

**Intersection Level Of Service Report  
Intersection 7: Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.158

**Intersection Setup**

Name	Commerce St		3rd St		3rd St	
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	132.00	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]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		3rd St		3rd St	
Base Volume Input [veh/h]	14	11	1068	42	12	421
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	6	2	2	6
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	12	1117	46	14	444
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	304	13	4	121
Total Analysis Volume [veh/h]	17	13	1217	50	15	484
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	0.03	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	43.75	18.75	0.00	0.00	11.80	0.00
Movement LOS	E	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.67	0.67	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	16.79	16.79	0.00	0.00	2.12	0.00
d_A, Approach Delay [s/veh]	32.92		0.00		0.35	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.65					
Intersection LOS	E					

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.014

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	20	2	7	45	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	4	0	7	2
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]	21	6	11	47	10	4
Peak Hour Factor	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	3	14	3	1
Total Analysis Volume [veh/h]	25	7	13	56	12	5
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	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.17	8.51
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.06	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.55	0.55	1.41	1.41
d_A, Approach Delay [s/veh]	0.00		1.37		8.98	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.10					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 9: Commerce St (NS) at 6th St (EW)**

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	Commerce St		Commerce St		6th Street	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		6th Street	
Base Volume Input [veh/h]	23	0	3	46	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	7	0	0
Diverted Trips [veh/h]	0	0	-3	0	-2	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]	28	0	0	55	0	0
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	0	15	0	0
Total Analysis Volume [veh/h]	30	0	0	59	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	7.27	0.00	8.95	8.45
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		0.00		8.70	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Project Dwy (NS) at Mission Inn Ave (EW)**

Control Type:	Two-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):	0.028

**Intersection Setup**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn 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	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			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	11	0	5	0	0	0	0	271	16	2	78	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0000	1.0400	1.0400	1.0000	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	2	0	10	29	11	0	0	12	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	11	0	5	2	0	10	29	293	17	2	93	5
Peak Hour Factor	0.8784	0.9500	0.8784	0.8784	0.9500	0.8784	0.8784	0.8784	0.8784	0.8784	0.8784	0.8784
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	1	1	0	3	8	83	5	1	26	1
Total Analysis Volume [veh/h]	13	0	6	2	0	11	33	334	19	2	106	6
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	0.03	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.02	0.00	9.55	11.45	0.00	8.66	7.50	0.00	0.00	8.00	0.00	0.00
Movement LOS	B		A	B		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.00	0.11	0.04	0.00	0.04	0.07	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.74	0.00	2.74	1.11	0.00	1.11	1.72	0.00	0.00	0.12	0.00	0.00
d_A, Approach Delay [s/veh]	11.93			9.09			0.64			0.14		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	1.14											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 11: Project Dwy (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

**Intersection Setup**

Name	Project Dwy		5th St		5th St	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Dwy		5th St		5th St	
Base Volume Input [veh/h]	0	0	2	0	0	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	0	8	5	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]	9	2	2	8	5	5
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	2	1	1
Total Analysis Volume [veh/h]	10	2	2	9	5	5
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	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.67	8.39	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.91	0.91	0.00	0.00	0.21	0.21
d_A, Approach Delay [s/veh]	8.62		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.23					
Intersection LOS	A					

**BUILDOUT YEAR 2045**  
**WITHOUT PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report**  
**Intersection 1: Lime St (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	40.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.733

**Intersection Setup**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn 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	0	1	0	0
Entry Pocket Length [ft]	72.00	100.00	100.00	100.00	100.00	100.00	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]	35.00			35.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	30	139	65	47	271	5	13	318	116	683	599	193
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	139	65	47	271	5	13	318	116	683	599	193
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	37	17	12	71	1	3	84	31	180	158	51
Total Analysis Volume [veh/h]	32	146	68	49	285	5	14	335	122	719	631	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]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.1	4.1	0.0	4.1	4.1	0.0	3.6	3.6	0.0	3.6	3.6	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	30	0	9	30	0	9	29	0	54	72	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	20	0	0	18	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]	3.1	3.1	0.0	3.1	3.1	0.0	2.6	2.6	0.0	2.6	2.6	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	5.10	5.10	5.10	5.10	5.10	5.10	4.60	4.60	4.60	4.60	4.60	4.60
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]	0.00	3.10	3.10	0.00	3.10	3.10	2.60	2.60	2.60	2.60	2.60	2.60
g_i, Effective Green Time [s]	22	12	12	22	13	13	3	34	34	49	81	81
g / C, Green / Cycle	0.19	0.10	0.10	0.19	0.11	0.11	0.02	0.28	0.28	0.41	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.02	0.08	0.04	0.03	0.08	0.08	0.01	0.13	0.13	0.40	0.34	0.13
s, saturation flow rate [veh/h]	1327	1870	1589	1407	1870	1859	1781	1870	1704	1781	1870	1589
c, Capacity [veh/h]	256	181	154	264	198	196	39	531	484	731	1257	1068
d1, Uniform Delay [s]	40.77	53.07	51.12	41.18	52.04	52.05	57.85	35.23	35.35	35.00	9.73	7.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.45	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]	0.22	8.09	1.97	0.34	5.23	5.30	5.42	2.69	3.08	27.81	1.43	0.39
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	0.13	0.80	0.44	0.19	0.73	0.74	0.36	0.45	0.46	0.98	0.50	0.19
d, Delay for Lane Group [s/veh]	40.99	61.16	53.09	41.52	57.26	57.35	63.27	37.92	38.44	62.80	11.17	7.79
Lane Group LOS	D	E	D	D	E	E	E	D	D	E	B	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.80	4.68	2.00	1.23	4.49	4.48	0.48	6.14	5.79	25.57	7.94	1.93
50th-Percentile Queue Length [ft/ln]	19.94	117.05	50.05	30.86	112.31	112.02	12.04	153.58	144.87	639.24	198.45	48.36
95th-Percentile Queue Length [veh/ln]	1.44	8.23	3.60	2.22	7.97	7.95	0.87	10.21	9.74	33.86	12.56	3.48
95th-Percentile Queue Length [ft/ln]	35.90	205.77	90.09	55.54	199.20	198.81	21.67	255.20	243.57	846.57	313.97	87.05

**Movement, Approach, & Intersection Results**

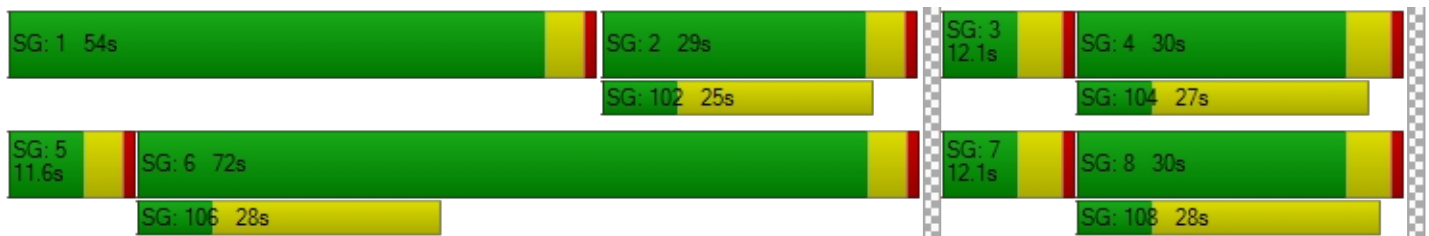
d_M, Delay for Movement [s/veh]	40.99	61.16	53.09	41.52	57.30	57.35	63.27	38.07	38.44	62.80	11.17	7.79
Movement LOS	D	E	D	D	E	E	E	D	D	E	B	A
d_A, Approach Delay [s/veh]	56.30			55.02			38.92			34.63		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	40.10											
Intersection LOS	D											
Intersection V/C	0.733											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
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]	49.51	49.51	49.51	49.51
I_p,int, Pedestrian LOS Score for Intersectio	2.626	2.344	2.382	2.778
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]	415	415	407	1123
d_b, Bicycle Delay [s]	37.69	37.69	38.09	11.53
I_b,int, Bicycle LOS Score for Intersection	1.966	1.839	1.948	4.122
Bicycle LOS	A	A	A	D

**Sequence**

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



**Intersection Level Of Service Report**

**Intersection 2: SR-91 SB Off-Ramp (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	25.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

**Intersection Setup**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn 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	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

**Volumes**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn Ave	
Base Volume Input [veh/h]	276	958	0	444	431	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
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]	276	958	0	444	431	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	252	0	117	113	0
Total Analysis Volume [veh/h]	291	1008	0	467	454	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing**

Control Type	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	10	10	0
Maximum Green [s]	47	0	0	42	42	0
Amber [s]	4.0	0.0	0.0	5.0	5.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	77	0	0	33	33	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	15	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	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	0.0	4.0	4.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	R	C	C
C, Cycle Length [s]	110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	4.00	4.00
g_i, Effective Green Time [s]	44	44	55	55
g / C, Green / Cycle	0.40	0.40	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.16	0.36	0.13	0.13
s, saturation flow rate [veh/h]	1781	2813	3560	3560
c, Capacity [veh/h]	711	1123	1782	1782
d1, Uniform Delay [s]	23.69	30.89	15.76	15.70
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	2.85	0.36	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.41	0.90	0.26	0.25
d, Delay for Lane Group [s/veh]	24.07	33.74	16.12	16.04
Lane Group LOS	C	C	B	B
Critical Lane Group	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	5.37	12.40	3.35	3.25
50th-Percentile Queue Length [ft/ln]	134.22	309.98	83.83	81.15
95th-Percentile Queue Length [veh/ln]	9.17	18.17	6.04	5.84
95th-Percentile Queue Length [ft/ln]	229.22	454.35	150.90	146.07

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	24.07	33.74	0.00	16.12	16.04	0.00
Movement LOS	C	C		B	B	
d_A, Approach Delay [s/veh]	31.58		16.12		16.04	
Approach LOS	C		B		B	
d_I, Intersection Delay [s/veh]	25.15					
Intersection LOS	C					
Intersection V/C	0.528					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
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]	44.51	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.510	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1310	491	491
d_b, Bicycle Delay [s]	6.54	31.28	31.28
I_b,int, Bicycle LOS Score for Intersection	1.560	1.945	1.934
Bicycle LOS	A	A	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Mulberry St (NS) at Mission Inn Ave (EW)**

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):	0.427

**Intersection Setup**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn 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	178.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	170	196	47	0	0	0	271	463	0	0	270	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	196	47	0	0	0	271	463	0	0	270	128
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	45	52	12	0	0	0	71	122	0	0	71	0
Total Analysis Volume [veh/h]	179	206	49	0	0	0	285	487	0	0	284	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	27.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	7	10	0	0	10	0
Maximum Green [s]	0	45	0	0	0	0	0	30	42	0	0	42	0
Amber [s]	0.0	4.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0	0.0	5.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	36	0	0	0	0	0	38	74	0	0	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	0	0	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	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	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	4.0	0.0
Minimum Recall		No						No	No			No	
Maximum Recall		No						No	No			No	
Pedestrian Recall		No						No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C		L	C	C	R
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00		5.00	6.00	6.00	6.00
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]	3.00	3.00		3.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	18	18		20	81	56	56
g / C, Green / Cycle	0.16	0.16		0.18	0.74	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.10	0.14		0.16	0.14	0.08	0.00
s, saturation flow rate [veh/h]	1781	1809		1781	3560	3560	1589
c, Capacity [veh/h]	292	297		321	2620	1817	811
d1, Uniform Delay [s]	42.75	44.76		44.06	4.45	14.34	0.00
k, delay calibration	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
d2, Incremental Delay [s]	2.07	7.14		8.31	0.16	0.18	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	0.61	0.86		0.89	0.19	0.16	0.00
d, Delay for Lane Group [s/veh]	44.82	51.90		52.37	4.61	14.52	0.00
Lane Group LOS	D	D		D	A	B	A
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.68	7.32		8.19	1.45	1.87	0.00
50th-Percentile Queue Length [ft/ln]	117.02	183.00		204.79	36.36	46.83	0.00
95th-Percentile Queue Length [veh/ln]	8.23	11.76		12.89	2.62	3.37	0.00
95th-Percentile Queue Length [ft/ln]	205.72	293.93		322.13	65.46	84.29	0.00

**Movement, Approach, & Intersection Results**

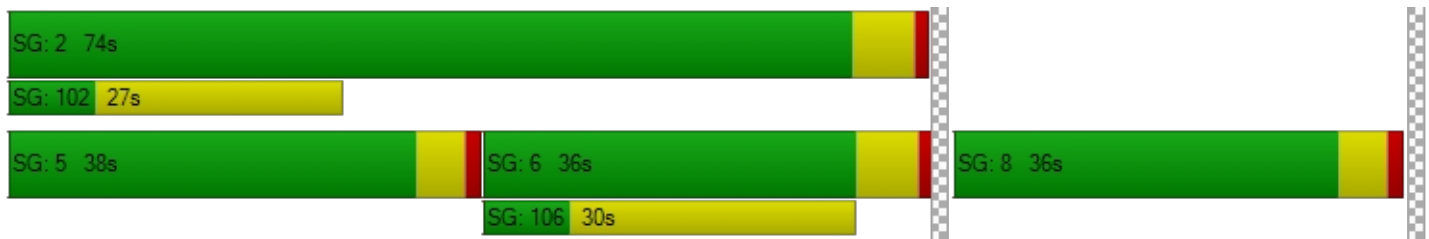
d_M, Delay for Movement [s/veh]	44.82	51.90	51.90	0.00	0.00	0.00	52.37	4.61	0.00	0.00	14.52	0.00
Movement LOS	D	D	D				D	A			B	A
d_A, Approach Delay [s/veh]	48.98			0.00			22.24			14.52		
Approach LOS	D			A			C			B		
d_I, Intersection Delay [s/veh]	28.56											
Intersection LOS	C											
Intersection V/C	0.427											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	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]	44.57	44.57	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.091	1.912	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]	563	0	1236	545
d_b, Bicycle Delay [s]	28.39	55.02	8.03	29.11
I_b,int, Bicycle LOS Score for Intersection	2.276	4.132	2.197	1.794
Bicycle LOS	B	D	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 4: Vine St (NS) at Mission Inn Ave (EW)**

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):	0.480

**Intersection Setup**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn 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	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	152.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00	75.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	38	65	48	25	28	72	119	247	184	39	303	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	65	48	25	28	72	119	247	184	39	303	51
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	17	13	7	7	19	31	65	48	10	80	13
Total Analysis Volume [veh/h]	40	68	51	26	29	76	125	260	194	41	319	54
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	468	519	536	503	542	605	486	521	537
Degree of Utilization, x	0.09	0.23	0.24	0.25	0.48	0.32	0.08	0.36	0.35

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.28	0.88	0.95	0.97	2.58	1.38	0.28	1.61	1.54
95th-Percentile Queue Length [ft]	6.98	21.94	23.82	24.30	64.61	34.46	6.88	40.24	38.55
Approach Delay [s/veh]	11.55		11.88	13.36			12.93		
Approach LOS	B		B	B			B		
Intersection Delay [s/veh]	12.84								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 5: Commerce St (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

**Intersection Setup**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			rlt		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	220.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	37	10	9	10	22	8	7	183	22	20	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	10	9	10	22	8	7	183	22	20	295	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	3	2	3	6	2	2	48	6	5	78	2
Total Analysis Volume [veh/h]	39	11	9	11	23	8	7	193	23	21	311	8
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	Yes		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.03	0.01	0.02	0.04	0.01	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	13.38	14.47	9.76	11.80	12.16	9.67	7.92	0.00	0.00	7.71	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.39	0.39	0.39	0.23	0.23	0.23	0.01	0.01	0.00	0.05	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.80	9.80	9.80	5.75	5.75	5.75	0.29	0.29	0.00	1.18	0.00	0.00
d_A, Approach Delay [s/veh]	13.03			11.59			0.25			0.48		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.22											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 6: Park Ave (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.274

**Intersection Setup**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn 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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	97.00	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]	25.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

**Volumes**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	47	92	48	23	58	28	15	99	64	63	116	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	92	48	23	58	28	15	99	64	63	116	23
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	24	13	6	15	7	4	26	17	17	31	6
Total Analysis Volume [veh/h]	49	97	51	24	61	29	16	104	67	66	122	24
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	719	701	586	672	591	658
Degree of Utilization, x	0.27	0.16	0.03	0.25	0.11	0.22

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.11	0.58	0.08	1.01	0.37	0.84
95th-Percentile Queue Length [ft]	27.87	14.45	2.10	25.16	9.37	21.10
Approach Delay [s/veh]	9.90	9.13	9.79		9.67	
Approach LOS	A	A	A		A	
Intersection Delay [s/veh]	9.68					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 7: Commerce St (NS) at 3rd St (EW)**

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):	0.019

**Intersection Setup**

Name	Commerce St		3rd St		3rd St	
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	132.00	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]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	410	19	13	417
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	410	19	13	417
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	108	5	3	110
Total Analysis Volume [veh/h]	7	9	432	20	14	439
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	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.82	9.85	0.00	0.00	8.30	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	2.34	2.34	0.00	0.00	0.96	0.00
d_A, Approach Delay [s/veh]	12.02		0.00		0.26	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	15	2	0	37	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	2	0	37	2	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	0	10	1	0
Total Analysis Volume [veh/h]	16	2	0	39	2	1
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	7.25	0.00	8.79	8.40
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.23	0.23
d_A, Approach Delay [s/veh]	0.00		0.00		8.66	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.43					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 9: Commerce St (NS) at 6th St (EW)**

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):	0.004

**Intersection Setup**

Name	Commerce St		Commerce St		6th Street	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		6th Street	
Base Volume Input [veh/h]	17	0	1	38	4	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	0	1	38	4	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	0	10	1	0
Total Analysis Volume [veh/h]	18	0	1	40	4	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	7.25	0.00	8.82	8.41
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.04	0.32	0.32
d_A, Approach Delay [s/veh]	0.00		0.18		8.82	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.68					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Project Dwy (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

**Intersection Setup**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn 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	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			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	7	0	7	0	0	0	0	195	9	4	315	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	7	0	0	0	0	195	9	4	315	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	2	0	0	0	0	51	2	1	83	0
Total Analysis Volume [veh/h]	7	0	7	0	0	0	0	205	9	4	332	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	0.01	0.00	0.01	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]	11.68	0.00	8.99	12.34	0.00	9.24	7.94	0.00	0.00	7.67	0.00	0.00
Movement LOS	B		A	B		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.56	0.00	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
d_A, Approach Delay [s/veh]	10.34			10.79			0.00			0.09		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.31											
Intersection LOS	B											

## PM PEAK HOUR

**Intersection Level Of Service Report**  
**Intersection 1: Lime St (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.611

**Intersection Setup**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn 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	0	1	0	0
Entry Pocket Length [ft]	72.00	100.00	100.00	100.00	100.00	100.00	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]	35.00			35.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	24	268	128	61	283	30	19	534	136	216	381	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	268	128	61	283	30	19	534	136	216	381	180
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	71	34	16	74	8	5	141	36	57	100	47
Total Analysis Volume [veh/h]	25	282	135	64	298	32	20	562	143	227	401	189
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

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

**Phasing & Timing**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.1	4.1	0.0	4.1	4.1	0.0	3.6	3.6	0.0	3.6	3.6	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	30	0	9	30	0	9	29	0	24	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	20	0	0	18	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]	3.1	3.1	0.0	3.1	3.1	0.0	2.6	2.6	0.0	2.6	2.6	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.10	5.10	5.10	5.10	5.10	5.10	4.60	4.60	4.60	4.60	4.60	4.60
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]	0.00	3.10	3.10	0.00	3.10	3.10	2.60	2.60	2.60	2.60	2.60	2.60
g_i, Effective Green Time [s]	27	16	16	27	18	18	3	36	36	13	46	46
g / C, Green / Cycle	0.30	0.18	0.18	0.30	0.20	0.20	0.03	0.39	0.39	0.15	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.08	0.05	0.09	0.09	0.01	0.19	0.20	0.13	0.21	0.12
s, saturation flow rate [veh/h]	1226	1870	1589	1235	1870	1807	1781	1870	1741	1781	1870	1589
c, Capacity [veh/h]	402	334	284	346	382	369	57	734	684	268	956	812
d1, Uniform Delay [s]	22.81	35.84	33.26	24.06	31.36	31.39	42.73	20.65	20.68	37.31	13.73	12.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
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]	0.06	5.86	1.24	0.26	0.79	0.83	3.62	2.39	2.58	7.31	1.35	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	0.06	0.85	0.48	0.19	0.44	0.44	0.35	0.50	0.50	0.85	0.42	0.23
d, Delay for Lane Group [s/veh]	22.87	41.71	34.50	24.32	32.15	32.23	46.35	23.04	23.26	44.62	15.08	12.91
Lane Group LOS	C	D	C	C	C	C	D	C	C	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.37	6.34	2.67	0.99	3.16	3.10	0.49	6.14	5.79	5.27	5.00	2.10
50th-Percentile Queue Length [ft/ln]	9.35	158.53	66.83	24.63	79.07	77.52	12.35	153.62	144.70	131.77	125.01	52.53
95th-Percentile Queue Length [veh/ln]	0.67	10.47	4.81	1.77	5.69	5.58	0.89	10.21	9.73	9.04	8.67	3.78
95th-Percentile Queue Length [ft/ln]	16.83	261.77	120.30	44.33	142.33	139.54	22.23	255.25	243.34	225.90	216.69	94.56

**Movement, Approach, & Intersection Results**

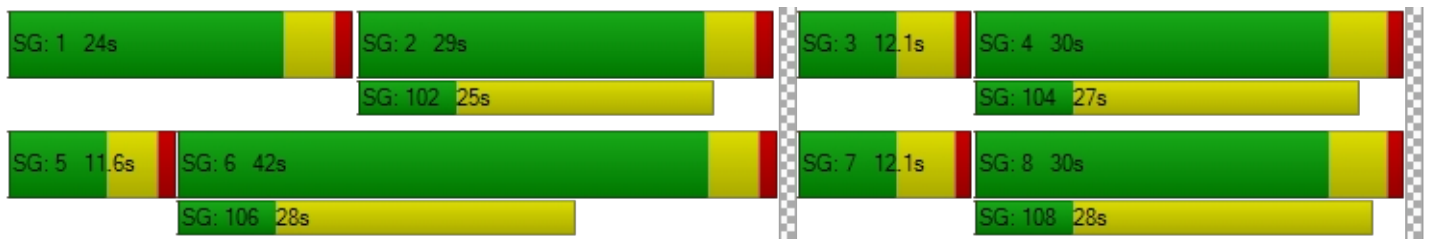
d_M, Delay for Movement [s/veh]	22.87	41.71	34.50	24.32	32.18	32.23	46.35	23.12	23.26	44.62	15.08	12.91
Movement LOS	C	D	C	C	C	C	D	C	C	D	B	B
d_A, Approach Delay [s/veh]	38.44			30.91			23.79			22.79		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	27.35											
Intersection LOS	C											
Intersection V/C	0.611											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
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]	34.72	34.72	34.72	34.72
I_p,int, Pedestrian LOS Score for Intersectio	2.552	2.382	2.379	2.677
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]	553	553	542	830
d_b, Bicycle Delay [s]	23.59	23.59	23.95	15.41
I_b,int, Bicycle LOS Score for Intersection	2.289	1.885	2.158	2.908
Bicycle LOS	B	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 2: SR-91 SB Off-Ramp (NS) at Mission Inn Ave (EW)**

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):	0.435

**Intersection Setup**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn 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	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

**Volumes**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn Ave	
Base Volume Input [veh/h]	246	505	0	724	276	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
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]	246	505	0	724	276	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	133	0	191	73	0
Total Analysis Volume [veh/h]	259	532	0	762	291	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing**

Control Type	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	10	10	0
Maximum Green [s]	47	0	0	42	42	0
Amber [s]	4.0	0.0	0.0	5.0	5.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	51	0	0	59	59	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	15	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	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	0.0	4.0	4.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	R	C	C
C, Cycle Length [s]	110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	4.00	4.00
g_i, Effective Green Time [s]	24	24	75	75
g / C, Green / Cycle	0.22	0.22	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.21	0.08
s, saturation flow rate [veh/h]	1781	2813	3560	3560
c, Capacity [veh/h]	391	618	2421	2421
d1, Uniform Delay [s]	39.12	41.23	7.15	6.12
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.92	3.66	0.34	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.66	0.86	0.31	0.12
d, Delay for Lane Group [s/veh]	41.04	44.89	7.49	6.22
Lane Group LOS	D	D	A	A
Critical Lane Group	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.49	7.11	3.34	1.09
50th-Percentile Queue Length [ft/ln]	162.17	177.74	83.49	27.21
95th-Percentile Queue Length [veh/ln]	10.66	11.48	6.01	1.96
95th-Percentile Queue Length [ft/ln]	266.60	287.06	150.28	48.97

**Movement, Approach, & Intersection Results**

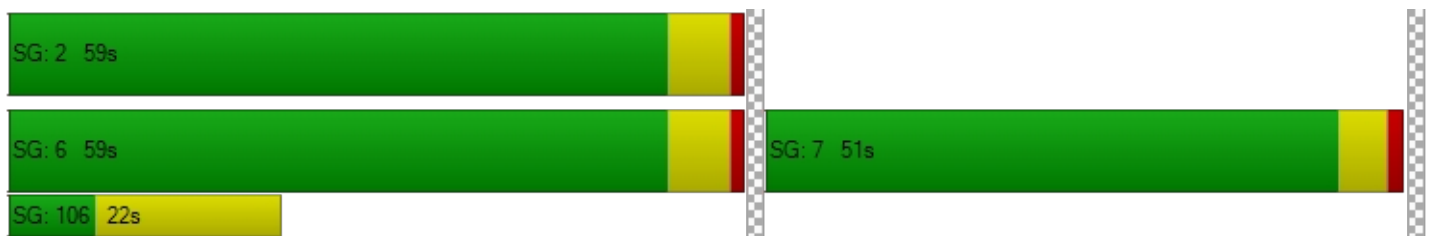
d_M, Delay for Movement [s/veh]	41.04	44.89	0.00	7.49	6.22	0.00
Movement LOS	D	D		A	A	
d_A, Approach Delay [s/veh]	43.63		7.49		6.22	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	22.79					
Intersection LOS	C					
Intersection V/C	0.435					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
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]	44.51	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.366	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	837	964	964
d_b, Bicycle Delay [s]	18.59	14.74	14.74
I_b,int, Bicycle LOS Score for Intersection	1.560	2.188	1.800
Bicycle LOS	A	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Mulberry St (NS) at Mission Inn Ave (EW)**

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):	0.667

**Intersection Setup**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn 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	178.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	121	455	121	0	0	0	358	659	0	0	159	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	455	121	0	0	0	358	659	0	0	159	204
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	32	120	32	0	0	0	94	173	0	0	42	0
Total Analysis Volume [veh/h]	127	479	127	0	0	0	377	694	0	0	167	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	34.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	7	10	0	0	10	0
Maximum Green [s]	0	45	0	0	0	0	30	42	0	0	42	0
Amber [s]	0.0	4.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0	0.0	5.0	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
Split [s]	0	45	0	0	0	0	29	65	0	0	36	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
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	0	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	
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	3.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	4.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C		L	C	C	R
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00		5.00	6.00	6.00	6.00
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]	3.00	3.00		3.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	39	39		24	60	31	31
g / C, Green / Cycle	0.35	0.35		0.22	0.55	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.07	0.34		0.21	0.19	0.05	0.00
s, saturation flow rate [veh/h]	1781	1803		1781	3560	3560	1589
c, Capacity [veh/h]	626	634		389	1953	1014	453
d1, Uniform Delay [s]	24.92	34.85		42.68	13.94	29.54	0.00
k, delay calibration	0.11	0.32		0.27	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	19.72		26.97	0.51	0.35	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	0.20	0.96		0.97	0.36	0.16	0.00
d, Delay for Lane Group [s/veh]	25.07	54.57		69.65	14.45	29.89	0.00
Lane Group LOS	C	D		E	B	C	A
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.34	18.94		12.85	4.74	1.69	0.00
50th-Percentile Queue Length [ft/ln]	58.61	473.43		321.32	118.59	42.29	0.00
95th-Percentile Queue Length [veh/ln]	4.22	26.07		18.73	8.32	3.04	0.00
95th-Percentile Queue Length [ft/ln]	105.50	651.84		468.31	207.88	76.12	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	25.07	54.57	54.57	0.00	0.00	0.00	69.65	14.45	0.00	0.00	29.89	0.00
Movement LOS	C	D	D				E	B			C	A
d_A, Approach Delay [s/veh]	49.46			0.00			33.88			29.89		
Approach LOS	D			A			C			C		
d_I, Intersection Delay [s/veh]	39.33											
Intersection LOS	D											
Intersection V/C	0.667											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	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]	44.57	44.57	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.188	2.268	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]	727	0	1072	545
d_b, Bicycle Delay [s]	22.29	55.02	11.84	29.11
I_b,int, Bicycle LOS Score for Intersection	2.769	4.132	2.443	1.697
Bicycle LOS	C	D	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 4: Vine St (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	35.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.039

**Intersection Setup**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn 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	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	152.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00	75.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	67	74	27	59	34	110	110	495	164	40	207	75
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	74	27	59	34	110	110	495	164	40	207	75
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	19	7	16	9	29	29	130	43	11	54	20
Total Analysis Volume [veh/h]	71	78	28	62	36	116	116	521	173	42	218	79
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	412	446	480	469	521	557	422	448	470
Degree of Utilization, x	0.17	0.24	0.45	0.25	1.04	0.31	0.10	0.33	0.32

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.61	0.92	2.27	0.97	15.27	1.32	0.33	1.43	1.34
95th-Percentile Queue Length [ft]	15.36	22.91	56.64	24.17	381.70	32.95	8.23	35.79	33.54
Approach Delay [s/veh]	13.26		16.43	54.21			14.00		
Approach LOS	B		C	F			B		
Intersection Delay [s/veh]	35.40								
Intersection LOS	E								

**Intersection Level Of Service Report**  
**Intersection 5: Commerce St (NS) at Mission Inn Ave (EW)**

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):	0.195

**Intersection Setup**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			rll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	220.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	54	14	7	11	39	14	13	503	69	3	192	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	14	7	11	39	14	13	503	69	3	192	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	4	2	3	10	4	3	132	18	1	51	3
Total Analysis Volume [veh/h]	57	15	7	12	41	15	14	529	73	3	202	11
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	Yes		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.19	0.05	0.01	0.02	0.10	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	21.10	20.00	13.70	12.55	14.61	9.99	7.67	0.00	0.00	8.72	0.00	0.00
Movement LOS	C	C	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.97	0.97	0.97	0.46	0.46	0.46	0.02	0.02	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	24.35	24.35	24.35	11.56	11.56	11.56	0.59	0.59	0.00	0.23	0.00	0.00
d_A, Approach Delay [s/veh]	20.24			13.23			0.17			0.12		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	2.69											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 6: Park Ave (NS) at Mission Inn Ave (EW)**

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):	0.688

**Intersection Setup**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn 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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	97.00	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]	25.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

**Volumes**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	48	78	67	14	90	14	18	259	159	84	102	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	78	67	14	90	14	18	259	159	84	102	24
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	21	18	4	24	4	5	68	42	22	27	6
Total Analysis Volume [veh/h]	51	82	71	15	95	15	19	273	167	88	107	25
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	615	586	562	640	536	593
Degree of Utilization, x	0.33	0.21	0.03	0.69	0.16	0.22

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.45	0.80	0.10	5.43	0.58	0.85
95th-Percentile Queue Length [ft]	36.20	20.06	2.62	135.83	14.58	21.18
Approach Delay [s/veh]	11.73	10.80	19.37		10.60	
Approach LOS	B	B	C		B	
Intersection Delay [s/veh]	14.85					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 7: Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	40.6
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.139

**Intersection Setup**

Name	Commerce St		3rd St		3rd St	
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	132.00	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]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		3rd St		3rd St	
Base Volume Input [veh/h]	15	11	1128	44	12	448
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	11	1128	44	12	448
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	297	12	3	118
Total Analysis Volume [veh/h]	16	12	1187	46	13	472
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	0.14	0.03	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	40.56	17.56	0.00	0.00	11.57	0.00
Movement LOS	E	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.58	0.58	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	14.54	14.54	0.00	0.00	1.78	0.00
d_A, Approach Delay [s/veh]	30.70		0.00		0.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.58					
Intersection LOS	E					

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	21	2	7	47	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	2	7	47	3	2
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	2	12	1	1
Total Analysis Volume [veh/h]	22	2	7	49	3	2
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	7.27	0.00	8.97	8.44
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.29	0.39	0.39
d_A, Approach Delay [s/veh]	0.00		0.91		8.76	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.11					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 9: Commerce St (NS) at 6th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		6th Street	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		6th Street	
Base Volume Input [veh/h]	24	0	3	48	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	0	3	48	2	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	1	13	1	0
Total Analysis Volume [veh/h]	25	0	3	51	2	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	7.27	0.00	8.93	8.43
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.13	0.13	0.16	0.16
d_A, Approach Delay [s/veh]	0.00		0.40		8.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.49					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Project Dwy (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.042

**Intersection Setup**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn 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	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			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	14	0	6	0	0	0	0	504	18	3	196	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	0	6	0	0	0	0	504	18	3	196	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	2	0	0	0	0	133	5	1	52	0
Total Analysis Volume [veh/h]	15	0	6	0	0	0	0	531	19	3	206	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	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.65	0.00	10.45	12.77	0.00	8.86	7.64	0.00	0.00	8.55	0.00	0.00
Movement LOS	C		B	B		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
d_A, Approach Delay [s/veh]	14.16			10.82				0.00		0.12		
Approach LOS	B			B				A		A		
d_I, Intersection Delay [s/veh]	0.41											
Intersection LOS	C											

**BUILDOUT YEAR 2045  
WITH PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report**  
**Intersection 1: Lime St (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	41.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.745

**Intersection Setup**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn 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	0	1	0	0
Entry Pocket Length [ft]	72.00	100.00	100.00	100.00	100.00	100.00	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]	35.00			35.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	30	139	65	47	271	5	13	318	116	683	599	193
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	5	0	14	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	139	65	47	271	5	13	323	116	697	608	193
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	37	17	12	71	1	3	85	31	183	160	51
Total Analysis Volume [veh/h]	32	146	68	49	285	5	14	340	122	734	640	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]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.1	4.1	0.0	4.1	4.1	0.0	3.6	3.6	0.0	3.6	3.6	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	30	0	9	30	0	9	29	0	54	72	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	20	0	0	18	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]	3.1	3.1	0.0	3.1	3.1	0.0	2.6	2.6	0.0	2.6	2.6	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	5.10	5.10	5.10	5.10	5.10	5.10	4.60	4.60	4.60	4.60	4.60	4.60
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]	0.00	3.10	3.10	0.00	3.10	3.10	2.60	2.60	2.60	2.60	2.60	2.60
g_i, Effective Green Time [s]	22	12	12	22	13	13	3	34	34	49	81	81
g / C, Green / Cycle	0.19	0.10	0.10	0.19	0.11	0.11	0.02	0.28	0.28	0.41	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.02	0.08	0.04	0.03	0.08	0.08	0.01	0.13	0.13	0.41	0.34	0.13
s, saturation flow rate [veh/h]	1327	1870	1589	1407	1870	1859	1781	1870	1705	1781	1870	1589
c, Capacity [veh/h]	256	181	154	264	198	196	39	531	484	731	1257	1068
d1, Uniform Delay [s]	40.77	53.07	51.12	41.18	52.04	52.05	57.85	35.29	35.41	35.38	9.81	7.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.46	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]	0.22	8.09	1.97	0.34	5.23	5.30	5.42	2.75	3.14	33.06	1.48	0.39
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	0.13	0.80	0.44	0.19	0.73	0.74	0.36	0.45	0.46	1.00	0.51	0.19
d, Delay for Lane Group [s/veh]	40.99	61.16	53.09	41.52	57.26	57.35	63.27	38.04	38.55	68.44	11.28	7.79
Lane Group LOS	D	E	D	D	E	E	E	D	D	F	B	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.80	4.68	2.00	1.23	4.49	4.48	0.48	6.22	5.87	27.19	8.11	1.93
50th-Percentile Queue Length [ft/ln]	19.94	117.05	50.05	30.86	112.31	112.02	12.04	155.56	146.77	679.78	202.84	48.36
95th-Percentile Queue Length [veh/ln]	1.44	8.23	3.60	2.22	7.97	7.95	0.87	10.31	9.84	35.86	12.79	3.48
95th-Percentile Queue Length [ft/ln]	35.90	205.77	90.09	55.54	199.20	198.81	21.67	257.83	246.11	896.55	319.63	87.05

**Movement, Approach, & Intersection Results**

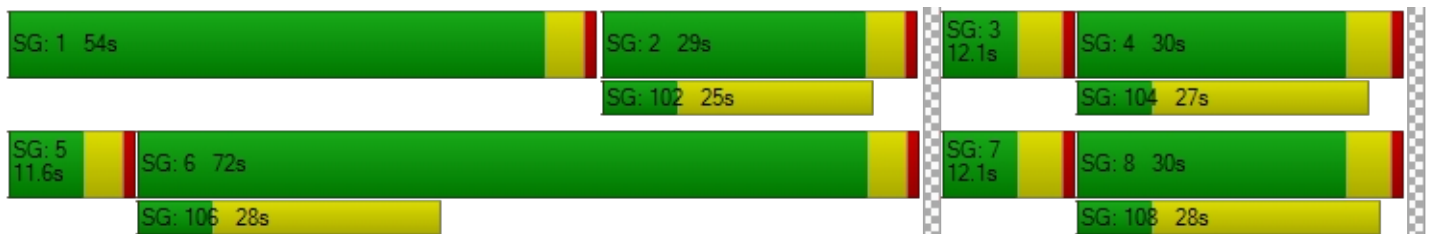
d_M, Delay for Movement [s/veh]	40.99	61.16	53.09	41.52	57.30	57.35	63.27	38.19	38.55	68.44	11.28	7.79
Movement LOS	D	E	D	D	E	E	E	D	D	F	B	A
d_A, Approach Delay [s/veh]	56.30			55.02			39.02			37.44		
Approach LOS	E			E			D			D		
d_I, Intersection Delay [s/veh]	41.74											
Intersection LOS	D											
Intersection V/C	0.745											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
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]	49.51			49.51			49.51			49.51		
I_p,int, Pedestrian LOS Score for Intersectio	2.629			2.344			2.385			2.784		
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]	415			415			407			1123		
d_b, Bicycle Delay [s]	37.69			37.69			38.09			11.53		
I_b,int, Bicycle LOS Score for Intersection	1.966			1.839			1.952			4.162		
Bicycle LOS	A			A			A			D		

**Sequence**

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



**Intersection Level Of Service Report**

**Intersection 2: SR-91 SB Off-Ramp (NS) at Mission Inn Ave (EW)**

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):	0.529

**Intersection Setup**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn 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	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

**Volumes**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn Ave	
Base Volume Input [veh/h]	276	958	0	444	431	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
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]	6	0	0	5	23	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]	282	958	0	449	454	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	74	252	0	118	119	0
Total Analysis Volume [veh/h]	297	1008	0	473	478	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	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing**

Control Type	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	10	10	0
Maximum Green [s]	47	0	0	42	42	0
Amber [s]	4.0	0.0	0.0	5.0	5.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	80	0	0	35	35	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	15	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	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	0.0	4.0	4.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	R	C	C
C, Cycle Length [s]	115	115	115	115
L, Total Lost Time per Cycle [s]	5.00	5.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	4.00	4.00
g_i, Effective Green Time [s]	46	46	58	58
g / C, Green / Cycle	0.40	0.40	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.17	0.36	0.13	0.13
s, saturation flow rate [veh/h]	1781	2813	3560	3560
c, Capacity [veh/h]	709	1119	1803	1803
d1, Uniform Delay [s]	25.00	32.46	16.14	16.17
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.40	2.95	0.35	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.42	0.90	0.26	0.27
d, Delay for Lane Group [s/veh]	25.39	35.41	16.49	16.53
Lane Group LOS	C	D	B	B
Critical Lane Group	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	5.82	13.11	3.54	3.58
50th-Percentile Queue Length [ft/ln]	145.46	327.69	88.52	89.61
95th-Percentile Queue Length [veh/ln]	9.77	19.04	6.37	6.45
95th-Percentile Queue Length [ft/ln]	244.35	476.12	159.34	161.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	25.39	35.41	0.00	16.49	16.53	0.00
Movement LOS	C	D		B	B	
d_A, Approach Delay [s/veh]	33.13		16.49		16.53	
Approach LOS	C		B		B	
d_I, Intersection Delay [s/veh]	26.12					
Intersection LOS	C					
Intersection V/C	0.529					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
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]	47.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.514	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1305	505	505
d_b, Bicycle Delay [s]	6.94	32.13	32.13
I_b,int, Bicycle LOS Score for Intersection	1.560	1.950	1.954
Bicycle LOS	A	A	A

**Sequence**

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



**Intersection Level Of Service Report  
Intersection 3: Mulberry St (NS) at Mission Inn Ave (EW)**

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):	0.439

**Intersection Setup**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn 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	178.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	170	196	47	0	0	0	271	463	0	0	270	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	8	0	0	0	0	11	0	0	23	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	196	55	0	0	0	271	474	0	0	293	140
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	45	52	14	0	0	0	71	125	0	0	77	0
Total Analysis Volume [veh/h]	179	206	58	0	0	0	285	499	0	0	308	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	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	29.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	7	10	0	0	10	0
Maximum Green [s]	0	45	0	0	0	0	0	30	42	0	0	42	0
Amber [s]	0.0	4.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0	0.0	5.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	38	0	0	0	0	0	41	77	0	0	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	0	0	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	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	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	4.0	0.0
Minimum Recall		No						No	No			No	
Maximum Recall		No						No	No			No	
Pedestrian Recall		No						No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C		L	C	C	R
C, Cycle Length [s]	115	115		115	115	115	115
L, Total Lost Time per Cycle [s]	5.00	5.00		5.00	6.00	6.00	6.00
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]	3.00	3.00		3.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	19	19		21	85	59	59
g / C, Green / Cycle	0.17	0.17		0.18	0.74	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.10	0.15		0.16	0.14	0.09	0.00
s, saturation flow rate [veh/h]	1781	1800		1781	3560	3560	1589
c, Capacity [veh/h]	301	304		319	2619	1826	815
d1, Uniform Delay [s]	44.18	46.57		46.14	4.68	14.95	0.00
k, delay calibration	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
d2, Incremental Delay [s]	1.88	7.48		8.59	0.16	0.20	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	0.60	0.87		0.89	0.19	0.17	0.00
d, Delay for Lane Group [s/veh]	46.06	54.05		54.72	4.84	15.15	0.00
Lane Group LOS	D	D		D	A	B	A
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.87	7.96		8.61	1.61	2.15	0.00
50th-Percentile Queue Length [ft/ln]	121.75	198.96		215.16	40.16	53.72	0.00
95th-Percentile Queue Length [veh/ln]	8.49	12.58		13.42	2.89	3.87	0.00
95th-Percentile Queue Length [ft/ln]	212.22	314.62		335.44	72.28	96.69	0.00

**Movement, Approach, & Intersection Results**

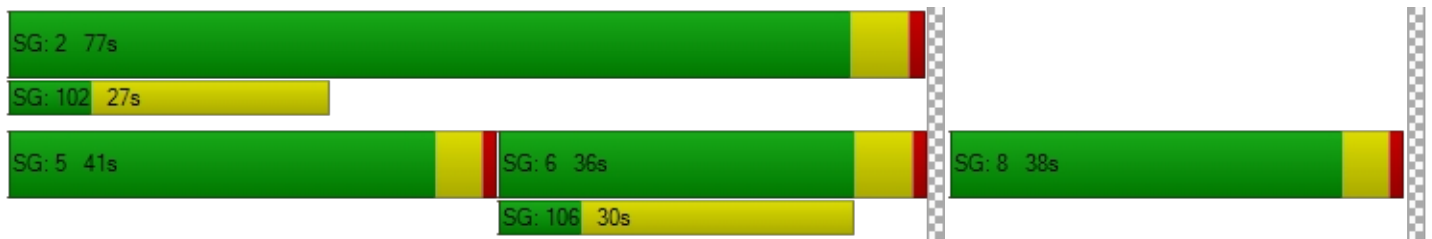
d_M, Delay for Movement [s/veh]	46.06	54.05	54.05	0.00	0.00	0.00	54.72	4.84	0.00	0.00	15.15	0.00
Movement LOS	D	D	D				D	A			B	A
d_A, Approach Delay [s/veh]	50.82			0.00			22.98			15.15		
Approach LOS	D			A			C			B		
d_I, Intersection Delay [s/veh]	29.44											
Intersection LOS	C											
Intersection V/C	0.439											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	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]	47.04	47.04	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.096	1.914	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]	574	0	1234	522
d_b, Bicycle Delay [s]	29.25	57.52	8.43	31.43
I_b,int, Bicycle LOS Score for Intersection	2.291	4.132	2.206	1.814
Bicycle LOS	B	D	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 4: Vine St (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

**Intersection Setup**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn 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	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	152.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00	75.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	38	65	48	25	28	72	119	247	184	39	303	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	19	0	0	35	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	65	48	25	28	72	119	266	184	39	338	51
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	17	13	7	7	19	31	70	48	10	89	13
Total Analysis Volume [veh/h]	40	68	51	26	29	76	125	280	194	41	356	54
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	459	508	526	495	532	595	481	516	530
Degree of Utilization, x	0.09	0.23	0.25	0.25	0.53	0.33	0.09	0.40	0.39

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.28	0.90	0.98	0.99	3.04	1.41	0.28	1.89	1.81
95th-Percentile Queue Length [ft]	7.12	22.51	24.38	24.77	75.89	35.34	6.95	47.21	45.34
Approach Delay [s/veh]	11.77		12.09	14.18			13.69		
Approach LOS	B		B	B			B		
Intersection Delay [s/veh]	13.52								
Intersection LOS	B								

**Intersection Level Of Service Report**  
**Intersection 5: Commerce St (NS) at Mission Inn Ave (EW)**

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):	0.033

**Intersection Setup**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			rlt		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	220.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	37	10	9	10	22	8	7	183	22	20	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	3	3	12	0	19	0	0	23	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	1	0	0	0	0
Total Hourly Volume [veh/h]	37	12	9	13	25	20	7	203	22	20	318	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	3	2	3	7	5	2	53	6	5	84	3
Total Analysis Volume [veh/h]	39	13	9	14	26	21	7	214	23	21	335	11
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	Yes		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.09	0.03	0.01	0.03	0.05	0.02	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	14.21	15.25	10.03	12.25	12.57	9.95	7.98	0.00	0.00	7.76	0.00	0.00
Movement LOS	B	C	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.44	0.44	0.44	0.33	0.33	0.33	0.01	0.01	0.00	0.05	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.11	11.11	11.11	8.34	8.34	8.34	0.29	0.29	0.00	1.21	0.00	0.00
d_A, Approach Delay [s/veh]	13.81			11.59			0.23			0.44		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.41											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 6: Park Ave (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.277

**Intersection Setup**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn 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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	97.00	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]	25.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

**Volumes**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	47	92	48	23	58	28	15	99	64	63	116	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	9	0	0	5	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	4	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	92	48	23	58	32	15	108	64	63	121	23
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	24	13	6	15	8	4	28	17	17	32	6
Total Analysis Volume [veh/h]	49	97	51	24	61	34	16	114	67	66	127	24
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	711	697	584	667	588	653
Degree of Utilization, x	0.28	0.17	0.03	0.27	0.11	0.23

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.13	0.61	0.08	1.10	0.38	0.89
95th-Percentile Queue Length [ft]	28.26	15.30	2.11	27.42	9.43	22.22
Approach Delay [s/veh]	10.00	9.22	10.01		9.78	
Approach LOS	A	A	B		A	
Intersection Delay [s/veh]	9.81					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 7: Commerce St (NS) at 3rd St (EW)**

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):	0.030

**Intersection Setup**

Name	Commerce St		3rd St		3rd St	
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	132.00	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]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	410	19	13	417
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	3	0	2	2	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]	10	12	410	21	15	417
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	108	6	4	110
Total Analysis Volume [veh/h]	11	13	432	22	16	439
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	0.03	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.04	9.98	0.00	0.00	8.31	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	3.64	3.64	0.00	0.00	1.10	0.00
d_A, Approach Delay [s/veh]	12.30		0.00		0.29	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	15	2	0	37	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	4	0	18	6
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]	15	6	4	37	20	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	1	10	5	2
Total Analysis Volume [veh/h]	16	6	4	39	21	7
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	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.26	0.00	8.95	8.51
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.17	0.17	2.24	2.24
d_A, Approach Delay [s/veh]	0.00		0.68		8.84	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.97					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 9: Commerce St (NS) at 6th St (EW)**

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	Commerce St		Commerce St		6th Street	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		6th Street	
Base Volume Input [veh/h]	17	0	1	38	4	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	18	0	0
Diverted Trips [veh/h]	0	0	-1	0	-4	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]	21	0	0	56	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	0	15	0	0
Total Analysis Volume [veh/h]	22	0	0	59	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	7.26	0.00	8.91	8.41
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		0.00		8.66	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Project Dwy (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

**Intersection Setup**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn 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	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			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	7	0	7	0	0	0	0	195	9	4	315	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	6	0	23	19	3	0	0	2	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
Total Hourly Volume [veh/h]	7	0	7	6	0	23	19	198	9	4	317	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	2	2	0	6	5	52	2	1	83	1
Total Analysis Volume [veh/h]	7	0	7	6	0	24	20	208	9	4	334	3
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	0.01	0.00	0.01	0.01	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.52	0.00	9.02	13.25	0.00	9.47	8.00	0.00	0.00	7.67	0.00	0.00
Movement LOS	B		A	B		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.07	0.13	0.00	0.13	0.05	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.68	0.00	1.68	3.26	0.00	3.26	1.25	0.00	0.00	0.22	0.00	0.00
d_A, Approach Delay [s/veh]	10.77			10.23			0.68			0.09		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.04											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 11: Project Dwy (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

**Intersection Setup**

Name	Project Dwy		5th St		5th St	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Dwy		5th St		5th St	
Base Volume Input [veh/h]	0	0	2	0	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	6	0	8	3	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	1	0	0	0
Total Hourly Volume [veh/h]	24	6	3	8	3	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	1	2	1	1
Total Analysis Volume [veh/h]	25	6	3	8	3	3
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	0.02	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.71	8.46	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	2.36	2.36	0.00	0.00	0.13	0.13
d_A, Approach Delay [s/veh]	8.66		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.05					
Intersection LOS	A					

## PM PEAK HOUR

**Intersection Level Of Service Report**  
**Intersection 1: Lime St (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	27.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

**Intersection Setup**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn 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	0	1	0	0
Entry Pocket Length [ft]	72.00	100.00	100.00	100.00	100.00	100.00	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]	35.00			35.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Lime St			Lime St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	24	268	128	61	283	30	19	534	136	216	381	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	7	0	7	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	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	268	128	61	283	30	19	541	136	223	384	180
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	71	34	16	74	8	5	142	36	59	101	47
Total Analysis Volume [veh/h]	25	282	135	64	298	32	20	569	143	235	404	189
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

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

**Phasing & Timing**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.1	4.1	0.0	4.1	4.1	0.0	3.6	3.6	0.0	3.6	3.6	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	30	0	9	30	0	9	29	0	24	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	20	0	0	18	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]	3.1	3.1	0.0	3.1	3.1	0.0	2.6	2.6	0.0	2.6	2.6	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.10	5.10	5.10	5.10	5.10	5.10	4.60	4.60	4.60	4.60	4.60	4.60
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]	0.00	3.10	3.10	0.00	3.10	3.10	2.60	2.60	2.60	2.60	2.60	2.60
g_i, Effective Green Time [s]	27	16	16	27	18	18	3	35	35	14	46	46
g / C, Green / Cycle	0.30	0.18	0.18	0.30	0.20	0.20	0.03	0.39	0.39	0.15	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.08	0.05	0.09	0.09	0.01	0.20	0.20	0.13	0.22	0.12
s, saturation flow rate [veh/h]	1226	1870	1589	1235	1870	1807	1781	1870	1742	1781	1870	1589
c, Capacity [veh/h]	402	334	284	346	382	369	57	726	676	276	956	812
d1, Uniform Delay [s]	22.81	35.84	33.26	24.06	31.36	31.39	42.73	21.01	21.03	37.11	13.75	12.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
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]	0.06	5.86	1.24	0.26	0.79	0.83	3.62	2.52	2.72	7.34	1.37	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	0.06	0.85	0.48	0.19	0.44	0.44	0.35	0.51	0.51	0.85	0.42	0.23
d, Delay for Lane Group [s/veh]	22.87	41.71	34.50	24.32	32.15	32.23	46.35	23.52	23.75	44.45	15.13	12.91
Lane Group LOS	C	D	C	C	C	C	D	C	C	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.37	6.34	2.67	0.99	3.16	3.10	0.49	6.29	5.92	5.45	5.05	2.10
50th-Percentile Queue Length [ft/ln]	9.35	158.53	66.83	24.63	79.07	77.52	12.35	157.13	148.06	136.26	126.23	52.53
95th-Percentile Queue Length [veh/ln]	0.67	10.47	4.81	1.77	5.69	5.58	0.89	10.40	9.91	9.28	8.73	3.78
95th-Percentile Queue Length [ft/ln]	16.83	261.77	120.30	44.33	142.33	139.54	22.23	259.92	247.84	231.98	218.36	94.56

**Movement, Approach, & Intersection Results**

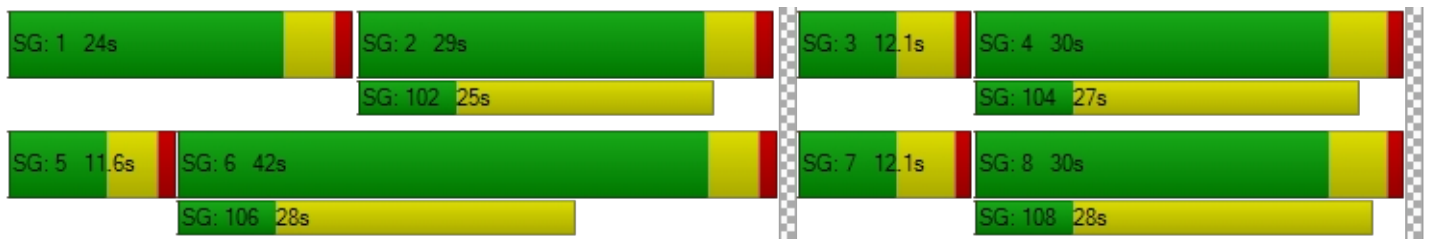
d_M, Delay for Movement [s/veh]	22.87	41.71	34.50	24.32	32.18	32.23	46.35	23.60	23.75	44.45	15.13	12.91
Movement LOS	C	D	C	C	C	C	D	C	C	D	B	B
d_A, Approach Delay [s/veh]	38.44			30.91			24.25			22.94		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	27.51											
Intersection LOS	C											
Intersection V/C	0.619											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
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]	34.72	34.72	34.72	34.72
I_p,int, Pedestrian LOS Score for Intersectio	2.554	2.382	2.381	2.681
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]	553	553	542	830
d_b, Bicycle Delay [s]	23.59	23.59	23.95	15.41
I_b,int, Bicycle LOS Score for Intersection	2.289	1.885	2.164	2.926
Bicycle LOS	B	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 2: SR-91 SB Off-Ramp (NS) at Mission Inn Ave (EW)**

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):	0.437

**Intersection Setup**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn 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	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

**Volumes**

Name	SR-91 SB Off-Ramp		Mission Inn Ave		Mission Inn Ave	
Base Volume Input [veh/h]	246	505	0	724	276	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
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]	10	0	0	7	10	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]	256	505	0	731	286	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	133	0	192	75	0
Total Analysis Volume [veh/h]	269	532	0	769	301	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing**

Control Type	Split	Split	Permissive	Permissive	Permissive	Permissive
Signal Group	7	0	0	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	10	10	0
Maximum Green [s]	47	0	0	42	42	0
Amber [s]	4.0	0.0	0.0	5.0	5.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	51	0	0	59	59	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	15	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	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	0.0	4.0	4.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	R	C	C
C, Cycle Length [s]	110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	4.00	4.00
g_i, Effective Green Time [s]	24	24	75	75
g / C, Green / Cycle	0.22	0.22	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.22	0.08
s, saturation flow rate [veh/h]	1781	2813	3560	3560
c, Capacity [veh/h]	392	619	2421	2421
d1, Uniform Delay [s]	39.36	41.21	7.18	6.15
k, delay calibration	0.11	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.14	3.64	0.35	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.69	0.86	0.32	0.12
d, Delay for Lane Group [s/veh]	41.50	44.84	7.53	6.25
Lane Group LOS	D	D	A	A
Critical Lane Group	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.79	7.11	3.38	1.13
50th-Percentile Queue Length [ft/ln]	169.87	177.64	84.55	28.26
95th-Percentile Queue Length [veh/ln]	11.07	11.48	6.09	2.03
95th-Percentile Queue Length [ft/ln]	276.75	286.93	152.19	50.86

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	41.50	44.84	0.00	7.53	6.25	0.00
Movement LOS	D	D		A	A	
d_A, Approach Delay [s/veh]	43.72		7.53		6.25	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	22.82					
Intersection LOS	C					
Intersection V/C	0.437					

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
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]	44.51	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.368	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	837	964	964
d_b, Bicycle Delay [s]	18.59	14.74	14.74
I_b,int, Bicycle LOS Score for Intersection	1.560	2.194	1.808
Bicycle LOS	A	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 3: Mulberry St (NS) at Mission Inn Ave (EW)**

Control Type:	Signalized	Delay (sec / veh):	39.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.680

**Intersection Setup**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn 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	178.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

**Volumes**

Name	Mulberry St			SR-91 NB On-Ramp			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	121	455	121	0	0	0	358	659	0	0	159	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	12	0	0	0	0	17	0	0	10	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	455	133	0	0	0	358	676	0	0	169	209
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	32	120	35	0	0	0	94	178	0	0	44	0
Total Analysis Volume [veh/h]	127	479	140	0	0	0	377	712	0	0	178	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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	34.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	7	10	0	0	10	0
Maximum Green [s]	0	45	0	0	0	0	0	30	42	0	0	42	0
Amber [s]	0.0	4.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0	0.0	5.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	45	0	0	0	0	0	29	65	0	0	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	0	0	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	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	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	4.0	0.0
Minimum Recall		No						No	No			No	
Maximum Recall		No						No	No			No	
Pedestrian Recall		No						No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	1.00

**Exclusive Pedestrian Phase**

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

**Lane Group Calculations**

Lane Group	L	C		L	C	C	R
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.00	5.00		5.00	6.00	6.00	6.00
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]	3.00	3.00		3.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	39	39		24	60	31	31
g / C, Green / Cycle	0.36	0.36		0.22	0.54	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.07	0.34		0.21	0.20	0.05	0.00
s, saturation flow rate [veh/h]	1781	1798		1781	3560	3560	1589
c, Capacity [veh/h]	638	644		389	1929	991	442
d1, Uniform Delay [s]	24.41	34.57		42.68	14.44	30.19	0.00
k, delay calibration	0.11	0.33		0.27	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	20.99		26.97	0.54	0.40	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	0.20	0.96		0.97	0.37	0.18	0.00
d, Delay for Lane Group [s/veh]	24.56	55.56		69.65	14.99	30.58	0.00
Lane Group LOS	C	E		E	B	C	A
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.32	19.56		12.85	4.99	1.83	0.00
50th-Percentile Queue Length [ft/ln]	57.90	488.92		321.32	124.78	45.74	0.00
95th-Percentile Queue Length [veh/ln]	4.17	26.81		18.73	8.65	3.29	0.00
95th-Percentile Queue Length [ft/ln]	104.23	670.24		468.31	216.37	82.34	0.00

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	24.56	55.56	55.56	0.00	0.00	0.00	69.65	14.99	0.00	0.00	30.58	0.00
Movement LOS	C	E	E				E	B			C	A
d_A, Approach Delay [s/veh]	50.28			0.00			33.91			30.58		
Approach LOS	D			A			C			C		
d_I, Intersection Delay [s/veh]	39.68											
Intersection LOS	D											
Intersection V/C	0.680											

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	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]	44.57	44.57	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	2.192	2.268	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]	727	0	1072	545
d_b, Bicycle Delay [s]	22.29	55.02	11.84	29.11
I_b,int, Bicycle LOS Score for Intersection	2.791	4.132	2.458	1.706
Bicycle LOS	C	D	B	A

**Sequence**

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



**Intersection Level Of Service Report**  
**Intersection 4: Vine St (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	43.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.109

**Intersection Setup**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn 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	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	152.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00	75.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Vine St			Vine St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	67	74	27	59	34	110	110	495	164	40	207	75
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	29	0	0	15	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]	67	74	27	59	34	110	110	524	164	40	222	75
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	19	7	16	9	29	29	138	43	11	58	20
Total Analysis Volume [veh/h]	71	78	28	62	36	116	116	552	173	42	234	79
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	410	443	478	465	552	552	422	448	468
Degree of Utilization, x	0.17	0.24	0.45	0.25	1.11	0.31	0.10	0.35	0.33

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.62	0.92	2.28	0.97	18.16	1.33	0.33	1.55	1.45
95th-Percentile Queue Length [ft]	15.45	23.06	56.99	24.36	454.02	33.29	8.24	38.66	36.31
Approach Delay [s/veh]	13.33		16.52	69.42			14.31		
Approach LOS	B		C	F			B		
Intersection Delay [s/veh]	43.71								
Intersection LOS	E								

**Intersection Level Of Service Report**  
**Intersection 5: Commerce St (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	23.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

**Intersection Setup**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			rll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	220.00	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			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Commerce St			Commerce St			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	54	14	7	11	39	14	13	503	69	3	192	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	1	1	5	0	29	0	0	10	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	3	0	0	0	0
Total Hourly Volume [veh/h]	54	16	7	12	40	19	13	535	69	3	202	12
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	4	2	3	11	5	3	141	18	1	53	3
Total Analysis Volume [veh/h]	57	17	7	13	42	20	14	563	73	3	213	13
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	Yes		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.21	0.06	0.01	0.02	0.10	0.02	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	22.99	21.60	14.69	12.93	15.07	10.17	7.70	0.00	0.00	8.83	0.00	0.00
Movement LOS	C	C	B	B	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.10	1.10	1.10	0.52	0.52	0.52	0.02	0.02	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	27.61	27.61	27.61	13.00	13.00	13.00	0.59	0.59	0.00	0.24	0.00	0.00
d_A, Approach Delay [s/veh]	21.98			13.39			0.17			0.12		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	2.82											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 6: Park Ave (NS) at Mission Inn Ave (EW)**

Control Type:	All-way stop	Delay (sec / veh):	15.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

**Intersection Setup**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn 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	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	97.00	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]	25.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

**Volumes**

Name	Park Ave			Park Ave			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	48	78	67	14	90	14	18	259	159	84	102	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	3	0	0	7	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	2	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	78	67	14	90	16	18	262	159	84	109	24
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	21	18	4	24	4	5	69	42	22	29	6
Total Analysis Volume [veh/h]	51	82	71	15	95	17	19	276	167	88	115	25
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	611	583	560	636	534	589
Degree of Utilization, x	0.33	0.22	0.03	0.70	0.16	0.24

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	1.46	0.82	0.11	5.58	0.59	0.92
95th-Percentile Queue Length [ft]	36.56	20.59	2.63	139.62	14.64	22.97
Approach Delay [s/veh]	11.82	10.89	19.83		10.72	
Approach LOS	B	B	C		B	
Intersection Delay [s/veh]	15.09					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 7: Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.150

**Intersection Setup**

Name	Commerce St		3rd St		3rd St	
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	132.00	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]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		3rd St		3rd St	
Base Volume Input [veh/h]	15	11	1128	44	12	448
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	0	2	2	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	12	1128	46	14	448
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	297	12	4	118
Total Analysis Volume [veh/h]	17	13	1187	48	15	472
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	0.15	0.03	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	41.33	17.98	0.00	0.00	11.61	0.00
Movement LOS	E	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.63	0.63	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	15.83	15.83	0.00	0.00	2.06	0.00
d_A, Approach Delay [s/veh]	31.21		0.00		0.36	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.63					
Intersection LOS	E					

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.012

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	21	2	7	47	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	4	0	7	2
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]	21	6	11	47	10	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	3	12	3	1
Total Analysis Volume [veh/h]	22	6	12	49	11	4
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	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	9.09	8.49
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.50	0.50	1.23	1.23
d_A, Approach Delay [s/veh]	0.00		1.43		8.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.13					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 9: Commerce St (NS) at 6th St (EW)**

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	Commerce St		Commerce St		6th Street	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		6th Street	
Base Volume Input [veh/h]	24	0	3	48	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	7	0	0
Diverted Trips [veh/h]	0	0	-3	0	-2	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]	28	0	0	55	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	0	14	0	0
Total Analysis Volume [veh/h]	29	0	0	58	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	7.27	0.00	8.94	8.44
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		0.00		8.69	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Project Dwy (NS) at Mission Inn Ave (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	17.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn 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	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			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Other Dwy			Project Dwy			Mission Inn Ave			Mission Inn Ave		
Base Volume Input [veh/h]	14	0	6	0	0	0	0	504	18	3	196	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	10	29	1	0	0	2	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	14	0	6	2	0	10	29	505	18	3	198	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	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	0	2	1	0	3	8	133	5	1	52	1
Total Analysis Volume [veh/h]	15	0	6	2	0	11	31	532	19	3	208	5
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	0.05	0.00	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.33	0.00	10.58	13.96	0.00	8.96	7.72	0.00	0.00	8.56	0.00	0.00
Movement LOS	C		B	B		A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.00	0.18	0.05	0.00	0.05	0.07	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.53	0.00	4.53	1.28	0.00	1.28	1.76	0.00	0.00	0.22	0.00	0.00
d_A, Approach Delay [s/veh]	15.40			9.73			0.41			0.12		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	0.86											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 11: Project Dwy (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

**Intersection Setup**

Name	Project Dwy		5th St		5th St	
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]	25.00		25.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Dwy		5th St		5th St	
Base Volume Input [veh/h]	0	0	2	0	0	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	0	8	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	2	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	3	0	0	0
Total Hourly Volume [veh/h]	9	2	5	10	5	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	3	1	1
Total Analysis Volume [veh/h]	9	2	5	11	5	5
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	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.69	8.40	0.00	0.00	7.25	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.83	0.83	0.00	0.00	0.21	0.21
d_A, Approach Delay [s/veh]	8.64		0.00		3.63	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.55					
Intersection LOS	A					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**  
**EXISTING**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.001

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	1	14	0	1	36	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	14	0	1	36	0
Peak Hour Factor	0.7647	0.7647	0.7647	0.7647	0.7647	0.7647
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	5	0	0	12	0
Total Analysis Volume [veh/h]	1	18	0	1	47	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.31	0.00	8.84	9.27	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.92	0.92	0.09	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	0.38		9.27		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.25					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	35	13	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	35	13	2	2	1
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	4	1	1	0
Total Analysis Volume [veh/h]	0	38	14	2	2	1
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	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.82	8.45	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.73	2.73	0.59	0.59	0.00	0.00
d_A, Approach Delay [s/veh]	8.45		6.33		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.41					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

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):	0.022

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	371	17	12	377
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	371	17	12	377
Peak Hour Factor	0.8295	0.8295	0.8295	0.8295	0.8295	0.8295
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	112	5	4	114
Total Analysis Volume [veh/h]	8	11	447	20	14	454
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	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.16	9.75	0.00	0.00	8.34	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.04	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	1.69	1.09	0.00	0.00	0.97	0.00
d_A, Approach Delay [s/veh]	12.03		0.00		0.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	C					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	20	0	2	48	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	20	0	2	48	0
Peak Hour Factor	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	0	1	14	0
Total Analysis Volume [veh/h]	2	24	0	2	58	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.33	0.00	8.94	9.33	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.28	1.28	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.56		9.33		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	48	20	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	48	20	2	3	2
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	13	5	1	1	1
Total Analysis Volume [veh/h]	8	52	22	2	3	2
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	0.01	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	8.54	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.50	4.50	0.95	0.95	0.00	0.00
d_A, Approach Delay [s/veh]	8.60		6.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.59					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	39.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.124

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	14	11	1068	42	12	421
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	11	1068	42	12	421
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	291	11	3	115
Total Analysis Volume [veh/h]	15	12	1163	46	13	459
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	0.12	0.03	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	39.08	13.39	0.00	0.00	11.43	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.41	0.08	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	10.34	2.09	0.00	0.00	1.74	0.00
d_A, Approach Delay [s/veh]	27.66		0.00		0.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.52					
Intersection LOS	E					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**  
**EXISTING PLUS PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	1	14	0	1	36	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	18	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]	1	18	0	1	54	0
Peak Hour Factor	0.7647	0.7647	0.7647	0.7647	0.7647	0.7647
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	0	18	0
Total Analysis Volume [veh/h]	1	24	0	1	71	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.36	0.00	8.99	9.40	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.25	1.25	0.09	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	0.29		9.40		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	35	13	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	18	6
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]	1	0	0	0	0	0
Total Hourly Volume [veh/h]	5	35	13	6	20	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	10	4	2	5	2
Total Analysis Volume [veh/h]	5	38	14	7	22	8
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	0.01	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.99	8.58	7.29	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.25	3.25	0.59	0.59	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		4.86		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.03					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	371	17	12	377
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	3	0	2	2	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]	10	12	371	19	14	377
Peak Hour Factor	0.8295	0.8295	0.8295	0.8295	0.8295	0.8295
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	4	112	6	4	114
Total Analysis Volume [veh/h]	12	14	447	23	17	454
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	0.03	0.02	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	15.42	9.78	0.00	0.00	8.36	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.06	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	2.60	1.39	0.00	0.00	1.19	0.00
d_A, Approach Delay [s/veh]	12.39		0.00		0.30	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.48					
Intersection LOS	C					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	20	0	2	48	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	7	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]	2	24	0	2	55	0
Peak Hour Factor	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	7	0	1	17	0
Total Analysis Volume [veh/h]	2	29	0	2	66	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.35	0.00	9.00	9.38	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.54	1.54	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.47		9.38		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

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):	0.016

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	48	20	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	7	2
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]	3	0	0	0	0	0
Total Hourly Volume [veh/h]	14	48	20	6	10	4
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	13	5	2	3	1
Total Analysis Volume [veh/h]	15	52	22	7	11	4
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	0.02	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.12	8.61	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.21	0.21	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.19	5.19	0.93	0.93	0.00	0.00
d_A, Approach Delay [s/veh]	8.73		5.52		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.71					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	39.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	14	11	1068	42	12	421
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	0	2	2	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]	15	12	1068	44	14	421
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	291	12	4	115
Total Analysis Volume [veh/h]	16	13	1163	48	15	459
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	0.13	0.03	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	39.84	13.42	0.00	0.00	11.47	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.45	0.09	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	11.24	2.28	0.00	0.00	2.02	0.00
d_A, Approach Delay [s/veh]	28.00		0.00		0.36	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	E					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**

**OPENING YEAR (2026)**

**WITHOUT PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.001

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	1	14	0	1	36	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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]	1	15	0	1	37	0
Peak Hour Factor	0.7647	0.7647	0.7647	0.7647	0.7647	0.7647
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	5	0	0	12	0
Total Analysis Volume [veh/h]	1	20	0	1	48	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.31	0.00	8.85	9.27	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.02	1.02	0.09	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	0.35		9.27		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.24					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	35	13	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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	36	14	2	2	1
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	4	1	1	0
Total Analysis Volume [veh/h]	0	39	15	2	2	1
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	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.84	8.45	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.80	2.80	0.63	0.63	0.00	0.00
d_A, Approach Delay [s/veh]	8.45		6.39		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.43					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	371	17	12	377
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	0	0	5
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]	7	9	390	18	12	397
Peak Hour Factor	0.8295	0.8295	0.8295	0.8295	0.8295	0.8295
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	118	5	4	120
Total Analysis Volume [veh/h]	8	11	470	22	14	479
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	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.74	9.84	0.00	0.00	8.42	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.04	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	1.79	1.11	0.00	0.00	1.00	0.00
d_A, Approach Delay [s/veh]	12.32		0.00		0.24	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	C					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	20	0	2	48	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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]	2	21	0	2	50	0
Peak Hour Factor	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	0	1	15	0
Total Analysis Volume [veh/h]	2	25	0	2	60	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.34	0.00	8.95	9.34	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.33	1.33	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.54		9.34		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	48	20	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
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]	7	50	21	2	3	2
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	14	6	1	1	1
Total Analysis Volume [veh/h]	8	54	23	2	3	2
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	0.01	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.03	8.55	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.65	4.65	1.00	1.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.61		6.67		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.61					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.147

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	14	11	1068	42	12	421
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	6	0	0	6
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]	15	11	1117	44	12	444
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	304	12	3	121
Total Analysis Volume [veh/h]	16	12	1217	48	13	484
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	0.15	0.03	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	43.80	13.76	0.00	0.00	11.76	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.50	0.09	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	12.43	2.19	0.00	0.00	1.83	0.00
d_A, Approach Delay [s/veh]	30.93		0.00		0.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	E					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**  
**OPENING YEAR (2026)**  
**WITH PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	1	14	0	1	36	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	18	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]	1	19	0	1	55	0
Peak Hour Factor	0.7647	0.7647	0.7647	0.7647	0.7647	0.7647
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	0	18	0
Total Analysis Volume [veh/h]	1	25	0	1	72	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.36	0.00	9.00	9.40	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.30	1.30	0.09	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	0.28		9.40		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	35	13	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	18	6
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]	1	0	0	0	0	0
Total Hourly Volume [veh/h]	5	36	14	6	20	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	10	4	2	5	2
Total Analysis Volume [veh/h]	5	39	15	7	22	8
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	0.01	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	8.58	7.29	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.33	3.33	0.63	0.63	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		4.97		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.10					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	371	17	12	377
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	3	4	2	2	5
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]	10	12	390	20	14	397
Peak Hour Factor	0.8295	0.8295	0.8295	0.8295	0.8295	0.8295
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	4	118	6	4	120
Total Analysis Volume [veh/h]	12	14	470	24	17	479
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	0.04	0.02	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	16.02	9.87	0.00	0.00	8.43	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.06	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	2.75	1.42	0.00	0.00	1.22	0.00
d_A, Approach Delay [s/veh]	12.71		0.00		0.29	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.47					
Intersection LOS	C					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	20	0	2	48	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	7	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]	2	25	0	2	57	0
Peak Hour Factor	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	8	0	1	17	0
Total Analysis Volume [veh/h]	2	30	0	2	68	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.35	0.00	9.02	9.39	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.60	1.60	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.46		9.39		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

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):	0.016

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	48	20	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	7	2
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]	3	0	0	0	0	0
Total Hourly Volume [veh/h]	14	50	21	6	10	4
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	14	6	2	3	1
Total Analysis Volume [veh/h]	15	54	23	7	11	4
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	0.02	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.14	8.62	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.21	0.21	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.36	5.36	0.97	0.97	0.00	0.00
d_A, Approach Delay [s/veh]	8.73		5.58		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.75					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	44.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.158

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	14	11	1068	42	12	421
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	6	2	2	6
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	12	1117	46	14	444
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	304	13	4	121
Total Analysis Volume [veh/h]	17	13	1217	50	15	484
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	0.16	0.03	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	44.74	13.80	0.00	0.00	11.80	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.54	0.10	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	13.47	2.38	0.00	0.00	2.12	0.00
d_A, Approach Delay [s/veh]	31.33		0.00		0.35	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.62					
Intersection LOS	E					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**

**BUILDOUT YEAR 2045**

**WITHOUT PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	15	0	2	39	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	15	0	2	39	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	4	0	1	10	0
Total Analysis Volume [veh/h]	2	16	0	2	41	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.30	0.00	8.81	9.24	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.87	0.87	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.81		9.24		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.54					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	38	15	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	15	2	2	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	4	1	1	0
Total Analysis Volume [veh/h]	0	40	16	2	2	1
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	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.85	8.46	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.88	2.88	0.67	0.67	0.00	0.00
d_A, Approach Delay [s/veh]	8.46		6.44		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.44					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

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):	0.019

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	410	19	13	417
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	410	19	13	417
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	108	5	3	110
Total Analysis Volume [veh/h]	7	9	432	20	14	439
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	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.80	9.69	0.00	0.00	8.30	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.04	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	1.43	0.88	0.00	0.00	0.96	0.00
d_A, Approach Delay [s/veh]	11.92		0.00		0.26	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	B					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	21	0	2	50	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	21	0	2	50	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	0	1	13	0
Total Analysis Volume [veh/h]	2	22	0	2	53	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.32	0.00	8.90	9.30	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.18	1.18	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.61		9.30		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.42					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	51	21	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	51	21	2	3	2
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	13	6	1	1	1
Total Analysis Volume [veh/h]	7	54	22	2	3	2
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	0.01	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	8.54	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.56	4.56	0.95	0.95	0.00	0.00
d_A, Approach Delay [s/veh]	8.60		6.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.60					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.139

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	15	11	1128	44	12	448
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	11	1128	44	12	448
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	297	12	3	118
Total Analysis Volume [veh/h]	16	12	1187	46	13	472
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	0.14	0.03	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	41.31	13.55	0.00	0.00	11.57	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.47	0.09	0.00	0.00	0.07	0.00
95th-Percentile Queue Length [ft/ln]	11.68	2.13	0.00	0.00	1.78	0.00
d_A, Approach Delay [s/veh]	29.41		0.00		0.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	E					

**THIRD STREET GRADE SEPARATION /COMMERCE STREET RELOCATION PROJECT**  
**BUILDOUT YEAR 2045**  
**WITH PROJECT**

## AM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	15	0	2	39	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	18	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]	2	19	0	2	57	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	0	1	15	0
Total Analysis Volume [veh/h]	2	20	0	2	60	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.34	0.00	8.93	9.34	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.08	1.08	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.67		9.34		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.40					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	0	38	15	2	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	18	6
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]	1	0	0	0	0	0
Total Hourly Volume [veh/h]	5	38	15	6	20	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	10	4	2	5	2
Total Analysis Volume [veh/h]	5	40	16	6	21	7
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	0.01	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	8.58	7.29	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.14	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.40	3.40	0.67	0.67	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		5.30		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.31					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	7	9	410	19	13	417
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	3	0	2	2	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]	10	12	410	21	15	417
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	108	6	4	110
Total Analysis Volume [veh/h]	11	13	432	22	16	439
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	0.03	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.00	9.72	0.00	0.00	8.31	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.05	0.00	0.00	0.04	0.00
95th-Percentile Queue Length [ft/ln]	2.29	1.28	0.00	0.00	1.10	0.00
d_A, Approach Delay [s/veh]	12.14		0.00		0.29	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.45					
Intersection LOS	B					

## PM PEAK HOUR

**Intersection Level Of Service Report  
Intersection 8: Commerce St (NS) at 5th St (EW)**

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):	0.002

**Intersection Setup**

Name	Commerce St		Commerce St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Commerce St		Commerce St		5th St	
Base Volume Input [veh/h]	2	21	0	2	50	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	0	7	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]	2	25	0	2	57	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	7	0	1	15	0
Total Analysis Volume [veh/h]	2	26	0	2	60	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Stop	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]	7.34	0.00	8.96	9.34	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.39	1.39	0.18	0.18	0.00	0.00
d_A, Approach Delay [s/veh]	0.52		9.34		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 12: New Commerce St (NS) at 5th St (EW)**

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):	0.016

**Intersection Setup**

Name	New Commerce St		5th St		5th St	
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]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	New Commerce St		5th St		5th St	
Base Volume Input [veh/h]	7	51	21	2	3	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	4	7	2
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]	3	0	0	0	0	0
Total Hourly Volume [veh/h]	14	51	21	6	10	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	13	6	2	3	1
Total Analysis Volume [veh/h]	15	54	22	6	11	4
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	0.02	0.05	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.12	8.62	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.21	0.21	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.35	5.35	0.93	0.93	0.00	0.00
d_A, Approach Delay [s/veh]	8.73		5.71		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.81					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 13: New Commerce St (NS) at 3rd St (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	42.2
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.150

**Intersection Setup**

Name	3rd St		3rd St		3rd St	
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	1	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	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	25.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	3rd St		3rd St		3rd St	
Base Volume Input [veh/h]	15	11	1128	44	12	448
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	0	2	2	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	12	1128	46	14	448
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	297	12	4	118
Total Analysis Volume [veh/h]	17	13	1187	48	15	472
Pedestrian Volume [ped/h]	0		0		0	

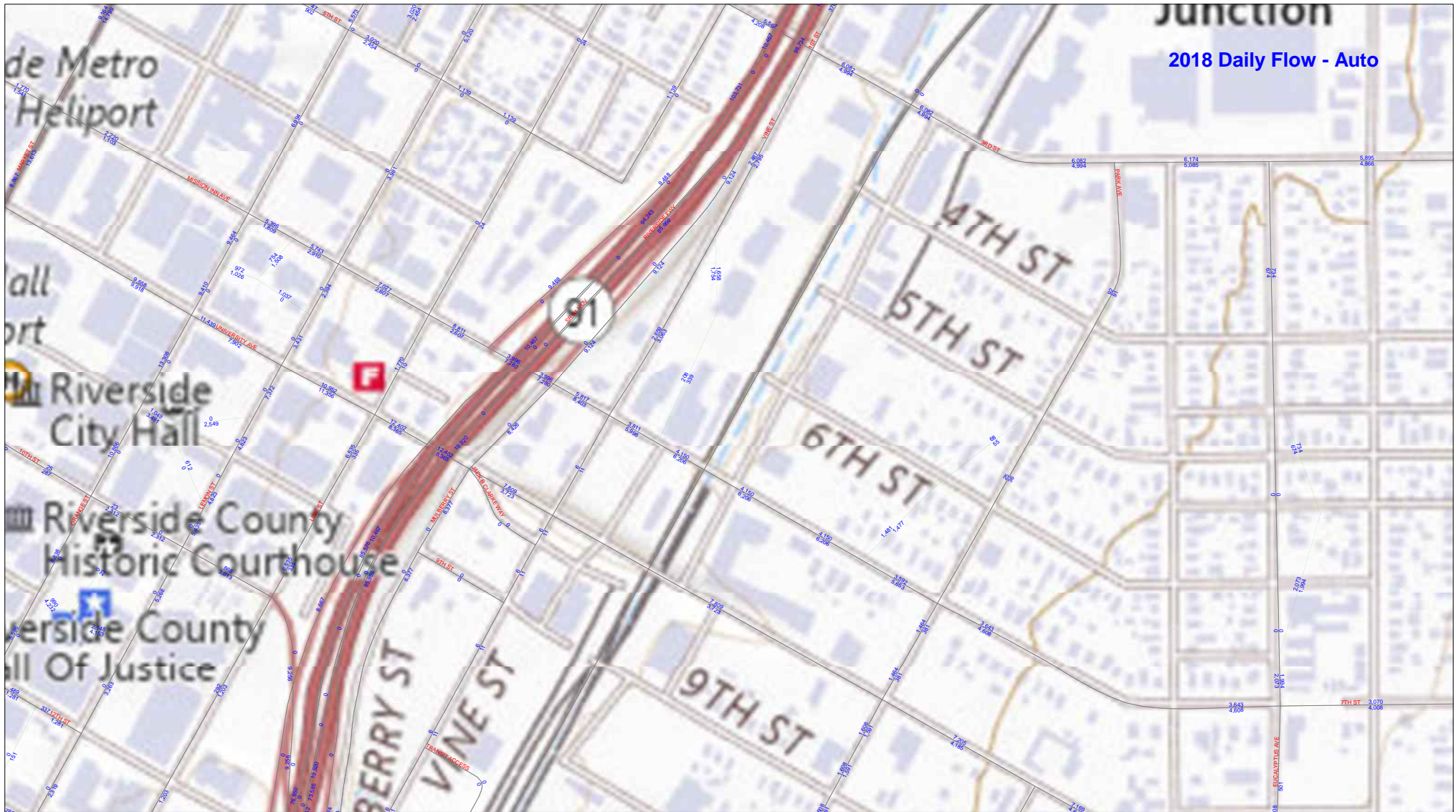
**Intersection Settings**

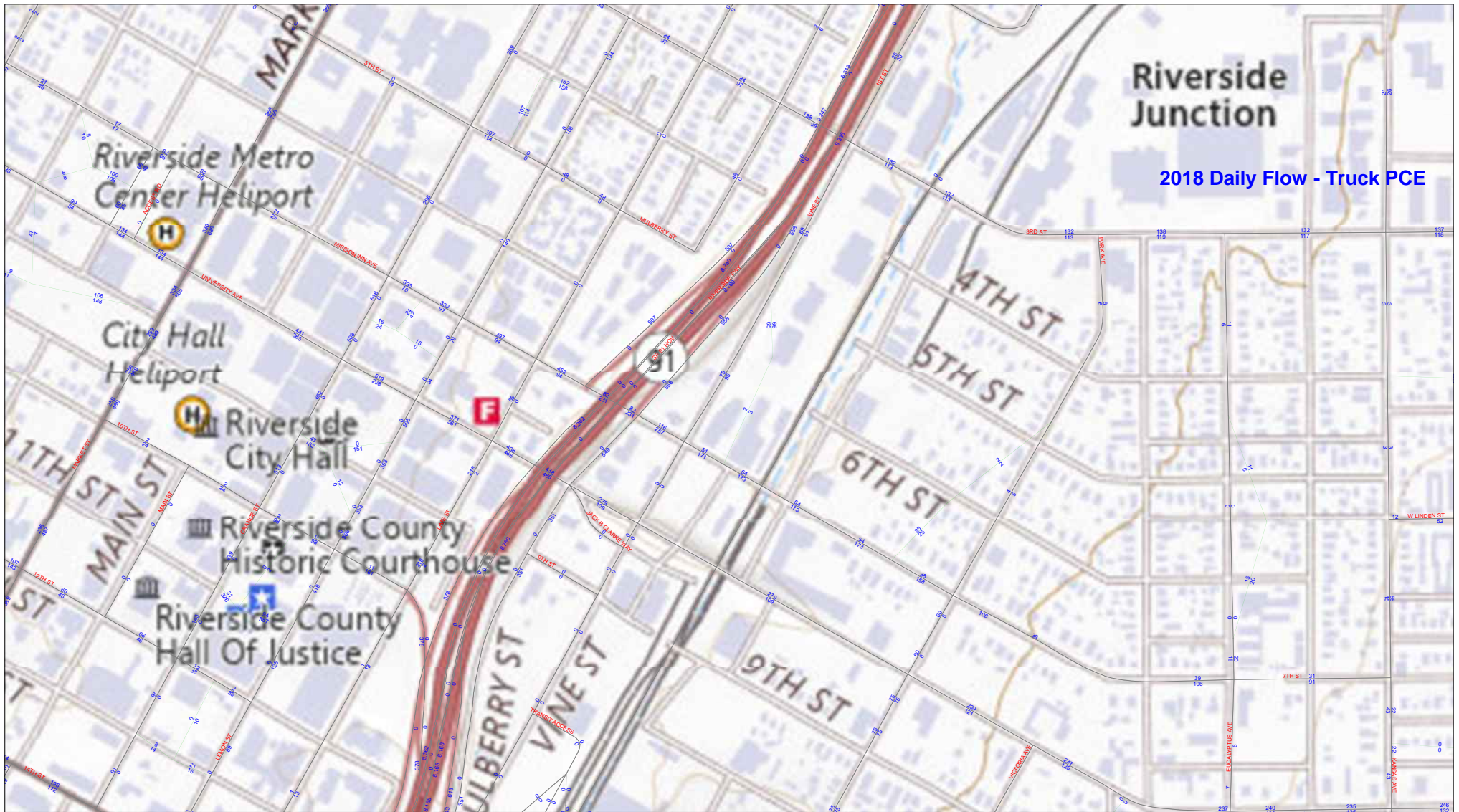
Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

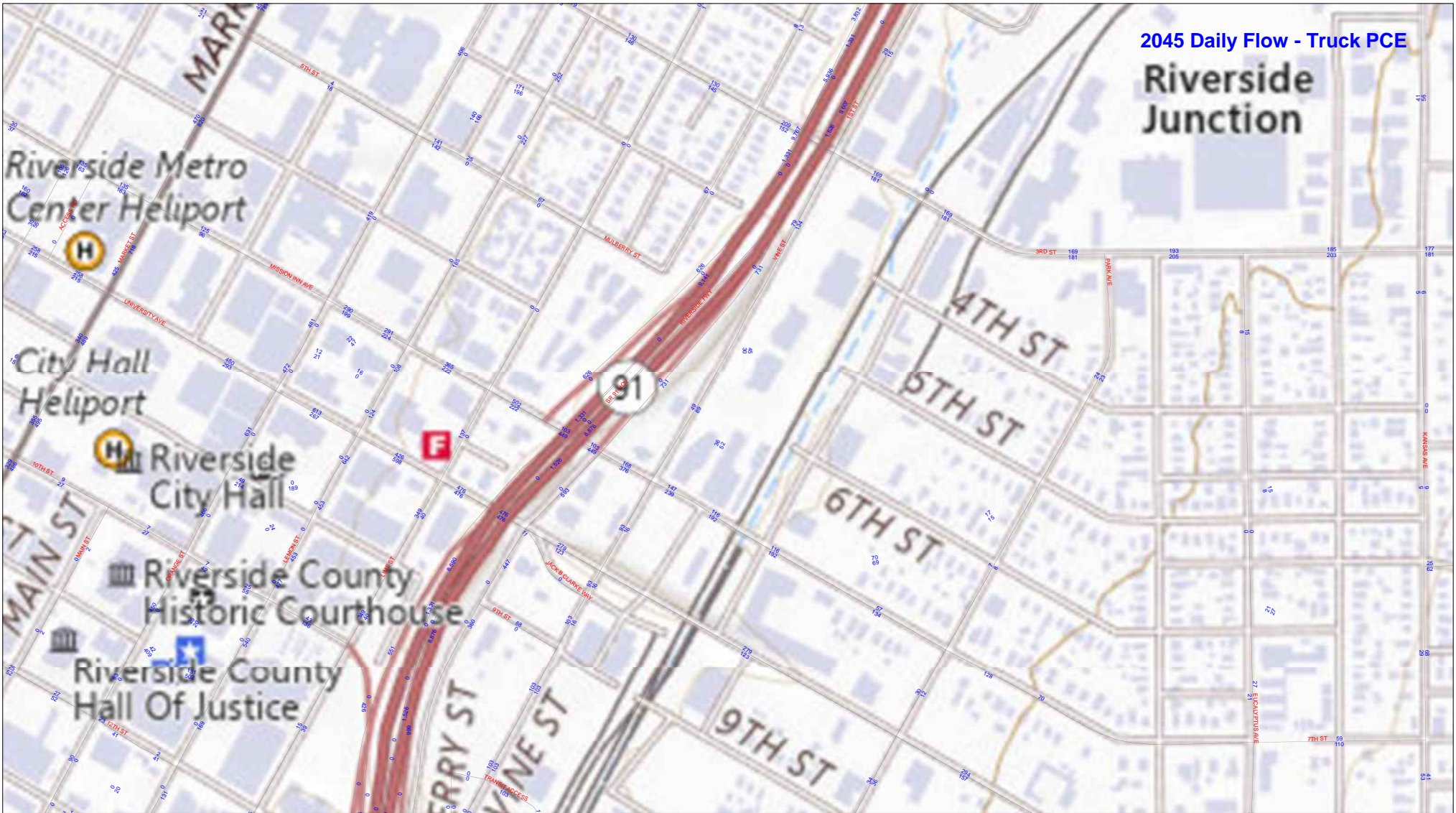
V/C, Movement V/C Ratio	0.15	0.03	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	42.16	13.58	0.00	0.00	11.61	0.00
Movement LOS	E	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.51	0.09	0.00	0.00	0.08	0.00
95th-Percentile Queue Length [ft/ln]	12.66	2.32	0.00	0.00	2.06	0.00
d_A, Approach Delay [s/veh]	29.77		0.00		0.36	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.61					
Intersection LOS	E					

**APPENDIX E**  
**TRAVEL DEMAND MODEL PLOTS**

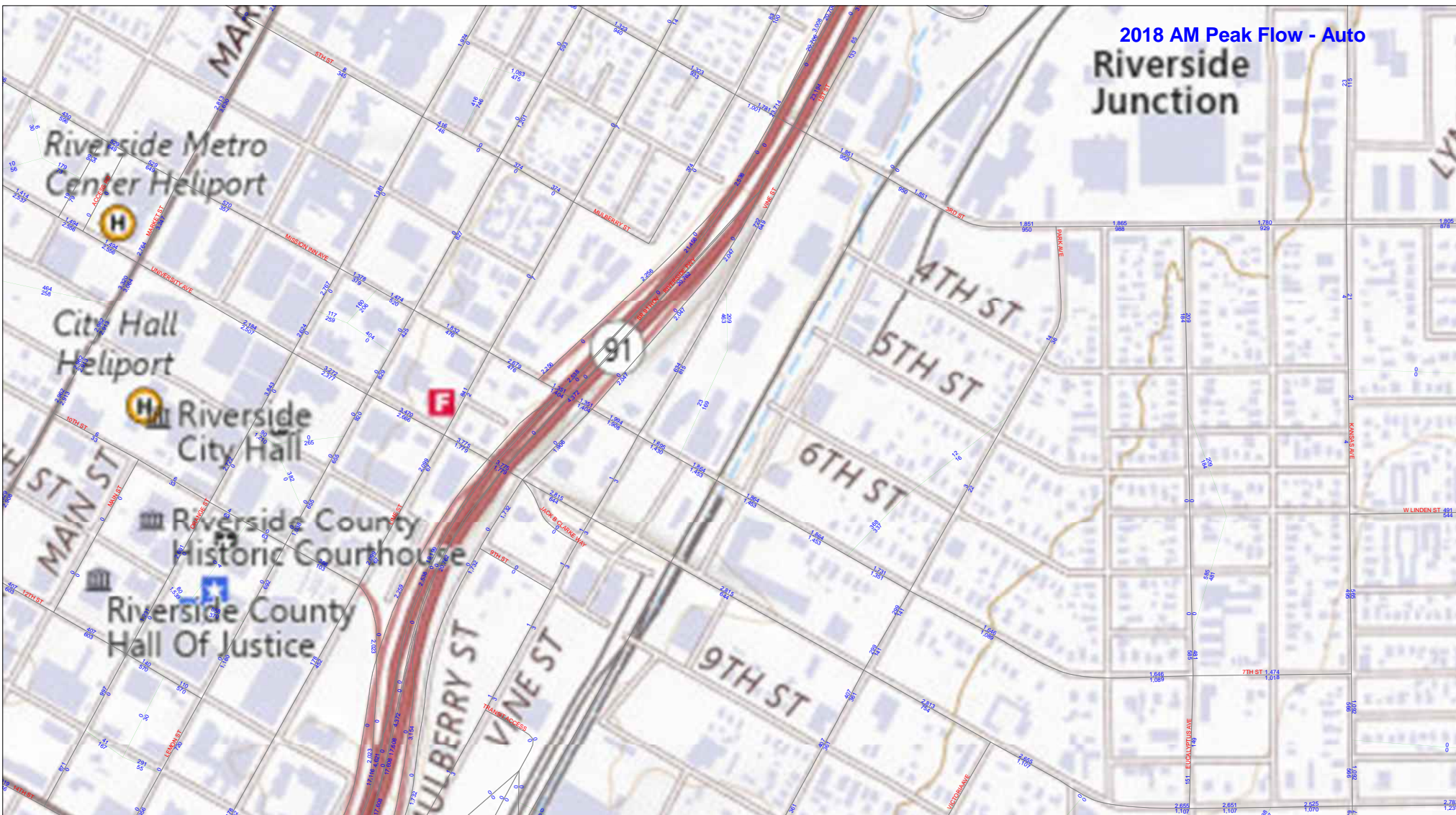






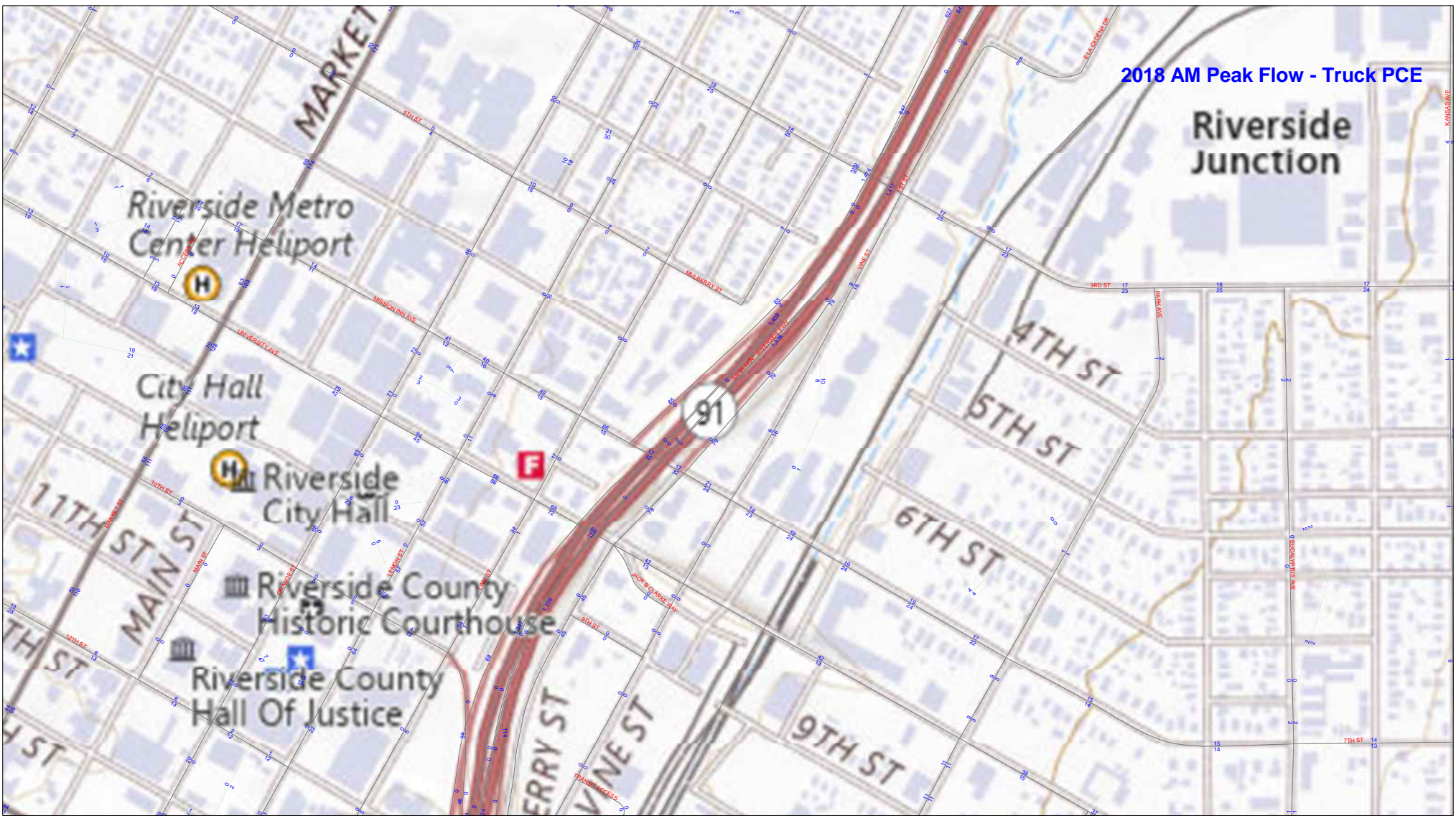


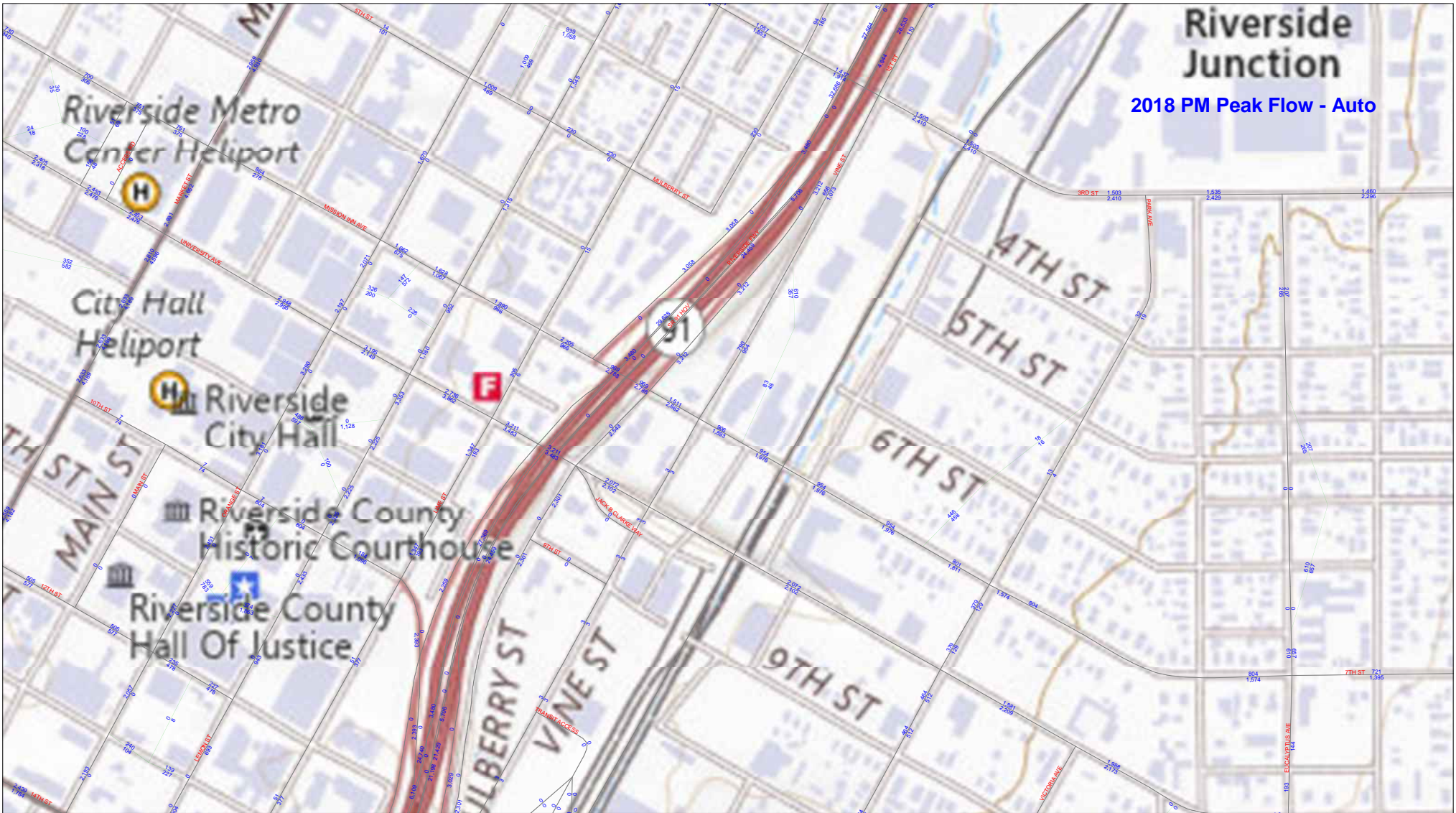
2018 AM Peak Flow - Auto  
Riverside Junction

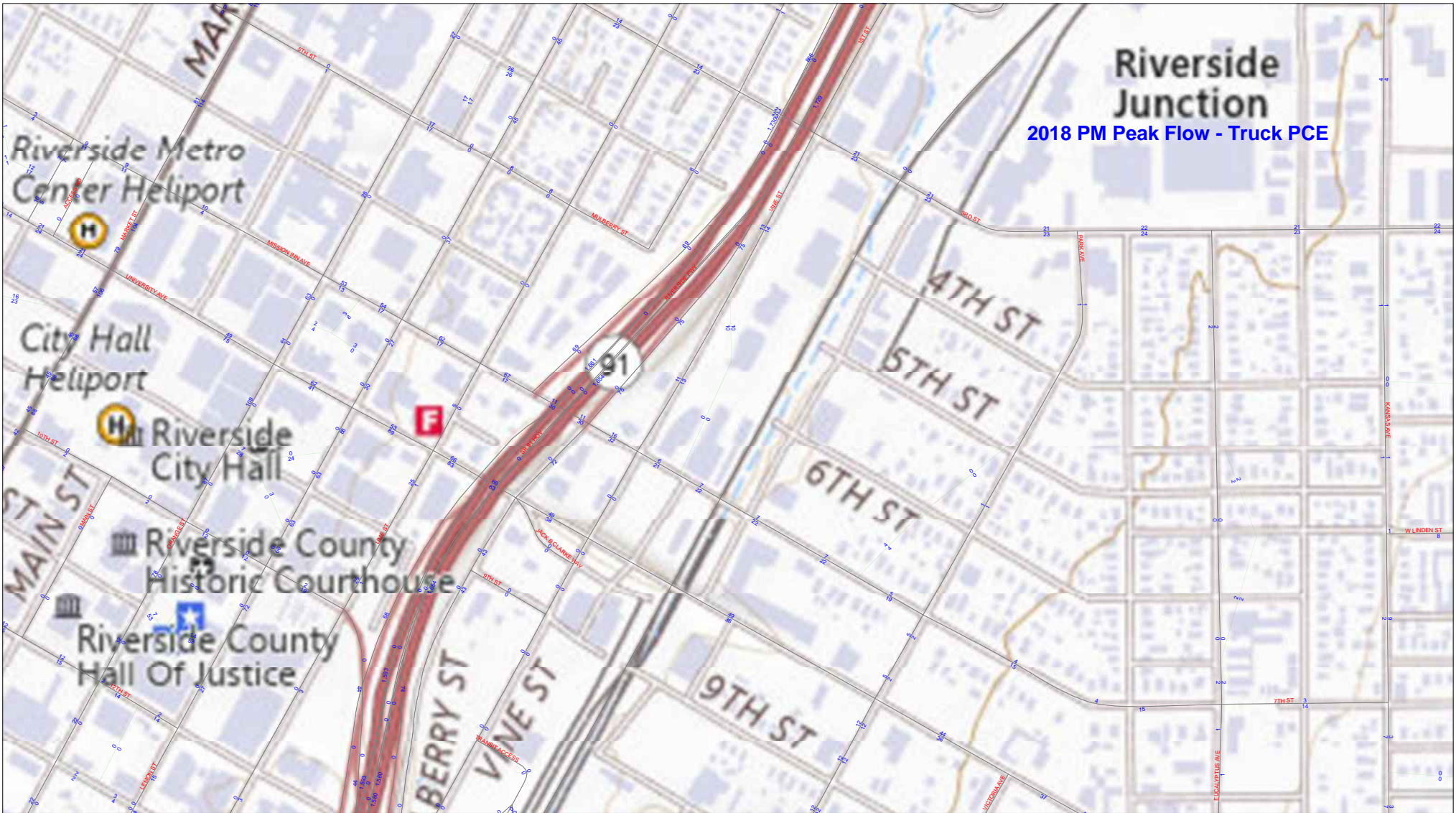


2018 AM Peak Flow - Truck PCE

# Riverside Junction

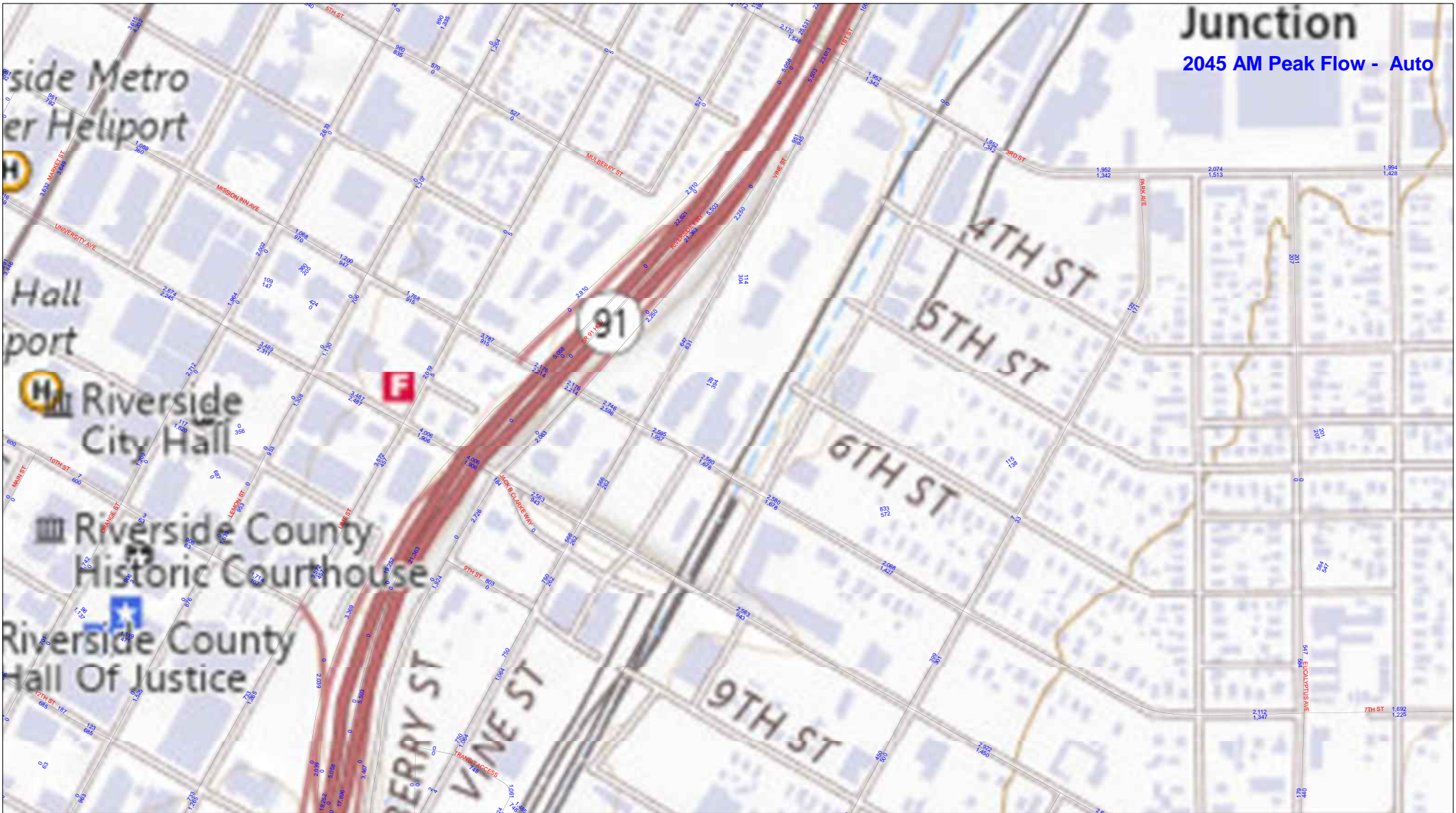


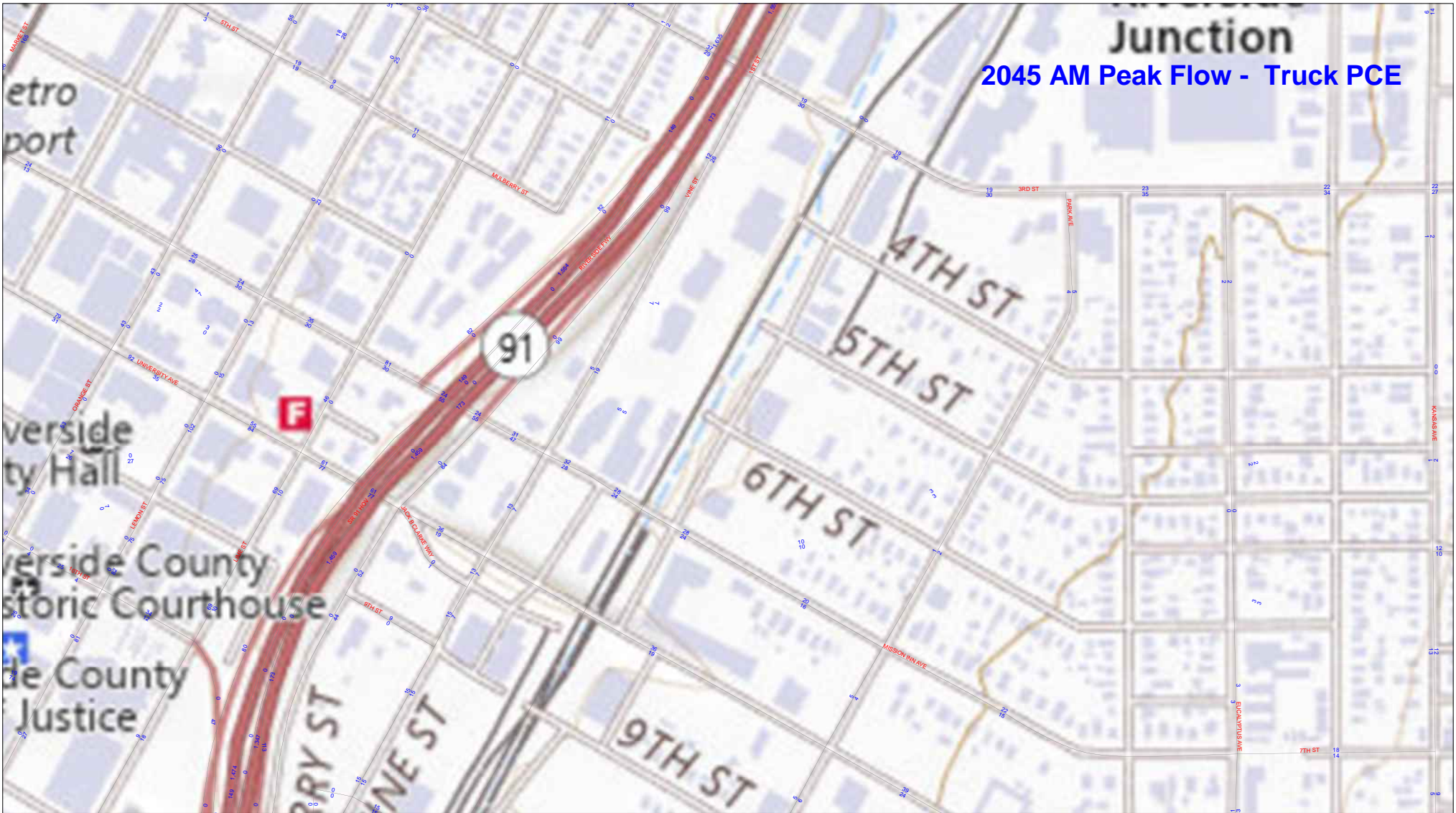




# Junction

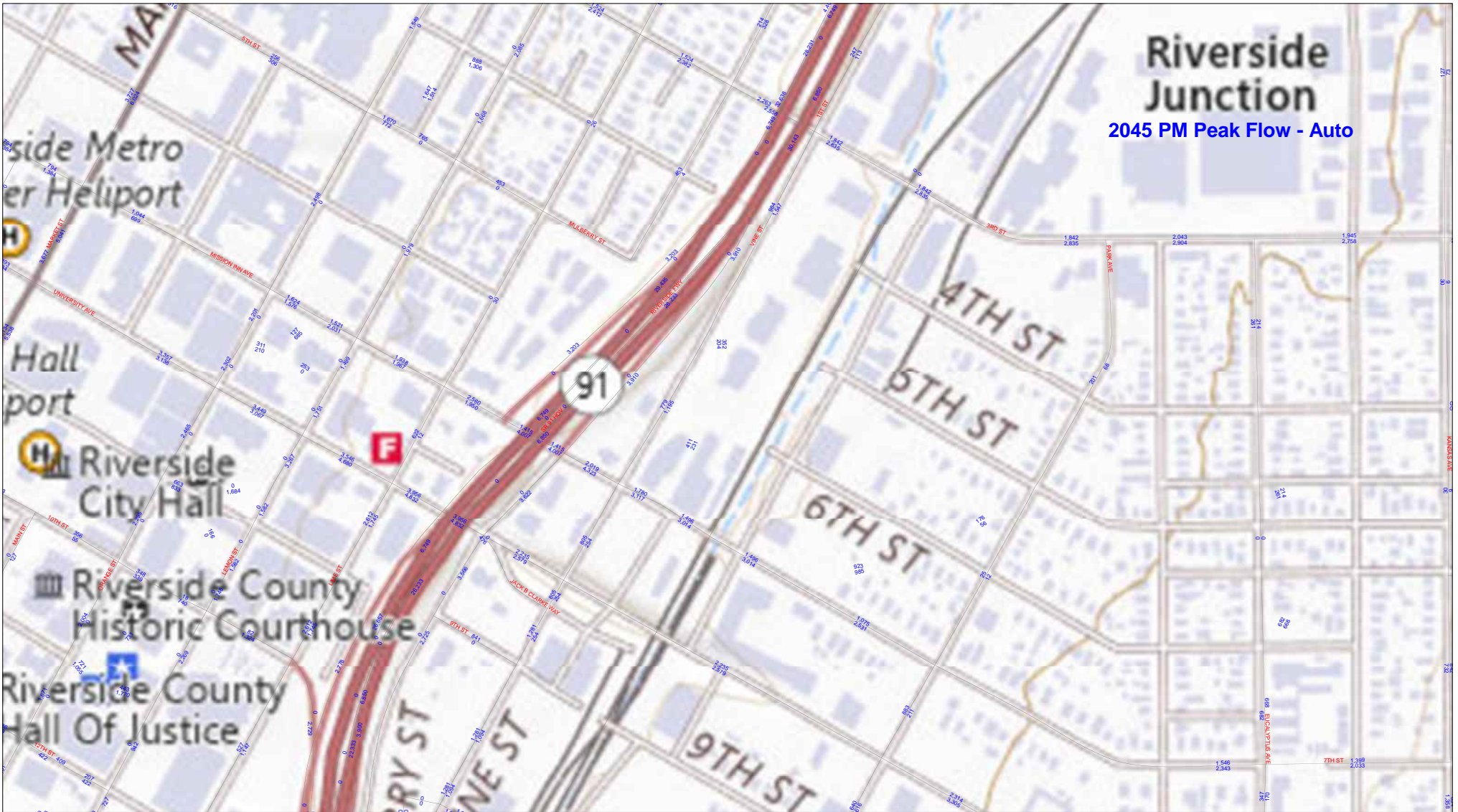
2045 AM Peak Flow - Auto





Junction  
2045 AM Peak Flow - Truck PCE





**APPENDIX F**

**TRAVEL DEMAND POST PROCESSING  
WORKSHEETS**

### AVERAGE DAILY TRAFFIC

ID	INTERSECTION	LEG	MODEL	EXISTING	MODEL	FUTURE	OPENING	ADJUSTED
			2018 ADT	2024 ADT	2045 ADT	2045 ADT <sup>1</sup>	2026 ADT	BUILDOUT ADT <sup>2</sup>
1	Lime Street at: Mission Inn Avenue	North	24	8,900	39	8,900	8,900	9,800
		South	1,835	11,100	3,887	12,700	11,300	12,700
		East	11,964	13,800	16,647	18,300	14,100	18,300
		West	10,125	9,700	12,799	14,100	9,900	14,100
2	SR-91 Off Ramp at: Mission Inn Avenue	North	9,995	7,800	12,318	13,500	8,000	13,500
		South	-	-	-	-	-	-
		East	11,562	10,500	17,603	19,400	10,900	19,400
		West	11,964	13,700	16,647	18,300	14,000	18,300
3	Mulberry Street at: Mission Inn Avenue	North	9,682	9,700	12,788	14,100	9,900	14,100
		South	8,975	5,500	11,483	12,600	5,700	12,600
		East	14,593	8,000	20,584	22,600	8,400	22,600
		West	11,589	10,400	17,603	19,400	10,800	19,400
4	Vine Street at: Mission Inn Avenue	North	5,892	4,800	5,696	6,300	4,800	6,300
		South	17	2,800	3,251	3,600	3,000	3,600
		East	10,031	5,800	16,242	17,900	6,300	17,900
		West	14,593	7,800	20,584	22,600	8,200	22,600
5	Commerce Street at: Mission Inn Ave	North	-	1,000	-	1,000	1,010	1,110
		South	-	2,000	-	2,000	2,020	2,220
		East	10,583	4,500	14,563	16,000	4,800	16,000
		West	10,583	5,900	14,563	16,000	6,200	16,000
6	Park Avenue at: Mission Inn Ave	North	5,892	2,400	131	2,400	2,420	2,660
		South	5,892	4,300	2,646	4,300	4,340	4,770
		East	8,396	2,700	11,457	12,600	2,900	12,600
		West	9,441	4,200	11,209	12,300	4,300	12,300
7	Commerce Street at: 3rd Street	North	9,682	-	-	-	-	-
		South	9,682	900	-	900	910	1,000
		East	11,321	18,100	14,698	20,700	18,400	20,700
		West	11,321	18,500	14,698	21,100	18,800	21,100
8	Commerce Street at: 5th Street	North	-	900	-	900	910	1,030
		South	-	900	-	900	910	1,030
		East	-	200	-	200	200	230
		West	-	-	-	-	-	-
9	Commerce Street at: 6th Street	North	-	900	-	900	910	1,030
		South	-	900	-	900	910	1,030
		East	-	100	-	100	100	110
		West	-	-	-	-	-	-
10	Project Driveway at: Mission Inn Ave	North	-	0	-	-	-	-
		South	-	400	-	400	400	440
		East	10,583	4,300	14,563	16,000	4,600	16,000
		West	10,583	4,500	14,563	16,000	4,800	16,000

**Notes:**

1. Future volumes adjusted for minimum 10% growth over existing average daily traffic volumes.
2. Future volumes adjusted for minimum 5% growth over opening year daily traffic volumes.

Lime Street (NS) / Mission Inn Avenue (EW) - #1

MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024				
		2	246	42			26	257	51
		<	v	>			<	v	>
	10	^			^	167			
	213	>			<	506			
	78	v			v	382			
		<	^	>			<	^	>
		27	126	45			22	244	116
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024				
			290	303			334	405	
		v	^		v	^			
	535	<	IN =	1844	<	1055	361	<	IN =
	301	>	OUT =	1844	>	300	448	>	OUT =
		v	^		v	^			
			706	198			546	382	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018				
			0	7			0	15	
		v	^		v	^			
	1832	<	IN =	3157	<	2679	1890	<	IN =
	476	>	OUT =	3156	>	476	966	>	OUT =
		v	^		v	^			
			841	2			305	6	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018				
			0	0			0	0	
		v	^		v	^			
	49	<	IN =	81	<	66	62	<	IN =
	15	>	OUT =	81	>	15	17	>	OUT =
		v	^		v	^			
			17	0			5	0	
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			0	3			0	4	
		v	^		v	^			
	712	<	IN =	1227	<	1040	545	<	IN =
	186	>	OUT =	1226	>	186	275	>	OUT =
		v	^		v	^			
			325	1			87	2	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045				
			0	5			0	30	
		v	^		v	^			
	1768	<	IN =	4707	<	3787	1938	<	IN =
	915	>	OUT =	4707	>	915	1967	>	OUT =
		v	^		v	^			
			2019	5			622	12	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045				
			0	0			0	0	
		v	^		v	^			
	35	<	IN =	111	<	81	62	<	IN =
	30	>	OUT =	111	>	30	42	>	OUT =
		v	^		v	^			
			46	0			15	0	
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			0	2			0	8	
		v	^		v	^			
	683	<	IN =	1826	<	1466	558	<	IN =
	358	>	OUT =	1826	>	358	561	>	OUT =
		v	^		v	^			
			783	2			178	3	
RAW GROWTH (PCEs): 2018 TO 2045 CONVERSION OF TRUCKS TO: 2045 FACTOR = 1.00					RAW GROWTH (PCEs): 2018 TO 2045 CONVERSION OF TRUCKS TO: 2045 FACTOR = 1.00				
			0	-1			0	4	
		v	^		v	^			
	-29	<			<	426	13	<	
	172	>			>	172	287	>	
		v	^		v	^			
			457	1			91	2	

**Lime Street (NS) / Mission Inn Avenue (EW) - #1**

MORNING PEAK HOUR					EVENING PEAK HOUR				
ADJUSTED GROWTH (PCEs): 2018 TO 2045					ADJUSTED GROWTH (PCEs): 2018 TO 2045				
10.00 MINIMUM GROWTH %					10 MINIMUM GROWTH %				
			30	30			30	40	
			v	^			v	^	
	50	<	IN	=	630	<	420	<	100
	170	>	OUT	=	710	>	450	>	280
			v	^			v	^	
			460	0			90	0	
PRORATED GROWTH (PCEs): 2024 TO 2045					PRORATED GROWTH (PCEs): 2024 TO 2045				
21 YEARS					21 YEARS				
			20	20			20	30	
			v	^			v	^	
	40	<			<	330			<
	130	>			>	130			>
			v	^			v	^	
			360	0			70	0	
NEW PROJECTED VOLUMES (PCEs): 2045					NEW PROJECTED VOLUMES (PCEs): 2045				
			310	320			350	440	
			v	^			v	^	
	580	<			<	1390			<
	430	>			>	430			>
			v	^			v	^	
			1070	200			620	380	
ADT BY LEG: 2045					ADT BY LEG: 2045				
			9,800				9,800		
			N				N		
	14,080	W	LEG	E	18,310		14,080	W	LEG
			S				S		
			12,700				12,700		

**SR-91 Off Ramp (NS) / Mission Inn Avenue (EW) - #2**

MORNING PEAK HOUR					EVENING PEAK HOUR										
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024										
			871	0	161				459	0	190				
			<	v	>				<	v	>				
	0	^				^					0				
	308	>				<			505	>	182				
	0	v				v			0	v	0				
			<	^	>				<	^	>				
			0	0	0				0	0	0				
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024										
			1032	0					649	0					
			v	^					v	^					
	1053	<	IN =	1522	<	182		638	<	IN =	1333	<	179		
	308	>	OUT =	1522	>	469		505	>	OUT =	1333	>	695		
			v	^					v	^					
			0	0					0	0					
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018										
			2256	0					3058	0					
			v	^					v	^					
	2679	<	IN =	4083	<	1351		2205	<	IN =	4993	<	969		
	476	>	OUT =	4083	>	1404		966	>	OUT =	4993	>	2788		
			v	^					v	^					
			0	0					0	0					
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018										
			65	0					69	0					
			v	^					v	^					
	66	<	IN =	97	<	17		67	<	IN =	97	<	11		
	15	>	OUT =	98	>	32		17	>	OUT =	97	>	30		
			v	^					v	^					
			0	0					0	0					
EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28										
			879	0					873	0					
			v	^					v	^					
	PHF FOR TRUCKS: 0.333		1040	<	IN =	1584	<	519		634	<	IN =	1422	<	274
			186	>	OUT =	1584	>	544		275	>	OUT =	1422	>	788
			v	^					v	^					
			0	0					0	0					
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045										
			2910	0					3203	0					
			v	^					v	^					
	3787	<	IN =	6001	<	2176		2560	<	IN =	6568	<	1415		
	915	>	OUT =	6001	>	2214		1950	>	OUT =	6567	>	4007		
			v	^					v	^					
			0	0					0	0					
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045										
			82	0					93	0					
			v	^					v	^					
	81	<	IN =	136	<	24		77	<	IN =	150	<	15		
	30	>	OUT =	136	>	55		42	>	OUT =	150	>	73		
			v	^					v	^					
			0	0					0	0					
FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28										
			1133	0					920	0					
			v	^					v	^					
	PHF FOR TRUCKS: 0.333		1466	<	IN =	2326	<	835		736	<	IN =	1877	<	400
			358	>	OUT =	2326	>	860		557	>	OUT =	1876	>	1140
			v	^					v	^					
			0	0					0	0					
RAW GROWTH (PCES): 2018 TO 2045					RAW GROWTH (PCES): 2018 TO 2045										
CONVERSION OF TRUCKS TO: 2045					CONVERSION OF TRUCKS TO: 2045										
			254	0					47	0					
			v	^					v	^					
	FACTOR = 1.00		426	<		<	316		102	<		<	126		
			172	>		>	315		282	>		>	352		
			v	^					v	^					
			0	0					0	0					



**SR-91 Off Ramp (NS) / Mission Inn Avenue (EW) - #2**

MORNING PEAK HOUR						EVENING PEAK HOUR										
ADJUSTED GROWTH (PCEs): 2018 TO 2045						ADJUSTED GROWTH (PCEs): 2018 TO 2045										
10.00 MINIMUM GROWTH %						10 MINIMUM GROWTH %										
				250	0					60	0					
				v	^					v	^					
		430	<	IN	=	740	<	320		100	<	IN	=	470	<	130
		170	>	OUT	=	750	>	320		280	>	OUT	=	450	>	350
				v	^					v	^					
				0	0					0	0					
PRORATED GROWTH (PCEs): 2024 TO 2045						PRORATED GROWTH (PCEs): 2024 TO 2045										
21 YEARS						21 YEARS										
				190	0					50	0					
				v	^					v	^					
		330	<				<	250		80	<				<	100
		130	>				>	250		220	>				>	270
				v	^					v	^					
				0	0					0	0					
NEW PROJECTED VOLUMES (PCEs): 2045						NEW PROJECTED VOLUMES (PCEs): 2045										
				1220	0					700	0					
				v	^					v	^					
		1380	<				<	430		720	<				<	280
		440	>				>	720		730	>				>	970
				v	^					v	^					
				0	0					0	0					
ADT BY LEG: 2045						ADT BY LEG: 2045										
				13,550						13,550						
				N						N						
	18,310		W	LEG	E	19,360				18,310		W	LEG	E	19,360	
				S						S						
				0						0						

**Mulberry Street (NS) / Mission Inn Avenue (EW) - #3**

MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2024		0	0	0	2024		0	0	0
		<	v	>			<	v	>
	225	^		^	83		325	^	^
	265	>		<	87		366	>	<
	0	v		v	0		0	v	v
		<	^	>			<	^	>
		99	178	38			76	333	47
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2024			0	486	2024			0	809
			v	^				v	^
	186	<	IN =	975	<	177	<	IN =	1399
	490	>	OUT =	975	>	691	>	OUT =	1399
			v	^				v	^
			0	315				0	456
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2018			0	2047	2018			0	3212
			v	^				v	^
	1351	<	IN =	5304	<	969	<	IN =	6842
	1404	>	OUT =	5306	>	2788	>	OUT =	6843
			v	^				v	^
			0	1906				0	2543
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2018			0	79	2018			0	75
			v	^				v	^
	17	<	IN =	131	<	11	<	IN =	118
	32	>	OUT =	130	>	30	>	OUT =	118
			v	^				v	^
			0	78				0	72
EXISTING PEAK HOUR MODEL YEAR (PCES):					EXISTING PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS:	0.38		0	804	PHF FOR CARS:	0.28		0	918
PHF FOR TRUCKS:	0.333		v	^	PHF FOR TRUCKS:	0.25		v	^
	519	<	IN =	2059	<	274	<	IN =	1945
	544	>	OUT =	2060	>	788	>	OUT =	1946
			v	^				v	^
			0	750				0	730
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2045			0	2250	2045			0	3910
			v	^				v	^
	2176	<	IN =	7023	<	1415	<	IN =	9648
	2214	>	OUT =	7022	>	4007	>	OUT =	9648
			v	^				v	^
			0	2063				0	3622
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2045			0	99	2045			0	105
			v	^				v	^
	24	<	IN =	170	<	15	<	IN =	178
	55	>	OUT =	170	>	73	>	OUT =	178
			v	^				v	^
			0	84				0	79
FUTURE PEAK HOUR MODEL YEAR (PCES):					FUTURE PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS:	0.38		0	888	PHF FOR CARS:	0.28		0	1121
PHF FOR TRUCKS:	0.333		v	^	PHF FOR TRUCKS:	0.25		v	^
	835	<	IN =	2725	<	400	<	IN =	2746
	860	>	OUT =	2725	>	1140	>	OUT =	2746
			v	^				v	^
			0	812				0	1034
RAW GROWTH (PCES): 2018 TO 2045					RAW GROWTH (PCES): 2018 TO 2045				
CONVERSION OF TRUCKS TO:	2045		0	84	CONVERSION OF TRUCKS TO:	2045		0	203
FACTOR =	1.00		v	^	FACTOR =	1.00		v	^
	316	<		<	289		126	<	<
	315	>		>	266		352	>	>
			v	^				v	^
			0	62				0	304



**Mulberry Street (NS) / Mission Inn Avenue (EW) - #3**

MORNING PEAK HOUR					EVENING PEAK HOUR				
ADJUSTED GROWTH (PCEs): 2018 TO 2045					ADJUSTED GROWTH (PCEs): 2018 TO 2045				
10.00 MINIMUM GROWTH %					10 MINIMUM GROWTH %				
			0	80			0	200	
			v	^			v	^	
	320	<	IN	=	670	<	290	130	<
	320	>	OUT	=	670	>	270	350	>
			v	^			v	^	
			0	60			0	300	
PRORATED GROWTH (PCEs): 2024 TO 2045					PRORATED GROWTH (PCEs): 2024 TO 2045				
21 YEARS					21 YEARS				
			0	60			0	160	
			v	^			v	^	
	250	<			<	230	100	<	110
	250	>			>	210	270	>	370
			v	^			v	^	
			0	50			0	230	
NEW PROJECTED VOLUMES (PCEs): 2045					NEW PROJECTED VOLUMES (PCEs): 2045				
			0	550			0	970	
			v	^			v	^	
	440	<			<	400	280	<	360
	740	>			>	510	960	>	780
			v	^			v	^	
			0	370			0	690	
ADT BY LEG: 2045					ADT BY LEG: 2045				
			14,070				14,070		
			N				N		
	19,360	W	LEG	E	22,640	19,360	W	LEG	E
			S				S		
			12,630				12,630		

Vine Street (NS) / Mission Inn Avenue (EW) - #4

MORNING PEAK HOUR					EVENING PEAK HOUR											
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):											
2024			65	14	20	2024			100	33	56					
			<	v	>				<	v	>					
	108	^					100	^			^	41				
	130	>					259	>				<	94			
	60	v					49	v				v	7			
			<	^	>				<	^	>					
			14	43	13				50	70	26					
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):											
2024				99	177	2024				189	211					
				v	^					v	^					
	165	<	IN =	584	<	117		244	<	IN =	885	<	142			
	298	>	OUT =	584	>	163		408	>	OUT =	885	>	341			
			v	^						v	^					
				79	70					89	146					
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):											
2018				634	815	2018				790	954					
				v	^					v	^					
	1994	<	IN =	4240	<	1695		1511	<	IN =	4361	<	906			
	1908	>	OUT =	4240	>	1430		2662	>	OUT =	4361	>	1893			
			v	^						v	^					
				1	3					3	3					
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):											
2018				9	16	2018				11	13					
				v	^					v	^					
	21	<	IN =	61	<	18		16	<	IN =	49	<	6			
	34	>	OUT =	60	>	23		32	>	OUT =	50	>	21			
			v	^						v	^					
				0	0					0	0					
EXISTING PEAK HOUR MODEL YEAR (PCEs):					EXISTING PEAK HOUR MODEL YEAR (PCEs):											
PHF FOR CARS:	0.38			244	315	PHF FOR CARS:	0.28			224	270					
PHF FOR TRUCKS:	0.333			v	^	PHF FOR TRUCKS:	0.25			v	^					
				765	<	IN =	1632	<	650		427	<	IN =	1233	<	255
				736	>	OUT =	1631	>	551		753	>	OUT =	1234	>	535
							v	^						v	^	
											1	1				
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):											
2045				647	831	2045				779	1195					
				v	^					v	^					
	2746	<	IN =	6100	<	2595		2019	<	IN =	7136	<	1780			
	2596	>	OUT =	6100	>	1957		4323	>	OUT =	7136	>	3117			
				v	^					v	^					
				566	262					805	254					
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):											
2045				5	19	2045				10	18					
				v	^					v	^					
	31	<	IN =	91	<	32		26	<	IN =	95	<	22			
	47	>	OUT =	91	>	28		58	>	OUT =	96	>	37			
				v	^					v	^					
				13	7					15	5					
FUTURE PEAK HOUR MODEL YEAR (PCEs):					FUTURE PEAK HOUR MODEL YEAR (PCEs):											
PHF FOR CARS:	0.38			248	322	PHF FOR CARS:	0.28			221	339					
PHF FOR TRUCKS:	0.333			v	^	PHF FOR TRUCKS:	0.25			v	^					
				1054	<	IN =	2348	<	997		572	<	IN =	2022	<	504
				1002	>	OUT =	2348	>	753		1225	>	OUT =	2022	>	882
							v	^						v	^	
											229	72				
RAW GROWTH (PCEs): 2018 TO 2045					RAW GROWTH (PCEs): 2018 TO 2045											
CONVERSION OF TRUCKS TO:	2045			4	7	CONVERSION OF TRUCKS TO:	2045			-3	69					
FACTOR =	1.00			v	^	FACTOR =	1.00			v	^					
				289	<	<	347			145	<	<	249			
				266	>	>	202			472	>	>	347			
							v	^					v	^		
				219	101					228	72					



Vine Street (NS) / Mission Inn Avenue (EW) - #4

MORNING PEAK HOUR					EVENING PEAK HOUR									
ADJUSTED GROWTH (PCEs): 2018 TO 2045					ADJUSTED GROWTH (PCEs): 2018 TO 2045									
10.00 MINIMUM GROWTH %					10 MINIMUM GROWTH %									
			10	20				20	70					
			v	^				v	^					
	290	<	IN	=	730	<	350	140	<	IN	=	810	<	250
	270	>	OUT	=	730	>	200	470	>	OUT	=	790	>	350
			v	^				v	^				v	^
			220	100				230	70					
PRORATED GROWTH (PCEs): 2024 TO 2045					PRORATED GROWTH (PCEs): 2024 TO 2045									
21 YEARS					21 YEARS									
			10	20				20	50					
			v	^				v	^					
	230	<				<	270	110	<				<	190
	210	>				>	160	370	>				>	270
			v	^				v	^				v	^
			170	80				180	50					
NEW PROJECTED VOLUMES (PCEs): 2045					NEW PROJECTED VOLUMES (PCEs): 2045									
			110	200				210	260					
			v	^				v	^					
	400	<				<	390	350	<				<	330
	510	>				>	320	780	>				>	610
			v	^				v	^				v	^
			250	150				270	200					
ADT BY LEG: 2045					ADT BY LEG: 2045									
			6,270					6,270						
			N					N						
	22,640	W	LEG	E	17,870			22,640	W	LEG	E	17,870		
			S					S						
			3,580					3,580						

**Commerce Street (NS) / Mission Inn Avenue (EW) - #5**

MORNING PEAK HOUR					EVENING PEAK HOUR								
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024								
			5	20	9			10	35	6			
			<	v	>			<	v	>			
	6	^				^				4			
	112	>				<				79			
	20	v				v				13			
			<	^	>			<	^	>			
			31	9	8			49	13	5			
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024								
				34	19				51	32			
			v	^					v	^			
	115	<	IN =	316	<	96		139	<	IN =	560	<	89
	138	>	OUT =	316	>	129		353	>	OUT =	560	>	289
			v	^					v	^			
			53	48					100	67			
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018								
			0	0				0	0				
			v	^				v	^				
	1864	<	IN =	3317	<	1864		954	<	IN =	2930	<	954
	1453	>	OUT =	3317	>	1453		1976	>	OUT =	2930	>	1976
			v	^				v	^				
			0	0				0	0				
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018								
			0	0				0	0				
			v	^				v	^				
	19	<	IN =	43	<	19		7	<	IN =	29	<	7
	24	>	OUT =	43	>	24		22	>	OUT =	29	>	22
			v	^				v	^				
			0	0				0	0				
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38					EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28								
			0	0				0	0				
			v	^				v	^				
	PHF FOR TRUCKS: 0.333						PHF FOR TRUCKS: 0.25						
	715	<	IN =	1275	<	715		269	<	IN =	828	<	269
	560	>	OUT =	1275	>	560		559	>	OUT =	828	>	559
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045								
			0	0				0	0				
			v	^				v	^				
	2580	<	IN =	4258	<	2580		1496	<	IN =	4510	<	1496
	1678	>	OUT =	4258	>	1678		3014	>	OUT =	4510	>	3014
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045								
			0	0				0	0				
			v	^				v	^				
	28	<	IN =	52	<	28		17	<	IN =	49	<	17
	24	>	OUT =	52	>	24		32	>	OUT =	49	>	32
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38					FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28								
			0	0				0	0				
			v	^				v	^				
	PHF FOR TRUCKS: 0.333						PHF FOR TRUCKS: 0.25						
	990	<	IN =	1635	<	990		423	<	IN =	1275	<	423
	646	>	OUT =	1635	>	646		852	>	OUT =	1275	>	852
			v	^				v	^				
			0	0				0	0				
RAW GROWTH (PCEs): 2018 TO 2045					RAW GROWTH (PCEs): 2018 TO 2045								
CONVERSION OF TRUCKS TO: 2045					CONVERSION OF TRUCKS TO: 2045								
FACTOR = 1.00					FACTOR = 1.00								
			0	0				0	0				
			v	^				v	^				
	275	<			<	275		154	<			<	154
	86	>			>	86		293	>			>	293
			v	^				v	^				
			0	0				0	0				



**Commerce Street (NS) / Mission Inn Avenue (EW) - #5**

MORNING PEAK HOUR					EVENING PEAK HOUR				
ADJUSTED GROWTH (PCEs):	2018	TO	2045		ADJUSTED GROWTH (PCEs):	2018	TO	2045	
10.00 MINIMUM GROWTH %				0 0	10 MINIMUM GROWTH %				10 0
				v ^					v ^
				280 < IN = 370 < 280					150 < IN = 450 < 150
				90 > OUT = 370 > 90					290 > OUT = 440 > 290
				v ^					v ^
				0 0					0 0
PRORATED GROWTH (PCEs):	2024	TO	2045		PRORATED GROWTH (PCEs):	2024	TO	2045	
21 YEARS				0 0	21 YEARS				10 0
				v ^					v ^
				220 < < 220					120 < < 120
				70 > > 70					230 > > 230
				v ^					v ^
				0 0					0 0
NEW PROJECTED VOLUMES (PCEs):	2045				NEW PROJECTED VOLUMES (PCEs):	2045			
				30 20					60 30
				v ^					v ^
				340 < < 320					260 < < 210
				210 > > 200					580 > > 520
				v ^					v ^
				50 50					100 70
ADT BY LEG:					ADT BY LEG:				
2045				1,110	2045				1,110
				N					N
	16,020	W	E	16,020		16,020	W	E	16,020
				S					S
				2,220					2,220

**Park Avenue (NS) / Mission Inn Avenue (EW) - #6**

MORNING PEAK HOUR					EVENING PEAK HOUR								
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024								
			25	53	11				13	82	9		
			<	v	>				<	v	>		
	13	^				^	9						
	58	>				<	33						
	58	v				v	20						
			<	^	>				<	^	>		
			33	84	17				44	71	30		
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024								
				89	106				104	94			
			v	^					v	^			
	91	<	IN =	414	<	62		87	<	IN =	566	<	52
	129	>	OUT =	414	>	86		265	>	OUT =	566	>	169
			v	^					v	^			
			131	134					216	145			
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018								
				3	22				13	4			
			v	^					v	^			
	1731	<	IN =	3141	<	1646		801	<	IN =	2757	<	804
	1351	>	OUT =	3141	>	1089		1811	>	OUT =	2758	>	1574
			v	^					v	^			
			299	141					379	129			
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2018								
				1	1				1	1			
			v	^					v	^			
	17	<	IN =	41	<	15		5	<	IN =	26	<	4
	22	>	OUT =	41	>	14		19	>	OUT =	26	>	15
			v	^					v	^			
			9	3					5	2			
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25								
				1	9				4	1			
			v	^					v	^			
	663	<	IN =	1207	<	630		226	<	IN =	778	<	226
	521	>	OUT =	1207	>	418		512	>	OUT =	779	>	444
			v	^					v	^			
			117	55					107	37			
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045								
				7	33				25	12			
			v	^					v	^			
	2068	<	IN =	3847	<	2112		1075	<	IN =	4313	<	1546
	1427	>	OUT =	3847	>	1347		2531	>	OUT =	4313	>	2343
			v	^					v	^			
			399	301					883	211			
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2045								
				1	2				1	2			
			v	^					v	^			
	20	<	IN =	44	<	22		8	<	IN =	44	<	16
	16	>	OUT =	41	>	15		24	>	OUT =	44	>	23
			v	^					v	^			
			4	5					11	3			
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25								
				3	13				7	4			
			v	^					v	^			
	793	<	IN =	1477	<	810		303	<	IN =	1219	<	437
	548	>	OUT =	1476	>	517		715	>	OUT =	1219	>	662
			v	^					v	^			
			153	116					250	60			
RAW GROWTH (PCEs): 2018 TO 2045 CONVERSION OF TRUCKS TO: 2045 FACTOR = 1.00					RAW GROWTH (PCEs): 2018 TO 2045 CONVERSION OF TRUCKS TO: 2045 FACTOR = 1.00								
				2	5				3	2			
			v	^					v	^			
	129	<			<	179		77	<			<	211
	27	>			>	98		203	>			>	217
			v	^					v	^			
			36	61					143	23			



**Park Avenue (NS) / Mission Inn Avenue (EW) - #6**

MORNING PEAK HOUR						EVENING PEAK HOUR								
ADJUSTED GROWTH (PCEs): 2018 TO 2045						ADJUSTED GROWTH (PCEs): 2018 TO 2045								
10.00 MINIMUM GROWTH %						10 MINIMUM GROWTH %								
			10	10				10	10					
			v	^				v	^					
	130	<	IN	=	280	<	180	80	<	IN	=	440	<	210
	30	>	OUT	=	280	>	100	200	>	OUT	=	450	>	220
			v	^				v	^					
			40	60				140	20					
PRORATED GROWTH (PCEs): 2024 TO 2045						PRORATED GROWTH (PCEs): 2024 TO 2045								
21 YEARS						21 YEARS								
			10	10				10	10					
			v	^				v	^					
	100	<			<	140		60	<			<	160	
	20	>			>	80		160	>			>	170	
			v	^				v	^					
			30	50				110	20					
NEW PROJECTED VOLUMES (PCEs): 2045						NEW PROJECTED VOLUMES (PCEs): 2045								
			100	120				110	100					
			v	^				v	^					
	190	<			<	200		150	<			<	210	
	150	>			>	170		430	>			>	340	
			v	^				v	^					
			160	180				330	170					
ADT BY LEG: 2045						ADT BY LEG: 2045								
			2,660					2,660						
			N					N						
	12,330	W	LEG	E	12,600			12,330	W	LEG	E	12,600		
			S					S						
			4,770					4,770						

**Commerce Street (NS) / 3rd Street (EW) - #7**

MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024				
			0	0				0	0
			<	v				<	v
			>					>	
	0	^				0	^		
	371	>				1068	>		
	17	v				42	v		
			<	^				<	^
			>					>	
			7	0				14	0
			9					11	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024				
			0	0				0	0
			v	^				v	^
	384	<	IN =	793		435	<	IN =	1568
	388	>	OUT =	793		1110	>	OUT =	1568
			v	^				v	^
			29	16				54	25
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018				
			0	0				0	0
			v	^				v	^
	1851	<	IN =	2801		1503	<	IN =	3913
	950	>	OUT =	2801		2410	>	OUT =	3913
			v	^				v	^
			0	0				0	0
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018				
			0	0				0	0
			v	^				v	^
	17	<	IN =	40		21	<	IN =	44
	23	>	OUT =	40		23	>	OUT =	44
			v	^				v	^
			0	0				0	0
EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28				
			0	0				0	0
			v	^				v	^
	PHF FOR TRUCKS: 0.333					PHF FOR TRUCKS: 0.25			
	709	<	IN =	1078		426	<	IN =	1107
	369	>	OUT =	1078		681	>	OUT =	1107
			v	^				v	^
			0	0				0	0
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045				
			0	0				0	0
			v	^				v	^
	1952	<	IN =	3294		1842	<	IN =	4677
	1342	>	OUT =	3294		2835	>	OUT =	4677
			v	^				v	^
			0	0				0	0
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045				
			0	0				0	0
			v	^				v	^
	19	<	IN =	49		25	<	IN =	52
	30	>	OUT =	49		27	>	OUT =	52
			v	^				v	^
			0	0				0	0
FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28				
			0	0				0	0
			v	^				v	^
	PHF FOR TRUCKS: 0.333					PHF FOR TRUCKS: 0.25			
	748	<	IN =	1268		522	<	IN =	1323
	520	>	OUT =	1268		801	>	OUT =	1323
			v	^				v	^
			0	0				0	0
RAW GROWTH (PCES): 2018 TO 2045					RAW GROWTH (PCES): 2018 TO 2045				
CONVERSION OF TRUCKS TO: 2045					CONVERSION OF TRUCKS TO: 2045				
			0	0				0	0
			v	^				v	^
	FACTOR = 1.00					FACTOR = 1.00			
	39	<		<		96	<		<
	151	>		>		120	>		>
			v	^				v	^
			0	0				0	0

**Commerce Street (NS) / 3rd Street (EW) - #7**

MORNING PEAK HOUR					EVENING PEAK HOUR						
ADJUSTED GROWTH (PCEs):	2018	TO	2045		ADJUSTED GROWTH (PCEs):	2018	TO	2045			
10.00 MINIMUM GROWTH %				0 0	10 MINIMUM GROWTH %				0 0		
				v ^					v ^		
				40 < IN = 190 < 40					100 < IN = 220 < 100		
				150 > OUT = 190 > 150					120 > OUT = 220 > 120		
				v ^					v ^		
				0 0					0 0		
PRORATED GROWTH (PCEs):	2024	TO	2045		PRORATED GROWTH (PCEs):	2024	TO	2045			
21 YEARS				0 0	21 YEARS				0 0		
				v ^					v ^		
				30 < < 30					80 < < 80		
				120 > > 120					90 > > 90		
				v ^					v ^		
				0 0					0 0		
NEW PROJECTED VOLUMES (PCEs):	2045				NEW PROJECTED VOLUMES (PCEs):	2045					
				0 0					0 0		
				v ^					v ^		
				410 < < 420					520 < < 510		
				510 > > 500					1200 > > 1170		
				v ^					v ^		
				30 20					50 30		
ADT BY LEG:				0	ADT BY LEG:				0		
2045				N	2045				N		
	21,130	W	LEG	E	20,730		21,130	W	LEG	E	20,730
				S					S		
				1,000					1,000		

**Project Driveway (NS) / Mission Inn Avenue (EW) - #10**

MORNING PEAK HOUR					EVENING PEAK HOUR								
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2024								
			0	0				0	0				
			<	v	>				<	v	>		
	0	^				^	0						
	121	>				<	90						
	8	v				v	3						
			<	^	>				<	^	>		
			6	0	6				11	0	5		
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2024								
			0	0				0	0				
			v	^				v	^				
	96	<	IN =	234	<	93		89	<	IN =	383	<	80
	129	>	OUT =	234	>	127		287	>	OUT =	383	>	276
			v	^				v	^				
			11	12				18	16				
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2018								
			0	0				0	0				
			v	^				v	^				
	1864	<	IN =	3317	<	1864		954	<	IN =	2930	<	954
	1453	>	OUT =	3317	>	1453		1976	>	OUT =	2930	>	1976
			v	^				v	^				
			0	0				0	0				
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2018								
			0	0				0	0				
			v	^				v	^				
	19	<	IN =	43	<	19		7	<	IN =	29	<	7
	24	>	OUT =	43	>	24		22	>	OUT =	29	>	22
			v	^				v	^				
			0	0				0	0				
EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					EXISTING PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28								
			0	0				0	0				
			v	^				v	^				
	PHF FOR TRUCKS: 0.333					PHF FOR TRUCKS: 0.25							
	715	<	IN =	1275	<	715		269	<	IN =	828	<	269
	560	>	OUT =	1275	>	560		559	>	OUT =	828	>	559
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2045								
			0	0				0	0				
			v	^				v	^				
	2580	<	IN =	4258	<	2580		1496	<	IN =	4510	<	1496
	1678	>	OUT =	4258	>	1678		3014	>	OUT =	4510	>	3014
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES): 2045								
			0	0				0	0				
			v	^				v	^				
	28	<	IN =	52	<	28		17	<	IN =	49	<	17
	24	>	OUT =	52	>	24		32	>	OUT =	49	>	32
			v	^				v	^				
			0	0				0	0				
FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.38					FUTURE PEAK HOUR MODEL YEAR (PCES): PHF FOR CARS: 0.28								
			0	0				0	0				
			v	^				v	^				
	PHF FOR TRUCKS: 0.333					PHF FOR TRUCKS: 0.25							
	990	<	IN =	1635	<	990		423	<	IN =	1275	<	423
	646	>	OUT =	1635	>	646		852	>	OUT =	1275	>	852
			v	^				v	^				
			0	0				0	0				
RAW GROWTH (PCES): 2018 TO 2045					RAW GROWTH (PCES): 2018 TO 2045								
CONVERSION OF TRUCKS TO: 2045					CONVERSION OF TRUCKS TO: 2045								
FACTOR = 1.00					FACTOR = 1.00								
			0	0				0	0				
			v	^				v	^				
	275	<		<	275		154	<		<	154		
	86	>		>	86		293	>		>	293		
			v	^				v	^				
			0	0				0	0				



**Project Driveway (NS) / Mission Inn Avenue (EW) - #10**

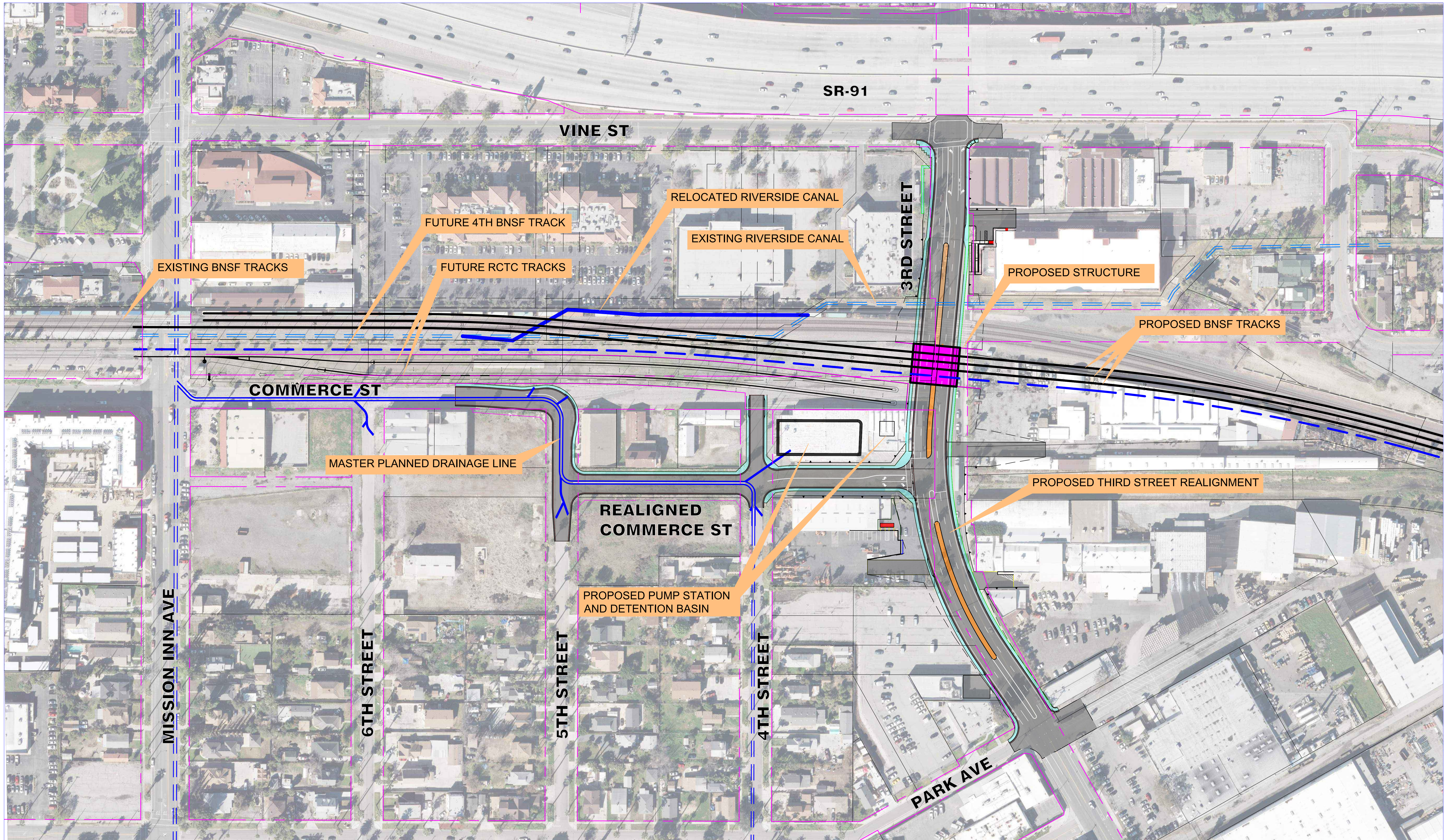
MORNING PEAK HOUR					EVENING PEAK HOUR				
ADJUSTED GROWTH (PCEs): 10.00 MINIMUM GROWTH %	2018	TO	2045		ADJUSTED GROWTH (PCEs): 10 MINIMUM GROWTH %	2018	TO	2045	
				0 0					0 0
				v ^					v ^
				280 < IN = 370 < 280					150 < IN = 440 < 150
				90 > OUT = 370 > 90					290 > OUT = 440 > 290
				v ^					v ^
				0 0					0 0
PRORATED GROWTH (PCEs): 21 YEARS	2024	TO	2045		PRORATED GROWTH (PCEs): 21 YEARS	2024	TO	2045	
				0 0					0 0
				v ^					v ^
				220 < < 220					120 < < 120
				70 > > 70					230 > > 230
				v ^					v ^
				0 0					0 0
NEW PROJECTED VOLUMES (PCEs): 2045					NEW PROJECTED VOLUMES (PCEs): 2045				
				0 0					0 0
				v ^					v ^
				320 < < 310					210 < < 200
				200 > > 200					520 > > 510
				v ^					v ^
				10 10					20 20
ADT BY LEG: 2045					ADT BY LEG: 2045				
				0					0
				N					N
	16,020	W	LEG	E	16,020	W	LEG	E	16,020
				S					S
				440					440

## **APPENDIX G**

### **3RD STREET GRADE SEPARATION PROJECT PRELIMINARY LAYOUT PLAN**

# Third Street Grade Separation at BNSF Railroad

City of Riverside



## **APPENDIX H**

### **TRAFFIC SIGNAL WARRANT WORKSHEET**

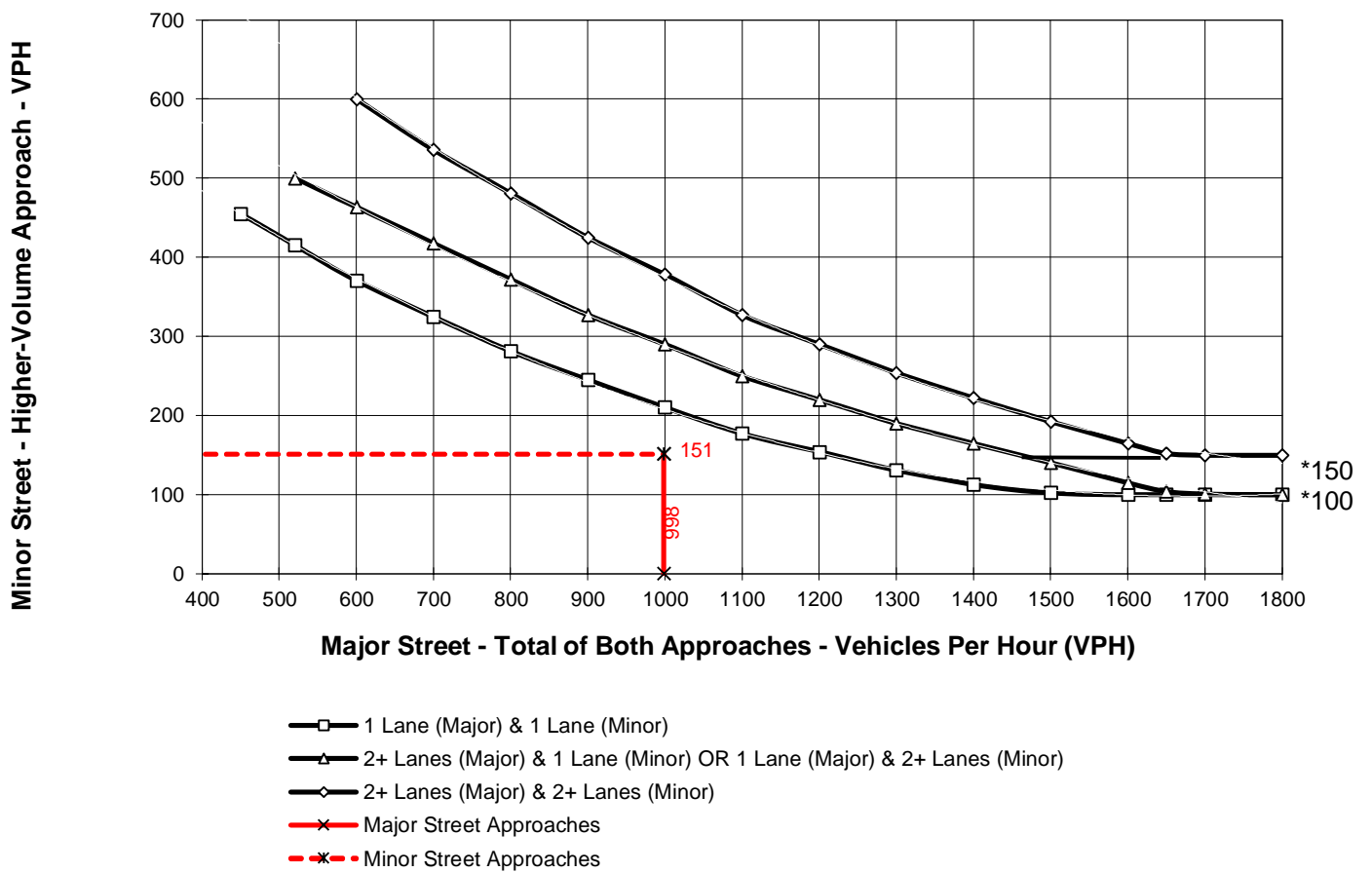
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - AM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **998**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Vine Street**      High Volume Approach (VPH) = **151**  
 Number of Approach Lanes On Minor Street = **2**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

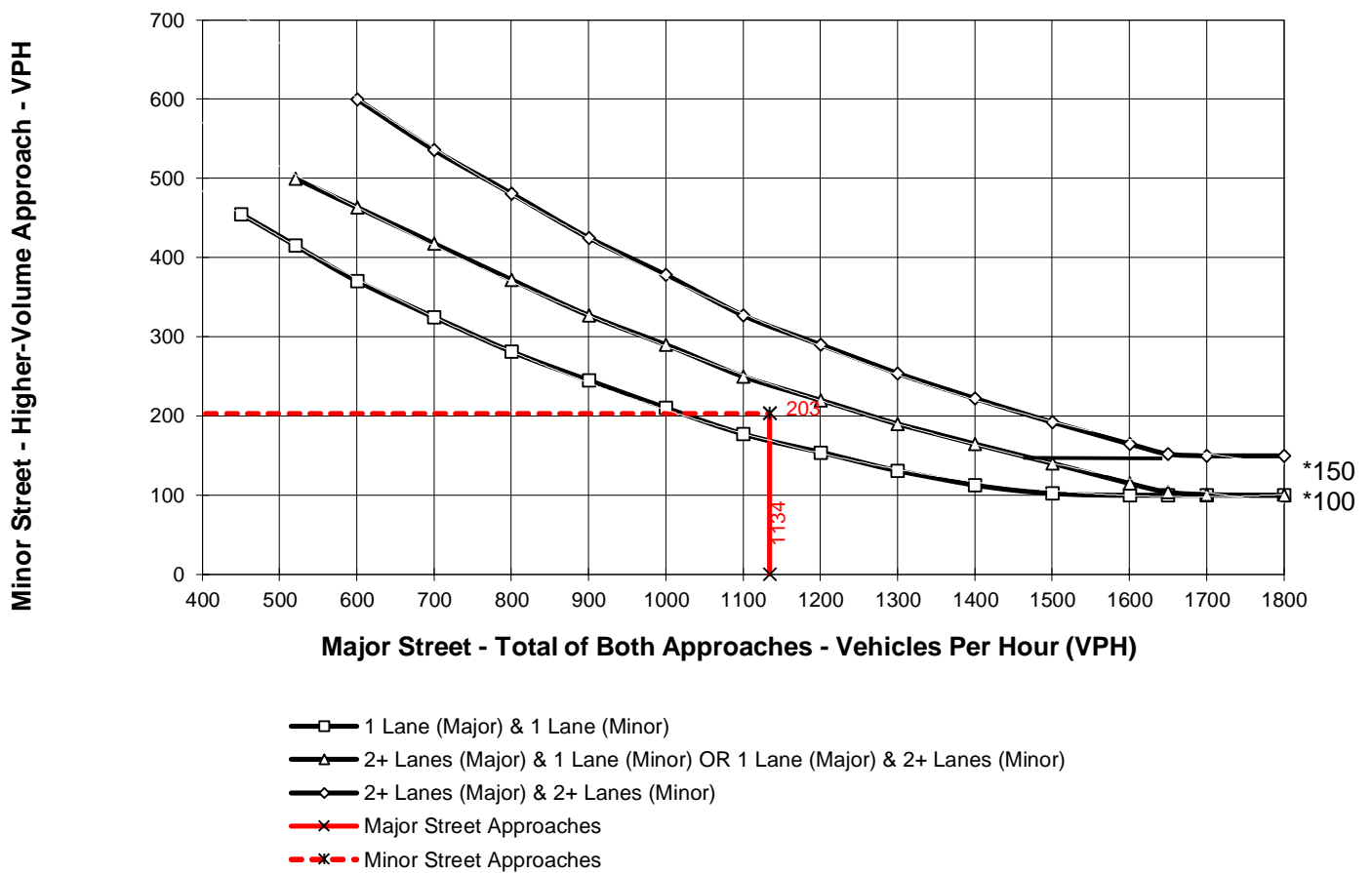
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - PM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **1134**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Vine Street**      High Volume Approach (VPH) = **203**  
 Number of Approach Lanes On Minor Street = **2**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and  
 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

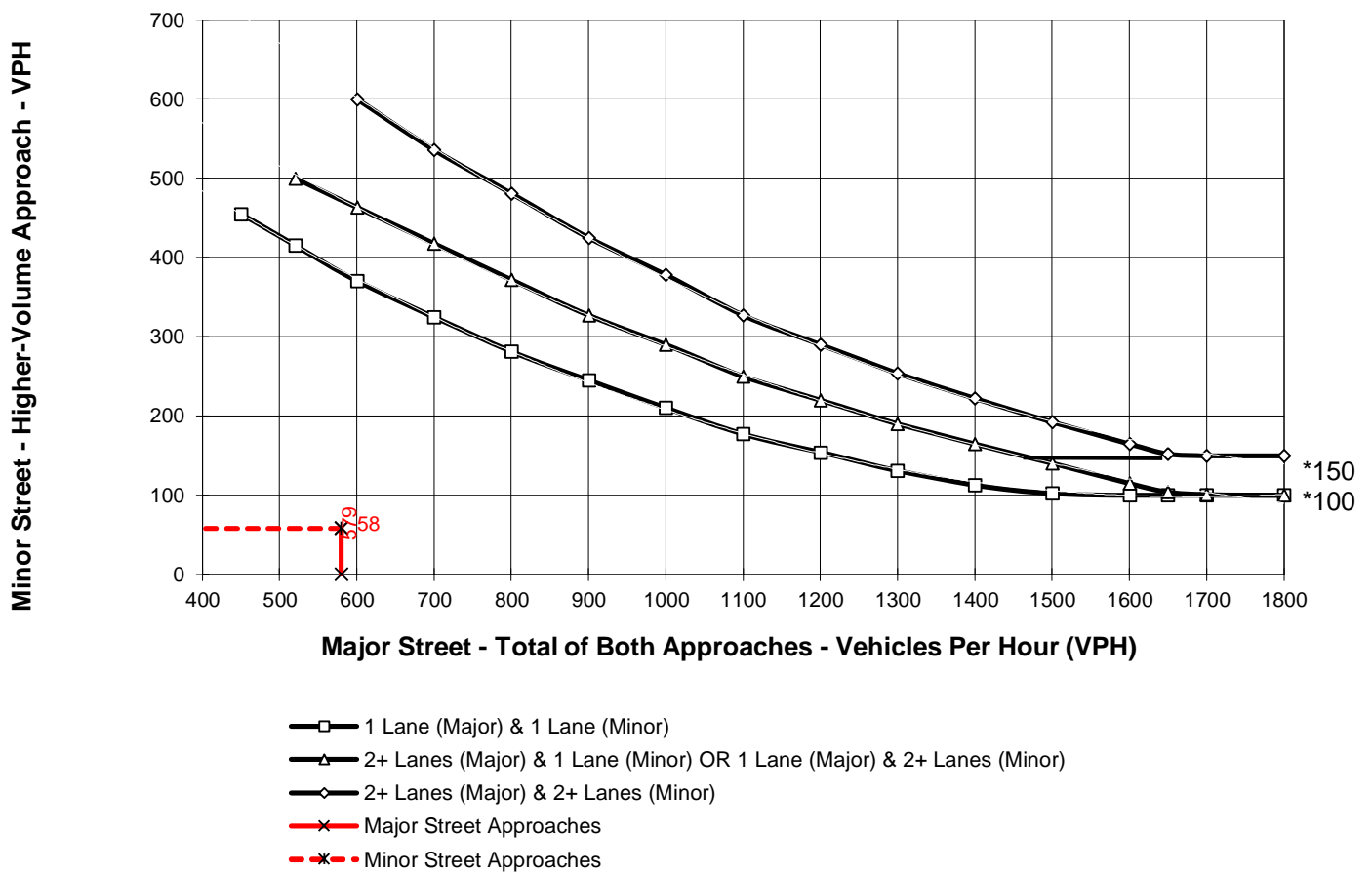
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - AM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **579**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Commerce Street**      High Volume Approach (VPH) = **58**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

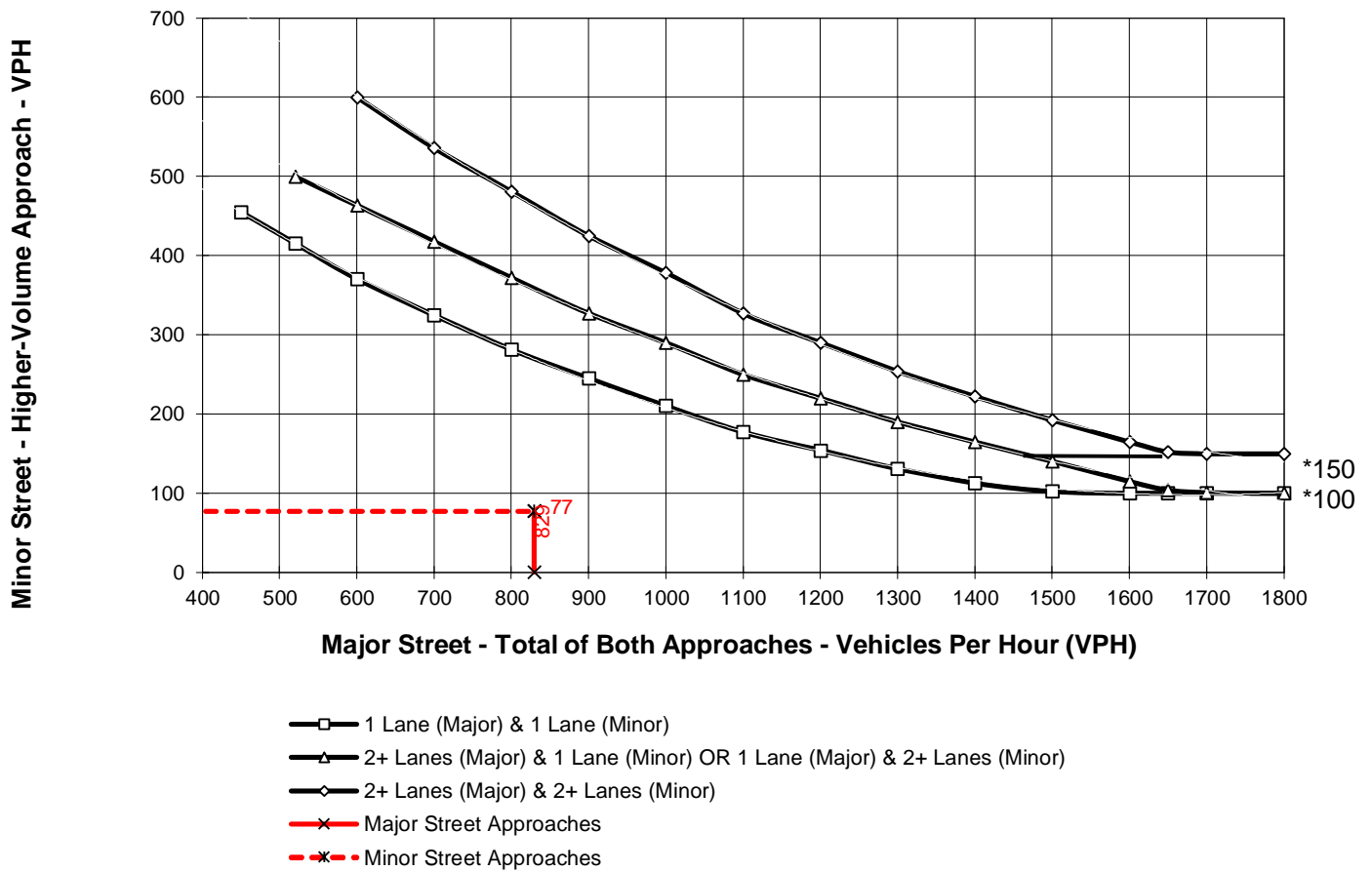
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - PM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **829**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Commerce Street**      High Volume Approach (VPH) = **77**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

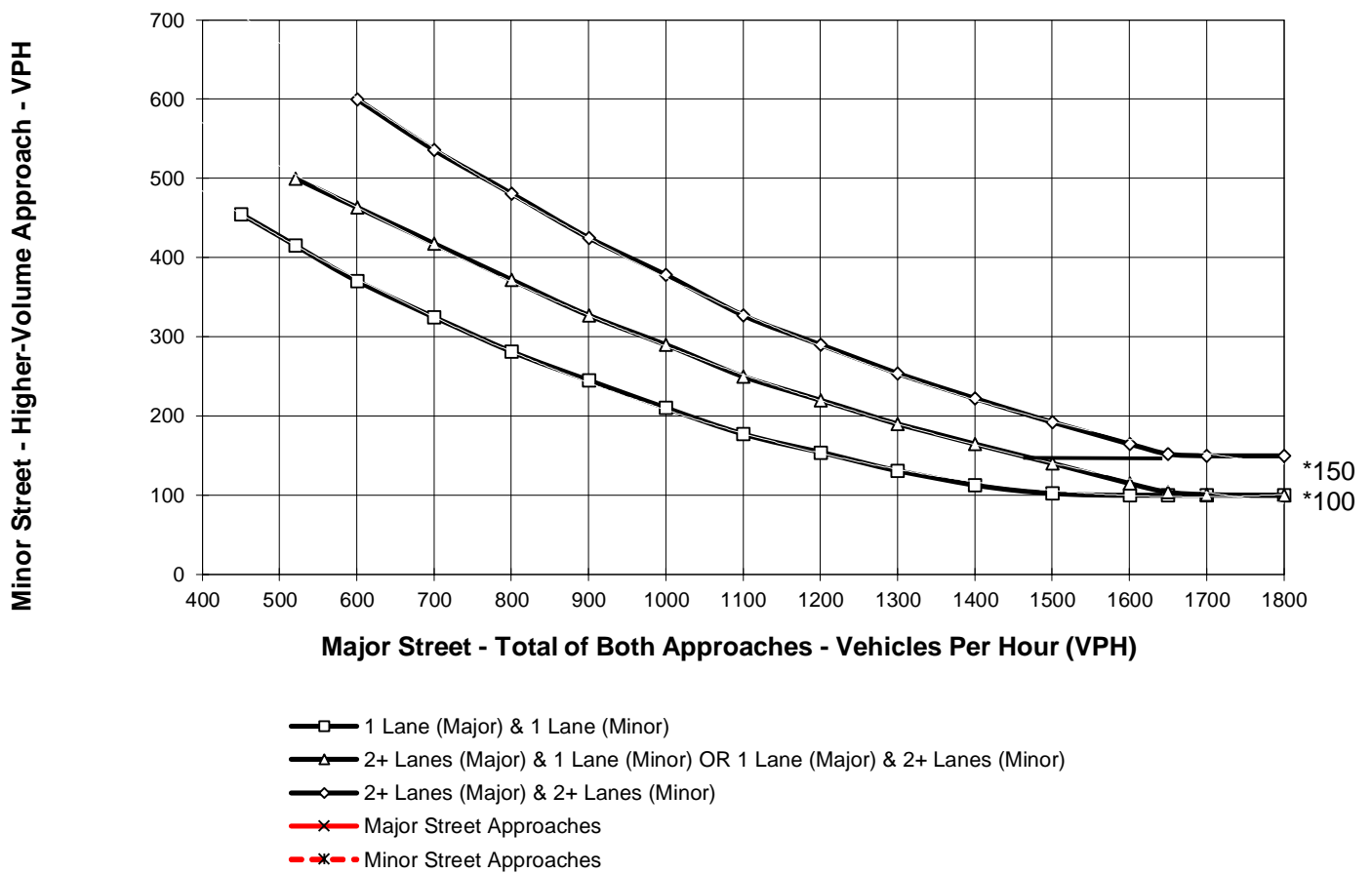
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - AM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **385**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Avenue**      High Volume Approach (VPH) = **187**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

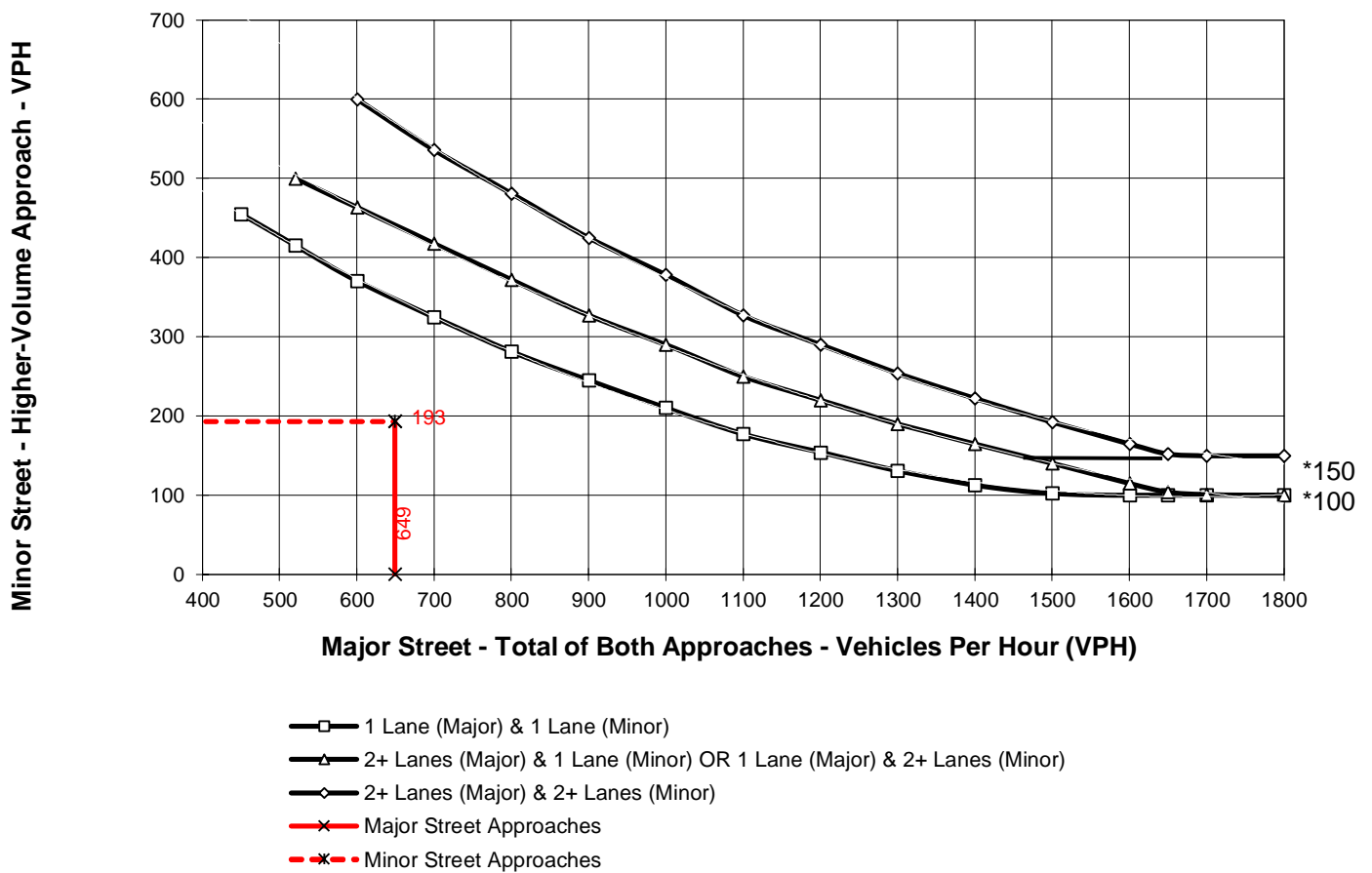
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - PM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **649**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Avenue**      High Volume Approach (VPH) = **193**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

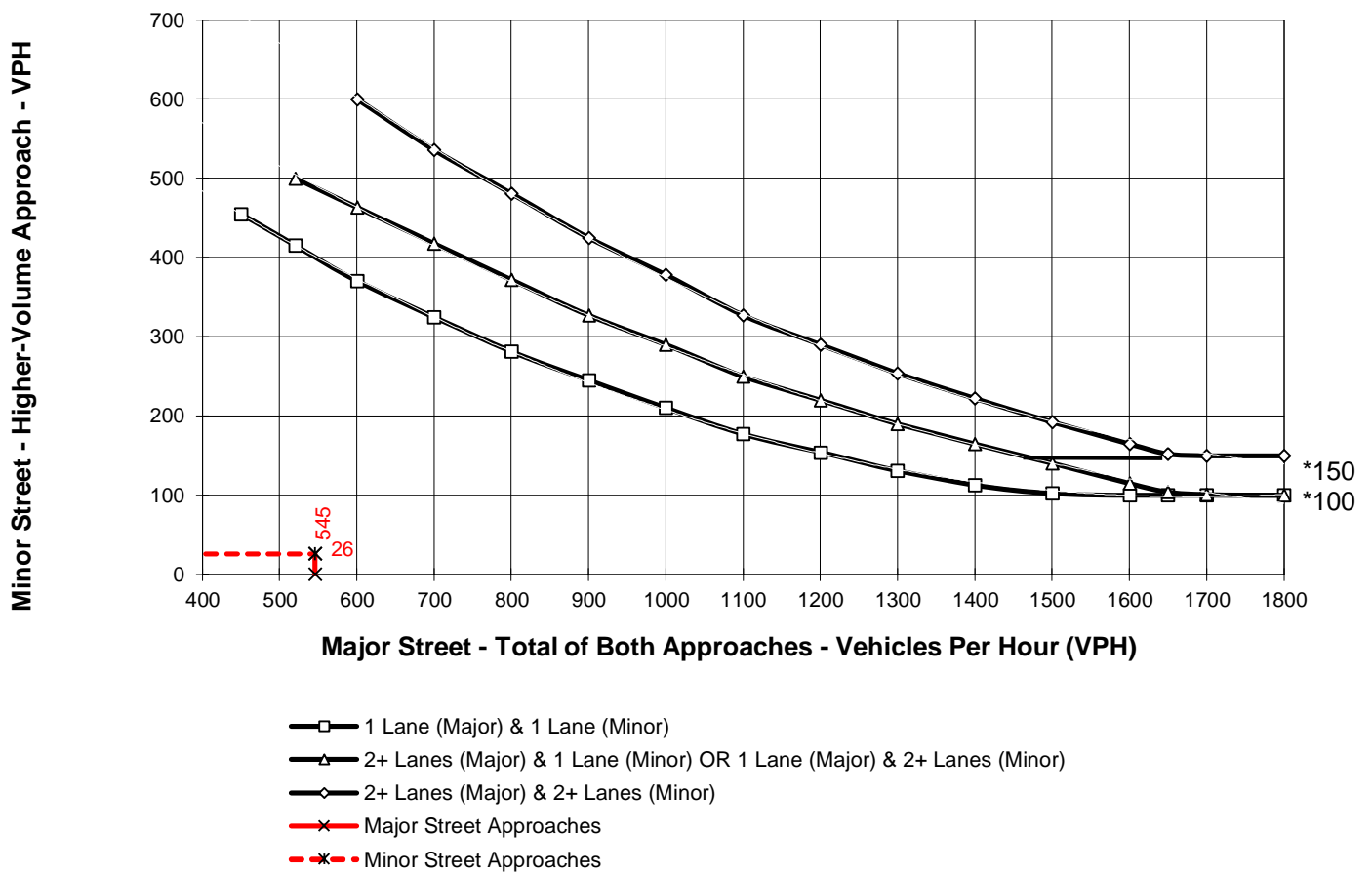
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - AM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **545**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Project Dwy**      High Volume Approach (VPH) = **26**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

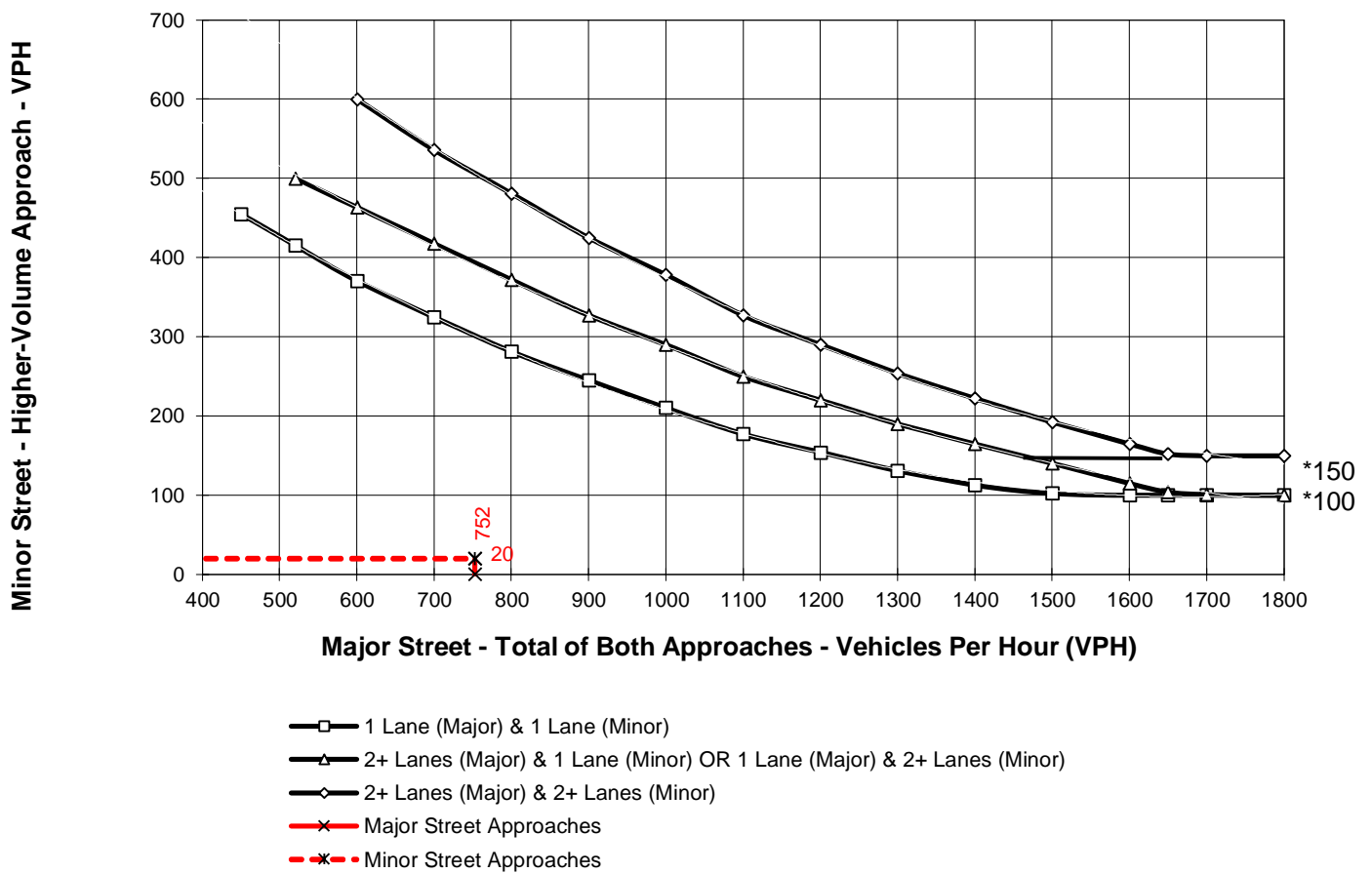
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - PM**

Major Street Name = **Mission Inn Avenue**      Total of Both Approaches (VPH) = **752**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Project Dwy**      High Volume Approach (VPH) = **20**  
 Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

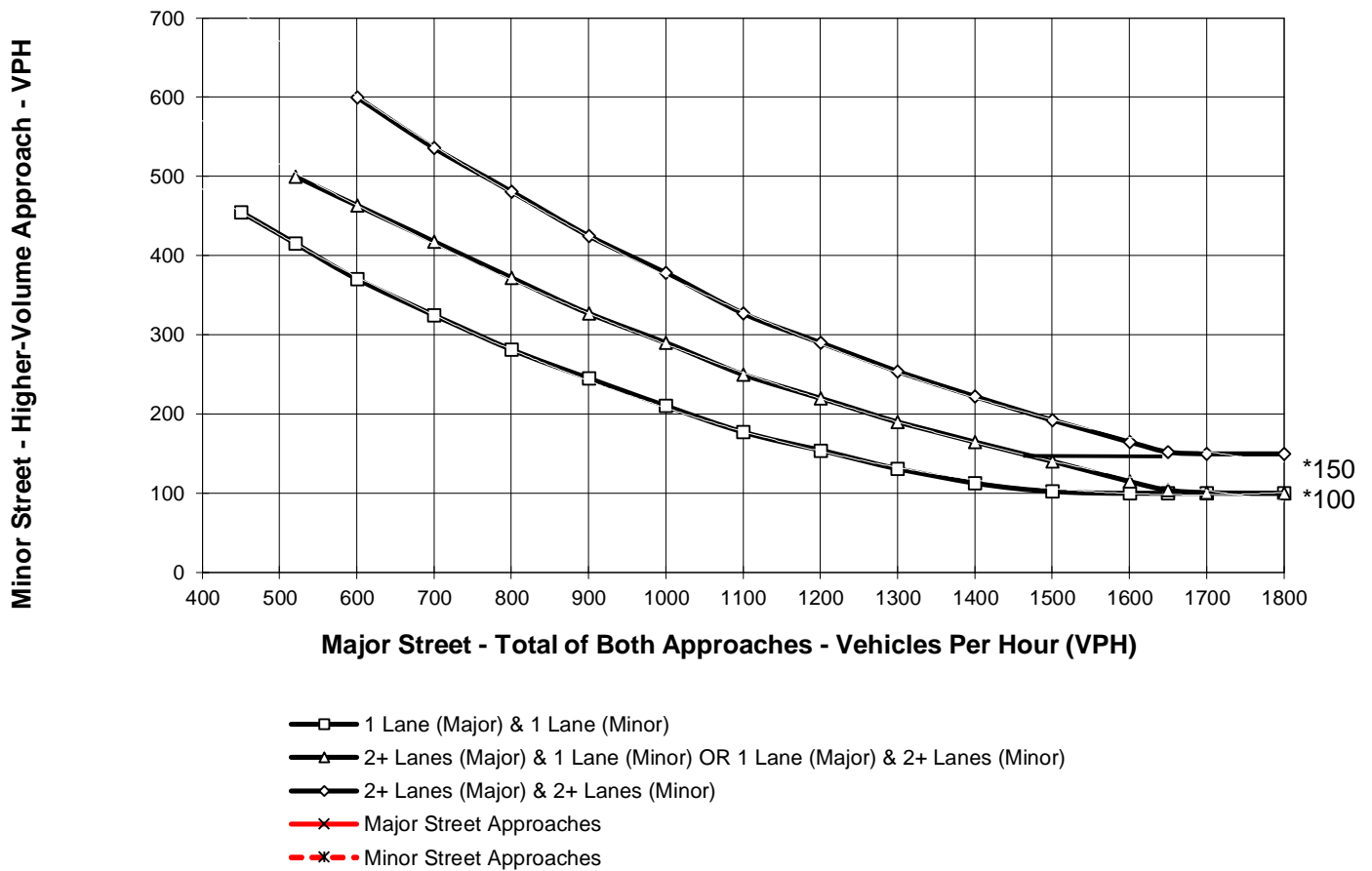
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - AM**

Major Street Name = **Project Dwy** Total of Both Approaches (VPH) = **28**  
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **5th Street** High Volume Approach (VPH) = **9**  
Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

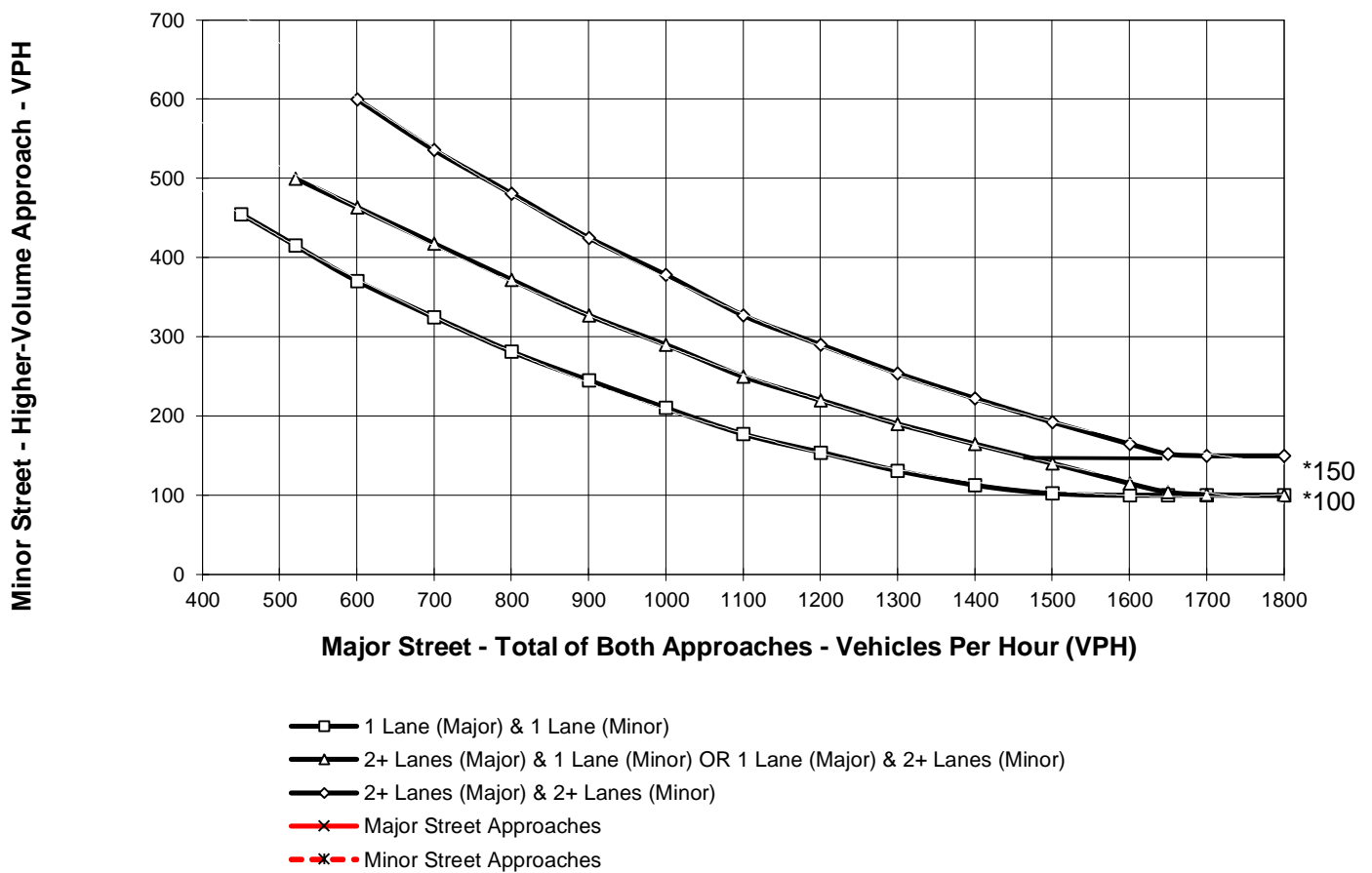
## WARRANT 3, PEAK HOUR (Urban Areas)

Traffic Conditions = **Buildout 2045 With Project - PM**

Major Street Name = **5th Street** Total of Both Approaches (VPH) = **19**  
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Project Dwy** High Volume Approach (VPH) = **10**  
Number of Approach Lanes On Minor Street = **1**

### SIGNAL WARRANT NOT SATISFIED



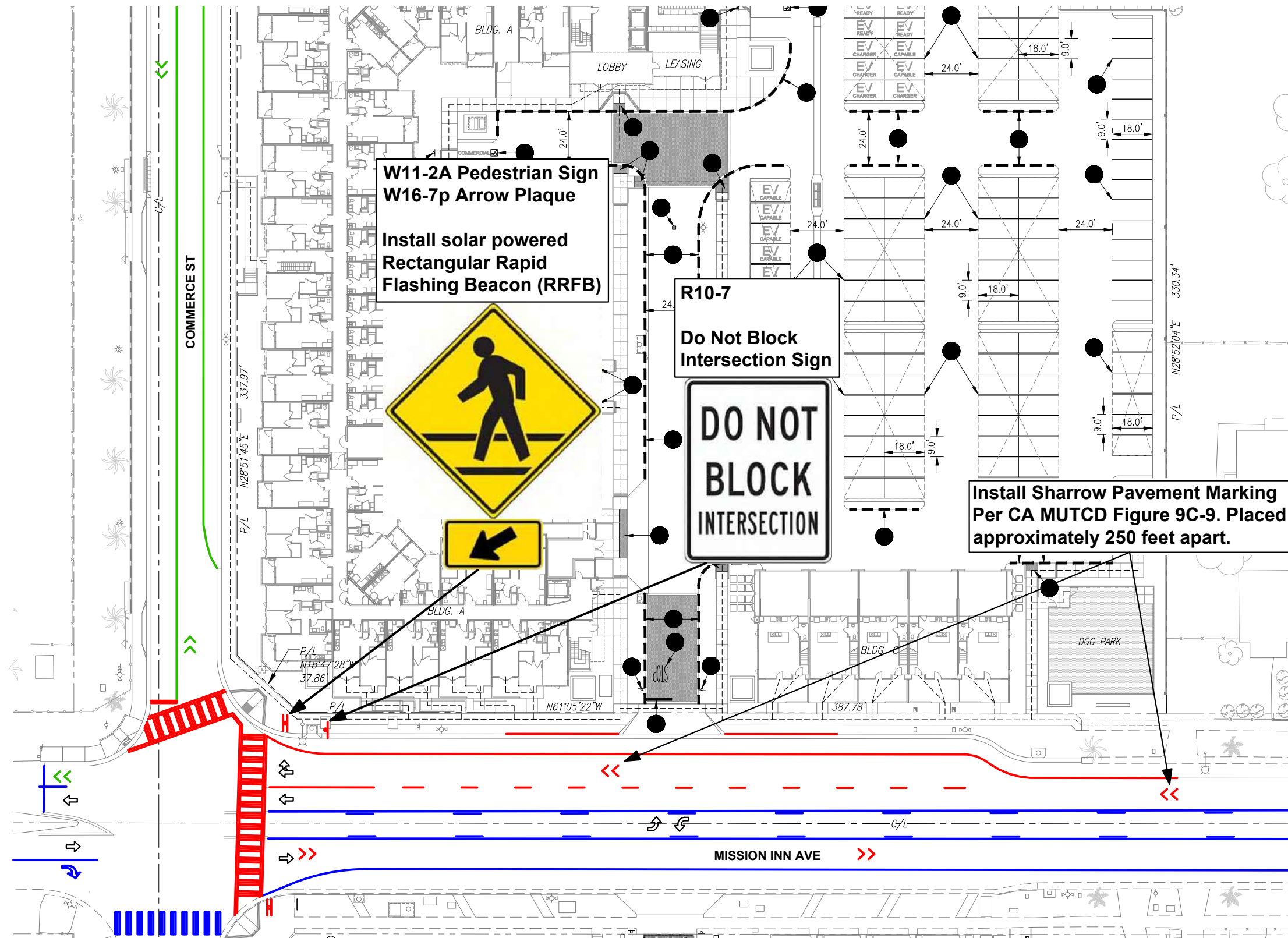
Note:

\* - 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Major street approaches with less than 400 vph are low volume and outside the graph boundaries.

**APPENDIX I**

**ROADWAY CONCEPT PLAN  
(ADJACENT TO PROJECT)**



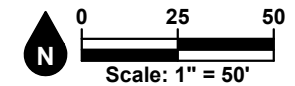
W11-2A Pedestrian Sign  
W16-7p Arrow Plaque

Install solar powered  
Rectangular Rapid  
Flashing Beacon (RRFB)

R10-7  
Do Not Block  
Intersection Sign

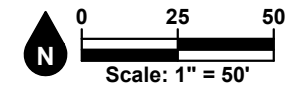
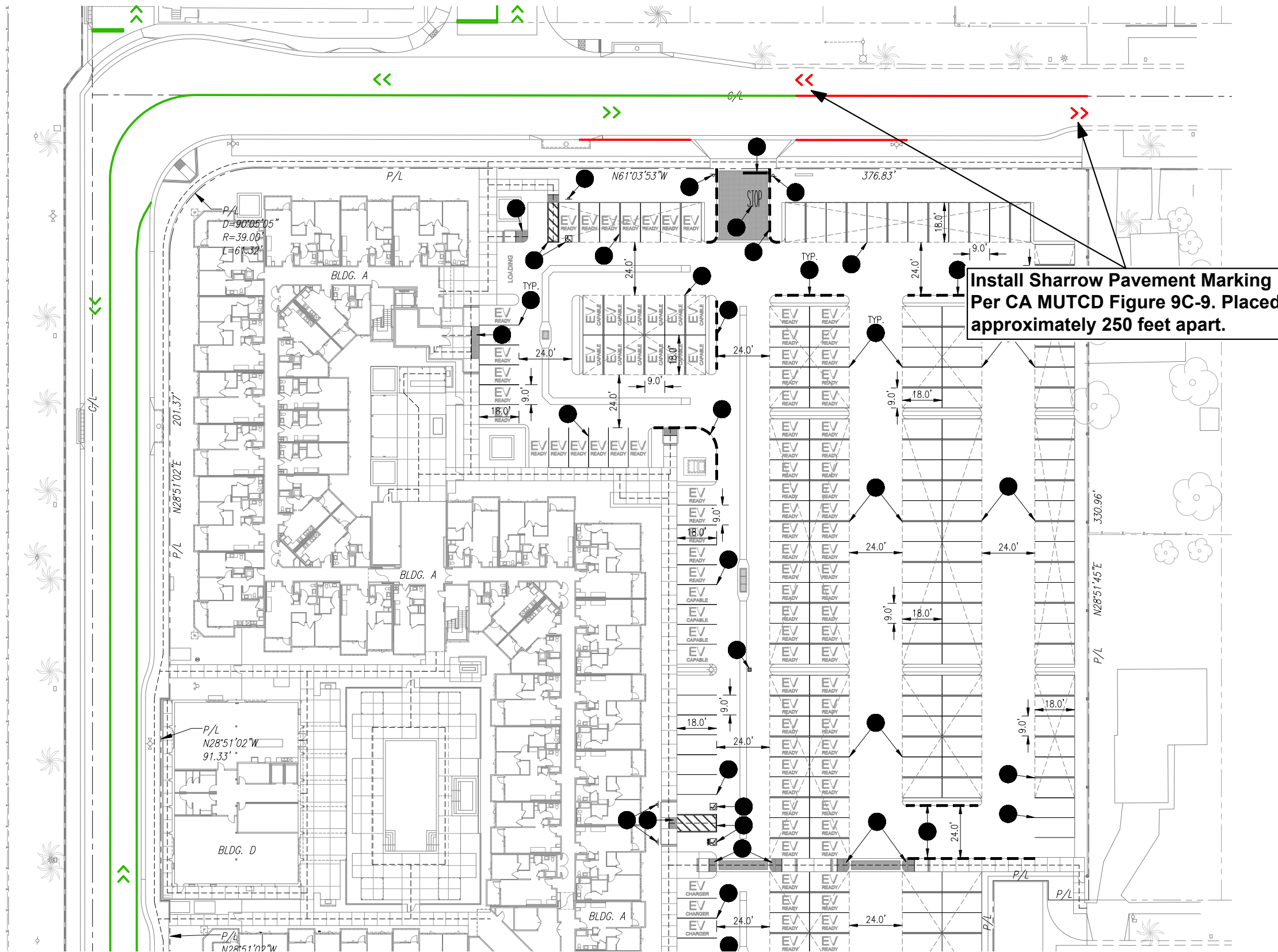
DO NOT  
BLOCK  
INTERSECTION

Install Sharrow Pavement Marking  
Per CA MUTCD Figure 9C-9. Placed  
approximately 250 feet apart.



- Legend
- Existing Pavement Marking
  - Proposed Pavement Marking
  - 3SGS Project by Others

**Figure 1**  
**Conceptual Roadway Plan**



- Legend
- Existing Pavement Marking
  - Proposed Pavement Marking
  - 3SGS Project by Others

**Figure 2**  
**Conceptual Roadway Plan**

**APPENDIX J**

**CALIFORNIA MUTCD 3B.18**

### **Section 3B.18 Crosswalk Markings**

#### **Support:**

01 Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

02 In conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs.

03 At non-intersection locations, crosswalk markings legally establish the crosswalk.

#### **Standard:**

04 **When crosswalk lines are used, they shall consist of solid white lines that mark the crosswalk. They shall not be less than 6 12 inches or greater than 24 inches in width.**

#### **Guidance:**

05 *If transverse lines are used to mark a crosswalk, the gap between the lines should not be less than 6 feet. If diagonal or longitudinal lines are used without transverse lines to mark a crosswalk, the crosswalk should be not less than 6 feet wide.*

06 *Crosswalk lines, if used on both sides of the crosswalk, should extend across the full width of pavement or to the edge of the intersecting crosswalk to discourage diagonal walking between crosswalks (see Figures 3B-17 and 3B-19).*

07 *At locations controlled by traffic control signals or on approaches controlled by STOP or YIELD signs, crosswalk lines should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).*

08 *Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85<sup>th</sup>-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.*

09 *New marked crosswalks **across uncontrolled roadways should include alone, without** other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, ~~should not be installed across uncontrolled roadways~~ where the speed limit exceeds 40 mph and either:*

A. *The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or*

B. *The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater.*

09a *If a marked crosswalk exists across an uncontrolled roadway where the speed limit exceeds 40 mph and the roadway has four or more lanes of travel and an ADT of 12,000 vehicles per day or greater, advanced yield lines with associated Yield Here to Pedestrians (R1-5, R1-5a) signs should be placed 20 to 50 ft in advance of the crosswalk, adequate visibility should be provided by parking prohibitions, pedestrian crossing (W11-2) warning signs with diagonal downward pointing arrow (W16-7p) plaques should be installed at the crosswalk, and a high-visibility crosswalk marking pattern should be used (See Figure 3B-17(CA)).*

#### **Support:**

10 Chapter 4F contains information on Pedestrian Hybrid Beacons. Section 4L.03 contains information regarding Warning Beacons to provide active warning of a pedestrian's presence. Section 4N.02 contains information regarding In-Roadway Warning Lights at crosswalks. Chapter 7D contains information regarding school crossing supervision.

**APPENDIX K**

**ROADWAY CONCEPT PLAN**  
**(PROJECT VICINITY)**