCM 7th Edition	NB Left	0.733	50.3	D
14	Placentia Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Left	0.773	28.7	C
15	Placentia Ave/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.424	14.9	B
16	Placentia Ave/I-215 SB	Signalized	HCM 7th Edition	WB Left	0.439	16.9	B
17	Orange Ave/Redlands Ave	Signalized	HCM 7th Edition	SB Left	0.312	26.7	C

18	Orange Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.687	46.9	D
19	Orange Ave/Barrett Ave	Signalized	HCM 7th Edition	EB Left	0.282	9.9	A
20	Orange Ave/Indian Ave	Signalized	HCM 7th Edition	EB Left	0.365	14.6	B
21	Orange Ave/Frontage Rd	Signalized	HCM 7th Edition	WB Right	0.332	9.5	A
22	Citrus Ave/Redlands Ave	All-way stop	HCM 7th Edition	WB Thru	0.388	12.9	B
23	Citrus Ave/Perris Blvd	Signalized	HCM 7th Edition	NB Left	0.471	15.2	B
24	Nuevo Rd/Murrieta Rd	Signalized	HCM 7th Edition	EB Left	0.709	40.2	D
25	Neuvo Rd/Redlands Ave	Signalized	HCM 7th Edition	WB Left	0.590	23.7	C
26	Nuevo Rd/Perris Blvd	Signalized	HCM 7th Edition	EB Left	0.854	70.6	E
27	Nuevo Rd/Frontage Rd	Two-way stop	HCM 7th Edition	SB Right	0.897	27.5	D
28	Nuevo Rd/I-215 NB	Signalized	HCM 7th Edition	EB Left	0.608	18.8	B
29	NuevoRd/I-215 SB	Signalized	HCM 7th Edition	SB Left	0.643	20.3	C
30	Redlands Ave/Mildred St	All-way stop	HCM 7th Edition	SB Thru	0.800	23.0	C
31	Perris Blvd/Mildred St	Signalized	HCM 7th Edition	SB Left	0.730	15.8	B
32	Perris Blvd/San Jacinto Ave	Signalized	HCM 7th Edition	WB Left	0.699	28.8	C
33	Indian Ave/Ramona Expy	Signalized	HCM 7th Edition	NB Left	0.579	32.8	C
34	Indian Ave/Morgan St	Signalized	HCM 7th Edition	SB Left	0.238	19.6	B
35	Indian Ave/Rider St	Signalized	HCM 7th Edition	EB Left	0.245	21.5	C
36	Perris Blvd/4th St	Signalized	HCM 7th Edition	SB Left	0.916	69.7	E
37	Perris Blvd/Harvest Landing Way	Signalized	HCM 7th Edition	NB Left	0.232	10.6	B
38	BarrettAve/Harvest Landing Way	All-way stop	HCM 7th Edition	WB Left	0.076	7.9	A

39	Barrett Ave/I-215 Frontage Road	Signalized	HCM 7th Edition	SB Left	0.244	16.7	B
40	Commercial Driveway 1, 2/Harvest Landing Way	Two-way stop	HCM 7th Edition	SB Right	0.009	8.5	A
41	Commercial Driveway 3, 4/Harvest Landing Way	Two-way stop	HCM 7th Edition	SB Left	0.114	12.7	B
42	Commercial Driveway 5/N. Perris Blvd	Two-way stop	HCM 7th Edition	EB Right	0.076	11.9	B
43	Commercial Driveway 6/Barrett Ave	Two-way stop	HCM 7th Edition	WB Right	0.010	8.5	A
44	Commercial Driveway 7/N. Perris Blvd	Two-way stop	HCM 7th Edition	EB Right	0.071	11.3	B
45	Commercial Driveway 8/N. Perris Blvd	Two-way stop	HCM 7th Edition	NB Left	0.123	11.6	B
46	Commercial Driveway 9/Orange Ave	Signalized	HCM 7th Edition	EB Left	0.256	8.7	A
47	Commercial Driveway 10/Orange Ave	Two-way stop	HCM 7th Edition	NB Right	0.011	9.9	A
48	Building 1 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	NB Left	0.018	10.5	B
49	Building 1 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	NB Right	0.016	8.7	A
50	Building 1 Truck Driveway/I-215 Frontage Rd	Signalized	HCM 7th Edition	WB Right	0.043	5.5	A
51	Building 2 Auto Driveway 1/Orange Ave	Two-way stop	HCM 7th Edition	NB Right	0.005	8.5	A
52	Building 2 Auto Driveway 2/Orange Ave	Two-way stop	HCM 7th Edition	NB Left	0.006	9.2	A
53	Building 2 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.002	8.6	A
54	Building 3 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.030	8.5	A
55	Building 3/4 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.002	8.4	A
56	Building 4/5 Auto Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Left	0.010	9.0	A
57	Building 5 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	SB Left	0.001	7.3	A
58	Building 6 Truck Driveway/I-215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.003	8.4	A
59	Building 6 Auto Driveway 1 and Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.063	9.6	A

60	Building 6 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition	WB Left	0.029	9.9	A
61	Building 7 Truck Driveway/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.002	8.4	A
62	Building 7 Auto Driveway 1/I- 215 Frontage Rd	Two-way stop	HCM 7th Edition	WB Right	0.007	8.4	A
63	Building 7 Auto Driveway 2/Barrett Ave	Two-way stop	HCM 7th Edition	SB Left	0.003	9.1	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Perris Blvd/Iris Ave**

Control Type:	Signalized	Delay (sec / veh):	65.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
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]	205.00	100.00	135.00	200.00	100.00	100.00	200.00	100.00	100.00	240.00	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			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	238	715	299	170	520	40	25	267	74	294	506	114
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	782	10	0	1085	0	0	0	3	10	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	84	0	0	11	0	0	21	0	0	31
Total Hourly Volume [veh/h]	260	1561	252	185	1652	33	27	291	63	330	552	93
Peak Hour Factor	0.8987	0.8987	0.8987	0.7510	0.7510	0.7510	0.7777	0.7777	0.7777	0.7871	0.7871	0.7871
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]	72	434	70	62	550	11	9	94	20	105	175	30
Total Analysis Volume [veh/h]	289	1737	280	246	2200	44	35	374	81	419	701	118
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	15	22	0	26	33	0	5	35	0	21	51	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	20	0	0	30	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	19	26	0	30	37	0	9	39	0	25	55	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	15	47	47	18	50	50	3	18	18	21	35	35
g / C, Green / Cycle	0.13	0.39	0.39	0.15	0.42	0.42	0.03	0.15	0.15	0.18	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.16	0.34	0.17	0.14	0.41	0.41	0.02	0.12	0.12	0.23	0.22	0.22
s, saturation flow rate [veh/h]	1810	5176	1615	1810	3618	1881	1810	1900	1785	1810	1900	1806
c, Capacity [veh/h]	226	2027	633	277	1519	790	52	279	262	317	557	529
d1, Uniform Delay [s]	52.50	33.42	26.86	49.80	34.09	34.20	57.70	49.77	49.87	49.50	38.48	38.52
k, delay calibration	0.50	0.50	0.50	0.17	0.50	0.50	0.11	0.11	0.11	0.50	0.11	0.11
l, 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]	154.56	4.94	2.24	13.91	17.06	26.57	13.78	6.47	7.42	165.83	2.09	2.23
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	1.28	0.86	0.44	0.89	0.97	0.98	0.67	0.83	0.85	1.32	0.75	0.76
d, Delay for Lane Group [s/veh]	207.06	38.36	29.10	63.71	51.15	60.77	71.48	56.24	57.29	215.33	40.57	40.75
Lane Group LOS	F	D	C	E	D	E	E	E	E	F	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	16.33	15.47	6.05	8.09	23.19	26.38	1.23	7.11	6.85	23.77	11.09	10.61
50th-Percentile Queue Length [ft/ln]	408.23	386.78	151.17	202.37	579.85	659.45	30.71	177.69	171.36	594.35	277.18	265.18
95th-Percentile Queue Length [veh/ln]	25.32	21.92	10.08	12.76	31.09	34.80	2.21	11.48	11.15	36.07	16.55	15.95
95th-Percentile Queue Length [ft/ln]	633.09	548.05	251.99	319.02	777.31	870.02	55.28	286.99	278.70	901.81	413.70	398.72

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	207.06	38.36	29.10	63.71	54.32	60.77	71.48	56.64	57.29	215.33	40.64	40.75
Movement LOS	F	D	C	E	D	E	E	E	E	F	D	D
d_A, Approach Delay [s/veh]	58.38			55.37			57.80			99.78		
Approach LOS	E			E			E			F		
d_I, Intersection Delay [s/veh]	65.04											
Intersection LOS	E											
Intersection V/C	0.925											

**Emissions**

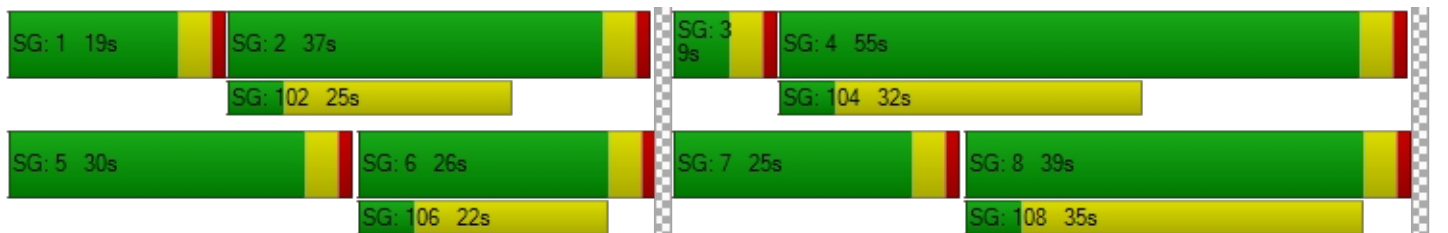
Vehicle Miles Traveled [mph]	144.80	870.32	140.29	15.33	91.82	47.98	2.44	16.26	15.51	27.56	27.57	26.30
Stops [stops/h]	489.88	1392.42	181.40	242.84	1391.65	791.34	36.85	213.22	205.63	713.22	332.62	318.22
Fuel consumption [US gal/h]	23.23	60.70	8.72	6.73	35.79	21.01	1.05	5.87	5.68	28.17	8.54	8.17
CO [g/h]	1623.74	4243.28	609.71	470.70	2501.67	1468.41	73.47	410.55	396.88	1969.03	597.00	571.34
NOx [g/h]	315.92	825.59	118.63	91.58	486.73	285.70	14.29	79.88	77.22	383.10	116.15	111.16
VOC [g/h]	376.32	983.42	141.31	109.09	579.79	340.32	17.03	95.15	91.98	456.34	138.36	132.41

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.795			3.549			2.800			3.018		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	367			550			583			850		
d_b, Bicycle Delay [s]	40.02			31.54			30.10			19.84		
I_b,int, Bicycle LOS Score for Intersection	2.874			2.935			1.981			2.607		
Bicycle LOS	C			C			A			B		

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 2: Perris Blvd/Krameria Ave**

Control Type:	Signalized	Delay (sec / veh):	48.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.798

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
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	1	1	0	1
Entry Pocket Length [ft]	165.00	100.00	100.00	345.00	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	1
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	1000.00
Speed [mph]	45.00			45.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Krameria Ave			Krameria Ave		
Base Volume Input [veh/h]	84	980	159	100	746	7	19	148	81	213	137	187
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	793	9	0	1098	0	0	0	8	13	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	46	0	0	2	0	0	24	0	0	51
Total Hourly Volume [veh/h]	98	1861	136	109	1911	6	21	161	72	245	149	153
Peak Hour Factor	0.8910	0.8910	0.8910	0.7568	0.7568	0.7568	0.7348	0.7348	0.7348	0.8323	0.8323	0.8323
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]	27	522	38	36	631	2	7	55	24	74	45	46
Total Analysis Volume [veh/h]	110	2089	153	144	2525	8	29	219	98	294	179	184
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]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	27	0	9	30	0	0	29	0	0	29	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	14	0	0	24	0	0	24	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	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	31	0	13	34	0	0	33	0	0	33	0
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	10	0	5	10	0	0	10	0	0	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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]	6	49	49	9	52	52	15	15	15	21	21	21
g / C, Green / Cycle	0.05	0.45	0.45	0.08	0.47	0.47	0.14	0.14	0.14	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.06	0.41	0.41	0.08	0.46	0.46	0.02	0.12	0.06	0.16	0.09	0.11
s, saturation flow rate [veh/h]	1810	3618	1835	1810	3618	1897	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	99	1617	820	148	1715	899	250	263	223	339	356	303
d1, Uniform Delay [s]	52.00	28.49	28.75	50.38	28.12	28.15	41.51	46.16	43.48	43.34	40.08	40.97
k, delay calibration	0.37	0.50	0.50	0.34	0.50	0.50	0.11	0.11	0.11	0.17	0.11	0.11
l, 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]	112.10	9.68	18.14	54.30	15.42	23.46	0.20	6.81	1.36	9.90	1.10	1.96
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	1.11	0.92	0.93	0.97	0.97	0.97	0.12	0.83	0.44	0.87	0.50	0.61
d, Delay for Lane Group [s/veh]	164.10	38.17	46.89	104.68	43.54	51.61	41.71	52.97	44.84	53.24	41.17	42.93
Lane Group LOS	F	D	D	F	D	D	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.72	18.87	21.44	6.06	22.84	26.00	0.69	6.19	2.48	8.48	4.36	4.63
50th-Percentile Queue Length [ft/ln]	142.93	471.70	536.08	151.62	571.00	650.11	17.31	154.79	62.11	211.95	108.89	115.71
95th-Percentile Queue Length [veh/ln]	9.94	25.99	29.04	10.10	30.68	34.37	1.25	10.27	4.47	13.25	7.78	8.16
95th-Percentile Queue Length [ft/ln]	248.53	649.79	725.94	252.59	766.94	859.18	31.15	256.82	111.80	331.32	194.46	203.91

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	164.10	40.71	46.89	104.68	46.30	51.61	41.71	52.97	44.84	53.24	41.17	42.93
Movement LOS	F	D	D	F	D	D	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	46.88			49.46			49.72			47.06		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	48.21											
Intersection LOS	D											
Intersection V/C	0.798											

**Emissions**

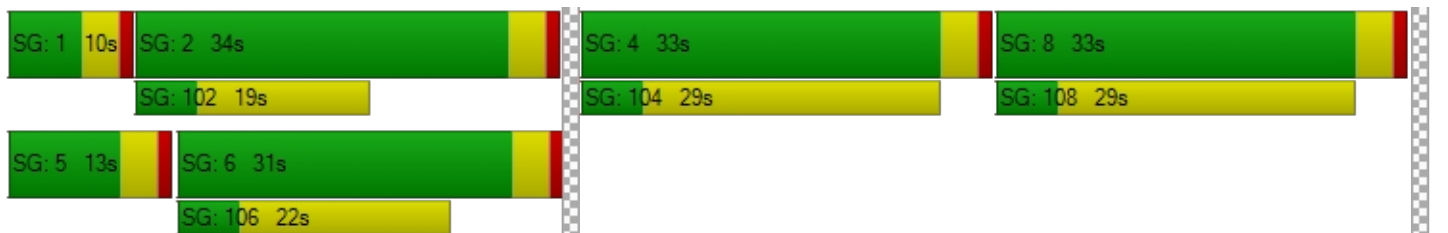
Vehicle Miles Traveled [mph]	180.97	2436.53	1251.89	72.15	832.26	436.89	2.42	18.29	8.19	34.96	21.28	21.88
Stops [stops/h]	187.11	1234.99	701.77	198.48	1494.97	851.05	22.66	202.64	81.31	277.46	142.55	151.47
Fuel consumption [US gal/h]	12.20	110.38	58.90	8.01	61.83	34.71	0.56	5.01	1.99	7.16	3.66	3.88
CO [g/h]	852.94	7715.38	4116.96	559.77	4322.02	2426.53	38.83	349.95	138.83	500.69	256.00	271.15
NOx [g/h]	165.95	1501.13	801.01	108.91	840.91	472.11	7.55	68.09	27.01	97.42	49.81	52.76
VOC [g/h]	197.68	1788.11	954.15	129.73	1001.67	562.37	9.00	81.10	32.18	116.04	59.33	62.84

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	46.37			46.37			46.37			46.37		
I_p,int, Pedestrian LOS Score for Intersectio	3.786			3.659			2.394			2.714		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	491			545			527			527		
d_b, Bicycle Delay [s]	31.31			29.09			29.82			29.82		
I_b,int, Bicycle LOS Score for Intersection	2.879			3.033			2.170			2.728		
Bicycle LOS	C			C			B			B		

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Perris Blvd/Harley Knox Rd**

Control Type:	Signalized	Delay (sec / veh):	32.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
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	2	0	1	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	315.00	100.00	230.00	215.00	100.00	255.00	300.00	100.00	100.00	335.00	100.00	230.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
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	1000.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Harley Knox Rd			Harley Knox Rd		
Base Volume Input [veh/h]	124	902	0	87	678	277	165	36	23	0	276	234
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	808	1	0	1119	0	0	0	3	3	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	76	0	0	7	0	0	64
Total Hourly Volume [veh/h]	136	1791	1	95	1858	226	180	39	21	3	301	191
Peak Hour Factor	0.8289	0.8289	0.8289	0.9148	0.9148	0.9148	0.9538	0.9538	0.9538	0.8413	0.8413	0.8413
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]	41	540	0	26	508	62	47	10	6	1	89	57
Total Analysis Volume [veh/h]	164	2161	1	104	2031	247	189	41	22	4	358	227
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	6	36	0	5	35	0	7	38	0	5	36	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	31	0	0	24	0	0	31	0	0	31	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	10	40	0	9	39	0	11	42	0	9	40	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	6	55	55	5	54	54	7	24	24	1	17	17
g / C, Green / Cycle	0.06	0.55	0.55	0.05	0.54	0.54	0.07	0.24	0.24	0.01	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.05	0.42	0.00	0.03	0.39	0.15	0.10	0.01	0.01	0.00	0.07	0.14
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	1810	3618	1615	3514	5176	1615
c, Capacity [veh/h]	211	2852	890	166	2786	869	127	853	381	21	888	277
d1, Uniform Delay [s]	46.34	17.30	10.08	46.77	17.54	12.58	46.50	29.54	29.61	49.46	36.86	39.92
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, 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]	6.09	1.94	0.00	3.84	1.71	0.82	258.38	0.02	0.06	4.34	0.30	5.92
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	0.78	0.76	0.00	0.63	0.73	0.28	1.49	0.05	0.06	0.19	0.40	0.82
d, Delay for Lane Group [s/veh]	52.43	19.24	10.08	50.61	19.25	13.40	304.88	29.57	29.68	53.80	37.15	45.84
Lane Group LOS	D	B	B	D	B	B	F	C	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.12	11.50	0.01	1.32	10.74	2.89	12.12	0.37	0.40	0.06	2.52	5.60
50th-Percentile Queue Length [ft/ln]	52.94	287.56	0.24	32.89	268.48	72.32	303.10	9.23	10.02	1.52	62.98	139.90
95th-Percentile Queue Length [veh/ln]	3.81	17.06	0.02	2.37	16.11	5.21	19.97	0.66	0.72	0.11	4.53	9.48
95th-Percentile Queue Length [ft/ln]	95.29	426.62	0.43	59.20	402.84	130.17	499.19	16.61	18.04	2.73	113.37	236.88

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	52.43	19.24	10.08	50.61	19.25	13.40	304.88	29.57	29.68	53.80	37.15	45.84
Movement LOS	D	B	B	D	B	B	F	C	C	D	D	D
d_A, Approach Delay [s/veh]	21.57			20.01			236.06			40.61		
Approach LOS	C			C			F			D		
d_I, Intersection Delay [s/veh]	32.66											
Intersection LOS	C											
Intersection V/C	0.692											

**Emissions**

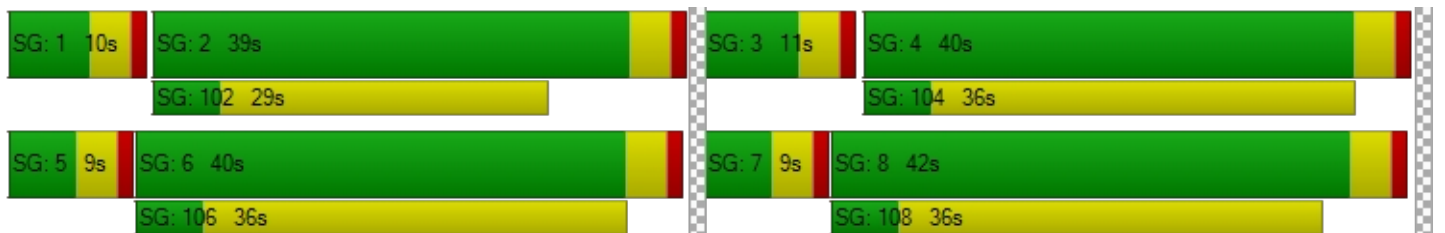
Vehicle Miles Traveled [mph]	61.18	806.15	0.37	171.10	3341.29	406.35	28.27	6.13	3.29	0.49	43.49	27.57
Stops [stops/h]	152.46	1242.27	0.34	94.72	1159.84	104.14	436.46	26.58	14.43	4.38	272.08	201.45
Fuel consumption [US gal/h]	5.74	51.54	0.02	8.11	136.91	15.90	18.12	0.79	0.43	0.11	7.58	5.57
CO [g/h]	401.39	3602.52	1.33	567.13	9569.95	1111.21	1266.56	55.04	29.71	8.03	529.86	389.15
NOx [g/h]	78.10	700.92	0.26	110.34	1861.96	216.20	246.43	10.71	5.78	1.56	103.09	75.71
VOC [g/h]	93.03	834.92	0.31	131.44	2217.93	257.53	293.54	12.76	6.89	1.86	122.80	90.19

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
l_p,int, Pedestrian LOS Score for Intersectio	3.569			3.793			2.841			3.077		
Crosswalk LOS	D			D			C			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	720			700			760			720		
d_b, Bicycle Delay [s]	20.48			21.13			19.22			20.48		
l_b,int, Bicycle LOS Score for Intersection	2.839			2.912			1.773			1.919		
Bicycle LOS	C			C			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 4: Perris Blvd/Markham St**

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

**Intersection Setup**

Name	Perris Blvd			Perris Blvd								
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]	150.00	100.00	100.00	200.00	100.00	100.00	200.00	100.00	100.00	205.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd								
	Base Volume Input [veh/h]	26	1079	39	34	696	43	20	20	22	11	32
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	810	1	0	1126	0	0	0	3	3	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	11	0	0	12	0	0	7	0	0	2
Total Hourly Volume [veh/h]	29	1986	33	37	1885	35	22	22	20	15	35	5
Peak Hour Factor	0.8408	0.8408	0.8408	0.9137	0.9137	0.9137	0.6630	0.6630	0.6630	0.8000	0.8000	0.8000
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	591	10	10	516	10	8	8	8	5	11	2
Total Analysis Volume [veh/h]	34	2362	39	40	2063	38	33	33	30	19	44	6
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	65	0	5	65	0	5	29	0	5	29	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	24	0	0	24	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	26	0	52	69	0	9	33	0	9	33	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	C	L	C	C
C, Calculated 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]	3	89	89	4	89	89	3	9	9	2	8	8
g / C, Green / Cycle	0.03	0.74	0.74	0.03	0.74	0.74	0.03	0.08	0.08	0.02	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.65	0.02	0.02	0.38	0.38	0.02	0.02	0.02	0.01	0.01	0.01
s, saturation flow rate [veh/h]	1810	3618	1615	1810	3618	1882	1810	1900	1623	1810	1900	1823
c, Capacity [veh/h]	51	2675	1194	57	2687	1398	50	145	124	35	129	124
d1, Uniform Delay [s]	57.74	11.73	4.17	57.56	6.43	6.44	57.76	52.09	52.21	58.28	52.82	52.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	13.79	4.66	0.05	14.66	0.71	1.36	13.52	0.76	1.05	11.98	0.72	0.79
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	0.66	0.88	0.03	0.70	0.51	0.52	0.66	0.22	0.25	0.54	0.19	0.20
d, Delay for Lane Group [s/veh]	71.53	16.39	4.22	72.22	7.13	7.80	71.28	52.85	53.26	70.26	53.55	53.64
Lane Group LOS	E	B	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.19	19.09	0.22	1.41	5.86	6.37	1.17	0.93	0.91	0.69	0.74	0.73
50th-Percentile Queue Length [ft/ln]	29.87	477.14	5.52	35.17	146.39	159.17	29.34	23.29	22.78	17.14	18.41	18.35
95th-Percentile Queue Length [veh/ln]	2.15	26.25	0.40	2.53	9.82	10.50	2.11	1.68	1.64	1.23	1.33	1.32
95th-Percentile Queue Length [ft/ln]	53.77	656.25	9.93	63.30	245.61	262.62	52.82	41.93	41.01	30.86	33.14	33.03

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	71.53	16.39	4.22	72.22	7.35	7.80	71.28	52.86	53.26	70.26	53.59	53.64
Movement LOS	E	B	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	16.97			8.57			59.31			58.18		
Approach LOS	B			A			E			E		
d_I, Intersection Delay [s/veh]	14.63											
Intersection LOS	B											
Intersection V/C	0.707											

**Emissions**

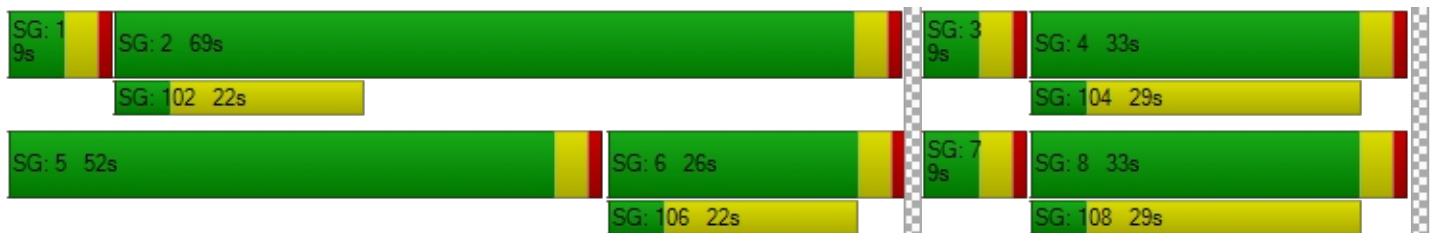
Vehicle Miles Traveled [mph]	17.12	1189.10	19.63	14.92	515.15	268.61	1.82	1.76	1.71	1.26	1.67	1.66
Stops [stops/h]	35.85	1145.13	6.62	42.20	351.34	191.00	35.21	27.95	27.34	20.57	22.09	22.02
Fuel consumption [US gal/h]	1.53	62.88	0.79	1.62	24.03	12.72	0.81	0.62	0.61	0.47	0.50	0.50
CO [g/h]	106.76	4395.10	55.14	113.51	1679.83	889.44	56.81	43.44	42.40	33.17	35.15	35.01
NOx [g/h]	20.77	855.13	10.73	22.09	326.83	173.05	11.05	8.45	8.25	6.45	6.84	6.81
VOC [g/h]	24.74	1018.61	12.78	26.31	389.32	206.14	13.17	10.07	9.83	7.69	8.15	8.11

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.579			3.578			2.378			2.362		
Crosswalk LOS	D			D			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	367			1083			483			483		
d_b, Bicycle Delay [s]	40.02			12.60			34.50			34.50		
I_b,int, Bicycle LOS Score for Intersection	3.578			2.744			1.645			1.618		
Bicycle LOS	D			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: Perris Blvd/Ramona Expy**

Control Type:	Signalized	Delay (sec / veh):	78.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.934

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
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	2	0	1	1	0	1	2	0	1	2	0	0
Entry Pocket Length [ft]	350.00	100.00	145.00	200.00	100.00	150.00	330.00	100.00	210.00	300.00	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			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Ramona Expy			Ramona Expy		
Base Volume Input [veh/h]	207	671	83	118	352	244	328	618	63	87	1039	121
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	523	10	0	726	406	290	7	0	13	11	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	25	0	0	168	0	0	17	0	0	33
Total Hourly Volume [veh/h]	228	1254	75	129	1110	504	648	681	52	108	1144	99
Peak Hour Factor	0.7878	0.7878	0.7878	0.8529	0.8529	0.8529	0.9048	0.9048	0.9048	0.9230	0.9230	0.9230
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]	72	398	24	38	325	148	179	188	14	29	310	27
Total Analysis Volume [veh/h]	289	1592	95	151	1301	591	716	753	57	117	1239	107
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
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	8	48	0	5	45	0	19	41	0	10	32	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	30	0	0	34	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	12	52	0	9	49	0	23	45	0	14	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**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	R	L	C	R	L	C	C
C, Calculated 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]	8	48	48	5	45	45	19	45	45	6	32	32
g / C, Green / Cycle	0.07	0.40	0.40	0.04	0.38	0.38	0.16	0.37	0.37	0.05	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.08	0.44	0.06	0.04	0.36	0.37	0.20	0.15	0.04	0.03	0.25	0.25
s, saturation flow rate [veh/h]	3514	3618	1615	3514	3618	1615	3514	5176	1615	3514	3618	1824
c, Capacity [veh/h]	234	1460	652	146	1370	612	556	1922	600	176	951	480
d1, Uniform Delay [s]	56.00	35.78	22.67	57.50	36.17	36.53	50.50	27.75	24.58	56.01	43.31	43.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.17	0.11	0.11	0.11	0.11	0.40
l, 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]	113.26	52.14	0.47	42.84	14.94	28.99	133.91	0.13	0.07	4.29	5.39	24.74
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	1.23	1.09	0.15	1.03	0.95	0.97	1.29	0.39	0.10	0.67	0.94	0.94
d, Delay for Lane Group [s/veh]	169.26	87.92	23.14	100.34	51.10	65.52	184.41	27.88	24.65	60.30	48.70	68.05
Lane Group LOS	F	F	C	F	D	E	F	C	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.14	30.55	1.73	3.04	20.26	20.90	18.29	4.99	1.01	1.78	12.93	15.61
50th-Percentile Queue Length [ft/ln]	178.56	763.73	43.29	75.98	506.43	522.62	457.31	124.84	25.28	44.46	323.21	390.30
95th-Percentile Queue Length [veh/ln]	12.26	42.14	3.12	5.47	27.64	28.40	28.24	8.66	1.82	3.20	18.83	22.09
95th-Percentile Queue Length [ft/ln]	306.55	1053.42	77.92	136.77	690.96	710.08	706.08	216.46	45.50	80.03	470.63	552.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	169.26	87.92	23.14	100.34	51.10	65.52	184.41	27.88	24.65	60.30	54.07	68.05
Movement LOS	F	F	C	F	D	E	F	C	C	E	D	E
d_A, Approach Delay [s/veh]	96.70			58.91			101.20			55.59		
Approach LOS	F			E			F			E		
d_I, Intersection Delay [s/veh]	78.08											
Intersection LOS	E											
Intersection V/C	0.934											

**Emissions**

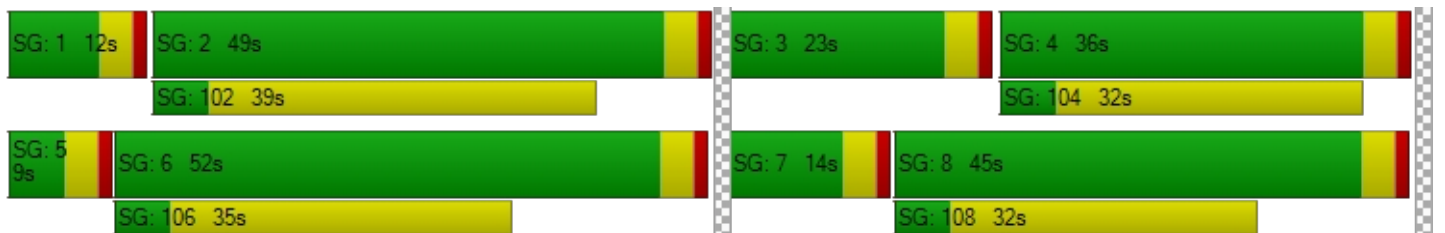
Vehicle Miles Traveled [mph]	143.58	790.92	47.20	76.02	654.96	297.53	178.94	188.19	14.25	12.71	97.18	48.99
Stops [stops/h]	428.54	1832.96	51.95	182.36	1215.43	627.15	1097.53	449.43	30.33	106.71	775.70	468.36
Fuel consumption [US gal/h]	20.20	78.38	2.71	7.96	51.09	25.88	53.24	18.92	1.33	3.84	26.53	16.58
CO [g/h]	1412.13	5478.75	189.50	556.12	3571.28	1808.67	3721.19	1322.21	92.68	268.61	1854.23	1159.27
NOx [g/h]	274.75	1065.97	36.87	108.20	694.84	351.90	724.01	257.25	18.03	52.26	360.77	225.55
VOC [g/h]	327.28	1269.75	43.92	128.89	827.68	419.18	862.42	306.44	21.48	62.25	429.74	268.67

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.34			51.34			51.34			51.34		
I_p,int, Pedestrian LOS Score for Intersectio	3.415			3.831			3.649			3.351		
Crosswalk LOS	C			D			D			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			750			683			533		
d_b, Bicycle Delay [s]	21.60			23.44			26.00			32.27		
I_b,int, Bicycle LOS Score for Intersection	3.210			3.384			2.408			2.382		
Bicycle LOS	C			C			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 6: Perris Blvd/Morgan St**

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.532

**Intersection Setup**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
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	2	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	160.00	100.00	100.00	160.00	100.00	160.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	1090.00
Speed [mph]	45.00			30.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Perris Blvd			Perris Blvd			Morgan St			Morgan St		
Base Volume Input [veh/h]	24	999	6	9	414	35	8	105	5	12	103	15
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	535	0	0	739	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	2	0	0	10	0	0	1	0	0	4
Total Hourly Volume [veh/h]	26	1624	5	10	1190	28	9	114	4	13	112	12
Peak Hour Factor	0.8643	0.8643	0.8643	0.7467	0.7467	0.7467	0.8393	0.8393	0.8393	0.8520	0.8520	0.8520
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	470	1	3	398	9	3	34	1	4	33	4
Total Analysis Volume [veh/h]	30	1879	6	13	1594	37	11	136	5	15	131	14
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]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	5	26	0	5	26	0	5	32	0	21	48	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	27	0	0	27	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	9	30	0	12	33	0	22	36	0	22	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
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]	3	71	71	2	70	70	1	10	10	2	10	10
g / C, Green / Cycle	0.03	0.71	0.71	0.02	0.70	0.70	0.01	0.10	0.10	0.02	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.34	0.34	0.01	0.44	0.02	0.01	0.04	0.00	0.01	0.07	0.01
s, saturation flow rate [veh/h]	1810	3618	1897	1810	3618	1615	1810	3618	1615	1810	1900	1615
c, Capacity [veh/h]	51	2561	1343	28	2515	1123	25	358	160	32	195	166
d1, Uniform Delay [s]	48.00	6.48	6.48	48.82	8.31	4.76	48.93	42.19	40.73	48.65	43.24	40.61
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, 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]	10.12	0.65	1.24	11.62	1.23	0.05	11.68	0.67	0.08	10.30	3.96	0.22
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	0.58	0.48	0.48	0.47	0.63	0.03	0.44	0.38	0.03	0.47	0.67	0.08
d, Delay for Lane Group [s/veh]	58.12	7.13	7.72	60.44	9.54	4.81	60.61	42.85	40.81	58.95	47.19	40.82
Lane Group LOS	E	A	A	E	A	A	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.86	4.48	4.92	0.41	8.36	0.23	0.35	1.58	0.11	0.46	3.29	0.32
50th-Percentile Queue Length [ft/ln]	21.47	111.97	122.96	10.26	208.91	5.69	8.75	39.57	2.84	11.43	82.14	7.95
95th-Percentile Queue Length [veh/ln]	1.55	7.95	8.56	0.74	13.10	0.41	0.63	2.85	0.20	0.82	5.91	0.57
95th-Percentile Queue Length [ft/ln]	38.65	198.74	213.89	18.47	327.43	10.25	15.75	71.22	5.11	20.58	147.85	14.32

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.12	7.33	7.72	60.44	9.54	4.81	60.61	42.85	40.81	58.95	47.19	40.82
Movement LOS	E	A	A	E	A	A	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	8.13			9.84			44.07			47.74		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	11.90											
Intersection LOS	B											
Intersection V/C	0.532											

**Emissions**

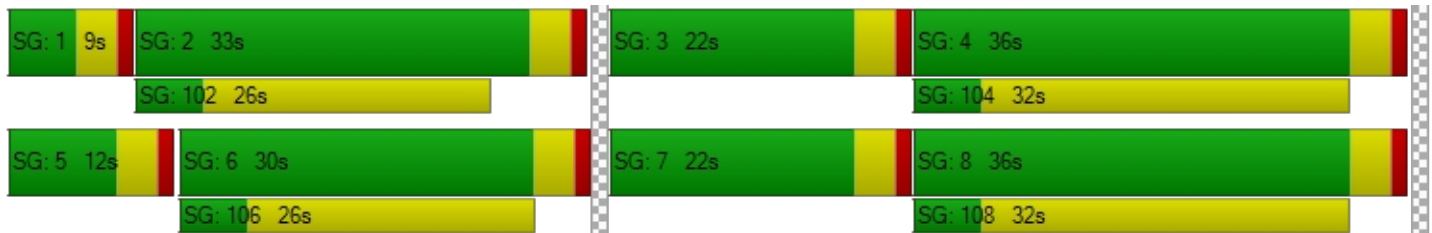
Vehicle Miles Traveled [mph]	5.89	242.79	127.33	6.46	791.91	18.38	5.52	68.21	2.51	4.02	35.13	3.75
Stops [stops/h]	30.92	322.48	177.06	14.77	601.66	8.20	12.60	113.96	4.09	16.46	118.28	11.45
Fuel consumption [US gal/h]	0.94	14.13	7.59	0.51	39.02	0.84	0.44	4.64	0.17	0.46	3.49	0.35
CO [g/h]	65.79	987.42	530.19	35.47	2727.46	58.59	30.80	324.53	11.73	31.95	243.72	24.15
NOx [g/h]	12.80	192.12	103.16	6.90	530.66	11.40	5.99	63.14	2.28	6.22	47.42	4.70
VOC [g/h]	15.25	228.84	122.88	8.22	632.11	13.58	7.14	75.21	2.72	7.40	56.48	5.60

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	41.41			41.41			41.41			41.41		
I_p,int, Pedestrian LOS Score for Intersectio	3.341			3.111			2.529			2.526		
Crosswalk LOS	C			C			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	520			580			640			640		
d_b, Bicycle Delay [s]	27.38			25.21			23.12			23.12		
I_b,int, Bicycle LOS Score for Intersection	2.614			2.924			1.686			1.830		
Bicycle LOS	B			C			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 7: Rider St/Evans Rd**

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.585

**Intersection Setup**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
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]	130.00	100.00	100.00	130.00	100.00	100.00	245.00	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]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Evans Rd			Evans Rd			Rider St			Rider St		
Base Volume Input [veh/h]	84	431	14	98	395	189	120	268	45	23	398	140
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 [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900	1.0900
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	8	6	205	5	0	184	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	4	0	0	54	0	0	14	0	0	38
Total Hourly Volume [veh/h]	100	470	11	107	431	160	137	497	40	25	618	115
Peak Hour Factor	0.9010	0.9010	0.9010	0.8191	0.8191	0.8191	0.8730	0.8730	0.8730	0.8333	0.8333	0.8333
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]	28	130	3	33	132	49	39	142	11	8	185	35
Total Analysis Volume [veh/h]	111	522	12	131	526	195	157	569	46	30	742	138
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]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

**Phasing & Timing (Basic)**

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												
Maximum Green [s]	7	22	0	7	22	0	10	29	0	6	25	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
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	20	0	0	20	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
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
Advanced 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
Advanced 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

**Phasing & Timing: Pattern 1**

Split [s]	11	26	0	12	27	0	13	33	0	9	29	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	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
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	

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
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]	6	27	27	7	28	28	9	28	28	3	22	22
g / C, Green / Cycle	0.08	0.33	0.33	0.09	0.35	0.35	0.11	0.34	0.34	0.03	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.14	0.07	0.20	0.20	0.09	0.16	0.16	0.02	0.24	0.24
s, saturation flow rate [veh/h]	1810	1900	1885	1810	1900	1727	1810	1900	1851	1810	1900	1798
c, Capacity [veh/h]	142	631	626	165	656	596	193	654	637	59	512	485
d1, Uniform Delay [s]	36.18	20.76	20.76	35.61	21.41	21.42	34.94	20.59	20.59	38.08	28.01	28.01
k, delay calibration	0.14	0.50	0.50	0.17	0.50	0.50	0.17	0.11	0.11	0.11	0.26	0.26
l, 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]	11.62	2.08	2.10	12.54	3.65	4.03	11.94	0.54	0.56	6.73	11.34	11.90
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	0.78	0.42	0.42	0.79	0.58	0.58	0.81	0.48	0.48	0.51	0.88	0.88
d, Delay for Lane Group [s/veh]	47.80	22.84	22.87	48.15	25.07	25.44	46.88	21.13	21.15	44.81	39.34	39.91
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.49	3.95	3.92	2.96	5.94	5.47	3.44	4.20	4.09	0.66	9.13	8.72
50th-Percentile Queue Length [ft/ln]	62.15	98.67	98.07	73.92	148.50	136.73	86.03	104.90	102.37	16.44	228.36	218.01
95th-Percentile Queue Length [veh/ln]	4.47	7.10	7.06	5.32	9.94	9.30	6.19	7.55	7.37	1.18	14.09	13.56
95th-Percentile Queue Length [ft/ln]	111.87	177.61	176.53	133.05	248.42	232.61	154.85	188.82	184.26	29.59	352.27	339.09